



Edition 2009

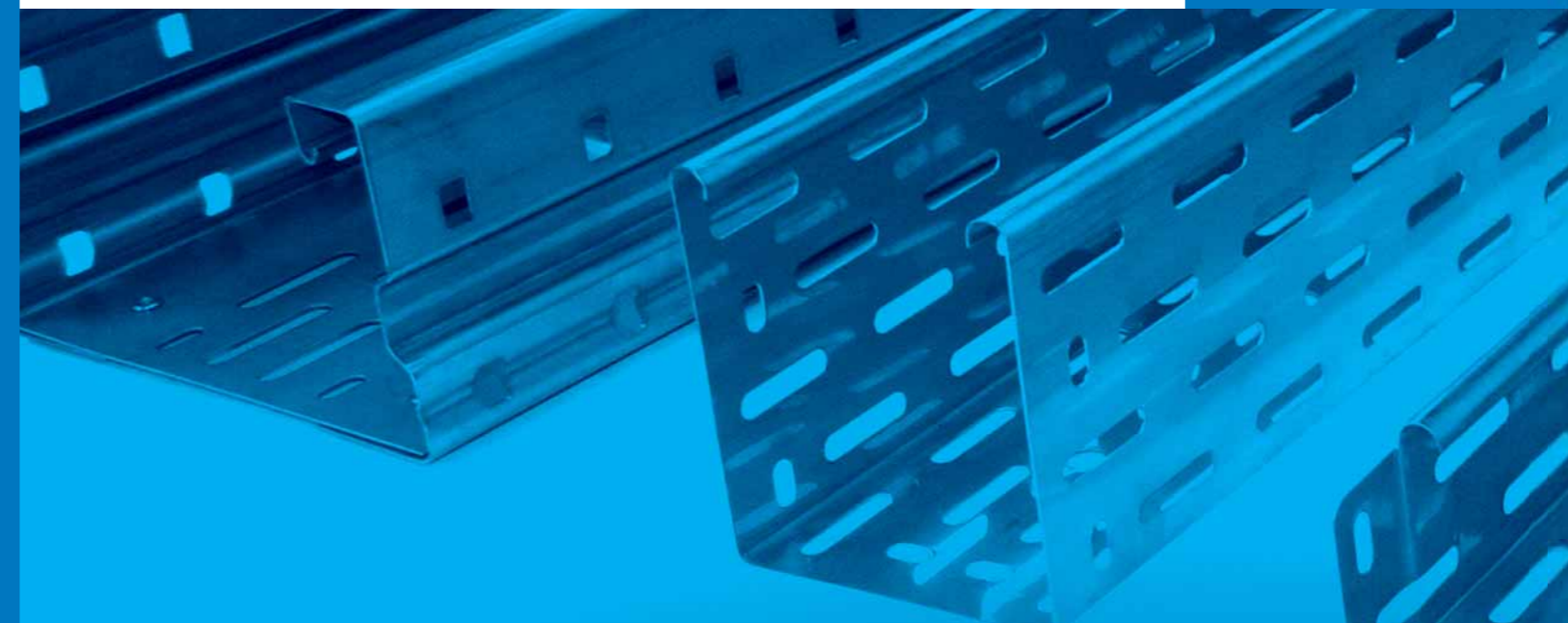
RICO

System catalogue
Cable tray systems

RICO GmbH & Co.KG
Stuttgarter Straße 128
D-73230 Kirchheim/Teck

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Content



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For a better guidance of the catalogue

Cable tray/Trellis trays

Steel
Plastic

Page 1-52



See extra catalogue

Walkable tray system

Cable ladders

Standard ladders System 60
Standard ladders System 100

Page 54-80



See extra catalogue

Functional endurance

Wide span systems

Wide span trays
Wide span ladders

Page 82-129



See extra catalogue

Cable ladders of aluminium

Support systems

Supports, brackets
Consoles, fixing technic

Page 130-194

Vertical cable ladder

Complete systems
Profile rails for support constructions

Page 196-213



Sortiment enlarged

Stainless steel

Supports, brackets, Consoles
Cable trays, Cable ladders, Vertical cable ladders
Profile rails, RICO-clamping technology

Page 214-322

RICOSTRUT®

Profile rails
Jointing pieces, fixing accessory
Fixing parts for busways

Page 324-339

Clips

Bügelchellen
Gegenwannen, Doppelwannen, Langwannen

Page 340-367

Cable protection tubes

Hot dip galvanized
stainless steel

Page 368-384

Marine cable ladders

with continuous perforated sides
and slotted rungs

Page 386-393

Index

Products according to product numbers
Index of key words
Conditions of delivery and payment

from page 397
from page 409
Page 424

from Page 394

Material

13

Electrogalvanized according to DIN 50961

RICO galvanization provides perfect protection against corrosion in living or industrial areas and a appealing surface at the same time.
The order number of products with electrogalvanization always starts with 13.

14

DoubleDip galvanization (continuously hot galvanization)

The steel strip of articles with the DoubleDip galvanization passes a dip of pure zinc and afterwards a dip of galfan (95% zinc, 5% aluminium).
This DoubleDip film provides a very good formability and a optimally dimensional accuracy for distortion-free products.
The order number of products with DoubleDip galvanization always starts with 14.

15

Continuously hot galvanized according to DIN EN 10327

RICO continuously hot galvanization with a layer thickness of approx. 20 µ provides sufficient protection against corrosion in dry interiors (without aggressive environment). This also applies to the untreated cutting edges, since the cathodic protection between steel and zinc acts there, provided that a sheet-thickness of 2 mm is not exceeded. RICO ensures that this limit is of exceeded at continuously hot galvanized.
The order number of products with RICO continuously hot galvanization always starts with 15.

16

Hot dip galvanization according to DIN EN ISO 1461

With at least 55 µ thickness RICO hot dip galvanized products have a layer which is almost thrice as thick. They are suitable for outdoor purposes. The approximate values for the annual zinc loss amount to:

Non-urbanized air	0,1 - 1,0 µ	RICO hot dip galvanized products are dipped in liquid zinc after being manufactured,
Urbanized air	1,0 - 2,0 µ	so that all edges welds are also protected against corrosion.
sea air	2,0 - 4,0 µ	Cutting edges arising later during installation can be treated with cold zinc in accordance with DIN 50976.
		RICO hot dip galvanization is generally applied to nuts, screws, washers and bolts.

The order numbers of RICO hot dip galvanized products always begin with 16.

17

Stainless steel V2A (material 1.4301)

RICO provides complete systems made of stainless steel for special applications, for example in the food industry or in aggressive environment. For further information please refer to the special section in this catalogue.

The order numbers of RICO stainless steel products always begin with 17.

18

Stainless steel V4A (material 1.4571) see stainless steel V2A

The order number of products in stainless steel always starts with 18.

30

Plastic RICO always offers the solution for your out-of-the-ordinary requirements. The "Cable trays" section therefore includes a system which is manufactured completely of glass fibre reinforced polyester.

The order numbers of products made of plastic always begin with 30.

neu

New in the sortiment

i

Modified type

!

Important additional information



Load

belastbar

15
16

1W15-...-B

Order number and material alternatives at a glance:

The first two numbers specify the material. The remaining character specify design features and any dimensional alternatives.

The preceding squares specify the material alternatives in which the product is generally available. Optically "highlighted" alternatives (in our example 151W15-...-B) are always available, the other alternatives (for example 161W15-...-B) on request. Further information on the various materials can be found on page 2 on this planner.

15

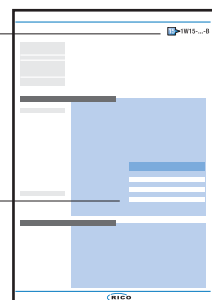
1W15-...-B

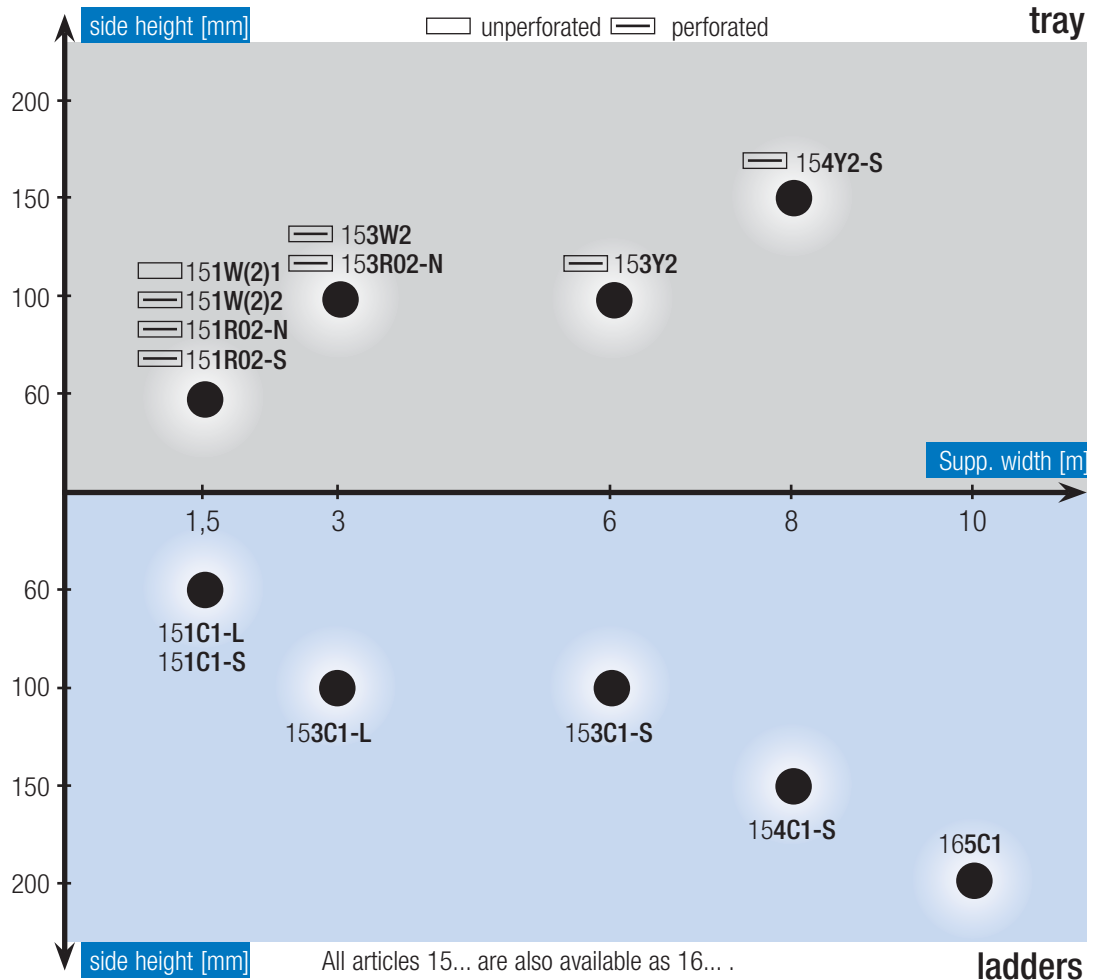
16

1W15-...-B

The order information

available dimensions including all order numbers.





Rtray or ladder

A cable tray is suitable for most applications. It provides easy cable laying and optimal protection of cables. A further advantage is optical: Trays allow "tidy" laying, especially in case of light installation with thin cables. RICO recommends perforated products in order to ensure that the heat is discharged sufficiently.

Cable ladders are more suitable for power cables with a higher degree of heat generation. Cable ladders are more suitable for all types of cables outdoors or in areas with dirt occurrence.

Info

Side height

If the support spacing provides the possibility, we recommend using trays or ladders having a side height of 60 mm. Greater heights are only advisable if you are laying mainly control and data cables and the heat generation is correspondingly low.

Support width

The support width is the distance between two support points. If you specify these points freely, RICO recommend that you use standard trays or ladders with a standard support width of 1.5 m. This reduces the cost of the complete system. If you have to bridge greater distance, simply select the suitable system from the diagram below.

trays

ladders

Reserve	side height [mm]				side height [mm]				
	60	100	100	150	60	100	100	150	200
0 %	58	96	-	-	-	-	-	-	-
100	118	196	200	264	94	174	187	264	310
200	178	296	276	363	142	262	243	363	465
300	238	396	370	486	190	350	326	486	620
400	298	496	444	609	238	438	409	609	755
500	358	596	558	732	286	526	492	732	930
600									

25 % Reserve

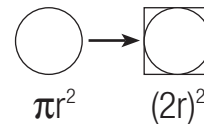
Reserve	side height [mm]				side height [mm]				
	60	100	100	150	60	100	100	150	200
100	43	72	-	-	-	-	-	-	-
200	88	147	150	198	70	130	140	198	230
300	133	222	207	272	106	196	182	272	345
400	178	297	277	364	142	262	244	364	465
500	223	372	333	456	178	328	306	456	580
600	268	447	418	549	214	394	369	549	695

A question of the cable cross-section

Whether you only need one tray or ladder length or more than one of course depends on the amount of cable which you have to lay. First determine the cross-section areas of your cable types. Please do not use πr^2 , to do so, but rather the cable cross-section within a square. This ensures that the unavilable voids and spaces for heat discharge are taken into consideration automatically.

Now add the cross-sections of all the cables. The two tables show the total cross-section of the respective raceways.

We recommend that you plan for the future. Use the second table. It includes a cable reserve capacity of 25% so that cables can be added later.



Reserves in the load-bearing capacity, support during planning

You can rely on both. In one case all you have to do is phone. In the other case all you need to do is glance at this page. The safety margins provided by RICO depend on the cable load per meter in the individual raceways. You can either determine this load exactly or use a rough basis:

1. Exact determination: Refer to manufacturer's documentation for the meter weights of cables and add them for each raceways, whereby the following rule applies: 1kg/m = 10N/m.

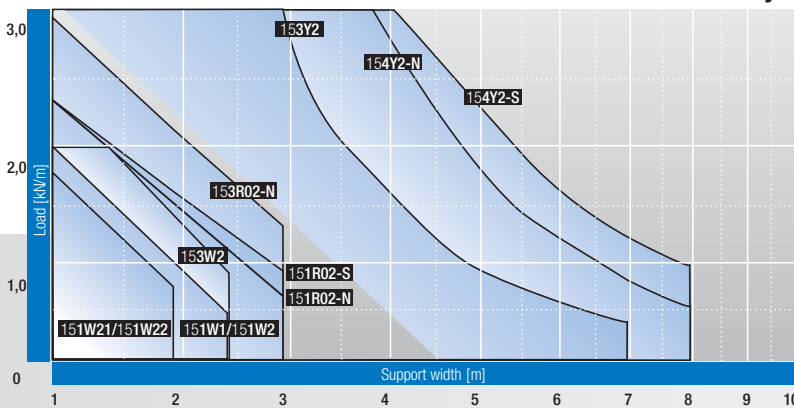
2. Formula to estimate:
Max. permissible cable load [N/m] = cross-section [cm²] x 2.8 N/m · cm²

3. Value based on common experience:
Cable load = 0.15 kN/m pro 100 mm raceway width with side height 60 mm.

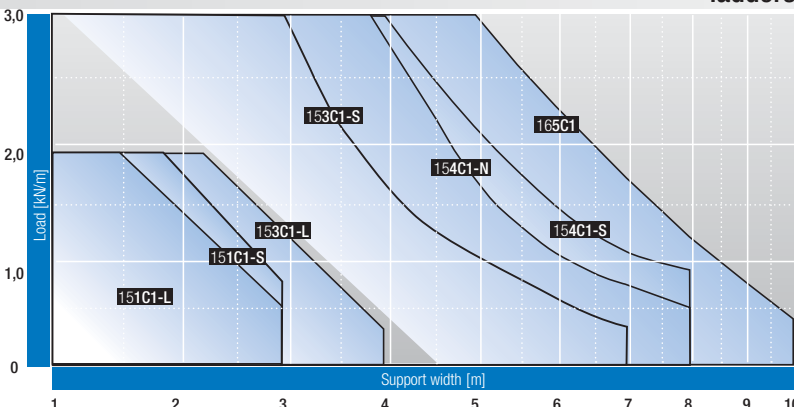
The resulting load on your raceway taken together with the selected support width defines a coordinate point on the diagram. If the point lies within the area assigned to the selected tray or ladder type, you are on the safe side.

For even more detailed consideration please refer to the load diagrams on the respective product pages.

trays



ladders





Achieving aims



- Complete range of standard products as well as the invention and production of special solutions and for extreme requirements.
- High degree in specialisation in all sectors in order to comply with extreme and more seldom demands.
- Complete solutions according to customer demands
- Engineering, specialisation and mounting out of one hand
- IT-based project controlling and management
- Quality proved by numerous certificates and audits





For more than 50 years, we are successfully creating products and solutions for all types of requirement in the field of cable system management.

Already in the fifties of the past century, the founders of the firm, family Rieth from Kirchheim, provided cable management systems to be mounted according to a special system, all over the world. Therefore family Rieth was the one who invented and produced the first cable tray systems. Right from the start of the firm, inventive ideas and comprehensive services expressively formed part of the company's main aims. Also as a member of the Niedax Group, RICO GmbH & Co. KG has a conserved this traditin to be the number one in many respects. The high level of technical competence and of qualification in design as well as the consequent organizing of all the procedures and the highquality of the product execution as well of the mounting form the base of our continuous success. However, the real test is made at the construction site: We know the construction sites all over the world. And there they know us as their partner in planning, supply and mounting and naturally; the best way of learning is practical learning at the job.



RICO - We solve problems of industrial and commercial applications.

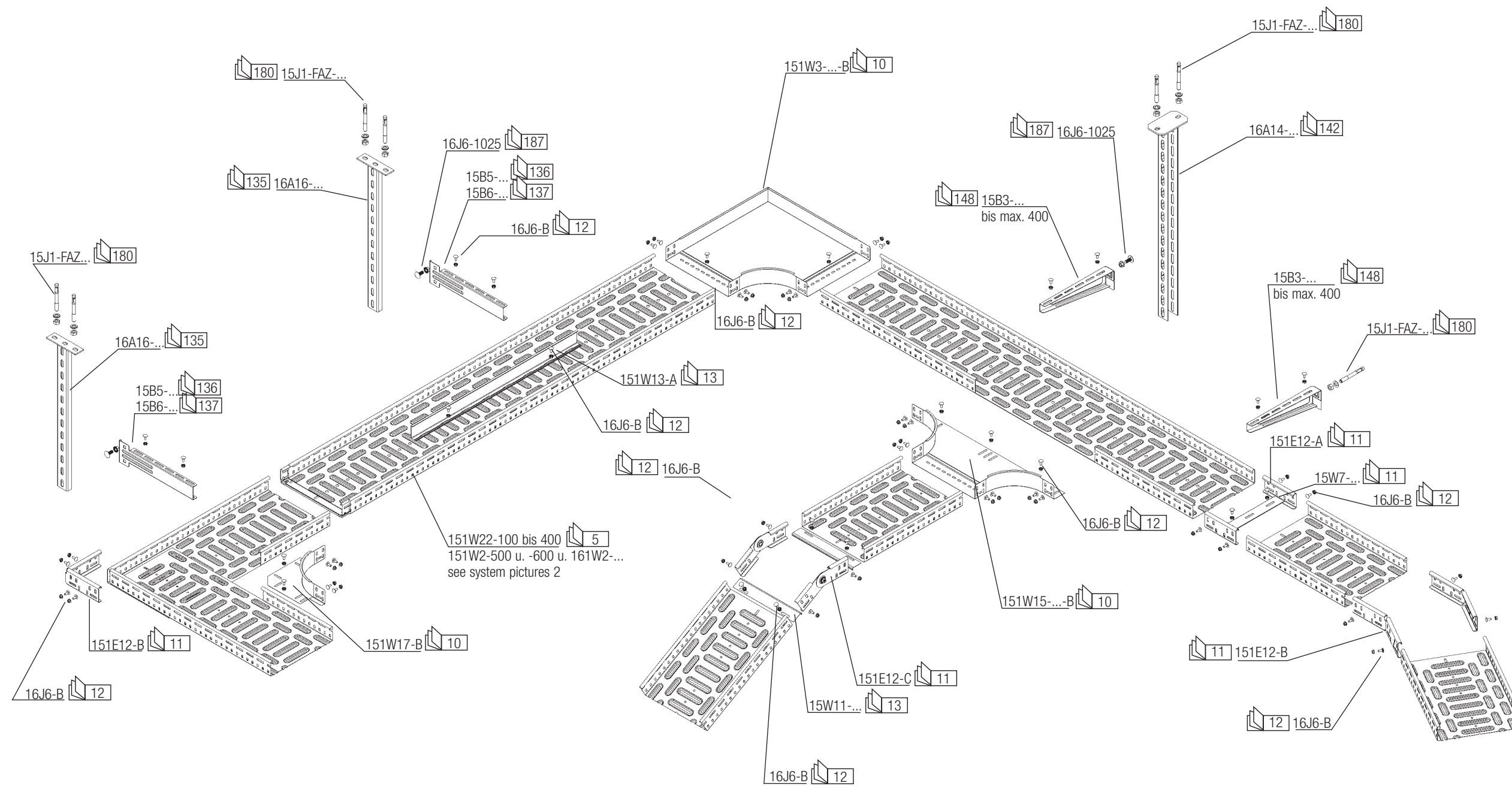


The success os proved by reference lists with prestigious firms and combines from the building industry of power stations, the total sector of the heavy and the automobile industry, chemical production, office buildings, tunneling sector, airports, football stadiums, open air mining, specified orders, etc.

1 Standard tray 60 mm high

inquiry order

Simply copy and fill in.



W2-cable trays without integrated jointing piece

sheet steel, perforated standard support width 1.5 m.
continuously hot galvanized according to DIN EN 10327 (Order No. 15...) or hot dip galvanized according to DIN EN ISO 1461 (Order No. 16...)

quantity	name	Order No.	quantity
	cable tray	151W22-...	
		151W2-...	
		161W2-...	
	bend	151W3-...-B	
		161W3-...-B	
	extension tee	151W15-...-B	
		161W15-...-B	
	divider strip	151W13-A	
		161W13-A	
	straight joint	151E12-A	
		161E12-A	
	bendable joint	151E12-B	
		161E12-B	
	hinge piece	151E12-C	
		161E12-C	
	cable protection plate	15W11-...	
		16W11-...	
	hanging support	16A16-...	
		16A14-...	
	bracket	15B5-...	
		16B6-...	
		15B3-...	
		16B3-...	
	steel expansion bolt	15J1-FAZ-...	
	fixing screws	16J6-B	
		16J6-1025	

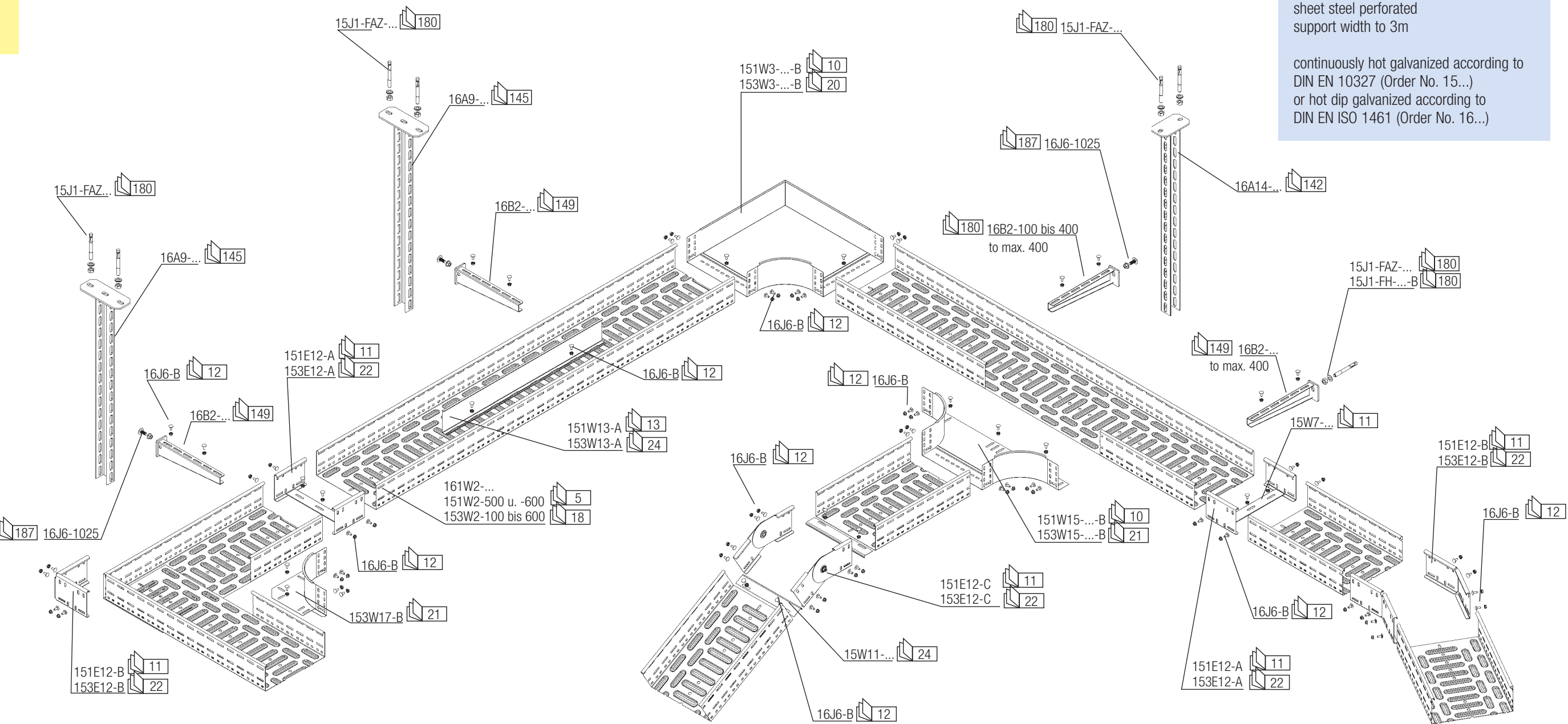
Please enter the length or width into these fields.

2 Standard tray 110 mm high

inquiry order

Simply copy and fill in.

sheet steel perforated support width to 3m
 continuously hot galvanized according to DIN EN 10327 (Order No. 15...)
 or hot dip galvanized according to DIN EN ISO 1461 (Order No. 16...)



quantity	name	Order No.
	cable tray	151W2-
		153W2-
		161W2-
		163W2-
	bend	151W3- -B
		153W3- -B
		161W3- -B
		163W3- -B
	extension tee	151W15- -B
		153W15- -B
		161W15- -B
		163W15- -B
	corner	151W17- -B
		153W17- -B
		161W17- -B
		163W17- -B
	straight joint	15W7-
		16W7-
	divider strip	151W13-A
		161W13-A
		153W13-A
		163W13-A
	straight joint	151E12-A
		153E12-A
		161E12-A
		163E12-A
	bendable joint	151E12-B
		153E12-B
		161E12-B
		163E12-B

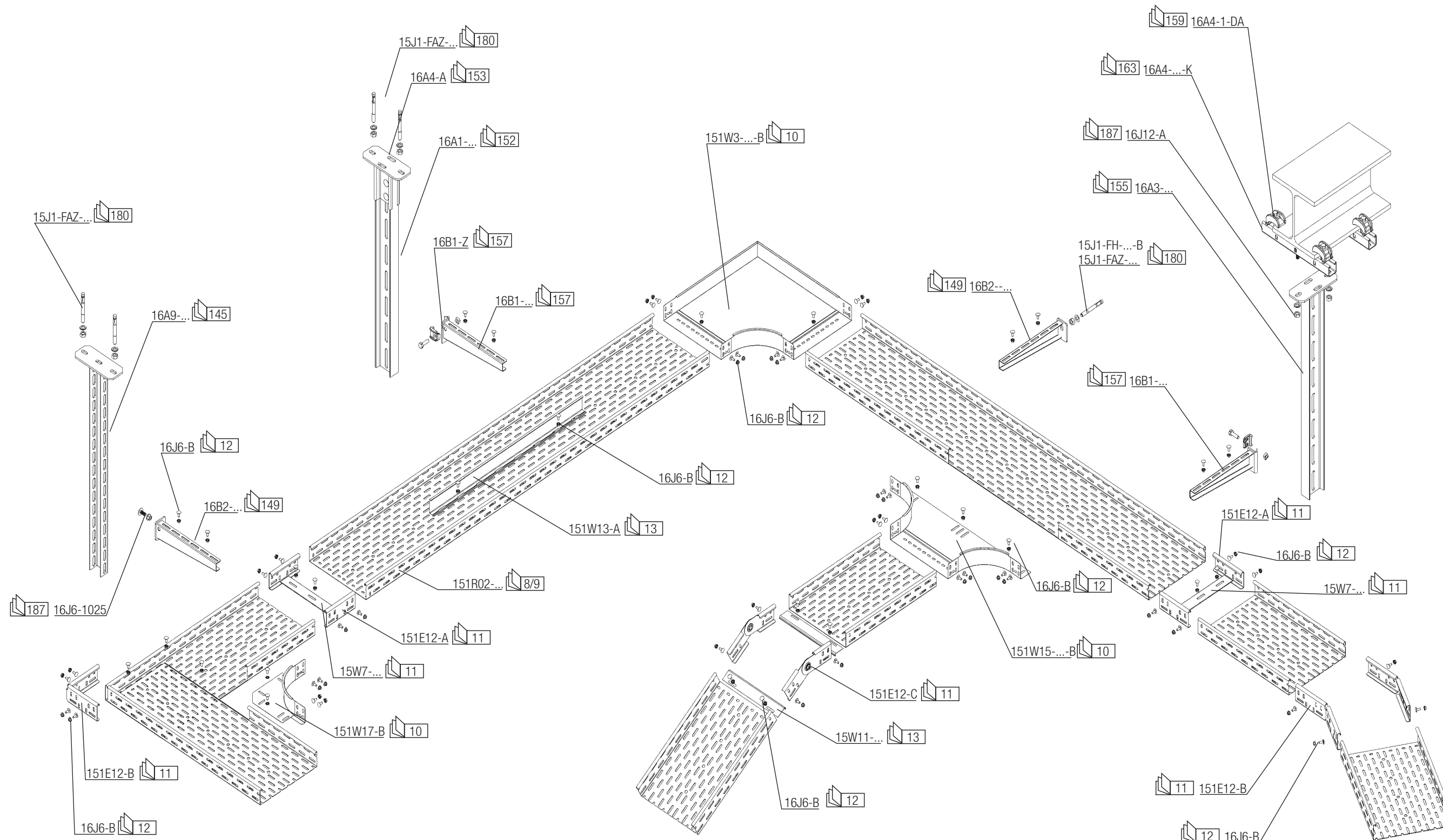
quantity	name	Order No.
	hinge piece	151E12-C
		153E12-C
		161E12-C
		163E12-C
	cable protection plate	15W11-
		16W11-
	hanging support	16A14-
		16A9-...
	bracket	16B2-
	steel expansion bolt	15J1-FAZ-
		15J1-FH- -B
	fixing screws	16J6-B
		16J6-1025

Please enter the length or width into these fields.

3 Industrial tray 60 high

inquiry order

Simply copy and fill in.



sheet steel perforated
 standard support width 1.5 m
 sheet thickness 1.5 mm (...R02-...-N)
 or 2.0 mm (...R02-...-S)
 continuously hot galvanized according to
 DIN EN 10327 (Order No. 15...)
 or hot dip galvanized according to
 DIN EN ISO 1461 (Order No. 16...)

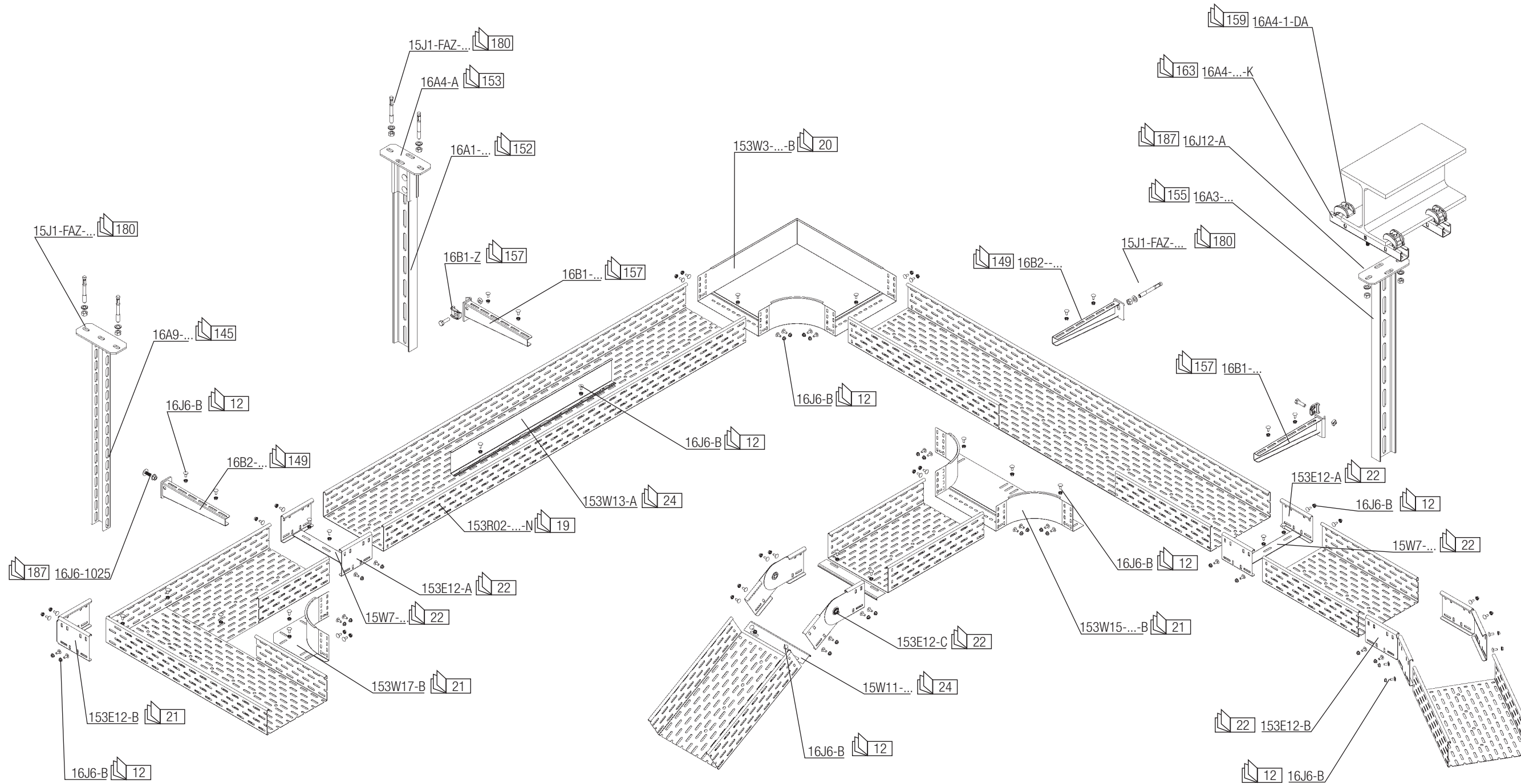
quantity	name	Order No.	quantity	name	Order No.
	cable tray	151R02-		steel expansion bolt	15J1-FAZ-
		161R02-			15J1-FH- -B
	bend	151W3-		fixing screws	16J6-B
		161W3-			16J6-1025
	extension tee	151W15-			16J12-A
		161W15-			
	corner	151W17-			
		161W17-			
	straight joint	15W7-			
		16W7-			
	divider strip	151W13-A			
		161W13-A			
	straight joint	151E12-A			
		161E12-A			
	bendable joint	151E12-B			
		161E12-B			
	hinge piece	151E12-C			
		161E12-C			
	cable protection plate	15W11-			
		16W11-			
	H-support	16A1-			
	head plate	16A4-A			
	hanging support	16A3-			
		16A9-			
	bracket	16B1-			
		16B2-			
	bracket accessory	16B1-Z			
	C-rail	16A4-			
	claw	16A4-A-DA			

Please enter the length or width into these fields.

4 Industrial tray 110 high

inquiry order

Simply copy and fill in.



sheet steel perforated
 standard support width 1.5 m
 sheet thickness 1.5 mm (...R02-...-N)
 continuously hot galvanized according to
 DIN EN 10327 (Order No. 15...)
 or hot dip galvanized according to
 DIN EN ISO 1461 (Order No. 16...)

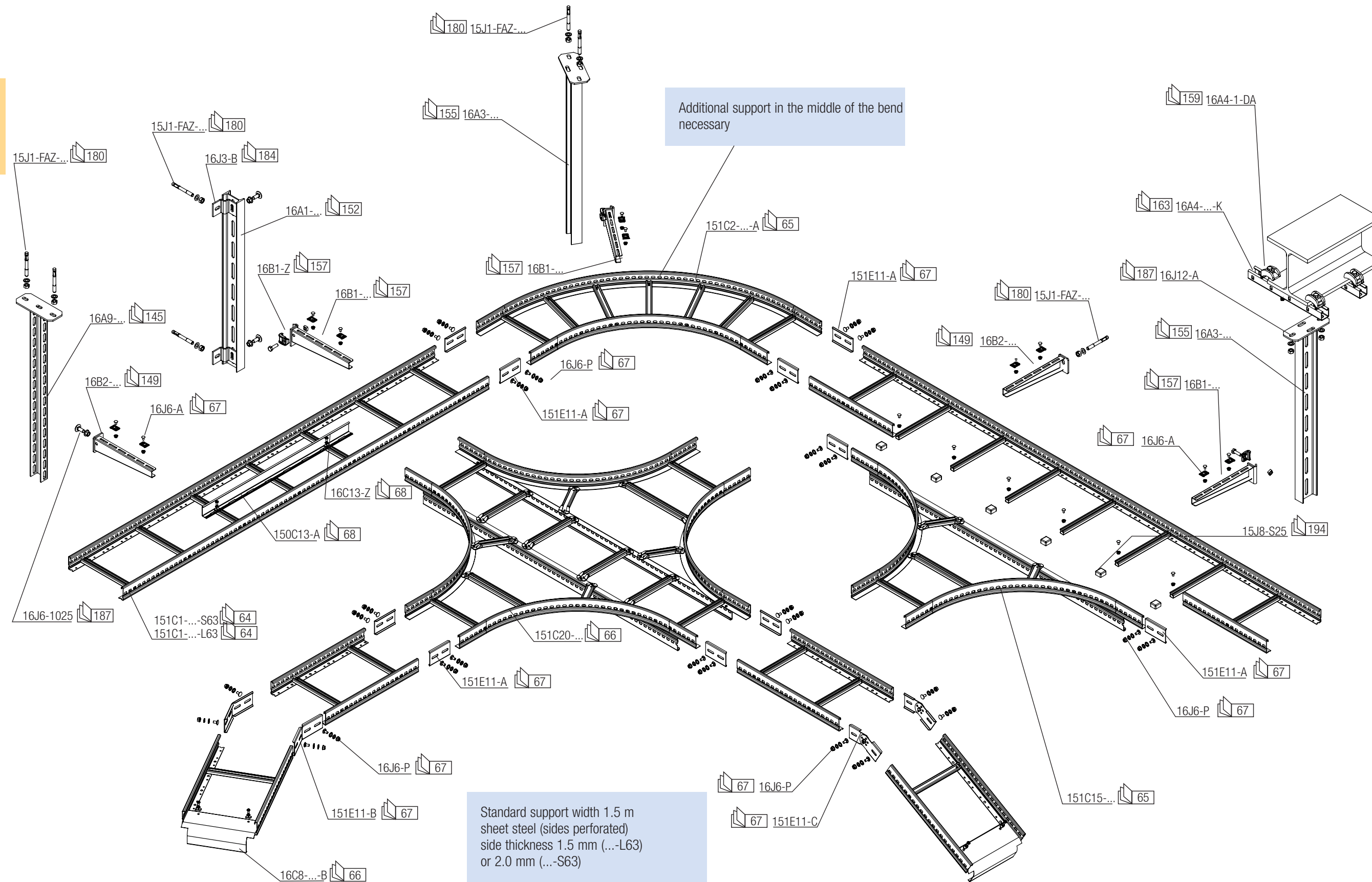
quantity	name	Order No.	quantity	name	Order No.
	cable tray	153R02-		steel expansion bolt	15J1-FAZ-
		163R02-			15J1-FH- -B
	bend	153W3-		fixing screws	16J6-B
		163W3-			16J6-1025
	extension tee	153W15-			16J12-A
		163W15-			
	corner	153W17-B			
		163W17-B			
	straight joint	15W7-			
		16W7-			
	divider strip	153W13-A			
		163W13-A			
	straight joint	153E12-A			
		163E12-A			
	bendable joint	153E12-B			
		163E12-B			
	hinge piece	153E12-C			
		163E12-C			
	cable protection plate	15W11-			
		16W11-			
	H-support	16A1-			
	head plate	16A4-A			
	hanging support	16A3-			
		16A9-			
	bracket	16B1-			
		16B2-			
	bracket accessory	16B1-Z			
	C-rail	16A4-			
	claw	16A4-A-DA			

Please enter the length or width into these fields.

7 Standard ladder 60mm high

inquiry

Simply copy and fill in.

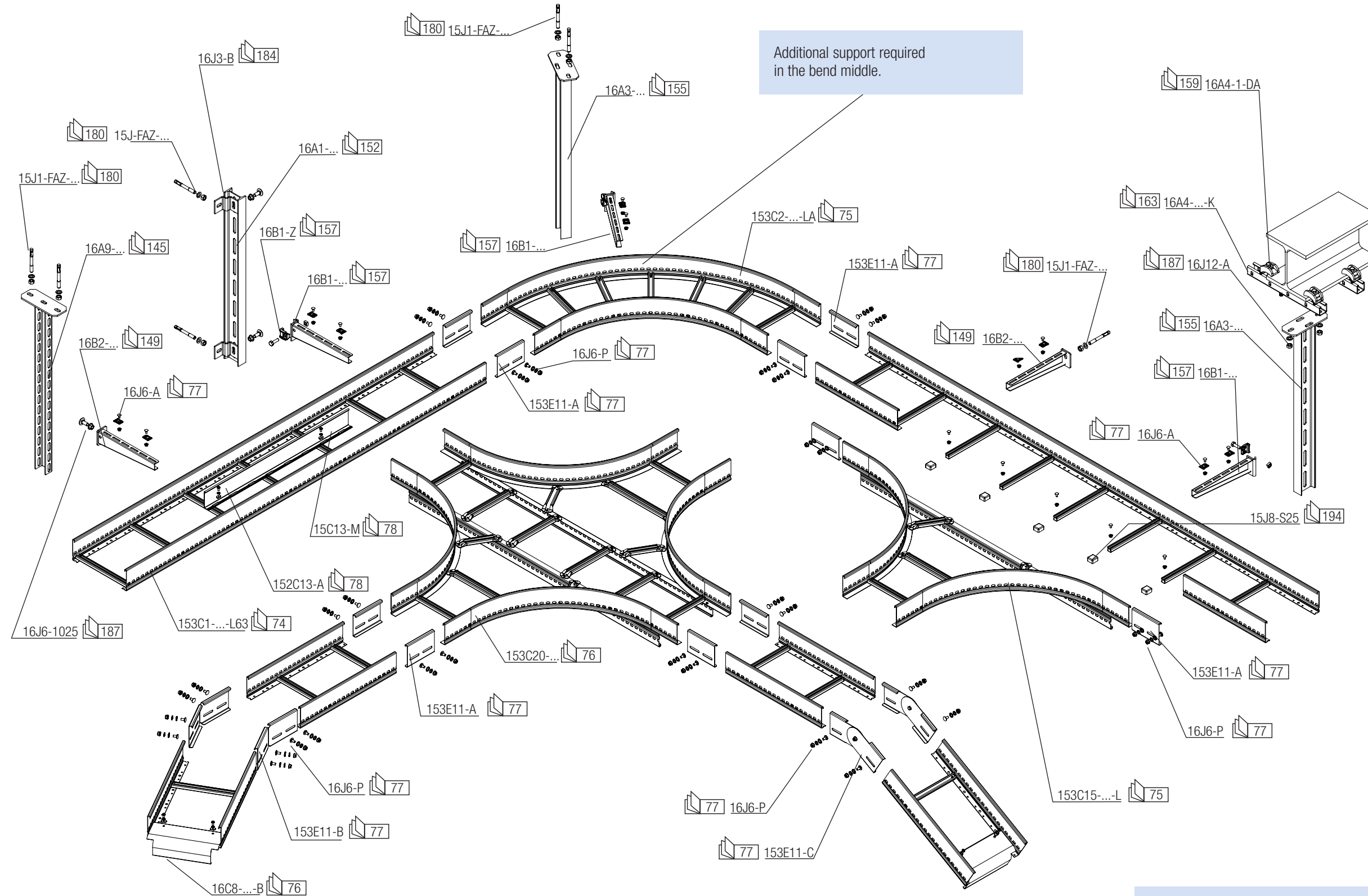


quantity	name	Order No.
	cable ladder	151C1- -L63
		161C1- -L63
		151C1- -S63
		161C1- -S63
	bend	151C2- -A
		161C2- -A
	extension tee	151C15-
		161C15-
	crossing	151C20-
		161C20-
	exit plate	16C8- -B
	divider strip	150C13-A
		160C13-A
	straight joint	151E11-A
		161E11-A
	bendable joint	151E11-B
		161E11-B
	hinge piece	151E11-C
		161E11-C
	H-support	16A1-
	hanging support	16A3-
		16A9-
	bracket	16B1-
		16B2-
	bracket accessory	16B1-Z
	anchor block	16J3-B
	C-rail	16A4- -K
	claw	16A4-1-DA
	steel expansion bolt	15J1-FAZ-

quantity	name	Order No.
	fixing screw	16C13-Z
		16J6-P
		16J6-1025
		16J12-A
	hold down clamp	16J6-A
	protective end cap	15J8-S25

Please enter the length or width into these fields.

Simply copy and fill in.



support width 3 m
sheet steel (sides perforated)
side thickness 1.5 mm

continuously hot galvanized according to
DIN EN 10327 (Order No. 15...)
hot dip galvanized according to
DIN EN ISO 1461 (Order No. 16...)

quantity	name	Order No.
	cable ladder	153C1- -L63
	bend	163C1- -L63
	extension tee	153C2- -LA
	crossing	163C2- -LA
	exit plate	153C15- -L
	divider strip	163C15- -L
	straight joint	153C20- -L
	bendable joint	163C20- -L
	hinge piece	16C8- -B
	H-support	152C13-A
	hanging support	162C13-A
	bracket	153E11-A
	bracket accessory	163E11-A
	anchor block	163E11-B
	C-rail	153E11-C
	claw	16A1- -L
	steel expansion bolt	16A3- -L
		16A9- -L
		16B1- -L
		16B2- -L
		16B1-Z
		16J3-B
		16A4- -K
		16A4-1-DA
		15J1-FAZ-...

quantity	name	Order No.
	fixing screws	16J6-P
		16J6-1025
		16J12-A
	hold down clamp	16J6-A
	fixing clip	15C13-M
		16C13-M
	protective end cap	15J8-S25

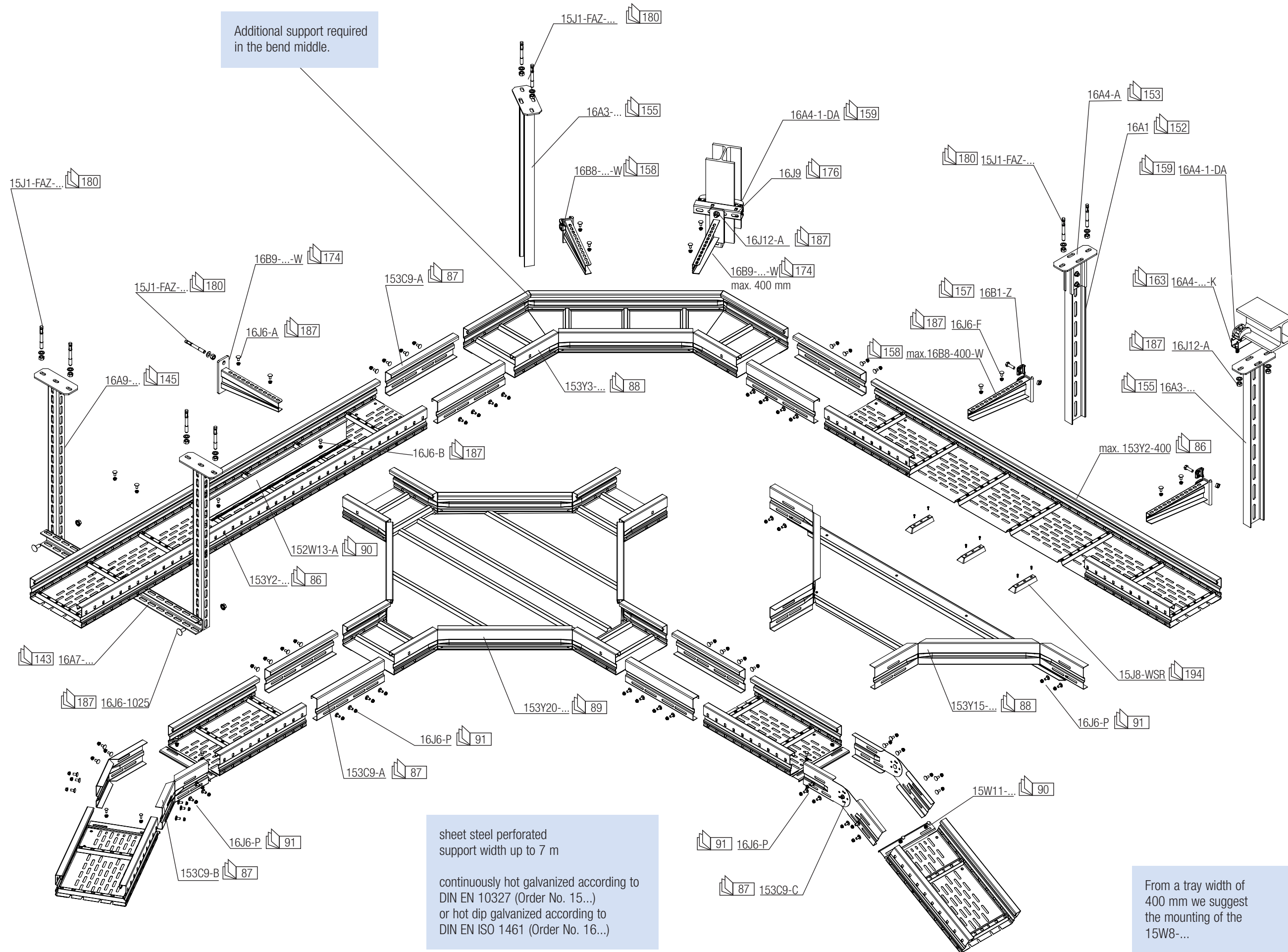
Please enter the length or width into these fields.

9 Wide span tray 105 mm high

inquiry

order

Simply copy and fill in.



quantity	name	
	wide span cable tray	153Y2-
		163Y2-
	bend	153Y3-
		163Y3-
	extension tee	153Y15-
		163Y15-
	crossing	153Y20-
		163Y20-
	divider strip	152W13-A
		162W13-A
	straight joint	153C9-A
		163C9-A
	bendable joint	153C9-B
		163C9-B
	hinge piece	153C9-C
		163C9-C
	joint cover plate	15W8-
		16W8-
	cable protection plate	15W11-
		16W11-
	H-support	16A1-
	head plate	16A4-A
	hanging support	16A9-
		16A3-
	U-profile	16A7-
	bracket	16B8- -W
		16B9- -W
	bracket accessory	16B1-Z

quantity	name	Order No.
	connection profile	16J9-
	C-rail	16A4- -K
	claw	16A4-1-DA
	steel expansion bolt	15J1-FAZ-
	fixing screw	16J6-B
		16J6-F
		16J6-P
		16J6-1025
		16J12-A
	protective end cap	15J8-WSR

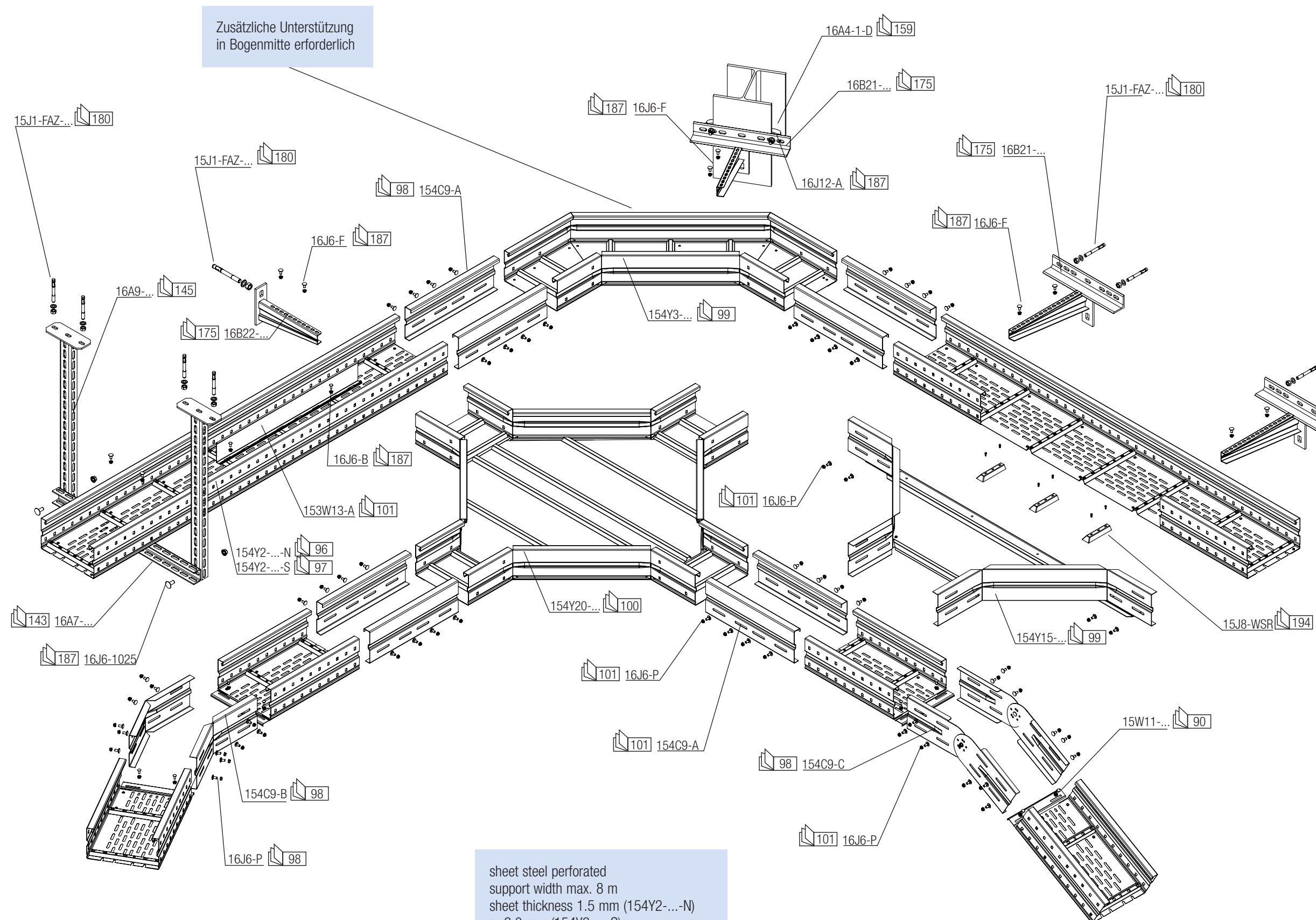
Please enter the length or width into these fields.

10 Wide span tray 150 mm high

inquiry

order

Simply copy and fill in.



quantity	name	Order No.
	wide span tray	154Y2-...-N
		164Y2-...-N
		154Y2-...-S
		164Y2-...-S
	bend	154Y3-...
		164Y3-...
	extension tee	154Y15-...
		164Y15-...
	crossing	154Y20-...
		164Y20-...
	divider strip	153W13-A
		163W13-A
	straight joint	154C9-A
		164C9-A
	bendable joint	154C9-B
		164C9-B
	hinge piece	154C9-C
		164C9-C
	joint cover plate	15W8-....
		16W8-....
	cable protection plate	15W11-...
		16W11-...
	hanging support	16A9-...
	U-profile	16A7-...
	bracket	16B21-...
		16B22-...
	claw	16A4-1-D
	steel expansion bolt	15J1-FAZ-...

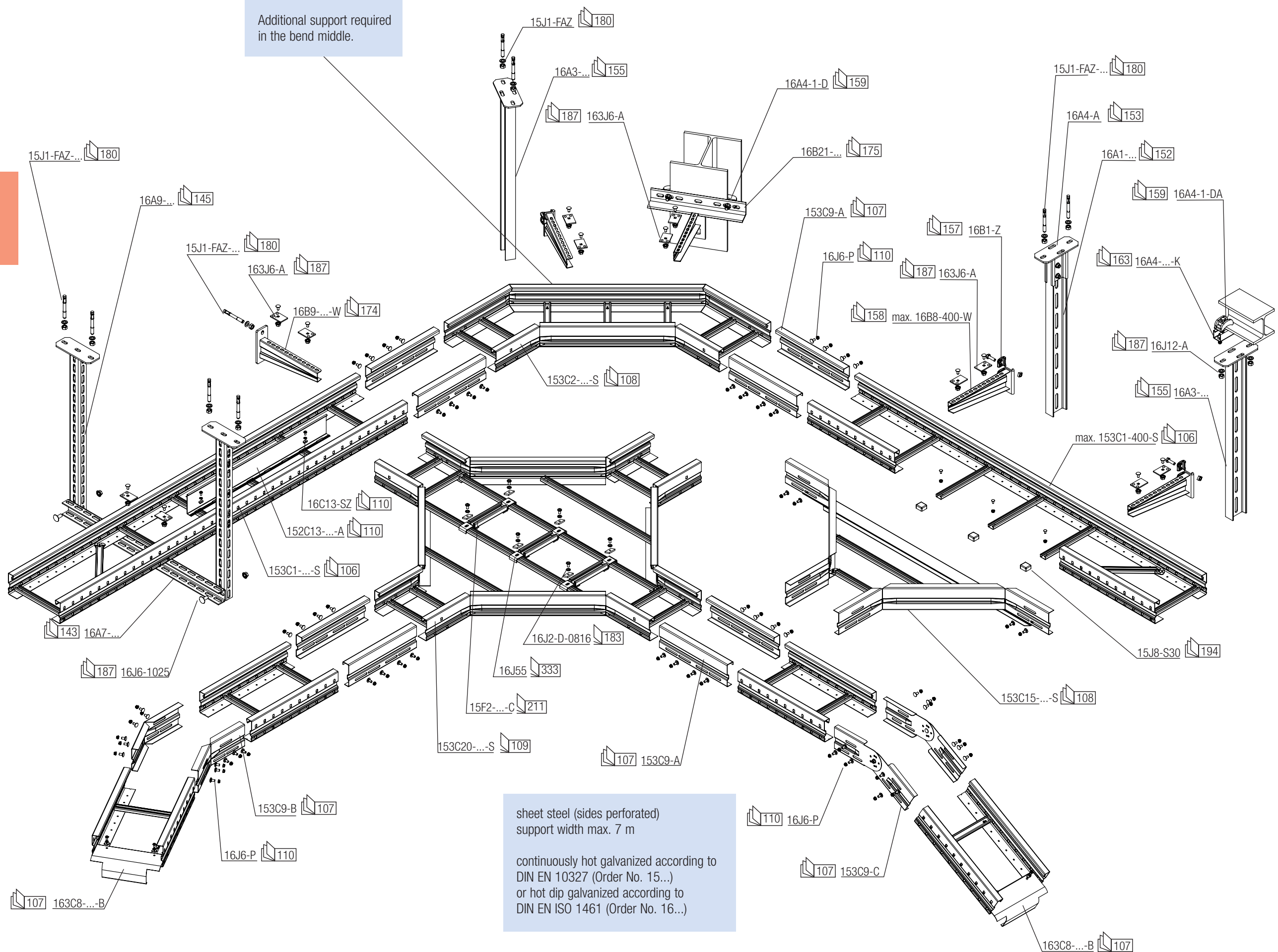
quantity	name	Order No.
	fixing screws	16J6-B
		16J6-F
		16J6-P
		16J6-1025
		16J12-A
	protective end cap	15J8-WSR

Please enter the length or width into these fields.

11 Wide span ladder 105 mm high

inquiry order

simply copy and fill in.



quantity	name	Order No.
	wide span cable ladder	153C1- -S
	bend	153C2- -S
	extension tee	153C15- -S
	crossing	153C20- -S
	divider strip	152C13- -A
	straight joint	153C9-A
	bendable joint	153C9-B
	hinge piece	153C9-C
	exit plate	163C8- -B
	H-support	16A1-
	head plate	16A4-A
	hanging support	16A9-
	U-profile	16A3-
	bracket	16B8- -W
	bracket accessory	16B21-
	hold down clamp	163J6-A
	C-rail	16A4- -K
		15F2- -C

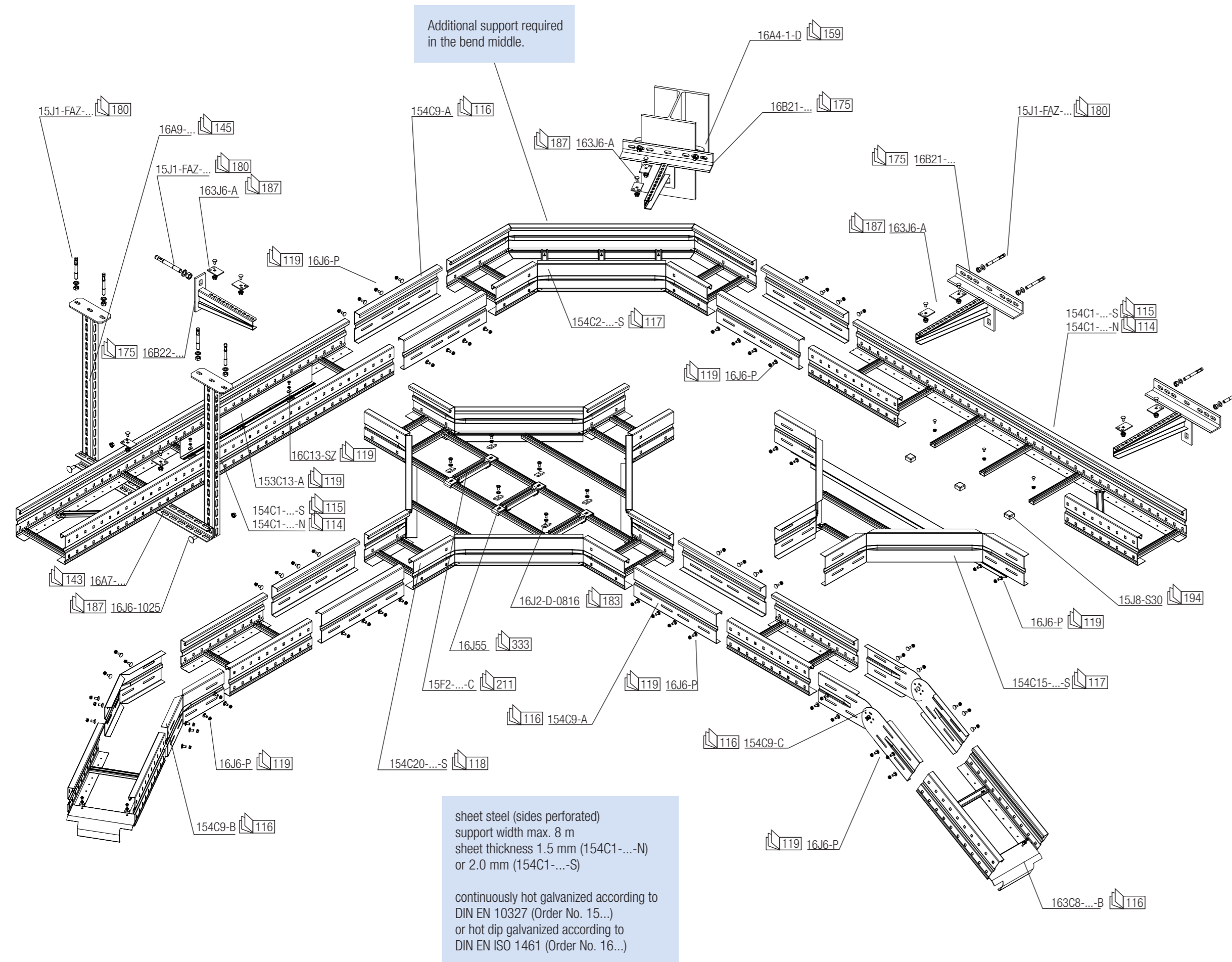
quantity	name	Order No.
	bearing bracket	16J55
	for C-profile 40x22	
	claw	16A4-1-D
	steel expansion bolt	15J1-FAZ-
	fixing screw	16C13-ZS
		16J6-P
		16J6-1025
		16J12-A
		16J2-D-0816
	protective end cap	15J8-S30

Please enter the length or width into these fields.

12 Wide span ladder 150 mm high

Inquiry Order

Simply copy and fill in.



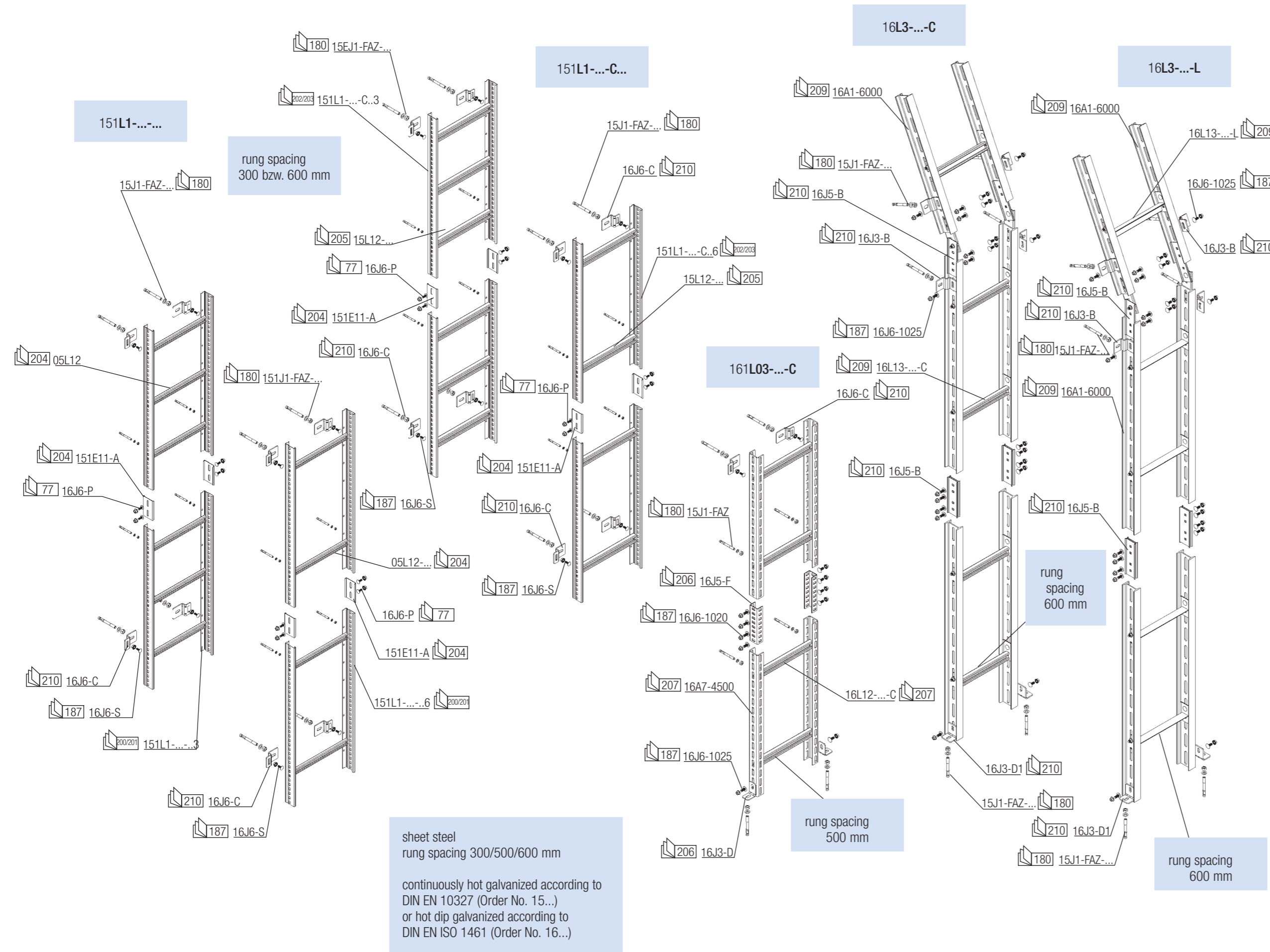
quantity	name	Order No.	quantity	name	Order No.
	wide span cable ladders	154C1-...-N		fixing screws	16C13-SZ
		164C1-...-N			16J6-P
		154C1-...-S			16J6-1025
	bend	164C1-...-S			16J2-D-0816
		154C2-...-S		protective end cap	15J8-S30
	extension tee	164C2-...-S			
		154C15-...-S			
	crossing	164C20-...-S			
		154C20-...-S			
	divider st5rip	153C13-...-A			
		163C13-...-A			
	straight joint	154C9-A			
		164C9-A			
	bendable joint	154C9-B			
		164C9-B			
	hinge piece	154C9-C			
		164C9-C			
	exit plate	163C8-...-B			
	hanging support	16A9-...			
	U-profile	16A7-...			
	bracket	16B21-...			
		16B22-...			
	hold down clamp	163J6-A			
	C-rail	15F2-...-C			
	bearing bracket	16J55			
	for C-profile 40x22				
	claw	16A4-1-D			
	steel expansion bolt	15J1-FAZ-...			

Please enter the length or width into these fields.

14 Vertical cable ladder

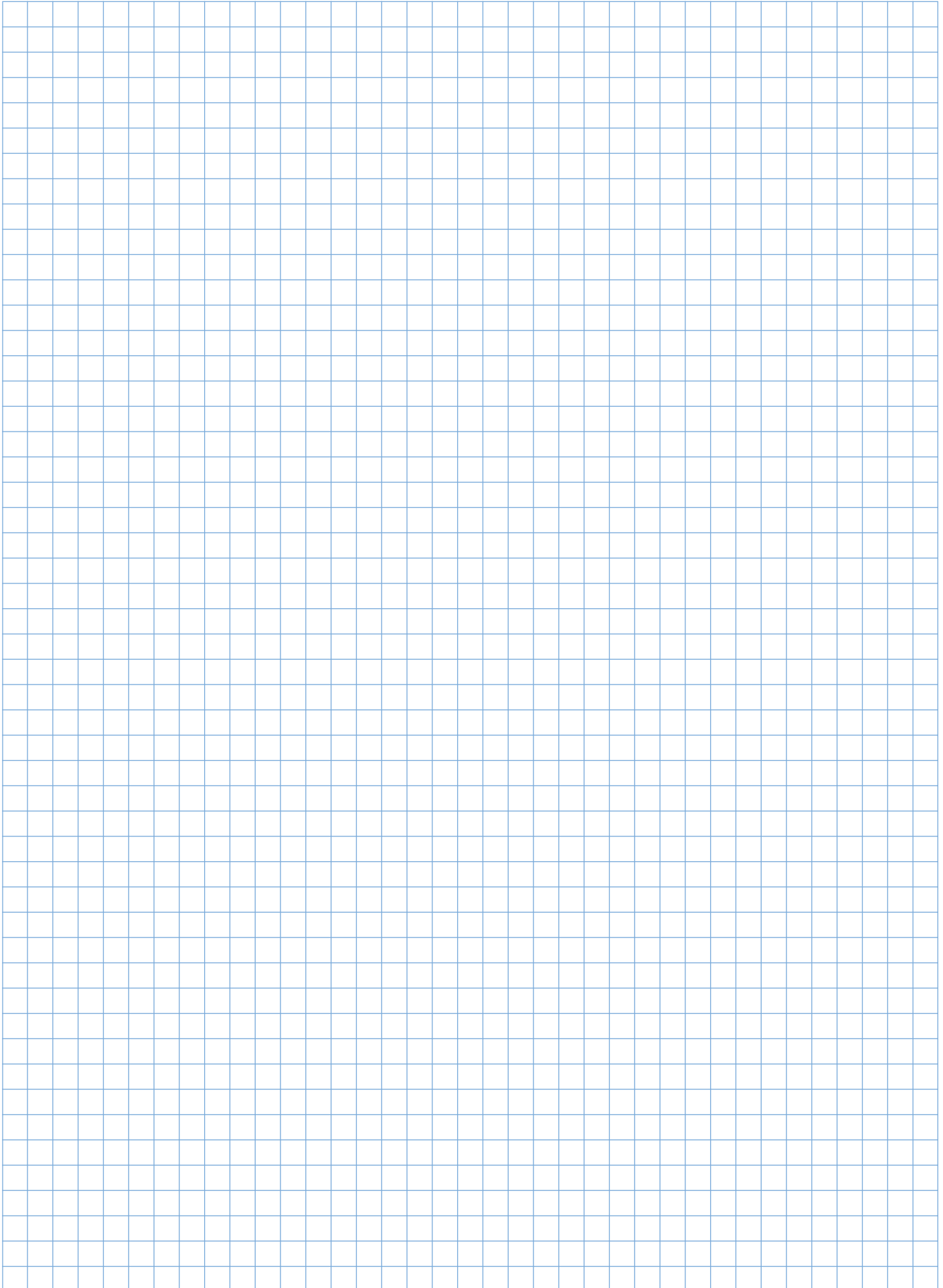
inquiry order

Simply copy and fill in.



quantity	name	Order No.	quantity	name	Order No.
	vertical cable ladder	151L1- -33		rungs 40x22	15L12- -C
		151L1- -36			16L12- -C
		161L1- -33			16L13- -C
		161L1- -36		L-rungs 40x40	16L13- -L
		151L1- -63		connection angle	16J6-C
		151L1- -66		anhcør corner	16J3-D
		161L1- -63			16J3-D1
		161L1- -66		anchor block	16J3-B
		151L1- -C33		steel expansion bolt	15J1-FAZ-
		151L1- -C36		fixing screws	16J6-P
		161L1- -C33			16J6-S
		161L1- -C36			16J6-1020
		151L1- -C63			16J6-1025
		151L1- -C66			
		161L1- -C63			
		161L1- -C66			
	straight joint	151E11-A			
		161E11-A			
	vertical cable ladder	161L03- -C			
	straight joint	16J5-F			
	vertical cable ladder	16L3- -C			
		16L3- -L			
	jointing piece	16J5-B			
	U-profile 60x40	16A7-4500			
	H-support	16A1-6000			
	rungs 30x15	05L12-			
		06L12-			

Please enter the length or width into these fields.





Cable trays



Cable trays

This chapter contains an overview of the RICO cable tray systems for various loads and applications, subdivided into product families.

see system pictures 1 to 6

Table of contents page

Standard trays

60 mm side height, standard support with 1.5 m	3
110 mm side height, standard support width 3.5 m	17

Special trays

INSTA-trays, 60 mm side height, support width up to 3.0 m	29
Luminaire support tray, 50 mm side height, support width up to 3.0 m	39
Trellis tray, 60 mm side height, standard support width 1.5 m	43
C-trellis tray, 50 mm side height, standard support width 2.0 m	49
Plastic cable trays, 60 mm side height, standard support width 1.5 m	55



Cable trays

RICO cable trays for laying cables and lines for various loads.

The RICO standard tray systems with 60 mm side height for the standard support width 1.5 m include:

see system pictures 1 to 4

Table of contents	page
Cable trays, unperforated or perforated	
standard design, unperforated: 151W1-...	4
standard design, perforated: 151W22-..., 151W2-... / 161W2-...	5
cable tray 151W02-...-L / 161W02-...-L, perforated	6
cable tray 151W01-...-L / 161W01-...-L, unperforated	7
thickness of sheet 1.5 mm, perforated: 151R02-...-N / 161R02-...-N	8
thickness of sheet 2.0 mm, perforated: 151R02-...-S / 161R02-...-S	9
Molding components for cable trays	
bend: 151W3-...-B / 161W3-...-B	10
extension tee: 151W15-...-B / 161W15-...-B	10
corner: 151W17-B / 161W17-B	10
Joining pieces for cable trays	
straight joints, bendable joints and hinge piece 151E12-... / 161E12-...	11
straight joint, screwless: 151E14-A / 161E14-A	7
joint cover plate: 15W9-... / 16W9-...	7
joint cover plate: 15W7-... / 16W7-...	11
reducing plate: 151W18-... / 161W18-...	12
Accessory for cable trays	
cable protection plate: 15W11-... / 16W11-...	13
divider strip: 151W13-A / 161W13-A / 141W13-A	13
support corner: 16U6-A	13
edge protection: 15V13-A / 18V13-A	13
mounting plate 15Y34-MP1 / 16Y34-MP1	12
Covers	
covers for trays, without or with locking: 15W12-... / 16W12-...	14
cover for molding components: 15W12-...-B / 16W12-...-B, 15W12-...-BR / 16W12-...-BR, 15W12-...-T / 16W12-...-T, 15W12-...-TR / 16W12-...-TR	15
Accessory for covers	
locking device: 16N12-V / 16N14-V	14
fixing clip 171W12-K	14
fixing spring 17W12-K	14

Standard trays - System 60

cable tray

15

16

cable tray 151W1-..., unperforated

Material	- sheet steel, unperforated - continuously hot galvanized according to DIN EN 10327
Supply length	- 3000 mm
Technical data	- side height 60 mm, standard support spacing 1.5 m - electrical bonding with 1 screw 16J6-B
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

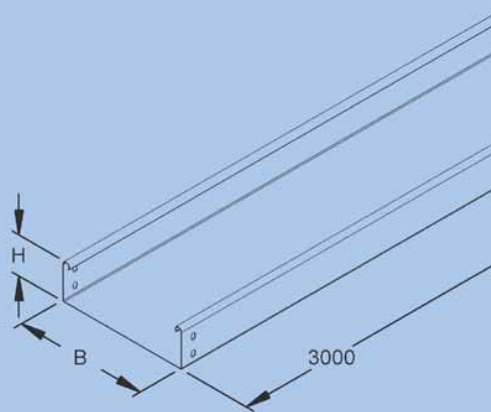
Use screws 16J6-B to fix on brackets.

Use bend 151W3-...-B / 161W3-...-B or corner 151W17-b / 161W17-B to produce curves.

Use extension tee 151W15-...-B / 161W15-...-B to produce junction.

Use straight joint 151E12-... / 161E12-... and joint cover plates 15W7-... / 16W7-... for additional connections.

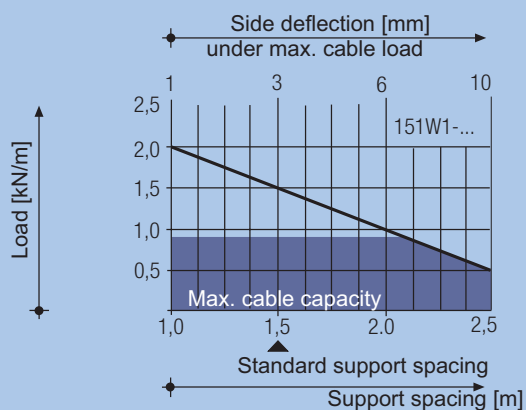
Fixing material	Page
screw 16J6-B	12



Width (mm)	t (mm)	Order No. contin. hot galv.	Weight (kg/pce.)
100	0.9	151W1-100	4.02
200	0.9	151W1-200	6.49
300	1.0	151W1-300	8.37
400	1.0	151W1-400	11.54
500	1.0	151W1-500	13.50
600	1.0	151W1-600	15.90

inkl. inside straight joint in U-form and screws 16J6-B

Load diagram



cable tray 151W22-..., 151W2-... / 161W2-..., perforated

Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 60 mm, standard support spacing 1.5 m - trays with width 100 up to 400mm with integrated joint for plug-in connections without additional joint and joint cover plate - electrical bonding with 1 screw 16J6-B
Field of application	- installation on brackets and consoles

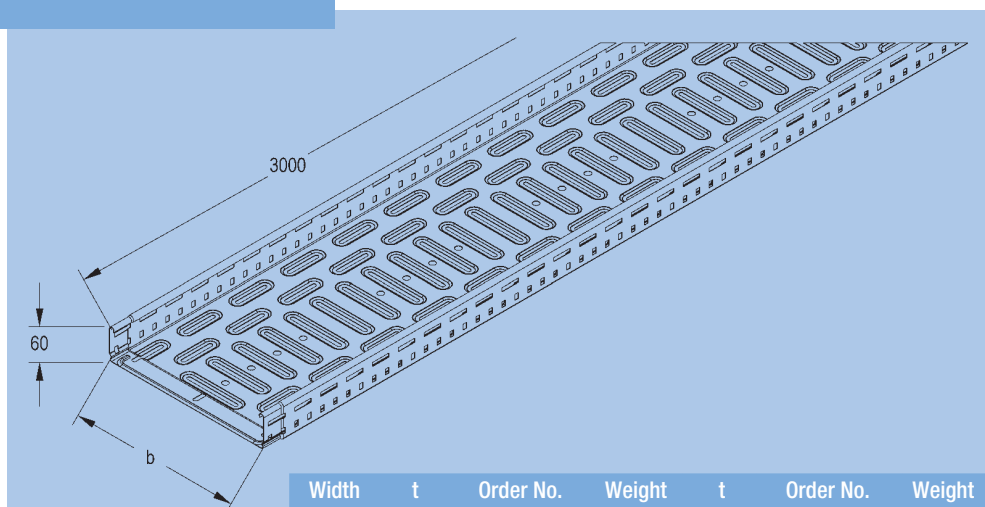
15 1W22-...
16

15 1W2-...
16

Ordering information

Fixing details

- Use screws 16J6-B to fix on brackets.
- Use bend 151w3-...-B / 161w3-...-B or corner 151w17-B / 161w17-B to produce curves.
- Use extension tee 151w15-...-B / 161w15-...-B to produce junctions.
- Use jointing piece 151E12-... / 161E12-... and joint cover plates 15W7-... / 16W7-... to connect trays (without integrated jointing piece).

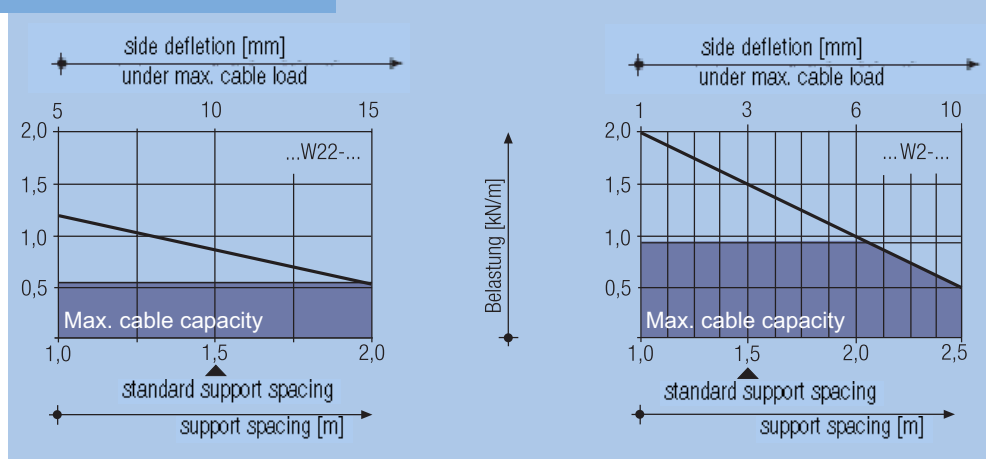


Fixing material	page
screw 16J6-B	12

Width (mm)	t (mm)	Order No. cont. hot. galv.	Weight (kg/pce.)	t (mm)	Order No. hot dip galv.	Weight (kg/pce.)
100	0.6	151W22-100*	3.76	0.9	161W2-100	6.02
200	0.6	151W22-200*	6.06	0.9	161W2-200	8.46
300	0.8	151W22-300*	7.67	0.9	161W2-300	10.70
400	0.9	151W22-400*	10.58	0.9	161W2-400	13.13
500	1.0	151W2-500	13.94	1.0	161W2-500	15.54
600	1.0	151W2-600	16.11	1.0	161W2-600	17.96

* including 1 screw 16J6-B
W2-cable tray without integrated joint

Load diagram



Standard trays - System 60

cable tray

15 1W02-...-L

16

cable tray 151W02-...-L / 161W02-...-L, perforated,

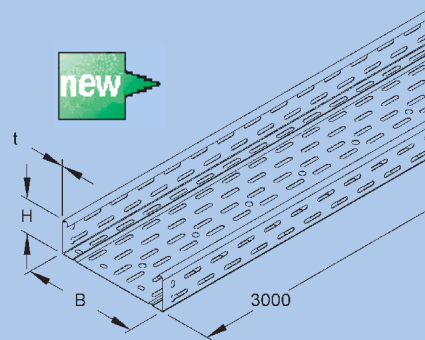
Material	- sheet steel, unperforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 60 mm, standard support spacing 1.5 m
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

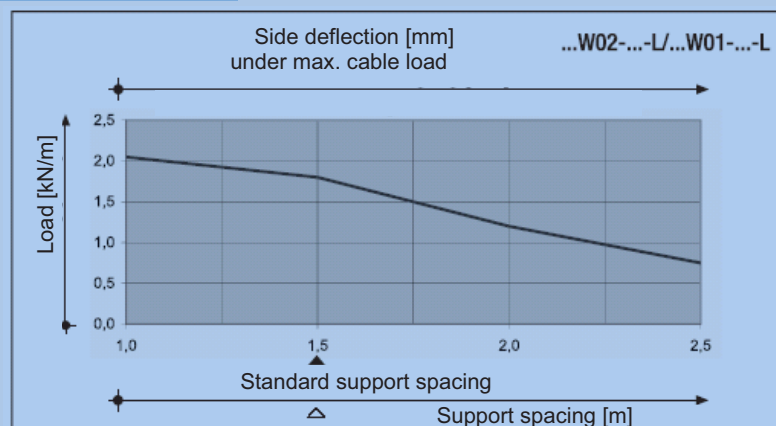
- Use screw 16J6-B to fix on brackets.
- Use bend 151W3-...-B / 161W3-...-B or corner 151W17-B / 161W17-B to produce curves.
- Use extension tee 151W15-...-B / 161W15-...-B to produce junction.
- Use joint piece 151E14-A / 161E14-A and joint cover plate 15W9-... / 16W9-... to connect trays.
- Boltless splice plate snaps in between the reinforcing fin in the bottom of the tray and the return flange of the side rail for a perfect lengthwise fit.

Fixing material	Page
screw 16J6-B	12



Width (mm)	t (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	t (mm)	Order No. hot dip galv.	Weight (kg/pce.)
100	0.9	151W02-100-L	5.88	0.9	161W02-100-L	6.29
200	0.9	151W02-200-L	9.00	0.9	161W02-200-L	9.63
300	1.0	151W02-300-L	11.40	1.0	161W02-300-L	12.20
400	0.9	151W02-400-L	13.59	1.0	161W02-400-L	14.50
500	1.0	151W02-500-L	16.83	1.0	161W02-500-L	18.00
600	1.0	151W02-600-L	19.83	1.0	161W02-600-L	21.20

Belastungsdiagramm



cable tray 151W01-...-L, 161W01-...-L, unperforated straight joint, screwless 151E14-A / 161E14-AF joint cover plate 15W9-... / 16W9-...

Material	- sheet steel, unperforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 60 mm, standard support spacing 1.5 m
Field of application	- installation on brackets and consoles

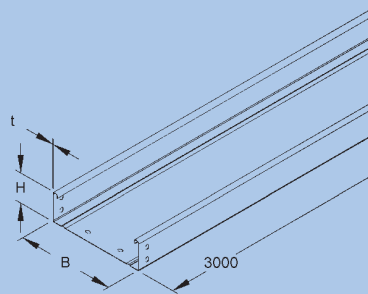
15	1W01-...-L
16	
15	1E14-...
16	
15	W9-...
16	

Ordering information

Fixing details

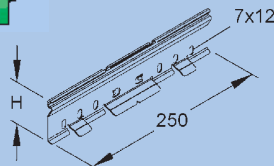
- Use screw 16J6-B to fix on brackets.
- Use bend 151W3-...-B / 161W3-...-B or corner 151W17-B / 161W17-B to produce curves.
- Use extension tee 151W15-...-B / 161W15-...-B to produce junctions.
- Use jointing pieces 151E12-... / 161E12-... and joint cover plates 15W9-... / 16W9-... to connect trays.
- With jointing perforation for the connection. Continuous crimps in the floor are responsible for a fast and form-fitting connection at length side by snap-fitting of the screwless jointing piece with the sides.

Fixing material	page
screw 16J6-B	12



Width (mm)	t (mm)	Order No. cont. hot galv.	Weight (kg/pce)	t (mm)	Order No. hot dip galv.	Weight (kg/pce)
100	0.9	151W01-100-L	5.88	0.9	161W01-100-L	6.29
200	0.9	151W01-200-L	9.00	0.9	161W01-200-L	9.63
300	1.0	151W01-300-L	11.40	1.0	161W01-300-L	12.20
400	1.0	151W01-400-L	13.59	1.0	161W01-400-L	14.50
500	1.0	151W01-500-L	16.83	1.0	161W01-500-L	18.00
600	1.0	151W01-600-L	19.83	1.0	161W01-600-L	21.20

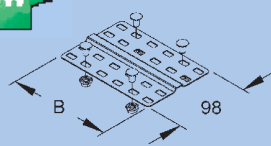
see load diagram page 6



straight joint, screwless

Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
151E14-A	0,17	161E14-AF	0,18

Jointing piece 161E14-AF incl. 2 screws 16J6-B (M6x12)



joint cover plate

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
41.5	15W9-100	0.04	16W9-100	0.05
139	15W9-200	0.11	16W9-200	0.12
239	15W9-300	0.18	16W9-300	0.19
339	15W9-400	0.25	16W9-400	0.27
439	15W9-500	0.32	16W9-500	0.34
539	15W9-600	0.39	16W9-600	0.42

including fixing screws

Standard trays - System 60

cable trays

15
16
1R02-...-N

cable tray 151R02-...-N / 161R02-...-N, perforated, with sheet thickness 1.5mm

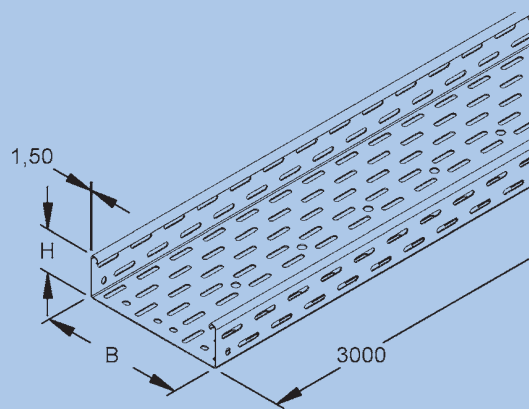
Material	- sheet steel, perforated, with sheet thickness 1.5 mm - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 60 mm - standard support spacing 1,5 m
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

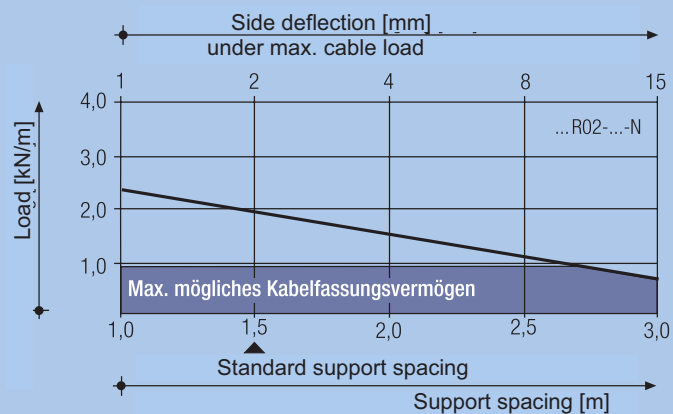
- Use screw 16J6-B to fix on brackets.
- Use bend 151W3-...-B / R161W3-...-B or corner 151W17-B / 161W17-B to produce curves.
- Use extension tee 151W15-...-B / 161W15-...-B to produce junctions.
- Use jointing piece 151E12-... / 161E12-... and joint cover plate 15W7-... / 16W7-... to connect trays.

Fixing material	page
screw 16J6-B	12



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
100	151R02-100-N	7.80	161R02-100-N	8.19
200	151R02-200-N	10.50	161R02-200-N	11.03
300	151R02-300-N	13.90	161R02-300-N	14.60
400	151R02-400-N	16.80	161R02-400-N	17.64
500	151R02-500-N	21.10	161R02-500-N	22.16
600	151R02-600-N	23.60	161R02-600-N	24.78

Load diagram



cable tray 151R02-...-S / 161R02-...-S, perforated, with sheet thickness 2.0 mm

15
16

1R02-...-S

Cable trays

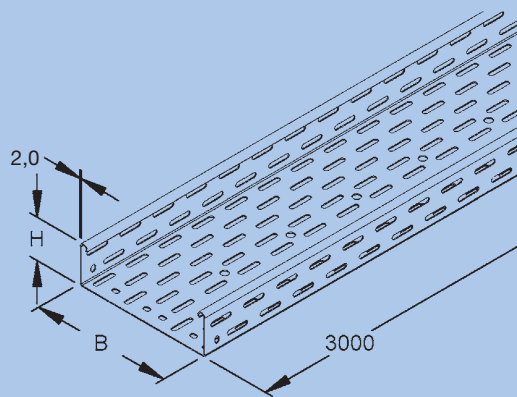
Material	- sheet steel, perforated, with sheet thickness 2.0 mm - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 60 mm - standard support spacing 1,5 m
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

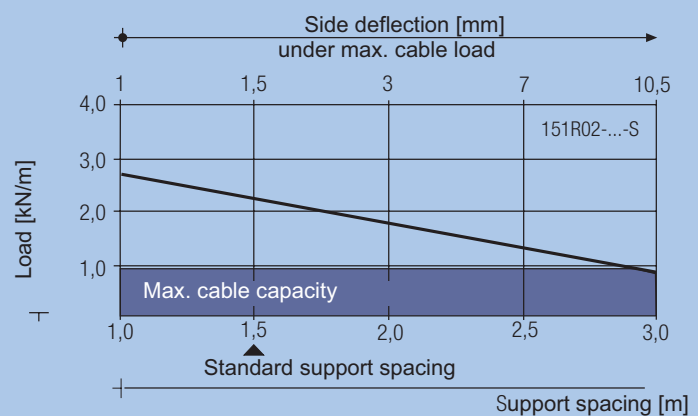
- Use screw 16J6-B fix on brackets.
- Use bend 151W3-...-B / 161W3-...-B or corner 161W17-B / 161W17-B to produce curves.
- Use tee 151W15-...-B / 161W15-...-B to produce junction.
- Use jointing piece 151E12-... / 161E12-... and joint cover plates 15W7-... / 16W7-... to connect trays.

Fixing material	page
screw 16J6-B	12



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	151R02-100-S	10.40	161R02-100-S	10.92
200	151R02-200-S	14.00	161R02-200-S	14.71
300	151R02-300-S	18.53	161R02-300-S	19.47
400	151R02-400-S	22.40	161R02-400-S	23.52
500	151R02-500-S	28.13	161R02-500-S	29.55
600	151R02-600-S	31.81	161R02-600-S	33.04

Load diagram



Standard trays - System 60

molded components for cable trays

15
16 **1W3-...-B**

15
16 **1W15-...-B**

15
16 **1W17-...-B**

bend 151W3-...-B / 161W3-...-B, extension tee 151W15-...B / 161W15-...-B, corner 151W17-B / 161W17-B

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 60 mm - delivered as kit including fixing material - suitable for all tray widths from von 100 mm to 600 mm - integrated jointing piece with preshaped perforations for fast and easy installation
Field of application	- to make 90° junctions and 90° corners, use 2 extension tees to make crossing

Ordering information

Fixing details

Bend

→ Place bend on tray ends.

→ Fasten bend side to tray with screws 16J6-B.

extension tee

→ Cut out tray side (length of cut out = width of tee + 280 mm).

→ Deburr cut edges.

→ Using pliers, fold over tab ends of tray on both sides and clamp.

→ Place tee on the cut out and fasten it to tray sides with screws 16J6-B.

→ Fasten floor plates with 3 screws 16J6-B.

corner

→ Cut out inside of trays (length of cut out = width of tray + 145 mm).

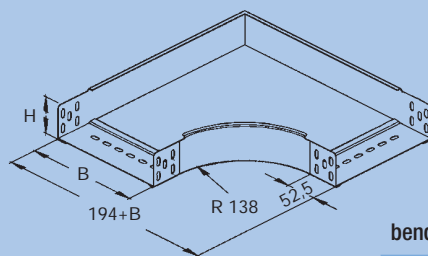
→ Deburr cut edges.

→ Using pliers, fold over tab ends of trays and clamp.

→ Place corner on the tray ends overlapping in the 90° angle.

→ Fasten trays side with 2 screws 16J6-B.

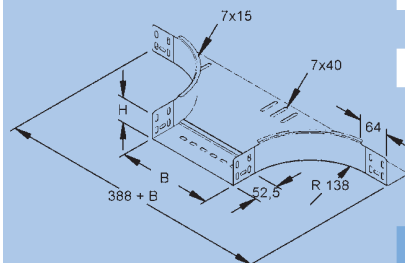
→ Fasten floor of corner and trays with screw 16J6-B.



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	151W3-100-B	1.30	161W3-100-B	1.37
200	151W3-200-B	1.70	161W3-200-B	1.80
300	151W3-300-B	3.60	161W3-300-B	3.78
400	151W3-400-B	4.90	161W3-400-B	5.15
500	151W3-500-B	6.70	161W3-500-B	7.04
600	151W3-600-B	7.30	161W3-600-B	7.67

including screws 16J6-B

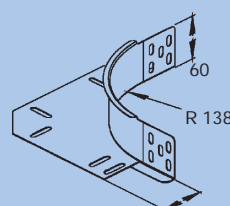


extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	151W15-100-B	1.20	161W15-100-B	1.26
200	151W15-200-B	1.40	161W15-200-B	1.47
300	151W15-300-B	1.80	161W15-300-B	1.89
400	151W15-400-B	2.00	161W15-400-B	2.10
500	151W15-500-B	2.30	161W15-500-B	2.42
600	151W15-600-B	2.50	161W15-600-B	2.63

including screws 16J6-B

Fixing material	page
screw 16J6-B	12



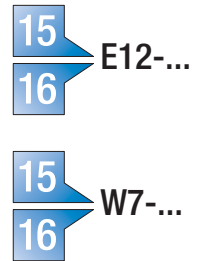
corner

Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
151W17-B	0.33	161W17-B	0.35

including 6 screws 16J6-B

jointing piece 151E12-... / 161E12-..., joint cover plate 15W7-... / 16W7-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 60 mm - suitable for all tray widths from 100 mm to 600 mm - delivery includes fixing screws
Field of application	- jointing piece for making straight, angular, upward or downward connection of cable trays



Ordering information

Fixing details

- Mount jointing pieces to or push it on tray ends.
- Fasten joint piece and tray sides with 2 screws 16J6-B.

straight joint

- Cover cut edges on straight joint with joint cover plate 15W7-... / 16W7-....

bendable joint

- Make a mitre cut for large changes of direction (max. 90°).

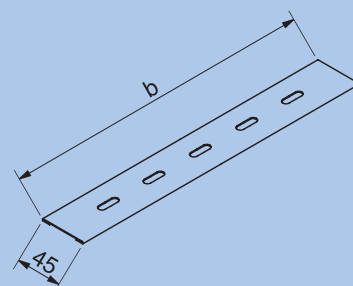
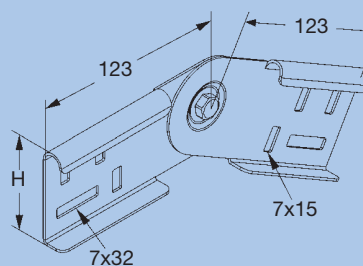
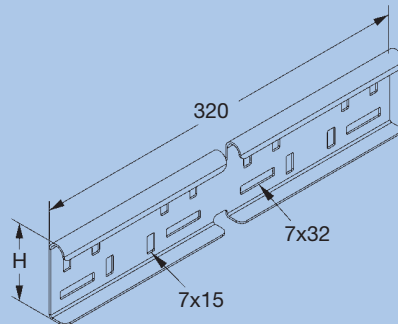
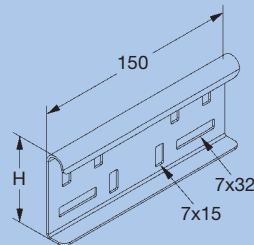
hinge piece

- Insert cable protection plate 15W11-... / 16W11-... at upper break point.
- Cover cut edges with edge protection 15V13-A.

joint cover plate

- Place joint cover plate 15W7-... / 16W7-... on the tray connection and fasten clamping lugs.

Fixing material	page
screw 16J6	12
edge protection 15V13-A	13
edge protection 18V13-A	13



straight joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
151E12-A	0,19	161E12-A	0,20

including 2 screws 16J6-B (M6x12)

bendable joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
151E12-B	0,36	161E12-B	0,40

including 2 screws 16J6-B (M6x12)

hinge piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
151E12-C	0,31	161E12-C	0,33

including 2 screws 16J6-B (M6x12)

joint cover plate

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
90	15W7-100	0,04	16W7-100	0,07
190	15W7-200	0,09	16W7-200	0,12
290	15W7-300	0,13	16W7-300	0,17
390	15W7-400	0,18	16W7-400	0,22
490	15W7-500	0,22	16W7-500	0,29
590	15W7-600	0,27	16W7-600	0,32

including fixing screws 15W7-Z

Standard trays - System 60

jointing pieces for cable trays

15
16 1W18-...

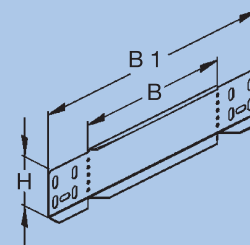
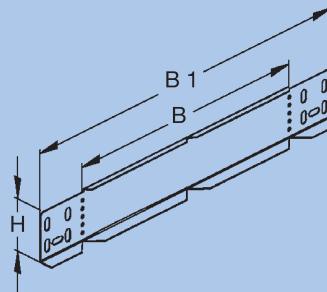
reducing joint 161W18-...
mounting plate 15Y34-MP1 / 16Y34-MP1
mounting accessory

15
16 J...

15
16 Y34-...

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN ISO 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - side height 60 mm - usable for all tray widths from 100 mm to 600 mm - delivery includes fixing screws
Field of application	<ul style="list-style-type: none"> - reducing joint for connecting trays with different widths - mounting plate to mount distribution boxes or connection boxes

Bestellinformation

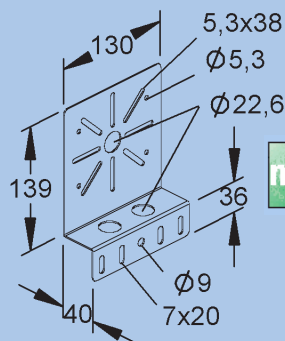


* additionally usable as bendable joint, by central bending edge

reducing joint

B 1 (mm)	Width B (mm)	Order No. hot dip galv.	Weight (kg/pce)
222*	100	161W18-100	0.13
322	200	161W18-200	0.19
422*	300	161W18-300	0.26
522	400	161W18-400	0.32
622	500	161W18-500	0.39
722	600	161W18-600	0.46

including 4 screws 16J6-B



new

mounting plate

Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
15Y34-MP1	0.5	16Y34-MP1	0.6

einschl. 2 Befestigungsschrauben



mounting accessory

screw	Order No. hot dip galv.	Weight (kg/pce)
M6x12	16J6-B	0.01

cable protecting plate 15W11-... / 16W11-..., divider strip 151W13-A / 161W13-A 141W13-A, support corner 16U6-A, edge protection 15V13-A / 18V13-A

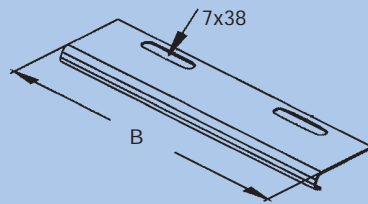
15
16 → W11-...

14
15 → 1W13-A
16

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461 or double dip
Technical data	<ul style="list-style-type: none"> - suitable for all tray widths from 100 mm to 600 mm - delivery includes fixing screws
Field of application	<ul style="list-style-type: none"> - cable protecting plate for cable protection at upward or downward connection of trays - divider strip for dividing cable trays for different kinds of cable - support corner for fixing trays to brackets for gradients

Ordering information

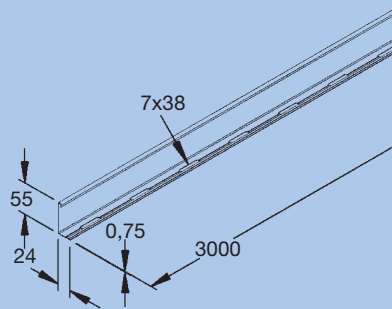
Fixing material	Page
screw 16J6-B	12



cable protecting plate

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W11-100	0.05	16W11-100	0.05
200	15W11-200	0.10	16W11-200	0.11
300	15W11-300	0.15	16W11-300	0.16
400	15W11-400	0.20	16W11-400	0.21
500	15W11-500	0.25	16W11-500	0.26
600	15W11-600	0.31	16W11-600	0.32

including 2 screws 16J6-B (M6x12)



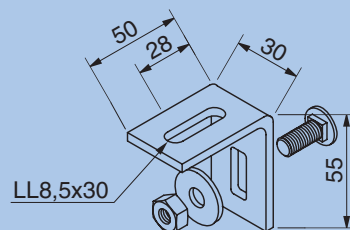
divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	151W13-A	1.56	161W13-A	1.64

including 4 screws 16J6-B (M6x12)

Length (mm)	Order No. double dip	Weight (kg/St.)
3000	141W13-A	1.64

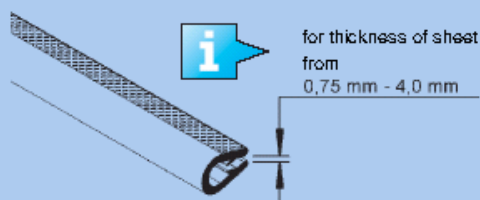
including 4 screws 16J6-B (M6x12)



support corner

Order No. hot dip galv.	Weight (kg/pce.)
16U6-A	0.12

including 1 screw 16J6-S (M8x20)



edge protection

Clamping zone (mm)	Length (mm)	Order No. plastic	Weight (kg/m)
0.75-4	Yard goods	15V13-A	0.14
0.75-4	Yard goods	18V13-A	0.14

Standard trays - System 60

cover for cable trays

15
16
W12-...

cover 15W12-... / 16W12-... for cable trays,
fixing clip 171W12K, locking device 16N12-V / 16N14-V
fixing spring 17W12-K

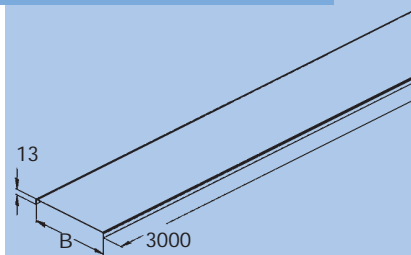
16

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- suitable for all tray widths from 100 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

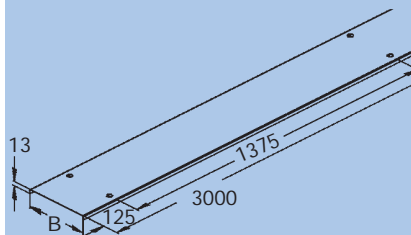
Fixing details

→ Fix covers with fixing clip 171W12-K or fixing spring 17W12-K.



cover without locking

Widths (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order-No. hot dip galv.	Weight (kg/pce.)
100	15W12-100	2.85	16W12-100	2.99
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



cover with locking for standard trays

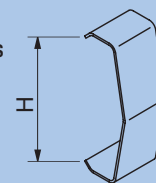
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100-R	2.90	16W12-100-R	2.99
200	15W12-200-R	5.31	16W12-200-R	5.58
300	15W12-300-R	7.78	16W12-300-R	8.17
400	15W12-400-R	10.18	16W12-400-R	10.69
500	15W12-500-R	12.60	16W12-500-R	13.23
600	15W12-600-R	15.00	16W12-600-R	15.75

pre-mounted locking device 16N12-V



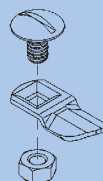
locking device for cover standard trays

Order No. feuerverz.	Weight (kg/St.)
16N12-V	0,02



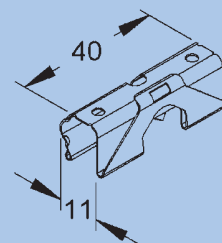
fixing clip

Order No.	Weight stainless steel (kg/pce.)
171W12-K	0,02



locking device for cover molded components

Order No. feuerverz.	Weight (kg/St.)
16N14-V	0,02



fixing spring for cover of cable trays

Order No.	Weight stainless steel (kg/pce.)
17W12-K	0,05

Standard trays - System 60

Covers for molded components

15
16
W12-...

cover 15W12-...-B / 16W12-...-B,
15W12-...-BR / 16W12-...-BR for bend,
cover 15W12-...-T / 16W12-...-T,
15W12-...-TR / 16W12-...-TR for extension tee

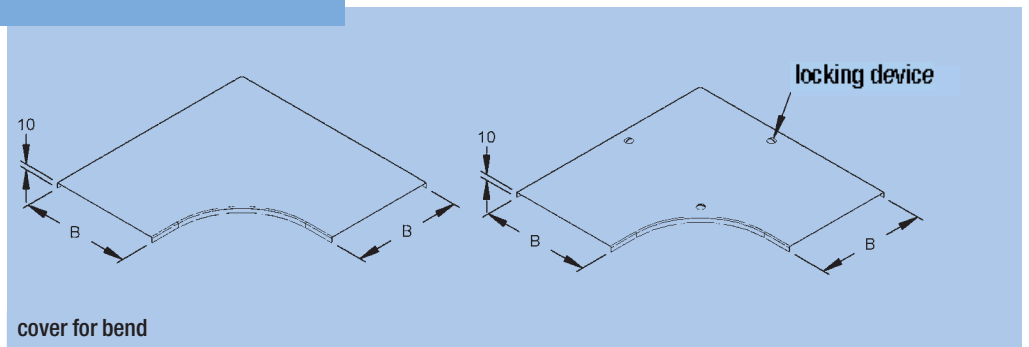
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- for all tray widths from 100 mm to 600 mm
Field of application	- cable protection

Ordering information

Fixing details

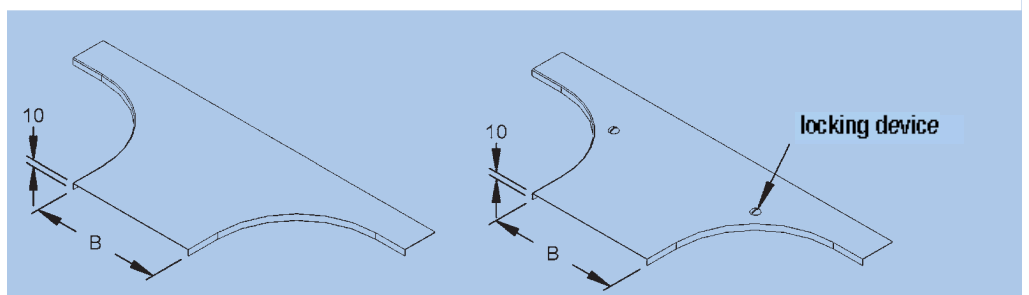
→ Fix cover with fixing clips
171W12-K.

Fixing material	Page
locking device 16N14-V	14
fixing clip 17W12-K	14



cover for bend

Width (mm)	without locking				with locking			
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100-B	0.37	16W12-100-B	0.40	15W12-100-BR	0.40	16W12-100-BR	0.43
200	15W12-200-B	0.95	16W12-200-B	1.02	15W12-200-BR	0.98	16W12-200-BR	1.01
300	15W12-300-B	1.60	16W12-300-B	2.84	15W12-300-BR	1.63	16W12-300-BR	1.66
400	15W12-400-B	2.65	16W12-400-B	2.84	15W12-400-BR	2.68	16W12-400-BR	2.71
500	15W12-500-B	3.69	16W12-500-B	3.95	15W12-500-BR	3.69	16W12-500-BR	3.72
600	15W12-600-B	4.88	16W12-600-B	5.22	15W12-600-BR	4.91	16W12-600-BR	4.94



cover for extension tee

Width (mm)	without locking				with locking			
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100-T	0.50	16W12-100-T	0.53	15W12-100-TR	0.52	16W12-100-TR	0.55
200	15W12-200-T	0.70	16W12-200-T	0.75	15W12-200-TR	0.72	16W12-200-TR	0.77
300	15W12-300-T	0.90	16W12-300-T	0.96	15W12-300-TR	0.92	16W12-300-TR	0.98
400	15W12-400-T	1.40	16W12-400-T	1.50	15W12-400-TR	1.42	16W12-400-TR	1.71
500	15W12-500-T	1.60	16W12-500-T	1.71	15W12-500-TR	1.62	16W12-500-TR	1.73
600	15W12-600-T	1.90	16W12-600-T	2.03	15W12-600-TR	1.92	16W12-600-TR	2.05



Cable trays

RICO-Cable trays for laying cables and lines, especially power lines various loads.

The RICO standard tray systems with 110mm side height for support spacing up to 3.0 m include:

Table of contents page

Cable trays	
standard design, perforated: 153W2-... / 163W2-...	18
sheet thickness 1.5 mm, perforated: 153R02-...-N / 163R02-...-N	19
Molded components for cable trays	
bend: 153W3-...-B / 163W3-...-B	20
extension tee: 153W15-...-B / 163W15-...-B	21
corner: 153W17-B / 163W17-B	21
Joining pieces for cable trays	
straight joint, bendable joint and hinge piece: 153E12-... / 163E12-...	22
straight joint: 15W7-... / 16W7-...	22
reducing joint 153W18-... / 163W18-...	23
Accessory for cable trays	
cable protecting plate: 15W11-... / 16W11-...	24
divider strip: 153W13-A / 163W13-A / 143W13-A	24
support corner: 16U6-A	24
edge protection: 15V13-A / 18V13-A	24
mounting plate 15Y34-MP1 / 16Y34-MP1	23
Covers	
covers for trays, without or with locking: 15W12-... / 16W12-...	25
covers for molding components: 15W12-...-B / 16W12-...-B, 15W12-...-BR / 16W12-...-BR 15W12-...-T / 16W12-...-T, 15W12-...-TR / 16W12-...-TR	26
Accessory for covers	
locking device 16N12-V / 16N14-V	25
fixing clip 173W12-K110	25
fixing spring 17W12-K	25

Standard trays - System 110

Cable tray

15
16
3W2-...

cable tray 153W2-... / 163W2-..., perforated with thickness of sheet 1.0 mm

Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 110 mm - support spacing max. 2.5 m
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

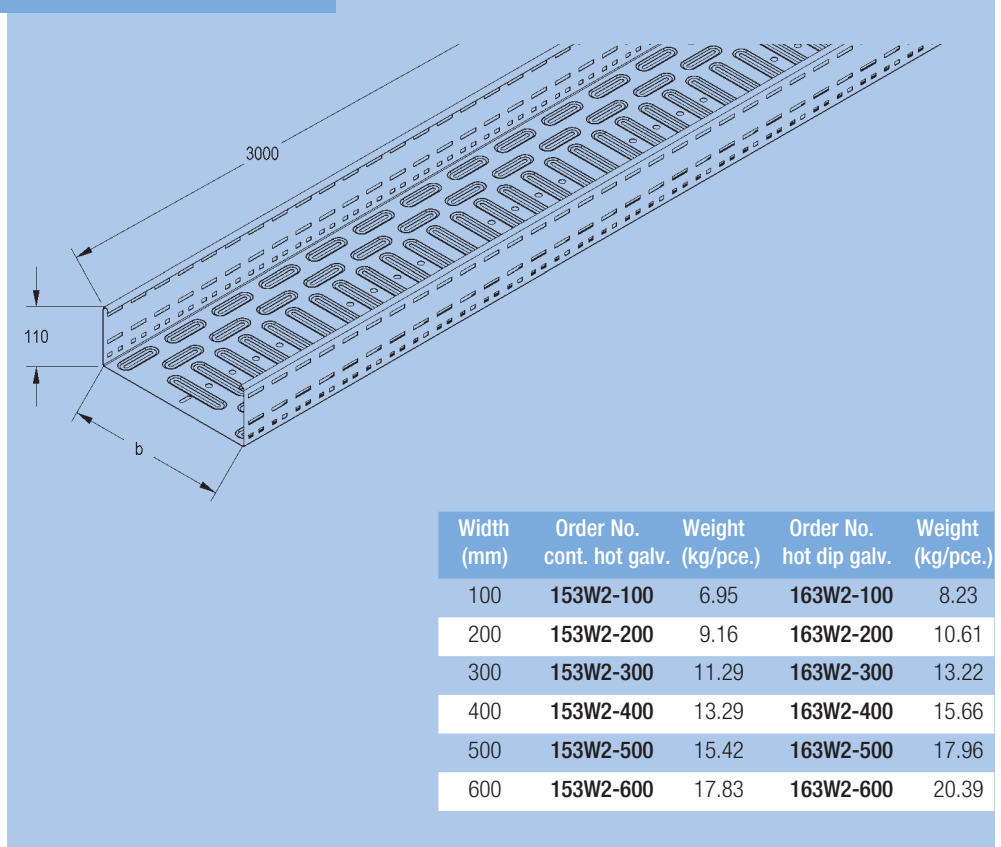
Use screw 16J6-B to fix on brackets.

Use bend 153W3-...-B / 163W3-...-B or corner 153W17-B / 16317W-B to produce curves.

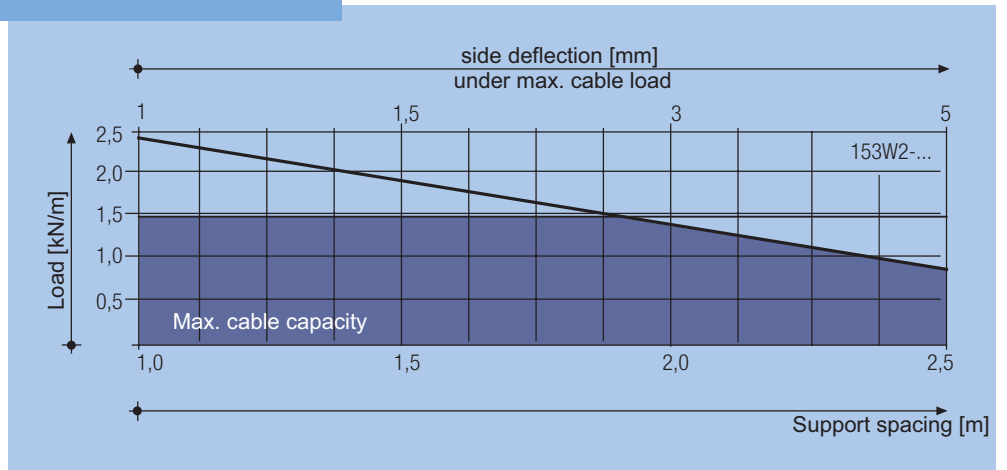
Use extension tee 153E12-...-B / 163E12-...-B / to produce junctions.

Use jointing piece 153E12-... / 163E12-... and joint cover plates 15W7-... / 16W7-... to connect trays.

Fixing material	Page
screw 16J6-B	12



Load diagram



cable tray 153R02-...-N / 163R02-...-N, perforated, with thickness of sheet 1.5 mm

15
16

3R02-...N

Cable trays

Material	<ul style="list-style-type: none"> - sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply of length	<ul style="list-style-type: none"> - 3000 mm
Technical data	<ul style="list-style-type: none"> - side height 110 mm - support spacing max. 3.0 m - continuous side perforation, staggered oblong holes on tray bottom for fastening the brackets at any point
Field of application	<ul style="list-style-type: none"> - installation on brackets and consoles

Ordering information

Fixing details

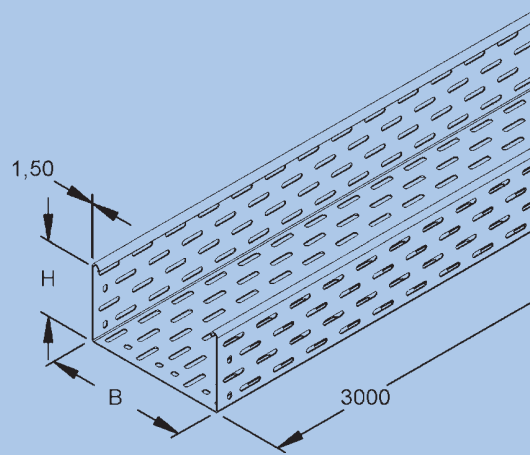
Use screw 16J6-B to fix on brackets.

Use bend 153W3-...-B / 163W3-...-B or corner 153W17-B / 163W17-B to produce curves.

Use extension tee 153W15-...-B / 163W15-...-B to produce junction.

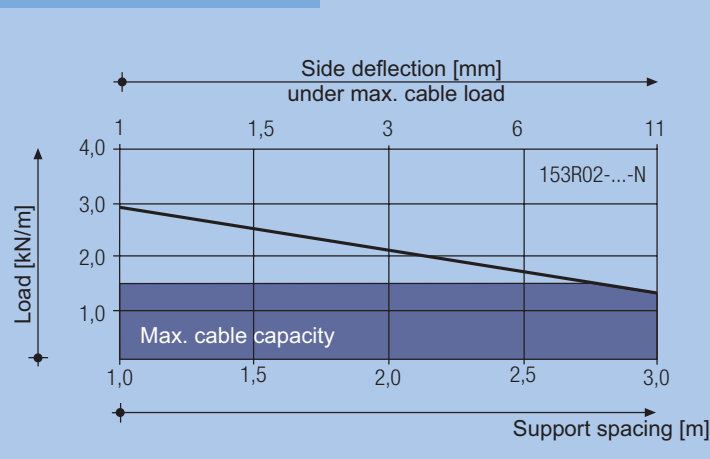
Use jointing piece 153E12-... / 163E12-... and joint cover plates 15W7-... / 16W7-... to connect trays.

Fixing material	Page
screw 16J6-B	12



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	153R02-100-N	10.50	163R02-100-N	11.03
200	153R02-200-N	13.50	163R02-200-N	14.18
300	153R02-300-N	16.90	163R02-300-N	17.75
400	153R02-400-N	18.30	163R02-400-N	19.22
500	153R02-500-N	24.30	163R02-500-N	25.52
600	153R02-600-N	25.10	163R02-600-N	26.36

Load diagram



Standard trays - System 110

Molded components for cable trays

15
16 → 3W3-...-B

bend 153W3-...-B / 163W3-...-B

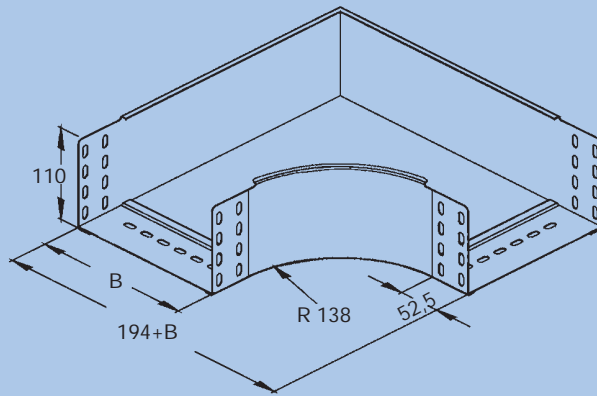
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 110 mm - suitable for all tray widths from 100 mm to 600 mm
Field of application	- to make 90° junctions

Ordering information

Fixing details

- Place bend on tray ends.
- Fasten sides of bend and tray with screw 16J6-B.

Fixing material	Page
screw 16J6-B	12

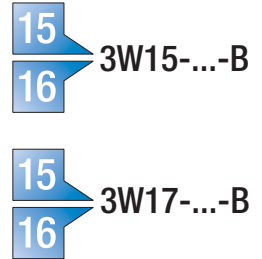


bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	153W3-100-B	1.60	163W3-100-B	1.68
200	153W3-200-B	2.00	163W3-200-B	2.10
300	153W3-300-B	4.00	163W3-300-B	4.20
400	153W3-400-B	5.50	163W3-400-B	5.78
500	153W3-500-B	7.00	163W3-500-B	7.35
600	153W3-600-B	8.55	163W3-600-B	8.97

including 8 screws 16J6-B

extension tee 153W15-...-B / 163W15-...-B, corner 153W17-B / 163W17-B



Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 110 mm - delivered as kit including fixing material - suitable for all tray widths from 100 mm to 600 mm - integrated jointing piece with preshaped perforations for fast and easy installation
Field of application	- to make 90° junctions and 90° corners, to make crossings with 2 tees

Ordering information

Fixing details

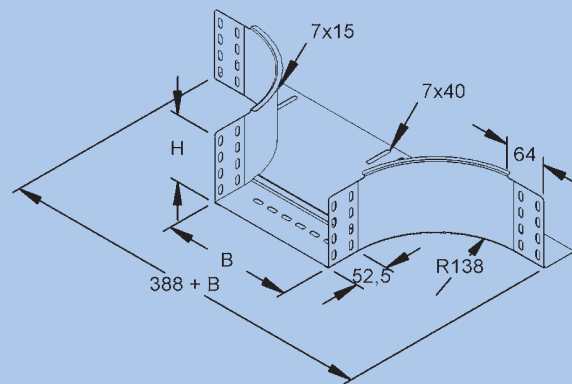
extension tee

- Cut out tray side (length of cut out = width of tee+ 280 mm).
- Deburr cut edges.
- Using pliers, fold over tab ends of tray on both sides an clamp.
- Use tee to fix on cutout and fastenit to tray sides with screw 16J6-B.
- Fasten floor plates with 3 screws 16J6-B.

corner

- Cut out inside of trays (length of cut out = widths of tray + 145 mm).
- Deburr cut edges.
- Using pliers, fold over tab ends of trays and clamps.
- Place corner on the tray ends overlapping in the 90° angle.
- Fasten tray sides with 2 screws 16J6-B.
- Fasten floors of corner and trays with screws 16J6-B.

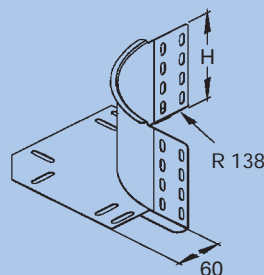
Fixing material	Page
screw 16J6-B	12



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	153W15-100-B	1.40	163W15-100-B	1.47
200	153W15-200-B	1.60	163W15-200-B	1.68
300	153W15-300-B	2.00	163W15-300-B	2.10
400	153W15-400-B	2.30	163W15-400-B	2.42
500	153W15-500-B	2.60	163W15-500-B	2.73
600	153W15-600-B	3.00	163W15-600-B	3.15

including 10 screws 16J6-B



corner

Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
153W17-B	0.43	163W17-B	0.47

including 6 screws 16J6-B

Standard trays - System 110

Joining pieces for cable trays

- 15 E12-...
- 16
- 15 W7-...
- 16

joining pieces 153E12-... / 163E12-..., joint cover plate 15W7-... / 16W7-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 110 mm - suitable for all tray widths from 100 mm to 600 mm - delivery includes fixing screws
Field of application	- joining piece for making straight, angular, upward or downward connection of cable trays

Ordering information

Fixing details

- Mount joining pieces to or push it into tray ends.
- Fasten joining pieces and tray sides with 2 screws 16J6-B.

straight joint

- Cover cut edges on straight joint with joint piece 15W7-... / 16W7-....

bendable joint

- Make a mitre cut for large changes of direction (max. 90°).

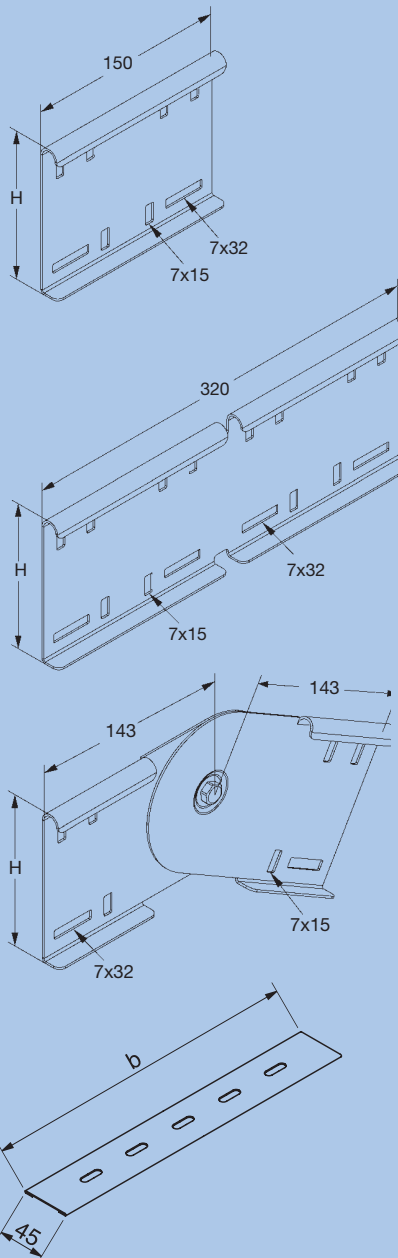
hinge piece

- Insert cable protection plate 15W11-... / 16W11-... at upper break point.
- Cover cut edges with edge protection 15V13-A.

joint cover plate

- Place joint cover plate 15W7-... / 16W7-... on the tray connection and fasten clamping lugs.

Fixing material	Page
screw 16J6-B	12
edge protection 15V13-A	24
edge protection 18V13-A	24



straight joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153E12-A	0.25	163E12-A	0.27

including 2 screws 16J6-B (M6x12)

bendable joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153E12-B	0.50	163E12-B	0.57

including 4 screws 16J6-B (M6x12)

hinge piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153E12-C	0.51	163E12-C	0.57

including 4 screws 16J6-B (M6x12)

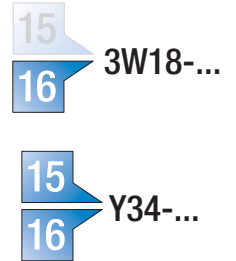
joint cover plate

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
90	15W7-100	0.04	16W7-100	0.07
190	15W7-200	0.09	16W7-200	0.12
290	15W7-300	0.13	16W7-300	0.17
390	15W7-400	0.18	16W7-400	0.22
490	15W7-500	0.22	16W7-500	0.29
590	15W7-600	0.27	16W7-600	0.32

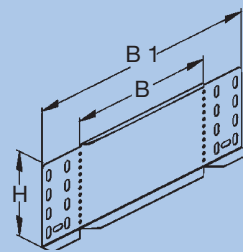
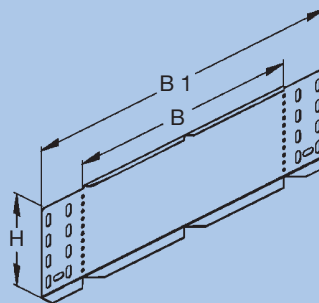
including fixing screw

reducing joint 161W18-... mounting plate 15Y34-MP1 / 16Y34-MP1

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN ISO 1461 - hot dip galvanized according to DIN EN 10327
Technical data	<ul style="list-style-type: none"> - side height 110 mm - suitable for all tray widths from 100 mm to 600 mm - delivery includes fixing screws
Field of application	<ul style="list-style-type: none"> - reducing plate for connecting trays of different widths - mounting plate to mount of distributor boxes or connection boxes



Ordering information

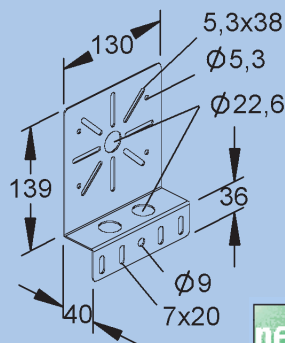


* Additionally usable as bendable joint, by a central bending edge.

reducing joint / outer part

B1 (mm)	Width B (mm)	Order No. hot dip galv.	Weight (kg/pce.)
222*	100	163W18-100	0.21
322	200	163W18-200	0.31
422*	300	163W18-200	0.41
522	400	163W18-400	0.52
622	500	163W18-500	0.62
722	600	163W18-600	0.68

including 4 screws 16J6-B



mounting plate

Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
15Y34-MP1	0.5	16Y34-MP1	0.6

including 2 fixing screws

Standard trays - System 110

Accessories for cable trays

15
16 W11-...

14
15 3W13-A

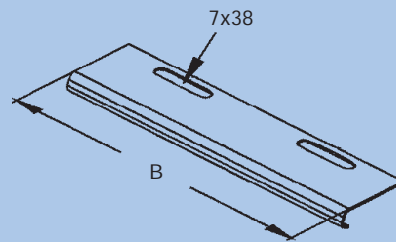
16
15
18 V13-A

cable protecting plate 15W11-... / 16W11-..., divider strip 153W13-A / 163W13-A / 143W13-A, support corner 16U6-A, edge protection 15V13-A / 18V13-A

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461 or double dip
Technical data	- suitable for all tray widths from 100 mm to 600 mm - delivery includes fixing screw
Field of application	- cable protecting plate for cable protection at upward or downward connection of trays - divider strip for dividing cable trays for different kinds of cable - support corner for fixing trays to brackets at vertical changes direction

Ordering information

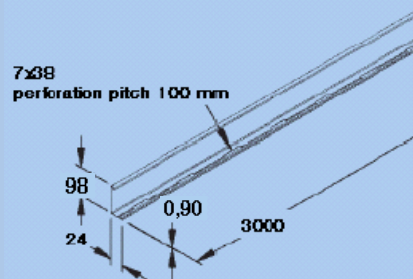
Fixing details	Page
screw 16J6-B	12



cable protecting plate

Length B (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W11-100	0.05	16W11-100	0.05
200	15W11-200	0.10	16W11-200	0.11
300	15W11-300	0.15	16W11-300	0.16
400	15W11-400	0.20	16W11-400	0.21
500	15W11-500	0.25	16W11-500	0.26
600	15W11-600	0.31	16W11-600	0.33

including 2 screws 16J6-B (M6x12)



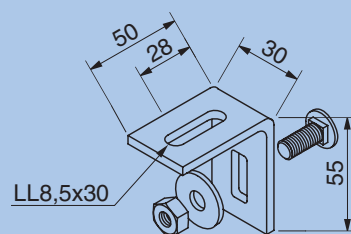
divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	153W13-A	4.05	163W13-A	4.25

including 4 screws 16J6-B (M6x12)

Length (mm)	Order No. double dip	Weight (kg/pce.)
3000	143W13-A	4.25

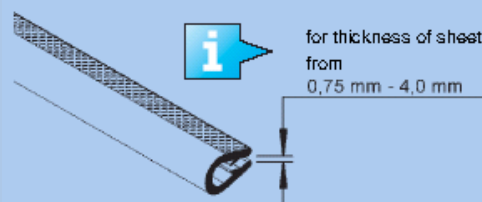
including 4 screws 16J6-B (M6x12)



support corner

Order No. hot dip galv.	Weight (kg/pce.)
16U6-A	0.12

including 1 screw 16J6-S (M8x20)



edge protection

Clamping zone (mm)	Length (mm)	Order No. plastic	Weight (kg/m)
0.75 - 4	Yard goods	15V13-A	0.14
0.75 - 4	Yard goods	18V13-A	0.14

cover 15W12-... / 16W12-... for cable tray,
fixing clip 173W12-K110, locking device 16N12-V / 16N14-V
fixing spring 17W12-K

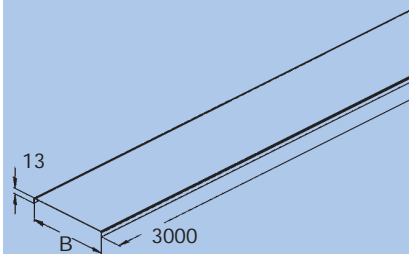
15
16 W12-...
17
16 N...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- suitable for all tray widths from 100 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

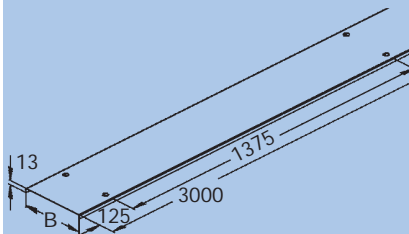
Fixing details

→ Fix cover with fixing clip 173W12-K or fixing spring 17W12-K.



cover without locking

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100	2,85	16W12-100	2,99
200	15W12-200	5,25	16W12-200	5,51
300	15W12-300	7,70	16W12-300	8,09
400	15W12-400	10,10	16W12-400	10,61
500	15W12-500	12,50	16W12-500	16,28
600	15W12-600	14,90	16W12-600	15,65



cover with locking for standard tray

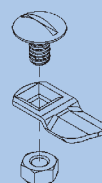
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100-R	2,90	16W12-100-R	2,99
200	15W12-200-R	5,31	16W12-200-R	5,58
300	15W12-300-R	7,78	16W12-300-R	8,17
400	15W12-400-R	10,18	16W12-400-R	10,69
500	15W12-500-R	12,60	16W12-500-R	13,23
600	15W12-600-R	15,00	16W12-600-R	15,75

pre-mounted locking device 16N12-V



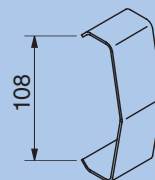
locking device for cover standard trays

Order No. hot dip galv.	Weight (kg/St.)
16N12-V	0,02



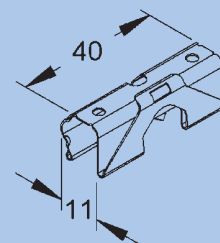
Locking device for jointing piece

Order No. hot dip galv.	Weight (kg/St.)
16N14-V	0,02



fixing clip

Order No. stainless steel	Weight (kg/pce.)
173W12-K110	0,03



fixing spring for covers of cable trays

Order No. stainless steel	Weight (kg/pce.)
17W12-K	0,05

Standard trays - System 110

Covers for molded components

15
16
W12-...

cover 15W12-...-B / 16W12-...-B,
15W12-...-BR / 16W12-...-BR for bend,
cover 15W12-...-T / 16W12-...-T,
15W12-...-TR / 16W12-...-TR for extension tee

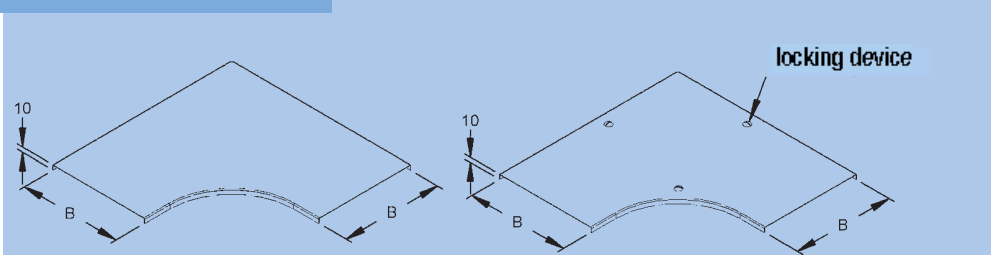
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- for all tray widths from 100 mm to 600 mm
Field of application	- cable protection

Ordering information

Fixing details

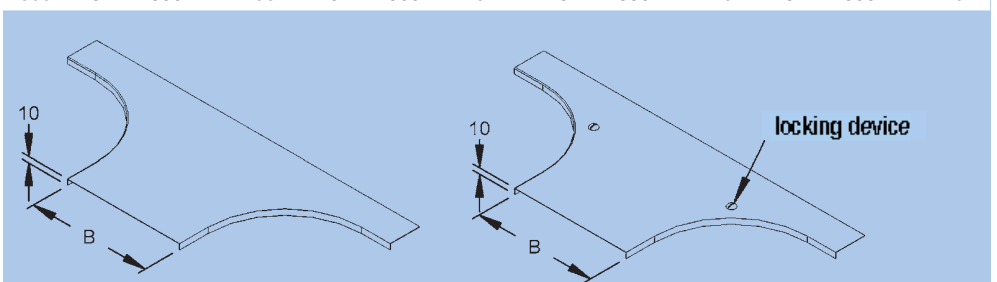
→ Fix cover with fixing clips
173W12-K.

Fixing material	Page
locking device 16N14-V	25
fixing clip 173W12-K	25



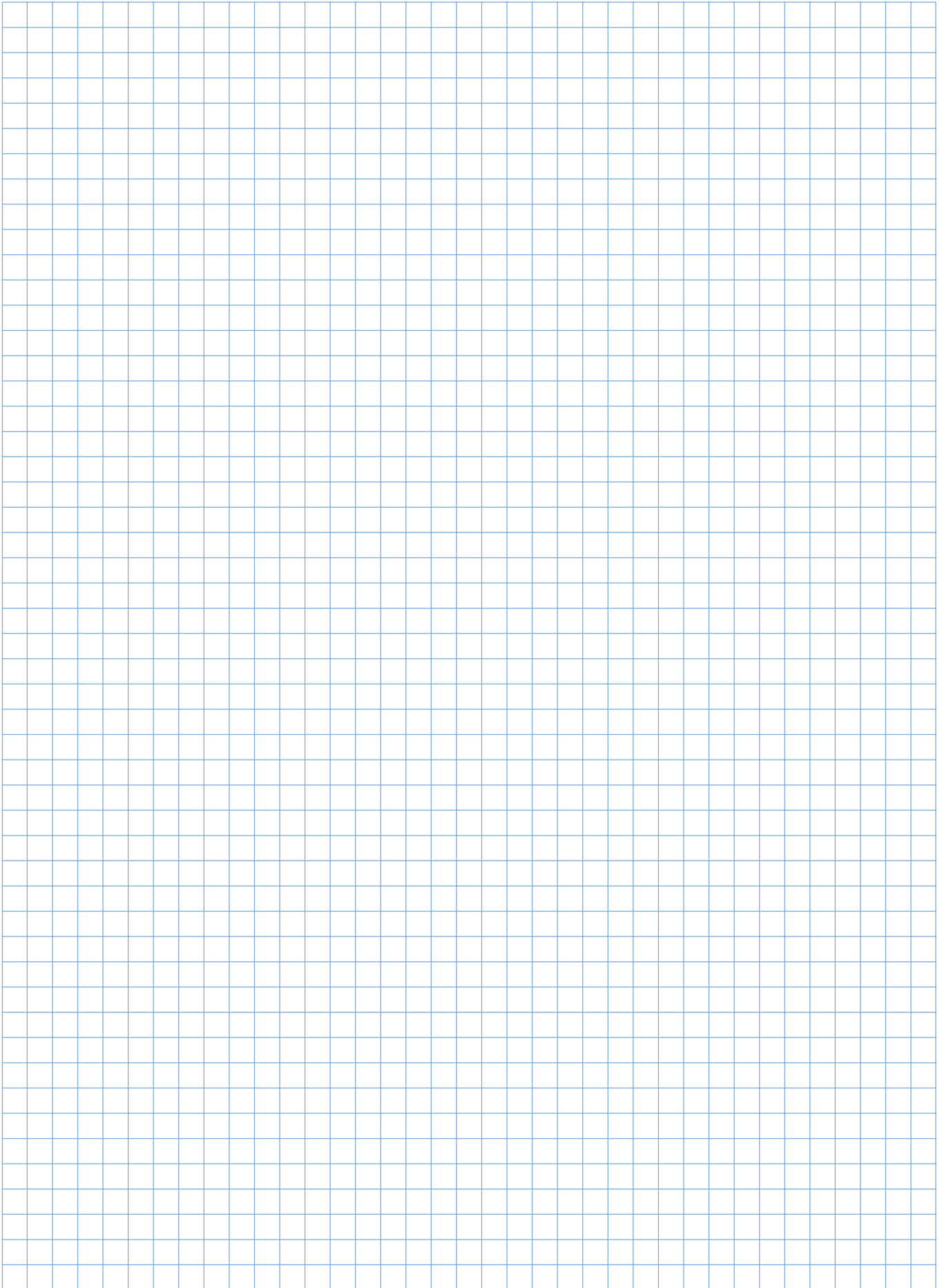
cover for bend

Width (mm)	without locking				with locking			
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100-B	0.37	16W12-100-B	0.40	15W12-100-BR	0.40	16W12-100-BR	0.43
200	15W12-200-B	0.95	16W12-200-B	1.02	15W12-200-BR	0.98	16W12-200-BR	1.01
300	15W12-300-B	1.60	16W12-300-B	2.84	15W12-300-BR	1.63	16W12-300-BR	1.66
400	15W12-400-B	2.65	16W12-400-B	2.84	15W12-400-BR	2.68	16W12-400-BR	2.71
500	15W12-500-B	3.69	16W12-500-B	3.95	15W12-500-BR	3.69	16W12-500-BR	3.72
600	15W12-600-B	4.88	16W12-600-B	5.22	15W12-600-BR	4.91	16W12-600-BR	4.94



cover for extension tee

Width (mm)	without locking				with locking			
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
100	15W12-100-T	0.50	16W12-100-T	0.53	15W12-100-TR	0.52	16W12-100-TR	0.55
200	15W12-200-T	0.70	16W12-200-T	0.75	15W12-200-TR	0.72	16W12-200-TR	0.77
300	15W12-300-T	0.90	16W12-300-T	0.96	15W12-300-TR	0.92	16W12-300-TR	0.98
400	15W12-400-T	1.40	16W12-400-T	1.50	15W12-400-TR	1.42	16W12-400-TR	1.71
500	15W12-500-T	1.60	16W12-500-T	1.71	15W12-500-TR	1.62	16W12-500-TR	1.73
600	15W12-600-T	1.90	16W12-600-T	2.03	15W12-600-TR	1.92	16W12-600-TR	2.05





Cable trays

RICO-INSTA cable trays for laying control cables and as lightning support.

The RICO-INSTA cable tray system with 60 mm side height for support spacing up to 3.0 m includes:

see system picture 16

Table of contents	page
-------------------	------

INSTA-tray

cable tray with 60 mm side height: 151N2-...	30
cable tray with 60 mm side height: 151N1-...	31

Accessory for INSTA-tray

universal jointing piece: 151N6-A	32
cover: 15N12-...	32
cable protector frame: 15N20-...	32

Fixing accessory for INSTA-tray

divider strip: 15N13-T, 151W13-A	33
connection plate for divider strip: 15N13-...	33
45°-edges 15N06-...	34
90°-edges 15N06..	35
end cover 15N...	36
cable fixing clip 17N.	36

INSTA trays - System 60

INSTA-tray

15
16
1N2-...

INSTA-tray 151N2-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327
Supply length	- 2000 mm
Technical data	- side height 60 mm - support distances 3000 mm - all oblong holes for screws M6
Field of application	- for control cables and as lighting support

Ordering information

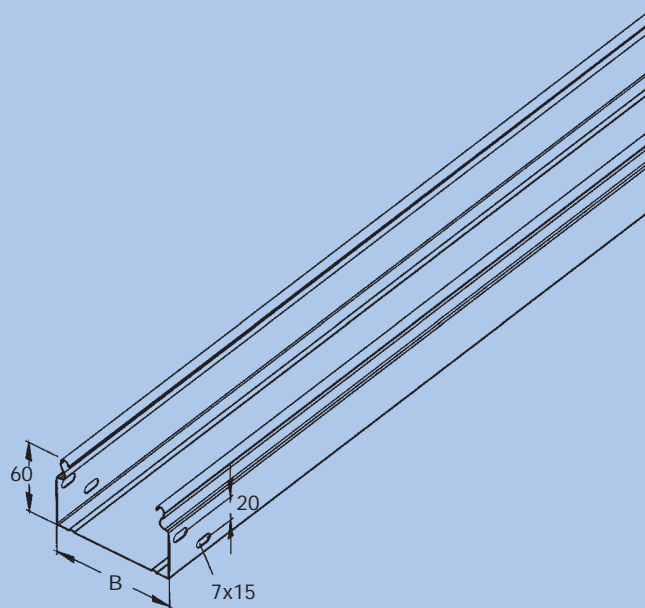
Fixing details

→ Use screws M6 for electrical bonding.

→ Use jointing piece 151N6-A to connect trays.

suspension

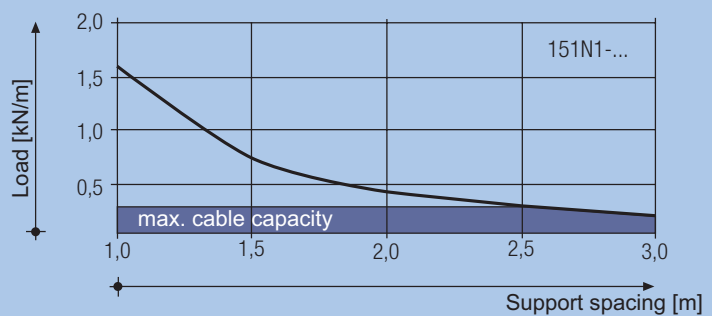
- low weight suspension look support construction S. 191



supply length 2000 mm

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)
60	151N2-06	2.40
100	151N2-10	2.87
150	151N2-15	4.15
200	151N2-20	4.85

Load diagram.



INSTA-tray 151N1-...



Material	- sheet steel - continuously hot galvanized according to DIN EN 10327
Supply length	- 2000 or 3000 mm
Technical data	- side height 60 mm - support distances 3000 mm - all oblong holes for screws M6 - floor openings 30 x 65 mm; side openings 20 x 65 mm - floor and side openings for cables up to \varnothing 28 mm
Field of application	- for control cables and as lighting support

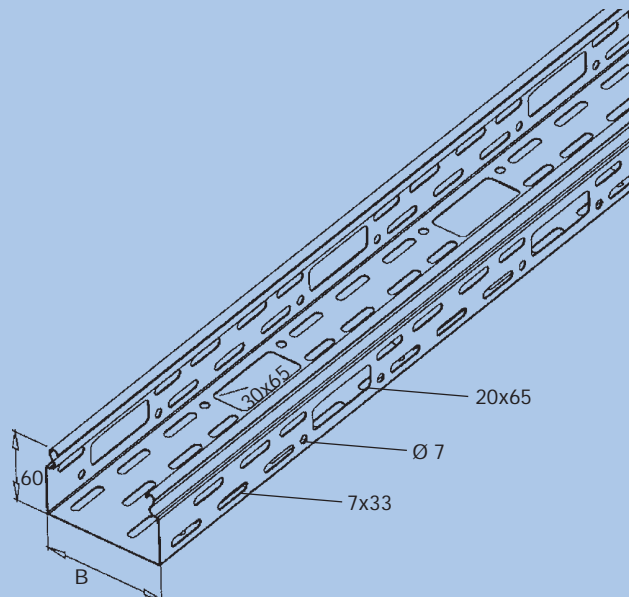
Ordering information

Fixing details

- Use screws M6 for electrical bonding.
- Use joining piece 151N6-A to connect trays.
- Insert a cable protector frame 15N20-30 in the case of cable outlets through the bottom openings.
- Insert a cable protector frame 15N20-20 in the case of cable outlet through the side openings.

Suspension

- low weight look support construction S. 191



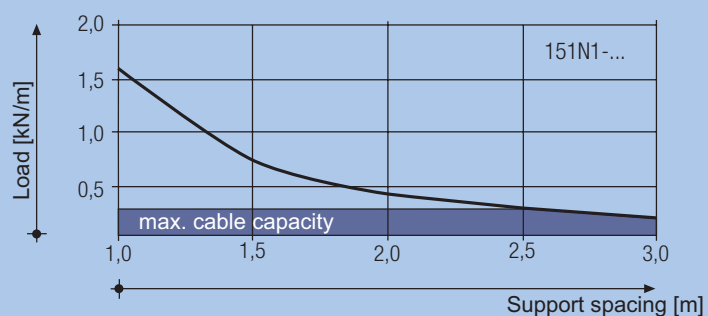
Supply length 2000 mm

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)
60	151N1-06-K	1.80
100	151N1-10-K	2.15
150	151N1-15-K	3.11
200	151N1-20-K	3.64

Supply length 3000 mm

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)
60	151N1-06	2.70
100	151N1-10	3.23
150	151N1-15	4.67
200	151N1-20	5.46

Load diagram



INSTA trays - System 60

Accessories for INSTA-tray

15
16
1N6-A

15
16
N12-...

15
16
N20-...

universal jointing piece 151N6-A, cover 15N12-..., cable protection 15N20-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327
Field of application	- universal jointing piece for making horizontal or vertical connection of cable trays - cover for cable protection

Ordering information

Fixing details

universal jointing piece

- Use jointing piece 151N6-A as bendable joint for changes in horizontal direction.
- For vertical changes of direction use two jointing piece 151N6-A and screw 16J6-B to make a hinge piece.
- For branches use two jointing pieces 151N6-A with screw 16J6-B to make a branching piece.

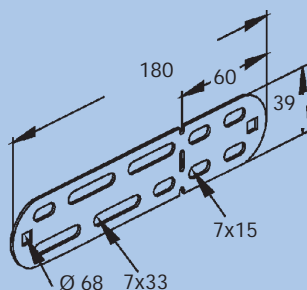
cover

- Cover to fix on the INSTA tray.

cable protection

- Insert a cable protector frame 15N20 in the case of cable outlets through the side openings. Insert a cable protector frame 15N20-30 in the case of cable outlets through the bottom openings.

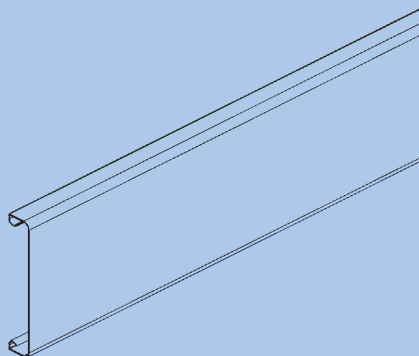
Fixing material	Page
Screw 16J6-B	12



universal jointing piece

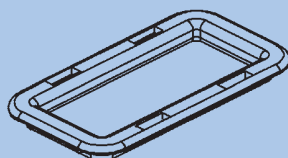
Order No.	Weight cont. hot galv. (kg/pce.)
151N6-A	0.08

including 4 screws
16J6-B (M6 x 12)



cover supply length 2000 mm

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)
60	15N12-06	1.30
100	15N12-10	1.77
150	15N12-15	2.83
200	15N12-20	3.53



cable protection for bottom and side openings plastic transparent

Dimension (mm)	Order No.	Weight (kg/pce.)
20x65	15N20-20	0.004
30x65	15N20-30	0.004

divider strip 15N13-T, 151W13-A, connection plate for divider strip 15N13-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327
Field of application	- suitable for all tray widths - divider strip for dividing cable trays for different kinds of cable

15 N...
16

15 1W13-A
16

Ordering information

Fixing details

divider strip for wall installation

→ Connection plate for divider strip is additionally necessary.

Divider strip for standard installation

Connection plate for divider strip

→ To lock into the tray bottom.
Potential compensation succeed automatically.

Fixing material	Page
screw 16J6B	12

divider strip for 151N2-...

Order No.	Weight cont. hot galv. (kg/pce.)
15N13-T	1.56

divider strip for 151N1-...

Order No.	Weight cont. hot galv. (kg/pce.)
151W13-A	1.56

! including 4 screws 16J6-B

connection plate for divider strip

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)
59	15N13-06	0.06
99	15N13-10	0.09
149	15N13-15	0.15
199	15N13-20	0.20

INSTA trays - System 60

Accessories for INSTA-tray

15
16 N...

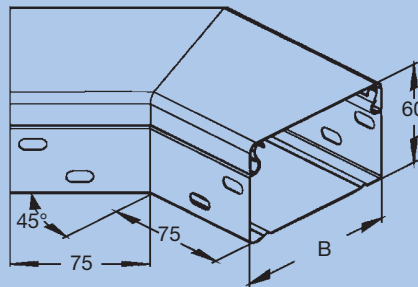
vertical edge 45° 15N..-V45-06, inner edge 45° 15N..-I45-06,
outer edge 45° 15N..-A45-06

Material	- steel - continuously hot galvanized according to DIN EN 10327
Field of application	- production of 45°-edges

Ordering information

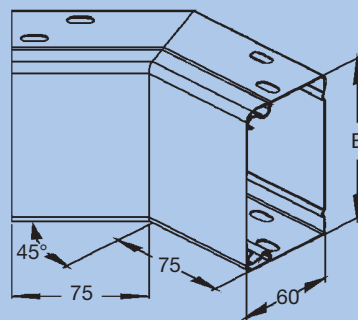
Fixing details

→ Bolt sides from edge and tray with straight joint 151N6-A.



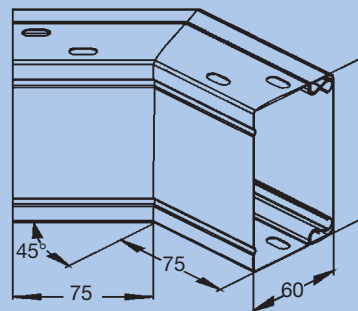
vertical edge 45° with cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-V45-06	0.38
100	15N10-V45-06	0.49
150	15N15-V45-06	0.66
200	15N20-V45-06	0.85



inner edge 45° with cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-I45-06	0.36
100	15N10-I45-06	0.46
150	15N15-I45-06	0.58
200	15N20-I45-06	0.71



outer edge 45° with cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-A45-06	0.42
100	15N10-A45-06	0.48
150	15N15-A45-06	0.59
200	15N20-A45-06	0.72

vertical edge 90° 15N.-V90-06, inner edge 90° 15N.-I90-06, outer edge 90° 15N.-A90-06



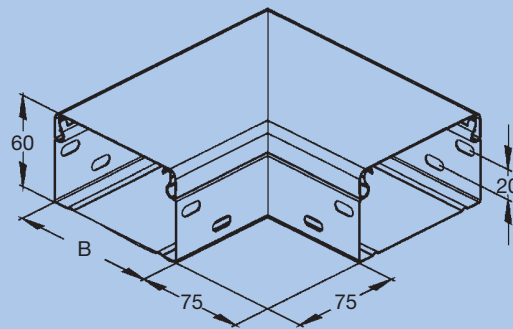
Material	- steel - continuously hot galvanized according to DIN EN 10327
Field of application	- production of 90° edges

Ordering information

Fixing details

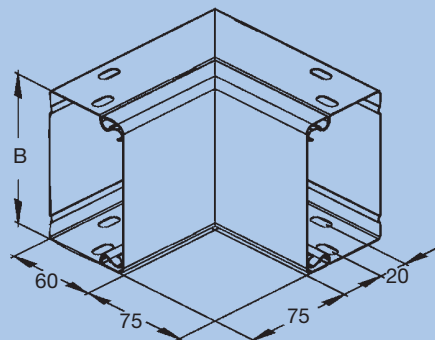
→ Bolt sides from edge and tray with straight joint 151N6-A.

Fixing material	Page
screw 16J6B	12



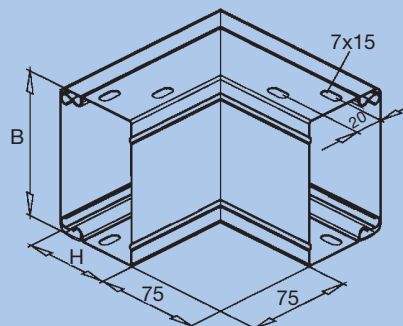
vertical edge 90° with cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-V90-06	0.47
100	15N10-V90-06	0.61
150	15N15-V90-06	0.83
200	15N20-V90-06	1.07



inner edge 90° with cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-I90-06	0.45
100	15N10-I90-06	0.58
150	15N15-I90-06	0.73
200	15N20-I90-06	0.89



outer edge 90° with cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-A90-06	0,53
100	15N10-A90-06	0,60
150	15N15A90-06	0,74
200	15N20-A90-06	0,90

INSTA trays- System 60

Accessories for INSTA-tray

15
16 N...

end cover 15N..-ED-06, cable fixing clip 17N..-K-06

Material	- steel - continuously hot galvanized according to DIN EN 10327
Field of application	- end cover of cable trays

Ordering information

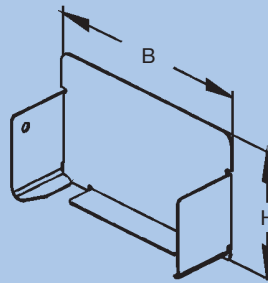
Fixing details

end cover

→ Shut open ends of INSTA-tray.

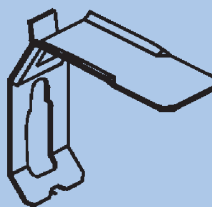
cable fixing clip

→ For safety mounting cables on the wall.



end cover

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)
60	15N06-ED-06	0.04
100	15N10-ED-06	0.05
150	15N15-ED-06	0.05
200	15N20-ED-06	0.06



cable fixing clip

Width (mm)	Order No. stainless steel	Weight (kg/m)
100	17N10-K-06	0.02
150	17N15-K-06	0.03
200	17N20-K-06	0.04





Cable trays

RICO-luminaire support tray for laying cables and lines as lighting support.

The RICO-luminaire support tray system with 50 mm side height for support spacing of up to 3.0 m includes:

Table of contents	Page
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Luminaire support tray	
Cable tray with 50 mm side height: 15N1-... / 16N1-...	40
Accessories for luminaire support tray	
Universal jointing piece: 15E11-... / 16E11-...	41
Cable protector: 15N20-20	41

Luminaire support trays - System 50

Luminaire support tray

15
16 N1-50

luminaire support tray 15N1-... / 16N1-... with thickness of sheet 1.5 mm

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10142 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	<ul style="list-style-type: none"> - side height 50 mm - width 50 mm or 100 mm - material thickness 1.5 mm - support spacing up to 3000 mm - side openings 20 x 65 mm as cable outlets at any point; - base openings 30 x 65 mm
Field of application	- for cables, lines, and as lighting support

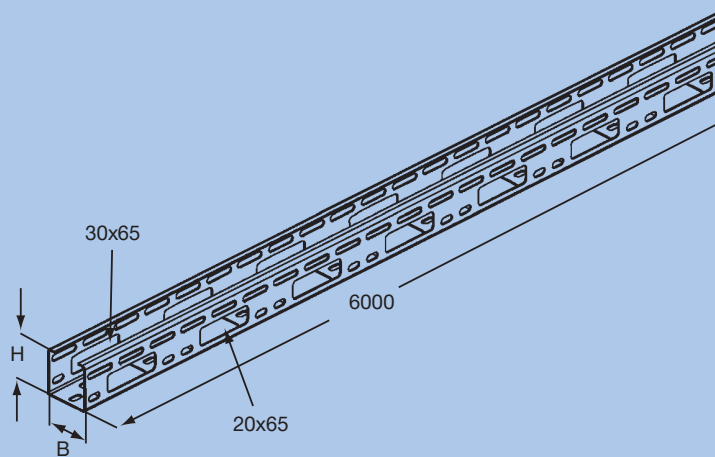
Ordering information

Fixing details

- Use M6 screws to fasten the lighting to the base.
- Use screws M8 for right angle connections.

Support

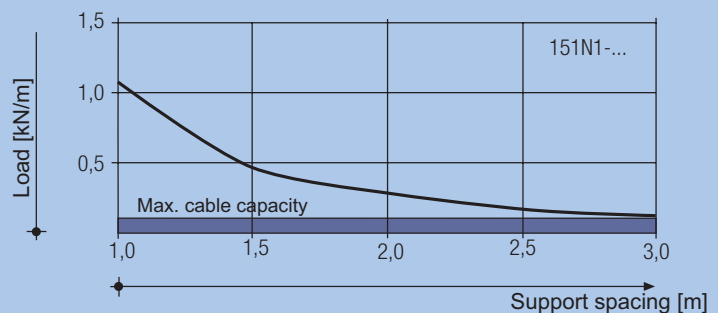
- low weight look support construction page 189



luminaire support tray

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
50	15N1-50	4,40	16N1-50	4,62
100	15N1-100	5,60	16N1-100	5,88

Load diagram

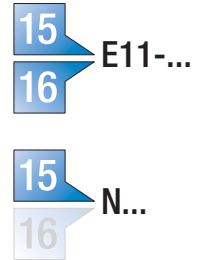


Luminaire support trays - System 50

Joining piece for luminaire support tray

joining piece 15E11-... / 16E11-..., cable protector 15N20-20 / 15N20-30

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10142 or hot dip galvanized according to DIN EN ISO 1461 - cable protector of plastic
Field of application	<ul style="list-style-type: none"> - joining piece for making straight, angular, upward or downward connection of trays - cable protector to protect cables when laying cables through base and side openings



Cable trays

Ordering information

Fixing material

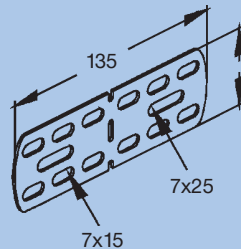
universal jointing piece

→ Use universal jointing piece as straight joint, bendable joint, hinge piece and tee.

cable protector

→ Insert a cable protector frame 15N20-30 in the case of cable outlets through the bottom opening.

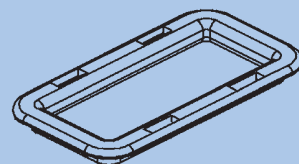
→ Insert a cable protector frame 15N20-20 in the case of cable outlets through the side opening.



universal jointing piece

Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
15E11-A	0,07	16E11-A	0,74

including 2 screws 16J6-B (M6x12)



cable protector for side and bottom openings, transparent plastic.

Order No. plastic	Weight (kg/pce.)
15N20-20	0,003
15N20-30	0,004



Trellis trays

RICO-trellis tray for light electric installations:
its special advantage is that it allows running cable on all sides.

**The RICO-trellis tray system with 60 mm side height
and 1.5 m standard support spacing includes:**

see system pictures 5

Table of contents

Page

Trellis tray

cable tray with 60 mm side height: 131S1-... / 161S1-...	44
--	----

Hanger rods for trellis tray

horizontal support: 16U1-3000	45
standard hanger rod: 16U2-200	45
hanging support: 16U12-..., hook screw: 16S14-B	45
support corner: 16U6-A, Fixing screw: 16J6-S	46
hanging bracket: 16S13-B	46

Accessories for trellis tray

universal jointing piece: 15S14-A / 16S14-A	46
divider strip: 15S13-A / 16S13-A	46
jointing piece without screws: 15S14-E / 17S14-E	46
threaded rods for fixing: 15S16-A / 16S16-A	46
mounting bracket: 15S17-A	46
trellis trays connection plate 15S17-B	46
trellis trays fixing clip 15S17-D / 17S17-D	46

Trellis trays - System 60

Trellis tray

15
16
1S1-...

trellis tray 131S1-... / 161S1-...

Material	- steel wire - electrogalvanized according to DIN 50 961 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 60 mm; side height 85 mm/110 mm on request - standard support spacing 1.5 m
Anwendungsbereich	- suitable for all electric installations

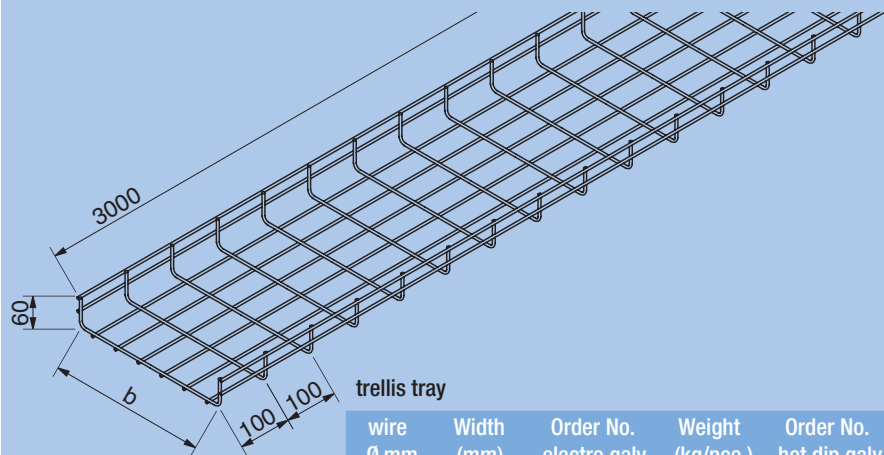
Ordering information

Fixing details

- Installation on brackets.
- For horizontal and vertical trellis tray curves cut out longitudinal and transverse wires.
- Use universal jointing piece 15S14-A / 16S14-A to fix tray and bends.

Right angle connection of trellis tray

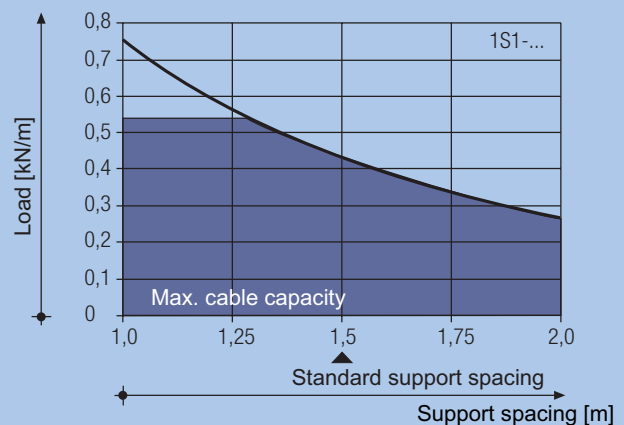
- Cut out sides sections of the trellis trays.
- Fix trellis tray at contacting points with universal jointing piece 15S14-A / 16S14-A.



wire Ø mm	Width (mm)	Order No. electro galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
4.0	60	131S1-50	1.66	161S1-50	1.74
4.0	100	131S1-100	2.38	161S1-100	2.50
4.5	200	131S1-200	3.57	161S1-200	3.75
4.8	300	131S1-300	4.14	161S1-300	4.35
4.8	400	131S1-400	6.00	161S1-400	6.30
4.8	500	131S1-500	7.30	161S1-500	7.67
4.8	600	131S1-600	8.59	161S1-600	9.02

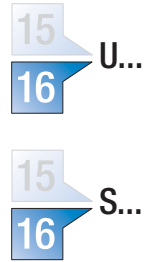
other edge height upon request

Load diagram



horizontal support bar 16U1-3000, standard hanger rod 16U2-200, hanging support 16U12-..., hook screw 16S14-B

Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Field of application	- to fix trellis tray to walls and ceilings

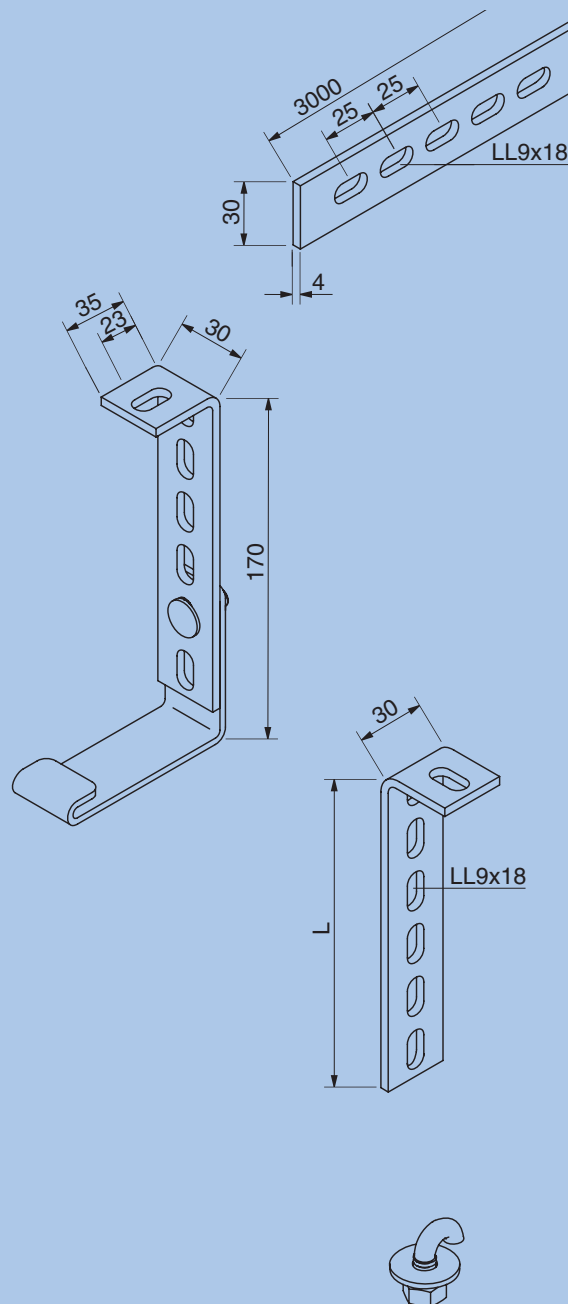


Ordering information

Fixing details

- Use standard hanger rod 16U2-200 as middle hanging bracket facing in alternative directions for ceiling fixing or trellis trays 200 mm and 300 mm wide.
- If other distances from the ceiling are required, use support corner 16U6-A, hanging support 16U12-..., hanging bracket 16S13-B and fixing screw 16J6-S or support corner 16U6-A, horizontal support bar 16U1-3000, hanging 16S13-B and two fixing screw 16J6-S.

Fixing material	Page
screw 16J6-S (M8x20)	187



horizontal support bar

Length (mm)	Order No. hoz dip galv.	Weight (kg/pce.)
3000	16U1-3000	2.60

standard hanger rod

Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
170	16U2-200	0.45

including screw 16J6-S (M8x20)

hanging support

Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
150	16U12-150	0.15
200	16U12-200	0.18
300	16U12-300	0.25
400	16U12-400	0.33
500	16U12-500	0.40
600	16U12-600	0.48
700	16U12-700	0.55
800	16U12-800	0.63
900	16U12-900	0.70
1000	16U12-1000	0.88

hook screw M6

Order No. hot dip galv.	Weight (kg/pce.)
16S14-B	0.01

Trellis trays - System 60

Hanger rods, accessories for trellis tray

15
16 U6-A

15
16 S...

support corner 16U6-A, fixing screw 16J6-S,
hanging bracket 16S13-B,
universal jointing piece 15S14-A / 16S14-A,
divider strip 15S13-A / 16S13-A

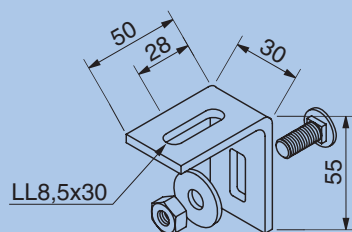
Material	<ul style="list-style-type: none"> - sheet steel - hot dip galvanized according to DIN EN ISO 1461 - straight joint and divider strip also continuously hot galv. according to DIN EN 10327
Field of application	<ul style="list-style-type: none"> - to fix trellis tray to walls and ceilings - universal jointing piece to make tray connections - divider strip to divide the tray for different types of cable

Ordering information

Fixing details

→ Universal jointing piece 15S14-A / 16S14-A for right angle connection of trellis tray.

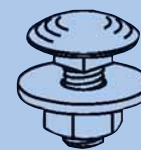
Fixing material	Page
screw 16J6-S (M8x20)	187



support corner

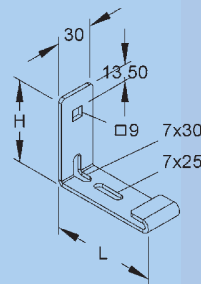
Order No.	Weight hot dip galv. (kg/pce.)
16U6-A	0.12

including screw 16J6-S (M8x20)



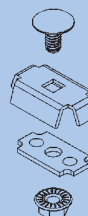
fixing screw M8 x 20

Order No.	Weight hot dip galv. (kg/pce.)
16J6-S	0.04



hanging brackets, simple

Order No.	Weight hot dip galv. (kg/pce.)
16S13-B	0.27



universal jointing piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
15S14-A	0.03	16S14-A	0.03

divider strip, supply length 3000 mm

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
15S13-A	1.50	16S13-A	1.58

including 4 fixing screws 16S14-B

jointing piece screwless 15S14-E / 17S14-E,
 threaded rods for fixing 15S16-A / 16S16-A, mounting brackets 15S17-A
 trellis tray connection plate 15S17-B,
 trellis tray fixing clip 15S17-D, 17S17-D

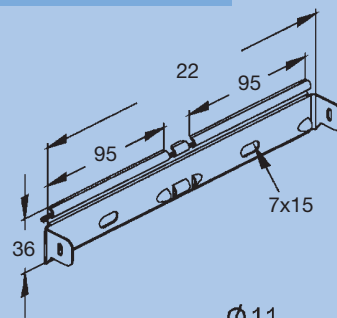
15
 16 S...

Material	- steel - continuously hot galvanized according to DIN EN 10327 or - hot dip galvanized according to DIN EN ISO 1461
Field of application	- to fix trellis tray to wall and ceilings

Ordering information

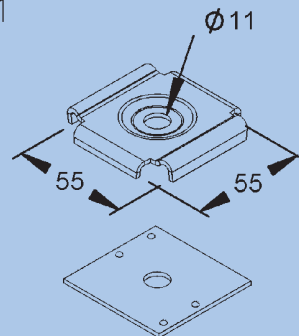
Fixing details

- Jointing piece for screwless connection, as tool is only needed a screwdriver.
- Fix threaded rods for fixing to ceilings / mounting disconnection with winding shaft M10.
- Mounting bracket for a screwless protection of the trellis tray on the wall.



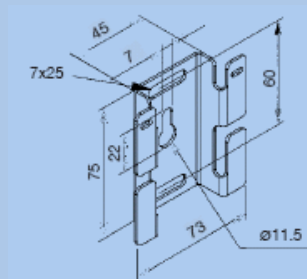
jointing piece without screws

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight stainless steel (kg/pce.)
15S14-E	0.08	17S14-E	0.08



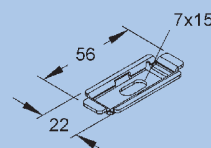
threaded rods for fixing

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
15S16-A	0.10	16S16-A	0.11



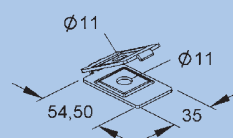
mounting bracket

Order No.	Weight cont. hot galv. (kg/pce.)
15S17-A	0.10



trellis tray connection plate

Order No.	Weight cont. hot galv. (kg/pce.)
15S17-B	0.01



trellis tray fixing clip

Order No.	Weight cont. hot galv./V2A (kg/pce.)
15S17-D	0.06
17S17-D	0.06



C-trellis cable trays

RICO-C-trellis cable trays for a flexible laying of cables, lines and tubes.

The RICO C-trellis tray system with 68 mm side height for the standard support spacing 2.0 m includes:

see system pictures 6

Table of contents Page

Cable trays

C-trellis trays: 16S1-...-C, hook screw: 16S14-B	50
--	----

Joining piece

universal joining piece: 15S14-A / 16S14-A, divider strip: 15S13-A / 16S13-A	51
--	----

hinge piece: 16S11-C...	52
-------------------------	----

C-trellis tray - System

C-trellis cable tray

16 S1-...-C

C-trellis cable tray 16S1-...-C hook screw 16S14-B

Material	- steel wire Ø 4,5 mm - hot dip galvanized according to DIN EN ISO 1461
Supply length	- ca. 3000 mm
Technical data	- side height 50 mm - standard support spacing 2 m -
Field of application	- suitable for low weight electro-installations and as supply line for ultimate user.

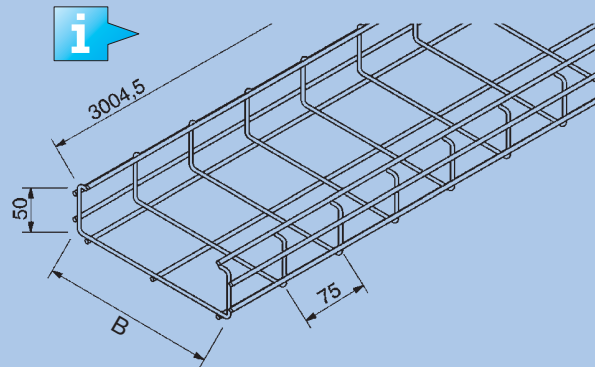
Ordering information

Fixing details

- Mounting on brackets.
- Hook screw 16S14-B for fixing C-trellis tray on brackets.
- For horizontal C-trellis tray cut out longitudinal and transverse wires.
- Connection of C-trellis tray with jointing piece 15S14-A / 16S14-A.
- Jointing piece and additional connection on the floor of the C-trellis-cable tray.
- Use hinge piece 16S11-... for vertical C-trellis-cable trays.

Right angle connection of trellis cable tray

- Put on C-trellis tray at connecting points on highest side edge and fix it with universal jointing piece 15S14-A / 16S14-A.



C-trellis tray

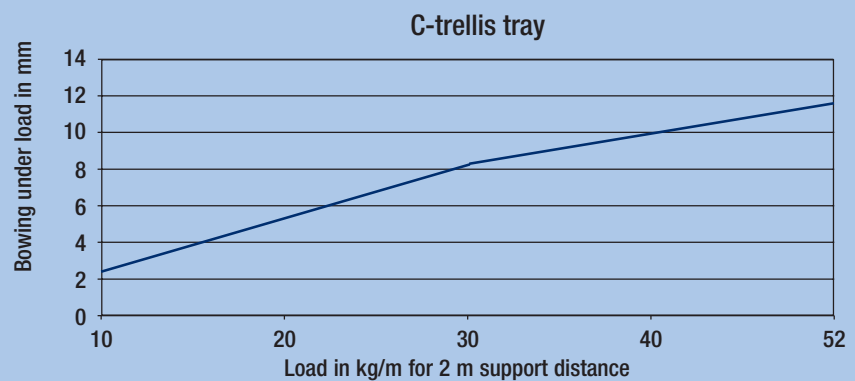
Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
68	16S1-50-C	4.24
118	16S1-100-C	4.52
218	16S1-200-C	5.88
318	16S1-300-C	6.83

Hook screw M6



Order No. hot dip galv.	Weight (kg/pce.)
16S14-B	0.01

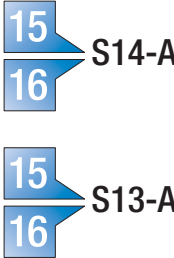
Load diagram



Joining piece and divider strip for C-trellis tray

universal joining piece 15S14-A / 16S14-A
divider strip 15S13-A / 16S13-A

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or - hot dip galvanized according to DIN EN ISO 1461
Field of application	<ul style="list-style-type: none"> - Universal joining piece for connecting trays and fixing bends. - divider strip for dividing trays for different kinds of cable

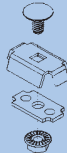


Cable trays

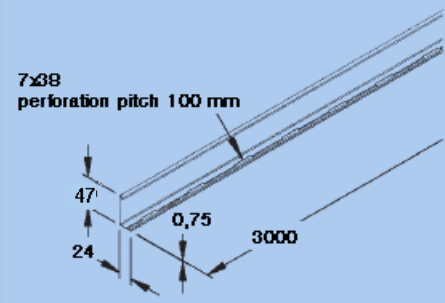
Ordering information

Fixing details

→ Use universal joining piece 15S14-A / 16S14-A for right angle and additional connections to the floors of the C-trellis trays.



universal joining piece	
Order No. hot dip galv.	Weight (kg/pce.)
16S14-A	0.03



divider strip, supply length 3000 mm

Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
15S13-A	1.50	16S13-A	1.58

including 4 fixing screws 16S14-B

C-trellis trays - System

Hinge joint for C-trellis cable tray

16 S11-C...

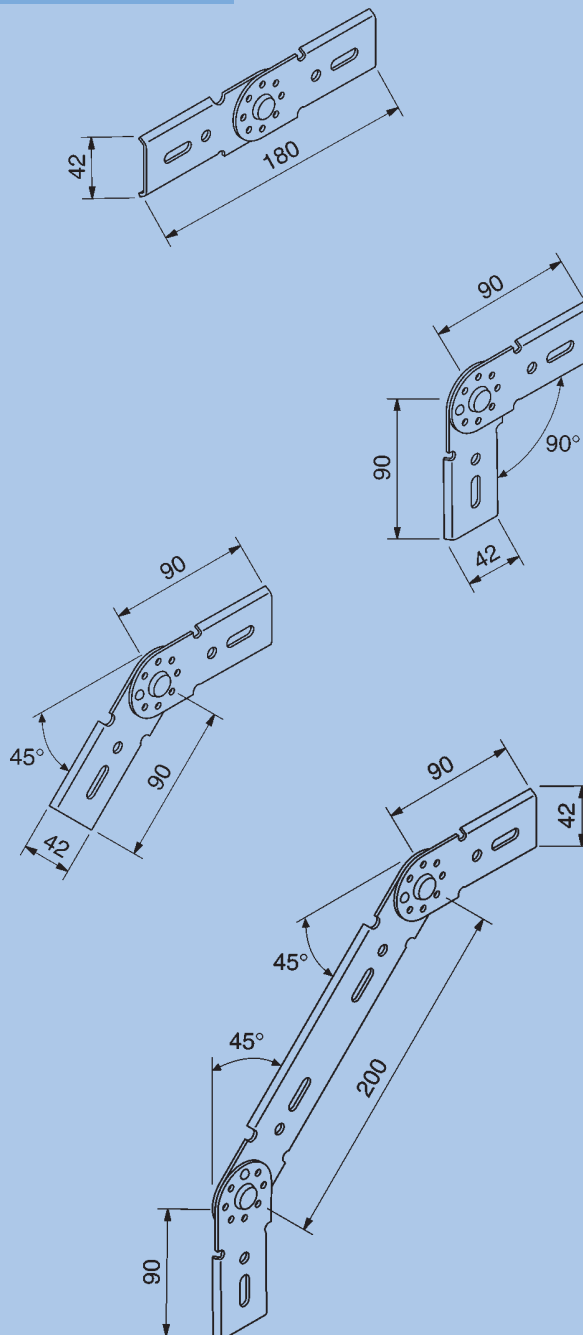
hinge joint for C-trellis tray 16S11-C, 16S11-C90, 16S11-C45, 16S11-C190

Material	<ul style="list-style-type: none"> - sheet steel - hot dip galvanized according to DIN EN ISO 1461
Field of application	<ul style="list-style-type: none"> - hinge joint for C-trellis tray - fixing 90° - fixing 45° - fixing 90° with a radius of R=150 mm

Ordering information

Fixing details

→ Fix hinge piece with hook screw 16S14-B at the C-trellis tray.



hinge piece for C-trellis trays

Order No. hot dip galv.	Weight (kg/pce.)
16S11-C	0.15

including 2 hook screws 16S14-B

hinge piece for C-trellis trays, fixing 90°

Order No. hot dip galv.	Weight (kg/pce.)
16S11-C90	0.15

including 2 hook screws 16S14-B

hinge piece for C-trellis trays, fixing 45°

Order No. hot dip galv.	Weight (kg/pce.)
16S11-C45	0.15

including 2 hook screws 16S14-B

hinge piece for C-trellis trays, fixing 90° with a radius of R=150 mm

Order No. hot dip galv.	Weight (kg/pce.)
16S11-C190	0.30

including 2 hook screws 16S14-B





Cable trays

RICO-plastic trays made of glass-fibre reinforced plastic for use in the chemical industry, in potassium and salt mines as well as in the pharmaceutical and foodstuff industries.

The RICO-plastic tray system with 60 mm side height for standard support spacing of up to 1.5 m includes:

Table of contents Page

Trays, unperforated or perforated

plastic tray, unperforated: 301M1-...	56
plastic tray, perforated: 301M2-...	56

Molded components for plastic trays

bend: 301M3-...	57
extension tee: 301M15-...	57

Joining piece for plastic trays

straight joint: 301M5-A	58
bendable joint: 171M5-B	58
hinge piece: 301M5-C	58

Accessories for plastic trays

divider strip 301M8-A	58
fixing clip 171W12-K	59

Covers

covers for trays : 30M6-...	59
covers for bend: 30M9-...	59
covers for extension tee: 30M10-...	59

Plastic trays - System 60

Plastic trays

30 ▶ 1M1-...

30 ▶ 1M2-...

plastic cable tray 301M1-..., 301M2-...

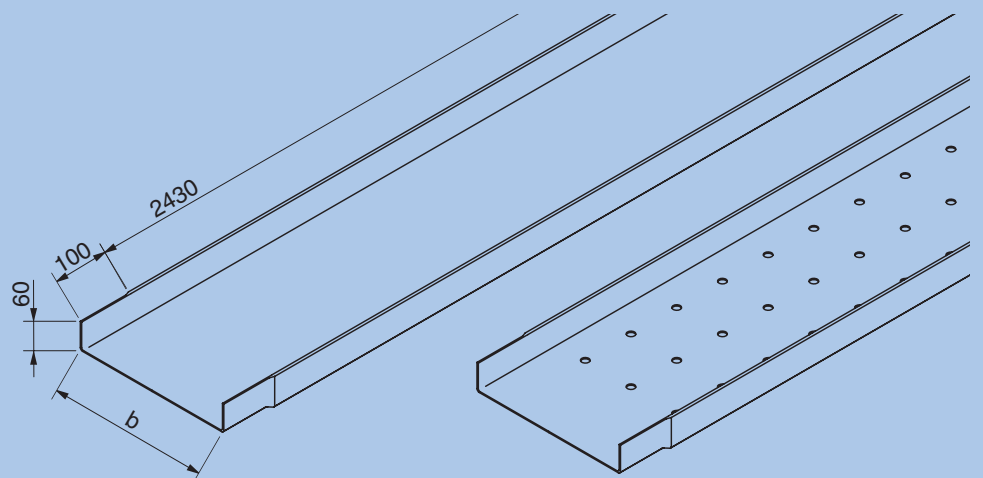
Material	<ul style="list-style-type: none"> - glass fibre reinforced polyester - free of silicone and halogen - colour: RAL 7030
Supply length	- 2530 mm, useful length 2430 mm
Technische Daten	<ul style="list-style-type: none"> - side height 60 mm - resistant to acids and caustic solutions - cold- and heat- resistant from -60°C to +100°C - fulfils fire classification UL 94 HB (DIN 4102/classification B2) - corrosiveness of inflammable gases acc. to VDE 0207, section 23/24
Field of application	- chemical industries, potash/saltmines, food industries, pharmaceutical industries

Ordering information

Fixing details

- Use screw 17M5-E to screw trays, bends and tees to the sleeve section.
- Use straight joints 301M5-A with screws 17M5-E to connect sleeveless parts.
- Use bend 301M3-... to produce curves.
- Use extension tee 301M4-... to produce junctions.

Fixing material	Page
screw 17M5-E	58

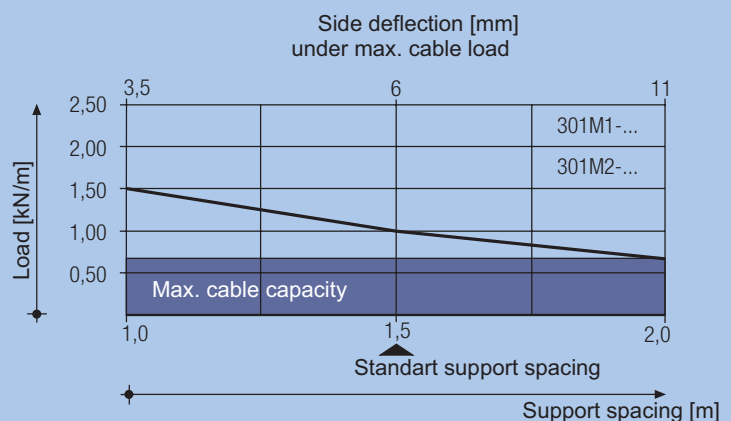


plastic cable tray GFK

Width (mm)	Order No. unperforated	Weight (kg/pce.)	Order No. perforated	Weight (kg/pce.)
120	301M1-100	3.85	301M2-100	3.81
220	301M1-200	5.10	301M2-200	5.05
320	301M1-300	7.55	301M2-300	7.50
420	301M1-400	9.35	301M2-400	9.28

including A2-screws 17M5-E (M6x16) for sleeve joint

Load diagram



bend 301M3-..., extension tee 301M15-...

30 1M3-...

30 1M15-...

Material	<ul style="list-style-type: none"> - glass fibre reinforced polyester - free of silicone and halogen - colour: RAL 7030
Technical data	<ul style="list-style-type: none"> - suitable for all tray widths from 120 mm to 420 mm - resistant to acids and caustic solutions - cold and heat resistant -60°C to $+100^{\circ}\text{C}$ - fulfils fire classification UL 94 HB (DIN 4102/classification B2), - corrosivness of inflammable gases VDE 0207, section 23/24
Field of application	<ul style="list-style-type: none"> - bend for making horizontal 90° curves - extension tee for making horizontal 90° junctions and 90° curves

Ordering information

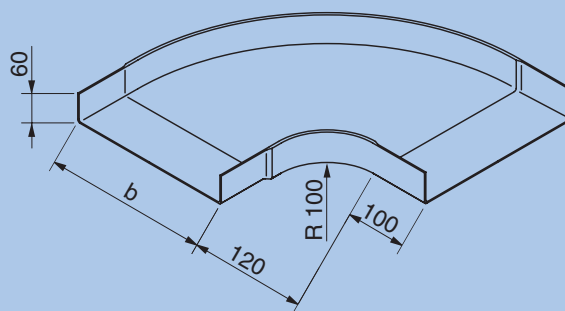
Fixing details

- Use screws 17M5-E to screw trays, bends, and extension tees to the sleeve section.
- Use straight joints 301M5-A with screws 17M5-E to connect sleeveless parts.

Tee

- Cut out side sections of the plastic trays (Length of the cut-out section = length of the tee minus 60 mm).
- Fasten extension tee to cable tray with screws 17M5-E.

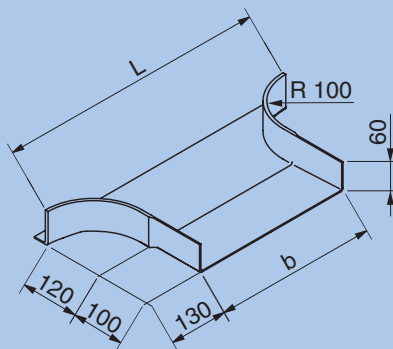
Fixing material	Page
screw 17M5-E	58



bend GFK

Width (mm)	Order No. plastic	Weight (kg/pce.)
120	301M3-100	0.76
220	301M3-200	1.33
320	301M3-300	2.03
420	301M3-400	3.28

including A2 screws 17M5-E (M6x16) for sleeve joint



extension tee GFK

Width (mm)	Length (mm)	Order No. plastic	Weight (kg/pce.)
120	380	301M15-100	0.52
220	480	301M15-200	0.72
320	580	301M15-300	0.92
420	680	301M15-400	1.12

including A2-screws 17M5-E (M6x16) for sleeve joint and connection to the continuous glass-fibre reinforced plastic tray.

Plastic trays - System 60

Joining pieces, accessories for plastic trays

30 1M5-...

joining pieces 301M5-..., 171M5-B, fixing screw 17M5-E, divider strip 301M8-A

17 1M5-B

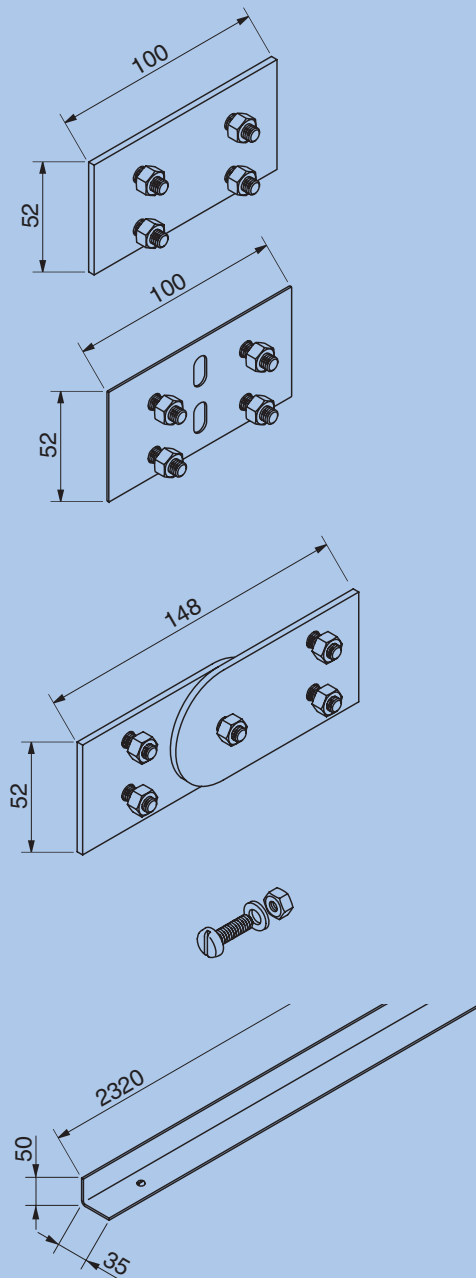
30 1M8-A

Material	- glass fibre reinforced polyester - colour: RAL 7030 - stainless steel, A2
Technical data	- suitable for all tray widths from 120 mm to 420 mm - resistant to acids and caustic solutions - cold and heat resistant from -60°C to +100°C, - fulfils fire classification UL 94 HB (DIN 4102/classification B2), - corrosiveness of inflammable gases acc. to VDE 0207, section 23/24
Field of application	- joining piece for marking straight, angular, upward to downward connection of cable trays

Ordering information

Fixing details

- Straight joint for sleeveless connection with straight joint 301M5-A.
- Bendable joint for horizontal curves of up to 90° with bendable joint 171M5-B.
- Hinge piece for upward and downward plastic trays with hinge piece 301M5C.



straight joint GFK

Order No.	Weight (kg/pce.)
301M5-A	0.06

including 4 screws 17M5-E (M6x16)

bendable joint

Order No.	Weight (kg/pce.)
171M5-B	0.05

including 4 screws 17M5-E (M6x16)

hinge piece GFK

Order No.	Weight (kg/pce.)
301M5-C	0.08

including 4 screws 17M5-E (M6x16)

fixing screw M6x16

Order No.	Weight (kg/pce.)
17M5-E	0.01

divider strip GFK supply length 2320 mm

Order No.	Weight (kg/pce.)
301M8-A	1.35

including 4 screws 17M5-E (M6x16)

cover 30M6-..., 30M9-..., 30M10-..., fixing clip 171W12-K

Material	<ul style="list-style-type: none"> - glass fibre reinforced polyester - colour: RAL 7030 - stainless steel, 1.4310 (V2A)
Technical data	<ul style="list-style-type: none"> - suitable for all tray widths from 120 mm to 420 mm - resistant to acid and caustic solutions - cold and heat resistant from -60°C to +100°C, - fulfils fire classification UL 94 HB (DIN 4102/classification B2), - corrosiveness of inflammable gases acc. to VDE 0207, Teil 23/24
Field of application	<ul style="list-style-type: none"> - cable protection

30 M6-...

30 M9-...

30 M10-...

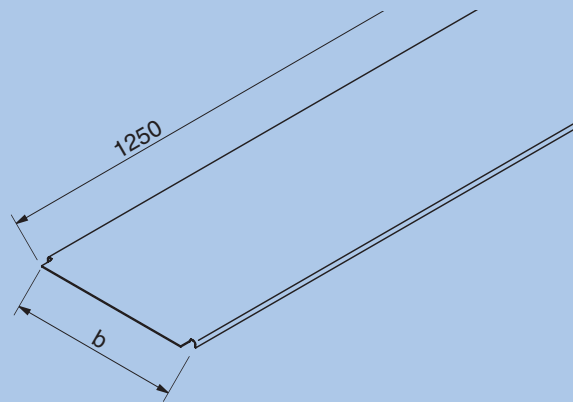
Ordering information

Fixing details

→ Fix covers with fixing clip 171W12-K.

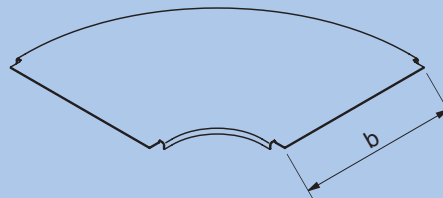
Befestigung im Freien

→ Strap tapes around the cable tray and cover.



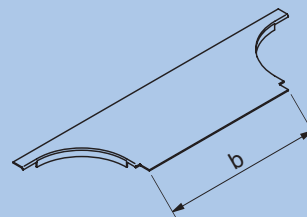
cover GFK s
supply length 1250 mm

Width (mm)	Order No. plastic	Weight (kg/pce.)
125	30M6-100	0.63
225	30M6-200	1.05
325	30M6-300	1.48
425	30M6-400	1.90



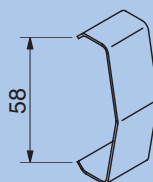
cover GFK for bend

Width (mm)	Order No. plastic	Weight (kg/pce.)
125	30M9-100	0.15
225	30M9-200	0.35
325	30M9-300	0.57
425	30M9-400	0.84



cover GFK for extension tee

Width (mm)	Order No. plastic	Weight (kg/pce.)
125	30M10-100	0.12
225	30M10-200	0.19
325	30M10-300	0.24
425	30M10-400	0.30



fixing clip

Order No. stainl. steel	Weight (kg/pce.)
171W12-K	0.02



Cable ladders

This chapter contains an overview of the RICO cable ladder systems for various loads and applications, subdivided into product families.

see system pictures 7 and 8

Table of contents	Page
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	Standard cable ladders	
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	60 mm side height, standard support spacing 1.5 m	55
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	100 mm side height, standard support spacing bis 3.0 m	63
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Cable ladders

RICO-Cable ladders for laying cables and lines, especially power lines for various loads.

The RICO standard cable ladder systems with 60 mm side height for a standard support spacing of 1.5 m include:

see system pictures

Table of contents Page

Cable ladders	
light-duty design: 151C1-...-L63 / 161C1-...-L63	64
heavy-duty design: 151C1-...-S63 / 161C1-...-S63	64
Molded components for cable ladders	
bend: 151C2-...-A / 161C2-...-A	65
extension tee: 151C15-... / 161C15-...	65
crossing 151C20-... / 161C20-...	66
exit plate: 16C8-...-B	66
Joining pieces for cable ladders	
straight joint, bendable joint and hinge piece: 151E11-... / 161E11-...	67
screw: 16J6-P	67
hold down clamp: 16J6-A	67
Accessory for cable ladders	
divider strip: 150C13-A / 160C13-A	68
Support corner: 16U6-A	68
Flat corner: 16C7-400-A	68
screw: 16C8-Z	68
Covers	
covers for ladders, without or with locking: 15W12-... / 16W12-...	69
covers for molded components: 15C12-...-A / 16C12-...-A, 15C12-...-AR / 16C12-...-AR, 15C12-...-T / 16C12-...-T, 15C12-...-TR / 16C12-...-TR	70
Accessory for covers	
locking device 16N12-V	69
fixing clip 171W12-K	69

Standard cable ladders - System 60

Cable ladder

15
16
1C1-...L63

15
16
1C1-...S63

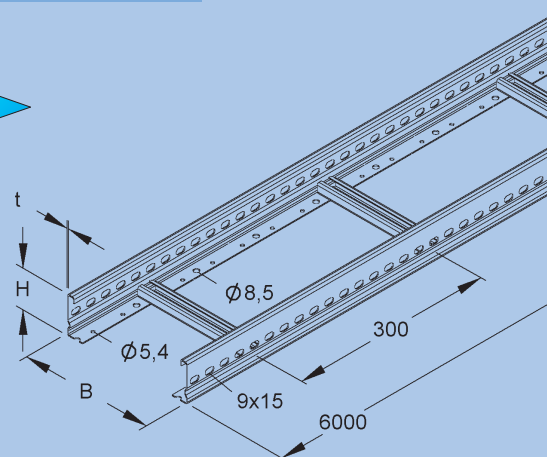
cable ladder 151C1-...-L63 / 161C1-...-L63 with thickness 1.5 mm
cable ladder 151C1-...-S63 / 161C1-...-S63 with thickness 2.0 mm

Material	<ul style="list-style-type: none"> - sheet steel, sides perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	<ul style="list-style-type: none"> - 6000 mm, 3000 mm deliverable upon request - cable ladders are delivered folded to reduce transport volume
Technical data	<ul style="list-style-type: none"> - side height 60 mm, thickness 1.5 mm or 2.0 mm - standard support spacing 1.5 m - rungs of C-profiles 25x10 mm perforated are riveted with 11 mm slots open to topside
Field of application	<ul style="list-style-type: none"> - installation on brackets and consoles

Ordering information

Fixing details

- Use hold down clamp 16J6-A when fixing on brackets.
- Use bend 151C2-... / 161C2-... to produce curves.
- Use extension tee 151C15-... / 161C15-... to produce junctions.
- Use jointing pieces 151E11-... / 161E11-... to connect trays.



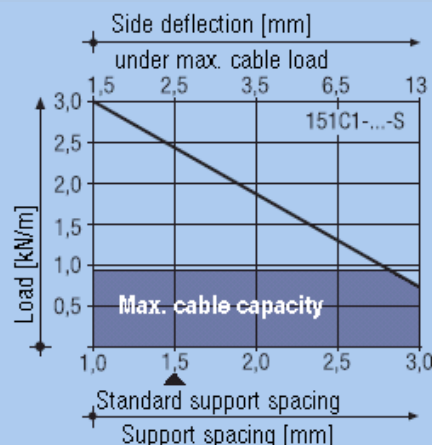
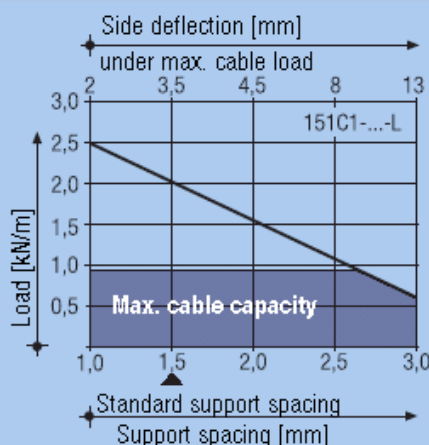
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	151C1-200-L63	15.00	161C1-200-L63	15.75	151C1-200-S63	18.19	161C1-200-S63	21.00
300	151C1-300-L63	15.60	161C1-300-L63	16.38	151C1-300-S63	19.73	161C1-300-S63	21.90
400	151C1-400-L63	16.50	161C1-400-L63	17.33	151C1-400-S63	20.55	161C1-400-S63	22.90
500	151C1-500-L63	19.20	161C1-500-L63	20.16	151C1-500-S63	23.14	161C1-500-S63	25.90
600	151C1-600-L63	20.40	161C1-600-L63	21.42	151C1-600-S63	24.31	161C1-600-S63	27.30

Fixing material

Page

hold down clamp 16J6-A 67
 protective end cap for rung 15J8-S25 194

Load diagram



Standard cable ladders - System 60

Molded components for cable ladders

bend 151C2-...-A / 161C2-...-A, extension tee 151C15-... / 161C15-...

15
16 → 1C2-...-A

15
16 → 1C15-...

Material	- sheet steel , sides perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 60 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- bend for making horizontal 90° curves - extension tees for making 90° junctions, crossing made with 2 extension tees

- sheet steel , sides perforated
- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
- side height 60 mm
- suitable for all ladder widths from 200 mm to 600 mm
- bend for making horizontal 90° curves
- extension tees for making 90° junctions, crossing made with 2 extension tees

Ordering information

Fixing details

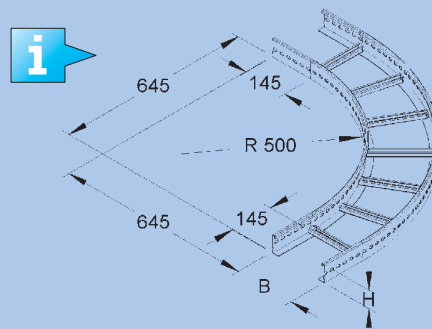
bend

- Connect sides of bend and ladder with straight joint 151E11-A / 161E11-A and screw 16J6-P.

extension tee

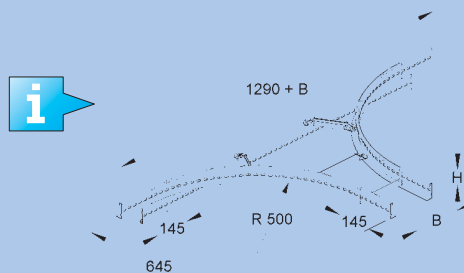
- Cut out ladder side (width of extension tee+ 1280 mm).
- Bore out the rung's rivets and seperated with chisel.
- Insert extension tee.
- Connect sides of extension tee and ladder with straight joint 151E11-A / 161E11-A and screws 16J6-P.
- Fasten loose ladder rungs to extension tee support side with fixing screws 16J6-H-V.

Fixing material	Page
screw 16J6-P	67



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	151C2-200-A	3.60	161C2-200-A	3.78
300	151C2-300-A	4.00	161C2-300-A	4.20
400	151C2-400-A	4.40	161C2-400-A	4.62
500	151C2-500-A	5.30	161C2-500-A	5.57
600	151C2-600-A	5.70	161C2-600-A	5.99



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	151C15-200	5.39	161C15-200	5.57
300	151C15-300	5.64	161C15-300	5.82
400	151C15-400	6.01	161C15-400	6.27
500	151C15-500	6.39	161C15-500	6.72
600	151C15-600	6.79	161C15-600	7.02

including 8 screws 15J6-H-V

Standard cable ladders - System 60

Molded components for cable ladders

15 1C20-...

16

15 C8-...-B

16

crossing 151C20-... / 161C20-...,
exit plate 16C8-...-B

Material

- sheet steel
- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461

Technical data

- suitable for all ladder widths from 200 mm to 600 mm

Field of application

- crossing for making horizontal 90° curves
- exit plate for cable protection in vertical cable bends

Ordering information

Fixing details

crossing

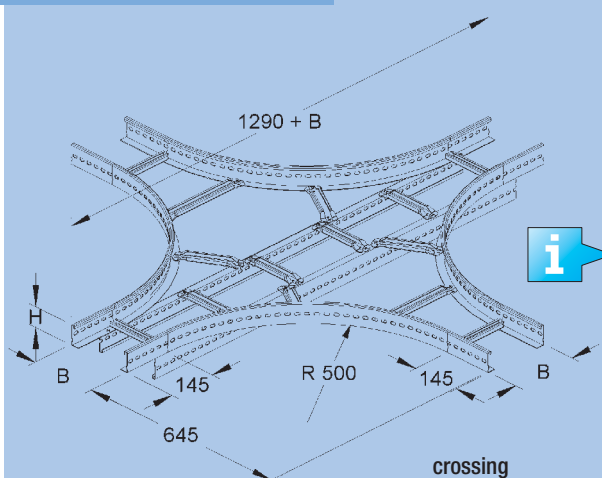
- Connect sides of crossing and ladders with straight joint 151E11-A / 161E11-A and screw 16J6-P.

Fixing material

screw 16J6-P

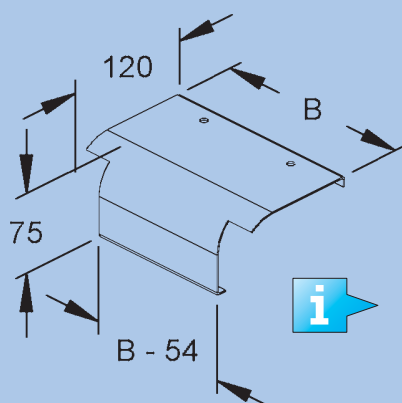
Page

67



crossing

Widths (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	151C20-200	6.80	161C20-200	7.14
300	151C20-300	7.50	161C20-300	7.88
400	151C20-400	8.30	161C20-400	8.72
500	151C20-500	9.80	161C20-500	10.29
600	151C20-600	11.00	161C20-600	11.55



exit plate

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
190	16C8-200-B	0.51
290	16C8-300-B	0.82
390	16C8-400-B	1.06
490	16C8-500-B	1.41
590	16C8-600-B	1.72

including 2 fixing screws

joining piece 151E11-... / 161E11-..., screw 16E1-Z, hold down clamp 16J6-A

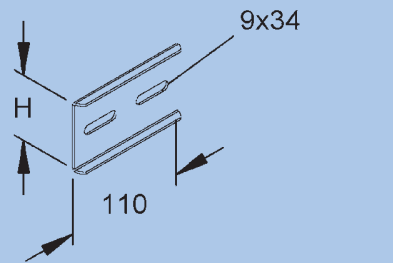
15
16 → 1E11-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 60 mm - suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	- to make straight, angular, upward or downward connection of cable ladders

Ordering information

Fixing details

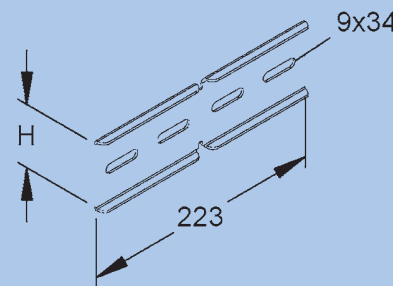
- Mount joining piece to or push it into ladder ends.
- Fasten joining piece and ladder side with 2 screws 16J6-P.



straight joint

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce.)	hot dip galv.	(kg/pce.)
151E11-A	0.14	161E11-A	0.15

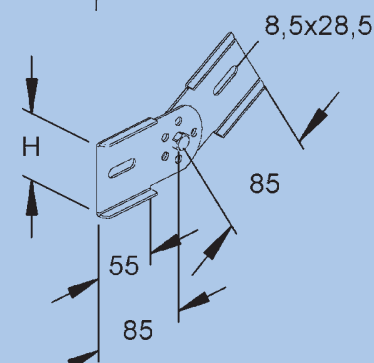
i including 2 screws 16J6-P (M8x16)



bendable joint

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce.)	hot dip galv.	(kg/pce.)
151E11-B	0.14	161E11-B	0.15

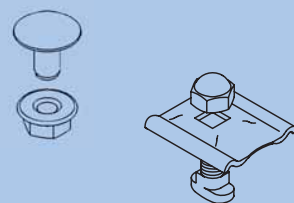
i including 4 screws 16J6-P (M8x16)



hinge piece

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce.)	hot dip galv.	(kg/pce.)
151E11-C	0.24	161E11-C	0.25

i including 2 screws 16J6-P (M8x16)



i accessories

	Order No.	Weight
	hot dip galv.	(kg/pce.)
Screw	16J6-P	0.02
Hold down clamp	16J6-A	0.02

Standard cable ladders - System 60

Accessories for cable ladders

15
16
OC13-A

15
16
U6-A

15
16
C7-400-A

divider strip 150C13-A / 160C13-A, support corner 16U6-A, flat corner 16C7-400-A, fixing screws 16C8-Z

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- suitable for all ladder widths from 200 mm to 600 mm
Field of application	- divider strip for dividing cable ladders for different kinds of cable, e.g. high voltage and low voltage current - support corner for fixing ladders to brackets for changes in vertical direction - flat corner for later addition of exits without sawing

Ordering information

7x38
Lochmittenabstand 100 mm

30
24
0,75
3000

divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	150C13-A	1.15	160C13-A	1.16

including fixing clips for divider strip 16C13-M

50
28
30
55

LL8,5x30

support corner

Order No. hot dip galv.	Weight (kg/pce.)
16U6-A	0.12

including 1 screw 16J6-S (M8x20)

R
7x37

flat corner

Radius (mm)	Order No. hot dip galv.	Weight (kg/pce.)
400	16C7-400-A	0.90

including 4 screws 16C8-Z

fixing screw M6x20

Order No. hot dip galv.	Weight (kg/pce.)
16C8-Z	0.015

cover 15W12-... / 16W12-... for cable ladders, locking device 16N12-V, fixing clip 171W12-K

15 W12-...
16

16 N12-V

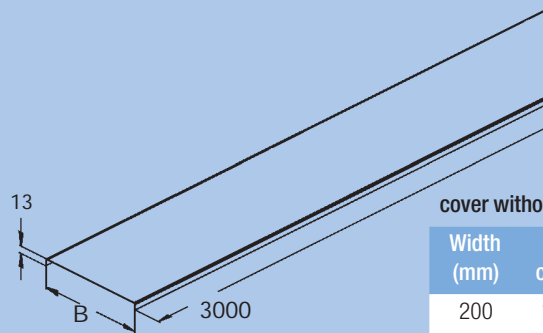
17 1W12-K

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- for cable ladders - for all ladder widths from 200 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

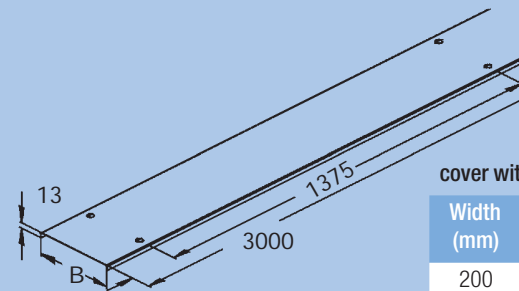
Fixing details

→ Fix covers with fixing clips
171W12-K.



cover without locking

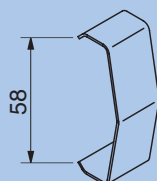
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



cover with locking for cable ladder

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200-R	5.31	16W12-200-R	5.58
300	15W12-300-R	7.78	16W12-300-R	8.17
400	15W12-400-R	10.18	16W12-400-R	10.69
500	15W12-500-R	12.60	16W12-500-R	13.23
600	15W12-600-R	15.00	16W12-600-R	15.75

pre-mounted locking device 16N12-V



fixing clip

Order No.	Weight stainless steel (kg/pce.)
171W12-K	0.02



locking device

Bestell-Nr. hot dip galv.	Gewicht (kg/pce.)
16N12-V	0.02

Standard cable ladders - System 60

Covers for molded components

15

16

C12-...

cover 15C12-...-A / 16C12-...-A,
15C12-...-AR / 16C12-...-AR for bend,
cover 15C12-...-T / 16C12-...-T,
15C12-...-TR / 16C12-...-TR for extension tee

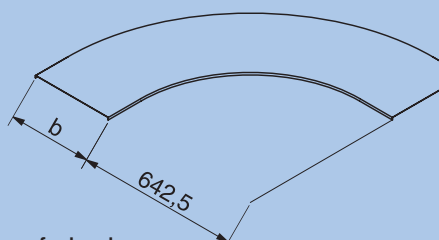
Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized DIN EN ISO 1461 - fixing clip made of stainless steel
Technical data	<ul style="list-style-type: none"> - for all ladder widths of 200 mm to 600 mm
Field of application	<ul style="list-style-type: none"> - protection of the cables

Ordering information

Fixing details

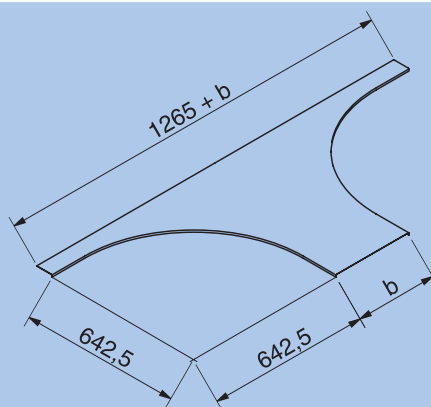
→ Fix covers with locking devices 16N12-V or with fixing clips 171W12-K.

Fixing material	page
fixing clip 171W12-K	69
locking device 16N12-V	69



cover for bend

Width (mm)	without locking				with locking (pre-perforated)			
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15C12-200-A	2.10	16C12-200-A	3.39	15C12-200-AR	2.14	16C12-200-AR	3.43
300	15C12-300-A	3.27	16C12-300-A	5.26	15C12-300-AR	3.31	16C12-300-AR	5.30
400	15C12-400-A	4.55	16C12-400-A	7.30	15C12-400-AR	4.59	16C12-400-AR	7.34
500	15C12-500-A	6.02	16C12-500-A	9.55	15C12-500-AR	6.06	16C12-500-AR	9.59
600	15C12-600-A	7.50	16C12-600-A	12.00	15C12-600-AR	7.54	16C12-600-AR	12.04



incl. 4 locking devices 16N12-V (locking devices are only enclosed)

cover for extension tee

Width (mm)	without locking				with locking (pre-perforated)			
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15C12-200-T	2.72	16C12-200-T	4.42	15C12-200-TR	2.76	16C12-200-TR	4.46
300	15C12-300-T	3.27	16C12-300-T	5.30	15C12-300-TR	3.31	16C12-300-TR	5.34
400	15C12-400-T	3.82	16C12-400-T	6.19	15C12-400-TR	3.86	16C12-400-TR	6.23
500	15C12-500-T	4.37	16C12-500-T	7.07	15C12-500-TR	4.41	16C12-500-TR	7.11
600	15C12-600-T	4.92	16C12-600-T	7.96	15C12-600-TR	4.96	16C12-600-TR	8.00

incl. 4 locking devices 16N12-V (locking devices are only enclosed)





Cable ladders

RICO-Cable ladders for laying cables and lines, especially power lines for various loads.

The RICO-standard cable ladder system with 100 mm side height for support spacing of up to 3.0 m includes:

see system pictures 8

Table of contents

Seite

Cable ladders

low weight design: 153C1-...-L63 / 163C1-...-L63	74
--	----

Molded components for cable ladders

bend: 153C2-...-A / 163C2-...-A	75
extension tee: 153C15-... / 163C15-...	75
crossing 153C20-... / 163C20-...	76
exit plate: 16C8-...-B	76

Joining pieces for cable ladders

straight joint, bendable joint and hinge piece: 153E11-... / 163E11-...	77
screw: 16J6-P	77
hold down clamp: 16J6-A	77

Accessories for cable ladders

divider strip: 152C13-A / 162C13-A	78
support corner: 16U6-A	78
flat corner: 16C7-400-A	78
screw: 16C8-Z	78

Covers

cover for ladders, without or with locking: 15W12-... / 16W12-...	79
cover for molded components: 15C12-...-A / 16C12-...-A, 15C12-...-AR / 16C12-...-AR, 15C12-...-T / 16C12-...-T, 15C12-...-TR / 16C12-...-TR	80

Accessory for covers

locking device 16N12-V	79
fixing clip 173W12-K	79

Standard cable ladders - System 100

Cable ladder

15 3C1-...-L60
16

cable ladder 153C1-...-L63 / 163C1-...-L63

Material	<ul style="list-style-type: none"> - sheet steel, sides continuously perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	<ul style="list-style-type: none"> - 6000 mm, 3000 mm upon request to be delivered - cable ladders are delivered folded to reduce transport volume
Technical data	<ul style="list-style-type: none"> - side height 100 mm, thickness 1.5 mm - support spacing max. 3.0 m - rungs of C-Profil 25x10 perforated are riveted with 11 mm slots open to topside.
Field of application	<ul style="list-style-type: none"> - installation on brackets

Ordering information

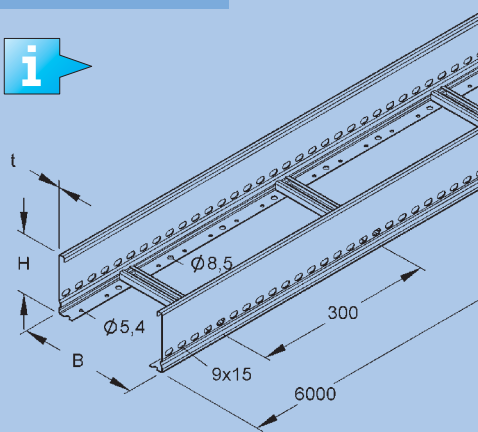
Fixing details

Use hold down clamp 16J6-A when fixing to brackets.

Use bend 15C2-...-LA / 163C2-...-LA to produce curves.

Use extension tees 153C15-...-L / 163C15-...-L to produce junctions.

Use jointing piece 153E11-... / 163E11-... to connect ladders.



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C1-200-L63	20.46	163C1-200-L63	21.96
300	153C1-300-L63	21.30	163C1-300-L63	22.86
400	153C1-400-L63	22.08	163C1-400-L63	23.76
500	153C1-500-L63	24.66	163C1-500-L63	26.58
600	153C1-600-L63	25.86	163C1-600-L63	27.78

Fixing details

Page

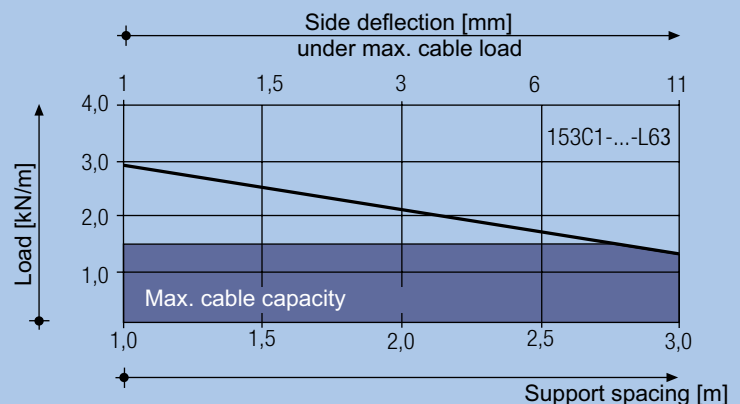
hold down clamp 16J6-A

77

protec. end cap for rung 15J8-S25

194

Load diagram



bend 153C2-...-LA / 163C2-...-LA, extension tee 153C15-...-L / 163C15-...-L

15
16 → 3C2-...-LA

15
16 → 3C15-...-L

Material	- sheet steel, sides continuously perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 100 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	- bend for making horizontal 90° curves - extension tees for making 90° junctions

Ordering information

Fixing details

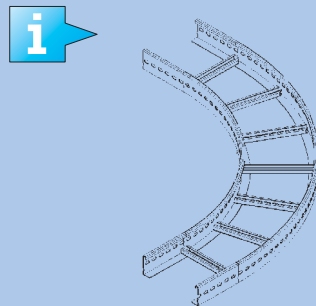
bend

- Connect sides of bend and ladder with straight joint 153E11-A / 163E11-A and screws 16J6-P.

extension tee

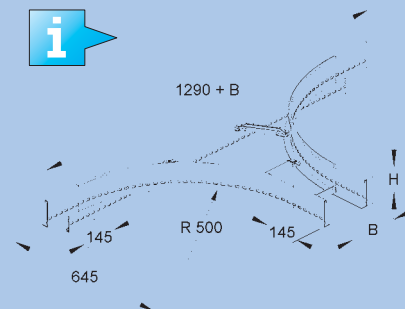
- Cut out ladder side (extension tee width + 1280 mm).
- Bore out the rung's rivets and separate with chisel.
- Insert extension tee.
- Connect sides of extension tee and ladder with straight joint 153E11-A / 163E11-A and screws 16J6-P.
- Fasten loose ladder rungs to extension tee support side with fixing screws 16J6-H-V.

Fixing material	Page
screw 16J6-P	77



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C2-200-LA	4.30	163C2-200-LA	4.52
300	153C2-300-LA	4.75	163C2-300-LA	4.99
400	153C2-400-LA	5.20	163C2-400-LA	5.46
500	153C2-500-LA	6.15	163C2-500-LA	6.46
600	153C2-600-LA	6.60	163C2-600-LA	6.93



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C15-200-L	5.78	163C15-200-L	6.07
300	153C15-300-L	6.02	163C15-300-L	6.32
400	153C15-400-L	6.26	163C15-400-L	6.57
500	153C15-500-L	6.88	163C15-500-L	7.22
600	153C15-600-L	7.16	163C15-600-L	7.52

! including 8 screws 15J6-H-V

Standard cable ladders - System 100

Molded components for cable ladder

15

C20-...

16

crossing 153C20-... / 163C20-...,
exit plate 16C8-...-B

15

C8-...-B

16

Material

- sheet steel
- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461

Technical data

- suitable for all ladder widths from 200 mm to 600 mm

Field of application

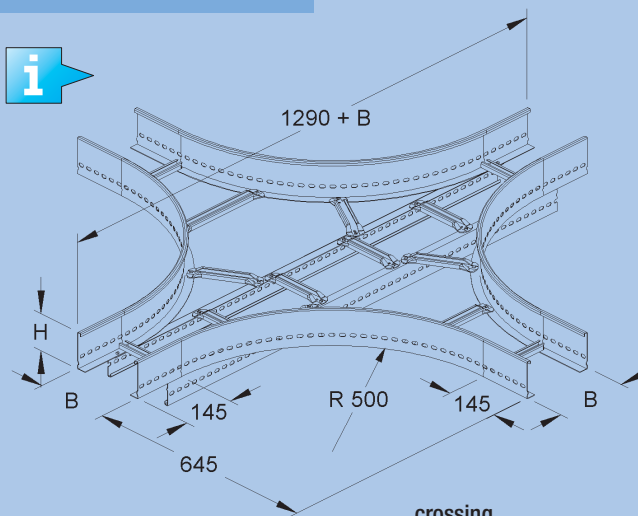
- crossing for making horizontal 90° curves
- exit plate for cable protection in vertical cable bends

Ordering information

Fixing details

Crossing

- Connect sides of crossing and ladder with straight joint 151E11-A / 161E11-A and screws 16J6-P.



crossing

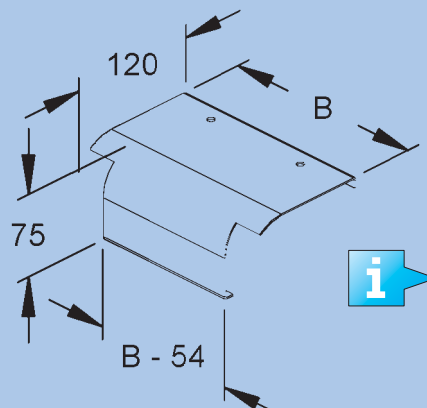
Width (mm)	Order No. cont. hot galv.	Weight (kg/kit)	Order No. hot dip galv.	Weight (kg/kit)
200	153C20-200	8.80	163C20-200	9.24
300	153C20-300	9.60	163C20-300	10.08
400	153C20-400	10.45	163C20-400	10.97
500	153C20-500	12.00	163C20-500	12.60
600	153C20-600	13.25	163C20-600	13.91

Fixing material

screw 16J6-P

Page

77



exit plate

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
190	16C8-200-B	0.51
290	16C8-300-B	0.82
390	16C8-400-B	1.06
490	16C8-500-B	1.41
490	16C8-600-B	1.72

joining piece 153E11-... / 163E11-..., accessories

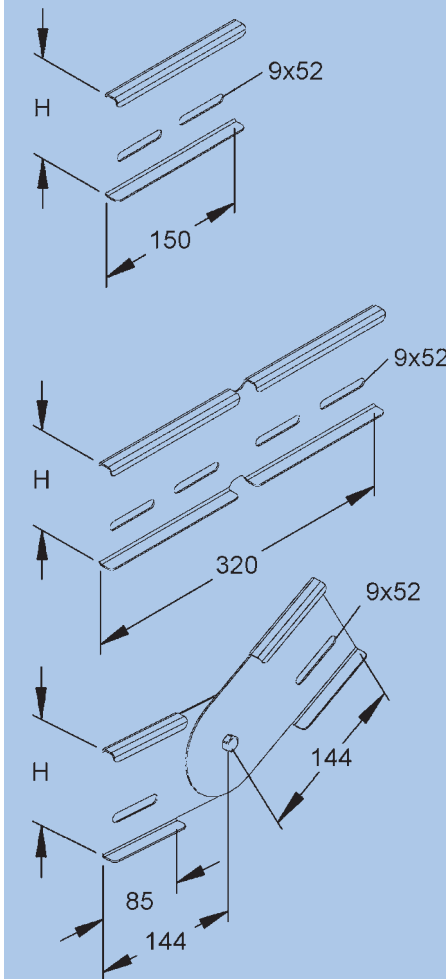
15
16 → 3E11-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 100 mm - suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	- making straight, angular, upward or downward connection of cable ladders

Ordering information

Fixing details

- Mount joining piece to or push it into ladder ends.
- Fasten jointign piece and ladder sides with 2 screws 16J6-P.



straight joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153E11-A	0.33	163E11-A	0.35

i including 2 screws 16J6-P (M8x16)

bendable joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153E11-B	0.31	163E11-B	0.33

i including 4 screws 16J6-P (M8x16)

hinge piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153E11-C	0.76	163E11-C	0.80

i including 2 screws 16J6-P (M8x16)

i accessories

	Order No.	Weight hot dip galv. (kg/pce.)
Screw	16J6-P	0.02
Hold down clamp	16J6-A	0.02

Standard cable ladders - System 100

Accessories for cable ladders

15
16
C13-A

15
16
U6-A

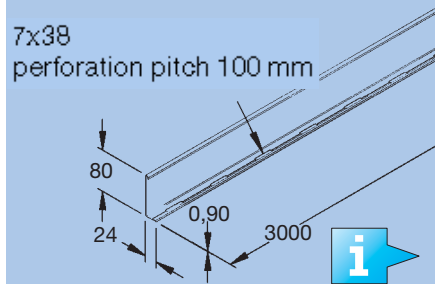
15
16
C7-400-A

divider strip 152C13-A / 162C13-A, support corner 16U6-A,
flat corner 16C7-400-A, fixing screw 16C8-Z

Material
Technical data
Anwendungsbereich

- sheet steel
- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
- suitable for all ladder widths from 200 mm to 600 mm
- divider strip for dividing cable ladders for different kinds of cable, e.g. high voltage and low voltage current
- support corner for fixing ladders to brackets for changes in vertical direction
- flat corner for later addition of exits without sawing

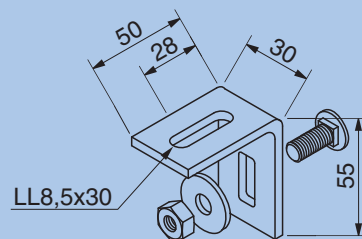
Ordering information



divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	152C13-A	2.75	162C13-A	2.89

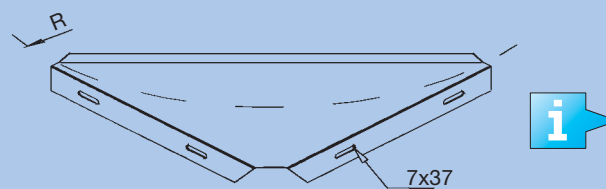
including 4 fixing clips 15C13-M / 16C13-M



support corner

Order No. hot dip galv.	Weight (kg/pce.)
16U6-A	0.12

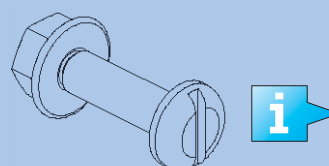
including 1 screw 16J6-S (M8x20)



flat corner

Radius (mm)	Order No. hot dip galv.	Weight (kg/pce.)
400	16C7-400-A	0.90

including 4 screws 16C8-Z



fixing screw M6x20

Order No. hot dip galv.	Weight (kg/pce.)
16C8-Z	0.015

cover 15W12-... / 16W12-... for cable ladders, locking device 16N12-V, fixing clip 173W12-K

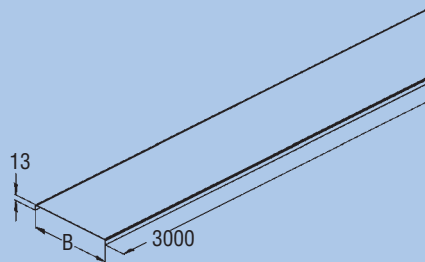
- 15 → W12-...
- 16 → N12-V
- 17 → 3W12-K

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- for light cable ladders and for wide span cable ladders - for all ladder widths from 200 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

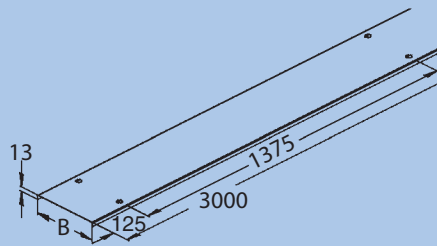
Fixing details

→ Fix covers with fixing clips
173W12-K.



cover without locking

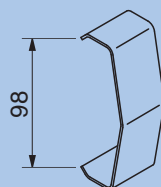
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



cover with lockinh for cable ladders

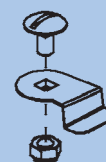
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200-R	5.31	16W12-200-R	5.58
300	15W12-300-R	7.78	16W12-300-R	8.17
400	15W12-400-R	10.18	16W12-400-R	10.69
500	15W12-500-R	12.60	16W12-500-R	13.23
600	15W12-600-R	15.00	16W12-600-R	15.75

pre-mounted locking device 16N12-V



fixing clip

Order No.	Weight (kg/pce.)
173W12-K	0.03



locking device

Order No.	Weight (kg/pce.)
16N12-V	0.02

Standard cable ladders - System 100

Covers for molded components

15

C12-...

16

cover 15C12-...-A / 16C12-...-A,
15C12-...-AR / 16C12-...-AR for bend,
cover 15C12-...-T / 16C12-...-T,
15C12-...-TR / 16C12-...-TR for extension tee

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- for all ladder width from 200 mm to 600 mm
Field of application	- cable protection

Ordering information

Fixing details

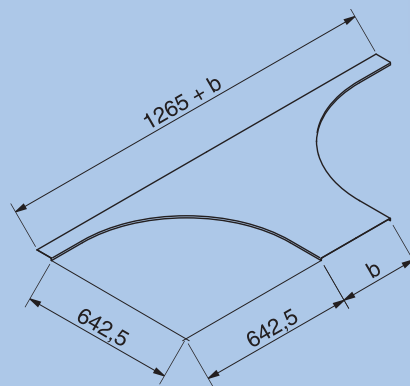
→ Fasten covers with locking devices 16N12-V or with fixing clips 173W12-K.

Fixing material	Page
fixing clip 173W12-K	79
locking device 16N12-V	79



Cover for bend

Width (mm)	without locking			with locking (pre-perforated)				
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15C12-200-A	2.10	16C12-200-A	3.39	15C12-200-AR	2.14	16C12-200-AR	3.43
300	15C12-300-A	3.27	16C12-300-A	5.26	15C12-300-AR	3.31	16C12-300-AR	5.30
400	15C12-400-A	4.55	16C12-400-A	7.30	15C12-400-AR	4.59	16C12-400-AR	7.34
500	15C12-500-A	6.02	16C12-500-A	9.55	15C12-500-AR	6.06	16C12-500-AR	9.59
600	15C12-600-A	7.50	16C12-600-A	12.00	15C12-600-AR	7.54	16C12-600-AR	12.04



incl. 4 locking device 16N12-V (locking devices are loose enclosed)

Cover for extension tee

Width (mm)	without locking			with locking (pre-perforated)				
	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15C12-200-T	2.72	16C12-200-T	4.42	15C12-200-TR	2.76	16C12-200-TR	4.46
300	15C12-300-T	3.27	16C12-300-T	5.30	15C12-300-TR	3.31	16C12-300-TR	5.34
400	15C12-400-T	3.82	16C12-400-T	6.19	15C12-400-TR	3.86	16C12-400-TR	6.23
500	15C12-500-T	4.37	16C12-500-T	7.07	15C12-500-TR	4.41	16C12-500-TR	7.11
600	15C12-600-T	4.92	16C12-600-T	7.96	15C12-600-TR	4.96	16C12-600-TR	8.00

incl. 4 locking device 16N12-V (locking devices are loose enclosed)





Wide span systems

This chapter provides an overview of the RICO wide span cable systems for various loads and applications, subdivided into product families.

see system pictures 9 to 13

Table of contents	Page
Wide span trays	85
105 mm side height, support spacing up to 7.0 m	
150 mm side height, support spacing up to 8.0 m	95
Wide span ladders	
105 mm side height, support spacing up to 7.0 m	105
150 mm side height, support spacing up to 8.0 m	113
200 mm side height, support spacing up to 10.0 m	123





Wide span systems

RICO cable trays for laying cables and lines, for various loads.

The RICO wide span cable tray system with 105 mm side height for support spacing of up to 7.0 m includes:

see system pictures 9

Table of contents

Page

Wide span cable tray

standard design, gelocht: 153Y2-... / 163Y2-...	86
---	----

Molded components for wide span cable tray

bend: 153Y3-... / 163Y3-..., extension tee 153Y15-... / 163Y15-...	88
tee: 153Y4-... / 163Y4-...	89
crossing: 153Y20-... / 163Y20-...	89
corner: 153W17-B / 163W17-B	89

Joining piece for wide span cable tray

straight, bendable joints and hinge piece : 153C9-... / 163C9-...	87
joint cover plate: 15W8-... / 16W8-...	87

Accessories for wide span cable tray

cable protecting plate: 15W11-... / 16W11-...	90
divider strip: 152W13-A / 162W13-A / 142W13-A	90
edge protection: 15V13-A / 18V13-A	90
anchor corner: 16U6-A	91
screw: 16J6-P	91

Covers

cover for trays, with or without locking: 15W12-... / 16W12-...	92
---	----

Accessories for covers

locking device: 16N13-V	92
fixing clip 173W12-KW	92

Wide span trays - System 105

Cable tray

15
16
3Y2-...

wide span cable tray 153Y2-... / 163Y2-..., perforated

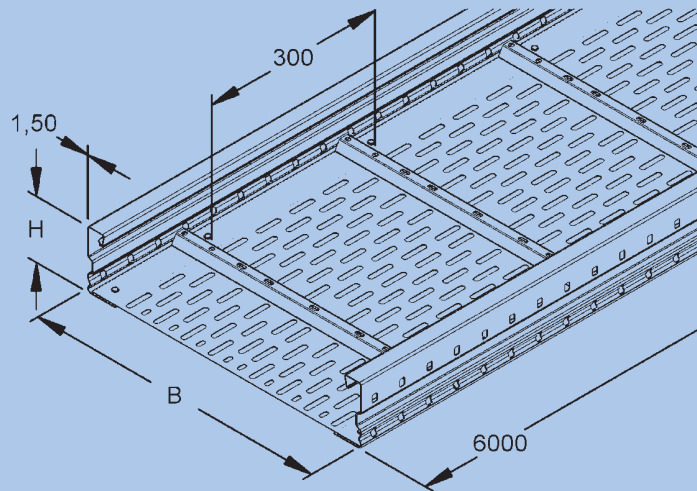
Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	- side height H = 105 mm, thickness 1,5 mm, support spacing max. 7 m - continuous perforation of the side members for jointing pieces - suitable for high loads under large support spacing - high degree of cross stability
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

- Use screws 16J6-P when fixing to brackets.
- Use bend 153Y3-... / 163Y3-... to produce curves.
- Use extension tee 153Y15-... / 163Y15-... or tee 153Y4-... / 163Y4-... to produce junctions.
- Use jointing piece 153C9-... / 163C9-... to connect trays.

Fixing material	Page
screw 16J6-B	91
protect. end cap for crimp 15J8-WSR	194

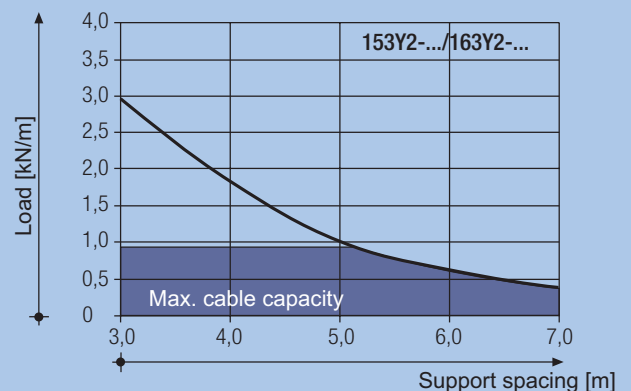


Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153Y2-200	38.60	163Y2-200	40.53
300	153Y2-300	42.50	163Y2-300	44.63
400	153Y2-400	46.40	163Y2-400	48.72
500	153Y2-500	50.30	163Y2-500	52.82
600	153Y2-600	54.20	163Y2-600	56.91

Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements!



joining piece 153C9-... / 163C9-..., joint cover plate 15W8-... / 16W8-...



Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - side height H = 105 mm - suitable for all tray widths from 200 mm to 600 mm - delivery includes fixing screws
Field of application	<ul style="list-style-type: none"> - to make straight, angular, upward or downward connection of cable trays

Ordering information

Fixing details

- Mount joining pieces to or push it into tray ends.
- Fasten joining pieces and tray sides screws 16J6-P.

straight joint

- Cover cut edges on straight joint with joint cover plate 15W8-... / 16W8-....

bendable joint

- Make a mitrecut for large changes of direction (max. 90°).

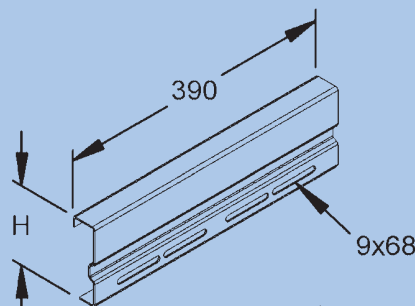
hinge piece

- Insert cable protecting plate 15W11-... / 16W11-... at upper break point.
- Cover cut edges with edge protection 15V13-A.

joint cover plate

- Place joint cover plate 15W8-... / 16W8-... on the tray connection and fasten clamping lugs.

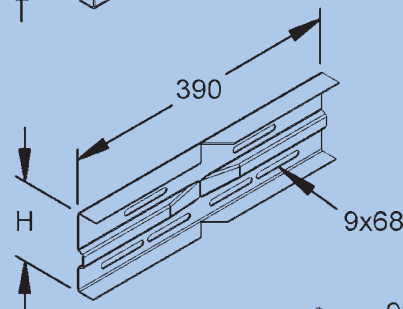
Fixing material	Page
screw 16J6-P	91
edge protection 15V13-A/18V13-A	90
screw 16J6-B	187



straight joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153C9-A	0.80	163C9-A	0.84

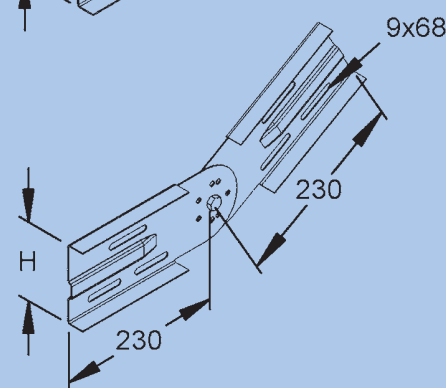
including 4 screws 16J6-P (M8x16)



bendable joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153C9-B	0.80	163C9-B	0.84

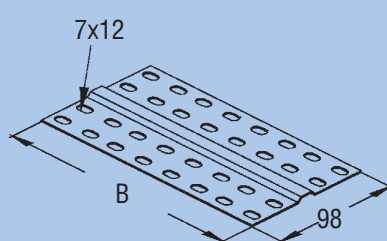
including 6 screws 16J6-P (M8x16)



hinge piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153C9-C	1.00	163C9-C	1.05

including 6 screws 16J6-P (M8x16)



joint cover plate

Width (mm)	Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
189	15W8-200	0.13	16W8-200	0.14
289	15W8-300	0.20	16W8-300	0.21
389	15W8-400	0.27	16W8-400	0.28
489	15W8-500	0.34	16W8-500	0.36
589	15W8-600	0.41	16W8-600	0.43

including fixing screw 16J6-B

Wide span trays - System 105

Molded components for cable tray

15
16
3Y3-...

15
16
3Y15-...

bend 153Y3-... / 163Y3-..., extension tee 153Y15-... / 163Y15-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 105 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	- bend for making horizontal 90° curves - tee for making horizontal 90° curves

Ordering information

Fixing details

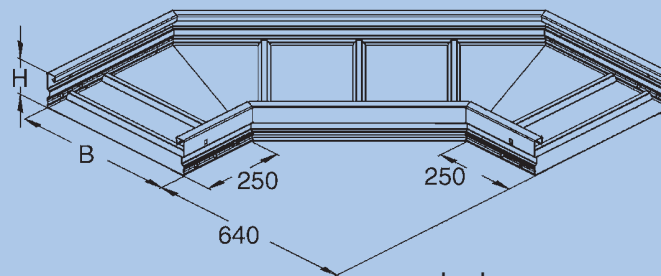
bend

- Connect sides of bend and tray with straight joint 153C9-A / 163C9-A.
- Fasten sides and jointing pieces with screws 16J6-P.

extension tee

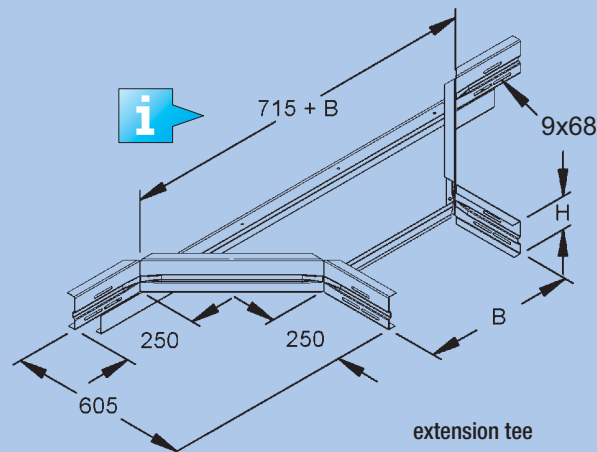
- Draw in the exit (width of the exten. tee + 710 mm), bore out the rivets, separate with chisel or similar tool.
- Cut out tray side.
Insert the extension tee into the cut section.
- Bolt extension tee with screws 16J6-P on the disengaged side ends.

Fixing material	Page
screw 16J6-P	91



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153Y3-200	8.20	163Y3-200	8.61
300	153Y3-300	9.70	163Y3-300	10.19
400	153Y3-400	11.50	163Y3-400	12.08
500	153Y3-500	13.50	163Y3-500	14.18
600	153Y3-600	15.30	163Y3-600	16.07



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153Y15-200	13.80	163Y15-200	14.60
300	153Y15-300	14.70	163Y15-300	15.60
400	153Y15-400	15.60	163Y15-400	16.60
500	153Y15-500	16.50	163Y15-500	17.60
600	153Y15-600	17.40	163Y15-600	18.60

including 12 screws 16J6-P (M8x16)

corner 153W17-BW / 163W17-BW, tee 153Y4-... / 163Y4-...,
crossing 153Y20-... / 163Y20-...

15
16
3W17-BW

15
16
3Y4-...

15
16
3Y20-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 105 mm - suitable for all tray widths 200 mm to 600 mm
Field of application	- tee for horizontal 90° curves - crossing for making 90° curves

Ordering information

Fixing details

corner

- Cut out tray inner sides (length of cut out = tray width + 450 mm).
- Shorten ground plates, that there are no beads in the area of the overlapping cable tray grounds.
- Trim cutting edges.
- Put on come ron the overlapping 90° angles tray ends.
- Bolt trays lateral with 2 screws 16J6-P.
- Bolt grounds of the corners and trays with screws 16J6-P.

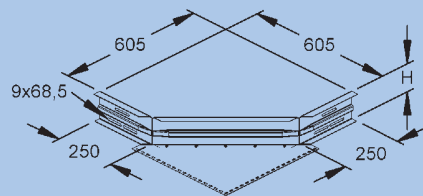
tee

- Connect sides of tee and tray with jointing pieces 153-C9-A / 163C9-A.
- Bolt sides and jointing pieces with screws 16J6-P.

crossing

- Connect sides of crossing and tray with jointing pieces 153C9-A / 163C9-A.
- Bolt sides and jointing pieces with screws 16J6-P.

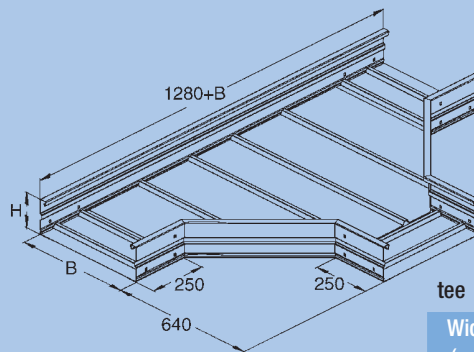
Fixing material	Page
screw 16J6-P	91



corner

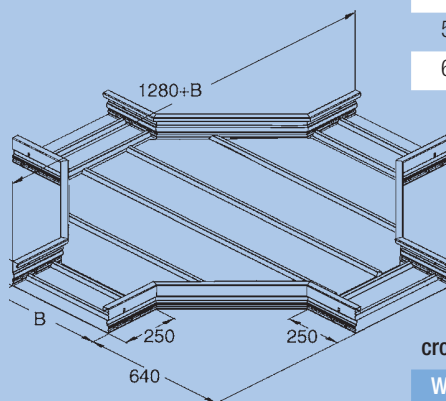
Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153W17-BW	0.90	163W17-BW	0.95

including 6 screws 16J6-P (M8x16)



tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153Y4-200	15.80	163Y4-200	16.60
300	153Y4-300	17.90	163Y4-300	18.80
400	153Y4-400	20.30	163Y4-400	21.32
500	153Y4-500	22.70	163Y4-500	23.84
600	153Y4-600	25.40	163Y4-600	26.67



crossing

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153Y20-200	21.60	163Y20-200	22.68
300	153Y20-300	24.00	163Y20-300	25.20
400	153Y20-400	26.50	163Y20-400	27.83
500	153Y20-500	29.20	163Y20-500	30.66
600	153Y20-600	32.10	163Y20-600	33.71

Wide span trays - System 105

Accessories for cable trays

15
16
W11-...

15
16
2W13-...

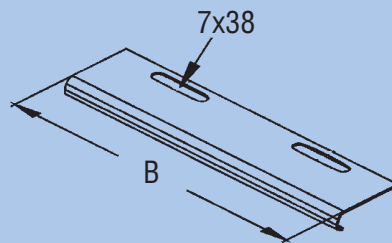
15
18
V13-A

cable protecting plate 15W11-... / 16W11-..., divider strip 152W13-A / 162W13-A / 142W13-A, edge protection 15V13-A / 18V13-A

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461 or double dip - edge protection made of flexible plastic with steel reinforcement
Technical data	<ul style="list-style-type: none"> - suitable for all tray widths from 200 mm to 600 mm - delivery includes fixing screws
Field of application	<ul style="list-style-type: none"> - cable protecting plate for cable protection at upward or downward connection of trays - divider strip for dividing cable trays for different kinds of cable, e.g. high voltage and low voltage current

Ordering information

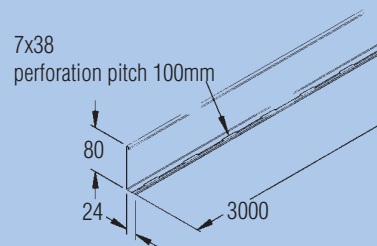
Fixing material	Page
screw 16J6-B	187



cable protecting plate

Length B (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W11-200	0.10	16W11-200	0.11
300	15W11-300	0.15	16W11-300	0.16
400	15W11-400	0.20	16W11-400	0.21
500	15W11-500	0.25	16W11-500	0.26
600	15W11-600	0.31	16W11-600	0.33

including 2 screws 16J6-B (M6x12)



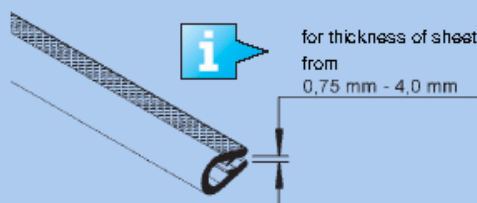
divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	152W13-A	2.75	162W13-A	2.89

including 4 screws 16J6-B (M6x12)

Length (mm)	Order No. double dip	Weight (kg/pce.)
3000	142W13-A	2.90

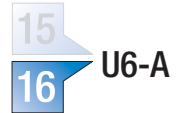
including 4 screws 16J6-B (M6x12)



edge protection

Clamping zone (mm)	Length (mm)	Order No. plastic	Weight (kg/m)
0.75-4	Yard goods	15V13-A	0.14
0.75-4	Yard goods	18V13-A	0.14

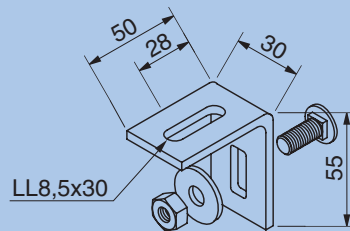
support corner 16U6-A, screw 16J6-P



Material	<ul style="list-style-type: none"> - sheet steel - hot dip galvanized according to DIN EN ISO 1461
Field of application	<ul style="list-style-type: none"> - support corner for fastening cable ladders to brackets at vertical changes of direction

Ordering information

Fixing material	Page
screw 16J6-S	187



support corner

Order No.	Weight (kg/pce.)
16U6-A	0.12

including 1 screw
16J6-S (M8x20)



accessory screw M8x16

Order No.	Weight (kg/pce.)
16J6-P	0.02

Wide span systems - System 105

Cover for cable tray

15
16 → W12-...

16 → N13-V

17 → 3W12-KW

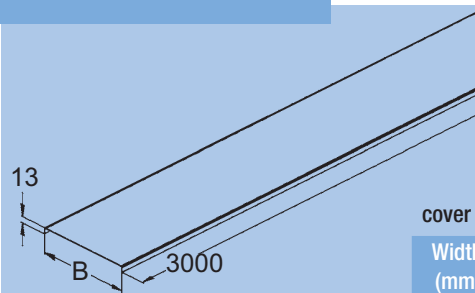
cover 15W12-... / 16W12-... for cable tray, locking device 16N13-V, fixing clip 173W12-KW

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- suitable for all tray widths from 200 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

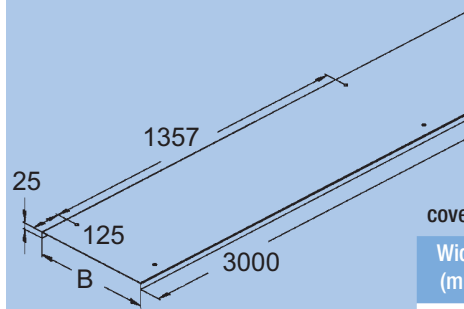
Fixing details

→ Fix covers with locking devices
16N13-V or with fixing clips
173W12-K.



cover without locking

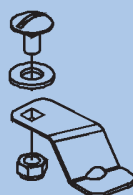
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



cover with locking for wide span systems

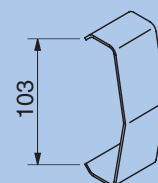
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200-RW	5.60	16W12-200-RW	5.88
300	15W12-300-RW	7.90	16W12-300-RW	8.30
400	15W12-400-RW	10.30	16W12-400-RW	10.82
500	15W12-500-RW	12.70	16W12-500-RW	13.34
600	15W12-600-RW	15.00	16W12-600-RW	15.94

pre-mounted locking device 16N13-V



locking device

Order No.	Weight hot dip galv. (kg/pce.)
16N13-V	0.03



fixing clip

Order No.	Weight stainless steel (kg/pce.)
173W12-KW	0.03





Wide span systems

RICO cable trays for laying cables and lines, especially power lines for various loads.

The RICO wide span tray system with 150 mm side height for support spacing of up to 8.0 m includes:

see system pictures 10

Table of contents

Page

Wide span cable tray, perforated

154Y2-...-N / 164Y2-...-N	96
154Y2-...-S / 164Y2-...-S	97

Molded components for wide span cable tray

bend: 154Y3-... / 164Y3-..., extension tee: 154Y15-... / 164Y15-...	99
tee: 154Y4-... / 164Y4-...	100
crossing: 154Y20-... / 164Y20-...	100
corner: 154W17-BW / 164W17-BW	100

Joining piece for wide span cable tray

straight, bendable joints and hinge pieces: 154C9-... / 164C9-...	98
joint cover plate: 15W8-... / 16W8-...	98

Accessories for wide span cable tray

cable protecting plate: 15W11-... / 16W11-...	101
divider strip: 153W13-A / 163W13-A / 143W13-A	101
edge protection: 15V13-A / 18V13-A	101
screw: 16J6-P	101

Covers

covers for trays, with or without locking: 15W12-... / 16W12-...	102
--	-----

Accessories for covers

locking device: 16N13-V	102
-------------------------	-----

Wide span trays - System 150

Cable tray

15
16
4Y2-...-N

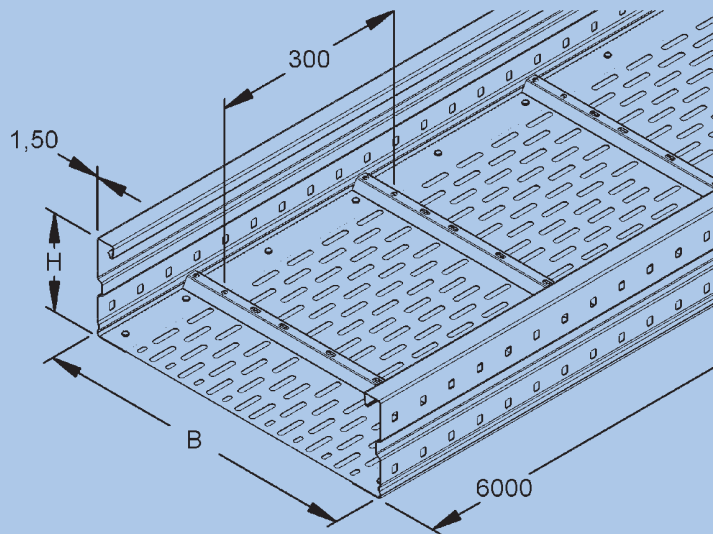
wide span cable ladder 154Y2-...-N / 164Y2-...-N, perforated, with thickness of sheet 1.5 mm

Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	- side height H = 150 mm, support spacing max. 8.0 m - continuous side perforation for connection parts - suitable for high loads under large support spacing - high degree of cross stability
Field of application	- installation on consoles

Ordering information

Fixing details

- Use fixing accessory 16J6-P when fixing to consoles
- Use bend 154Y3-... / 164Y3-... to produce curves.
- Use extension tee 154Y15-... / 164Y15-... or tee 154Y4-... / 164Y4-... to produce junctions.
- Use jointing pieces 154C9-... / 164C9-... to connect trays.



Fixing material	page
accessory 16J6-P	101
protective end cap for crimp 15J8-WSR	194

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154Y2-200-N	45.00	164Y2-200-N	47.25
300	154Y2-300-N	48.90	164Y2-300-N	51.35
400	154Y2-400-N	52.80	164Y2-400-N	55.95
500	154Y2-500-N	56.70	164Y2-500-N	59.54
600	154Y2-600-N	60.60	164Y2-600-N	63.63

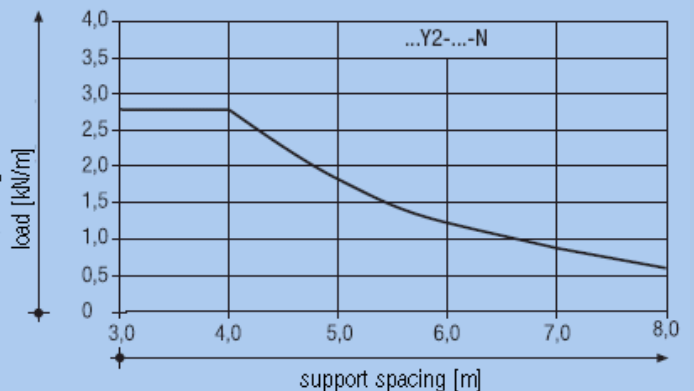
Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements.

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



Wide span trays - System 150

Cable tray

wide span cable tray 154Y2-...-S / 164Y2-...-S, perforated,
with thickness of sheet 2.0 mm

15
16 4Y2-...-S

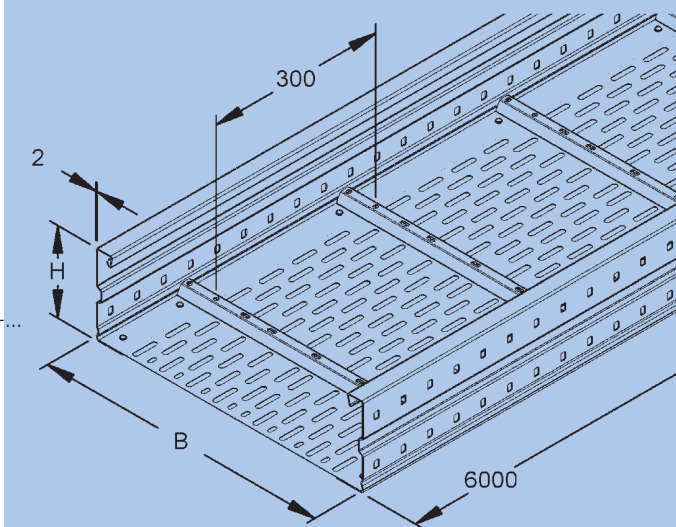
Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	- side height H = 150 mm, support spacing max. 8.0 m - continuous side perforation for connecting parts - suitable for high loads under large support spacings - high degree of cross stability
Field of application	- installation on consoles

Wide span system

Ordering information

Fixing details

- Use accessories 16J6-P when fixing to consoles.
- Use bend 154Y3-... / 164Y3-... to produce curves.
- Use extension tee 154Y15-... / 164Y15-... or tee 154Y4-... / 164Y4-... to produce junctions.
- Use jointing pieces 154C9-... / 164C9-... to connect trays.



Fixing material	page
accessory 16J6-P	101
protective end cap for crimp 15J8-WSR	194

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
220	154Y2-200-S	55.00	164Y2-200-S	54.50
300	154Y2-300-S	58.79	164Y2-300-S	60.40
400	154Y2-400-S	64.42	164Y2-400-S	67.95
500	154Y2-500-S	66.03	164Y2-500-S	75.45
600	154Y2-600-S	73.03	164Y2-600-S	82.75

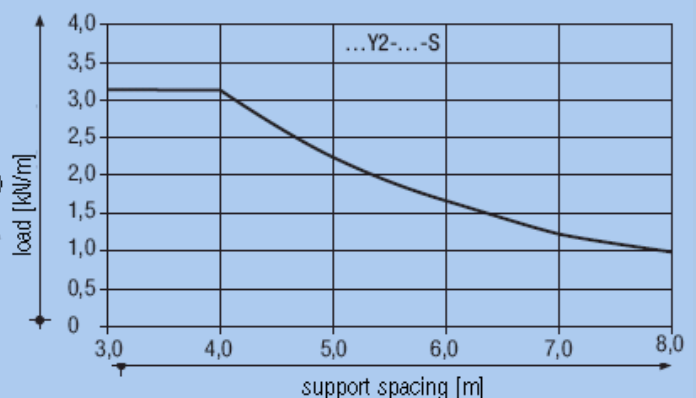
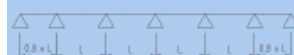
Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements!

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



Wide span trays - System 150

Joining piece for cable trays

15
16
4C9-...

15
16
W8-...

joining piece 154C9-... / 164C9-..., joint cover plate 15W8-... / 16W8-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 150 mm - suitable for all tray widths from 200 mm to 600 mm - delivery includes fixing screws
Field of application	- to make straight, angular, upward or downward connection of cable trays

Ordering information

Fixing details

- Mount joining pieces to or push it into tray ends.
- Fasten joining piece and tray with 4 screws 16J6-P.

straight joint

- Cover cut edges on straight joint with joint cover plate 15W8-... / 16W8-....

bendable joint

- Make a mitre cut for large changes of direction (max. 90°).

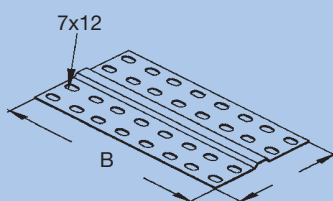
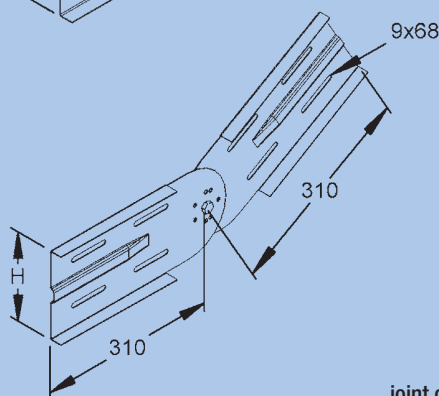
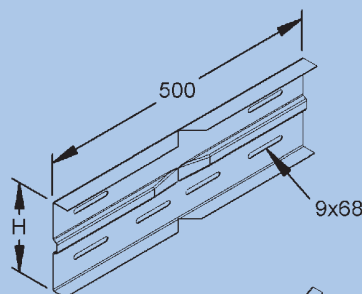
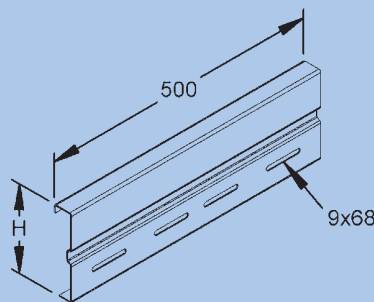
hinge piece

- Insert cable protecting plate 15W11-... / 16W11-... at upper break point.
- Cover cut edges with edge protection 15V13-A.

joint cover plate

- Place joint cover plate 15W8-... / 16W8-... on the tray connection and fasten clamping lugs.

Fixing material	page
screw 16J6-P	101
screw 16J6-B	187
edge protection 15V13-A	101
edge protection 18V13-A	101



straight joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
154C9-A	1.80	164C9-A	1.89

including 4 screws 16J6-P (M8x16)

bendable joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
154C9-B	1.80	164C9-B	1.89

including 6 screws 16J6-P (M8x16)

hinge piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
154C9-C	1.80	164C9-C	1.89

including 6 screws 16J6-P (M8x16)

joint cover plate

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
189	15W8-200	0.13	16W8-200	0.14
289	15W8-300	0.20	16W8-300	0.21
389	15W8-400	0.27	16W8-400	0.28
489	15W8-500	0.34	16W8-500	0.36
589	15W8-600	0.41	16W8-600	0.43

including fixing screws

bend 154Y3-... / 164Y3-..., extension tee 154Y15-... / 164Y15-...

15
16 → 4Y3-...

15
16 → 4Y15-...

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - side height H = 150 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	<ul style="list-style-type: none"> - bend for making horizontal 90° curves - tee for making horizontal 90° curves

Ordering information

Fixing details

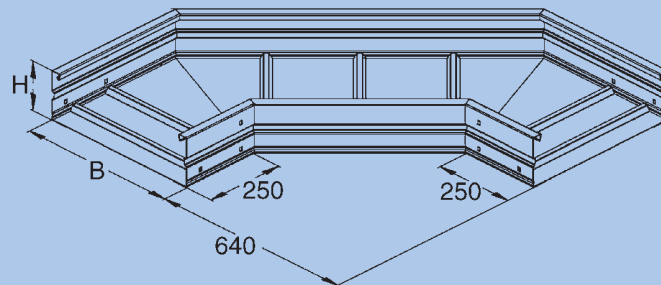
bend

- Connect sides of bend and tray with straight joint 154C9-A / 164C9-A.
- Fasten sides and jointing pieces with screws 16J6-P.

extension tee

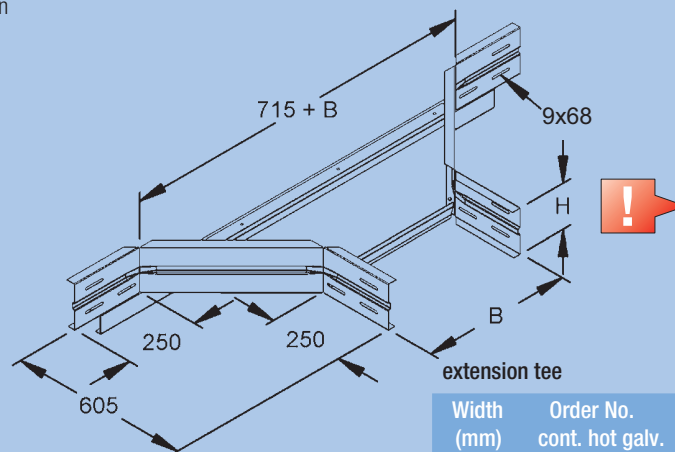
- Draw in the exit (width of the extension tee + 710 mm), bore out the rivets, separate with chisel or similar tool.
- Cut out tray side.
- Insert the extension tee into the cut section.
- Bolt extension tee with screws 16J6-P on the disengaged side ends.

Fixing material	Page
Screw 16J6-P	101



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154Y3-200	9.50	164Y3-200	9.98
300	154Y3-300	11.20	164Y3-300	11.76
400	154Y3-400	12.90	164Y3-400	13.55
500	154Y3-500	15.00	164Y3-500	15.75
600	154Y3-600	16.90	164Y3-600	17.75



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154Y15-200	13.74	164Y15-200	14.23
300	154Y15-300	14.64	164Y15-300	15.28
400	154Y15-400	15.54	164Y15-400	16.22
500	154Y15-500	16.45	164Y15-500	17.18
600	154Y15-600	17.35	164Y15-600	18.12

including 12 screws 16J6-P (M8x16)

Wide span trays - System 150

Molded components for cable trays

15
16
4W17-...

15
16
4Y4-...

15
16
4Y20-...

corner 154W17-BW / 164W17-BW, tee 154Y4-... / 164Y4-...,
crossing 154Y20-... / 164Y20-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 150 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	- tee for making horizontal 90° curves - crossing for making horizontal 90° curves

Ordering information

Fixing details

corner

- Cut out tray inner sides (length of cut out = tray width + 450 mm).
- Shorten ground plates, that there are no beads in the area of the overlapping cable tray grounds.
- Trim cutting edge.
- Put on corner on the overlapping 90° angles tray ends.
- Bolt trays lateral with 2 screws 16J6-P.
- Bolt grounds of the corners and trays with screws 16J6-P.

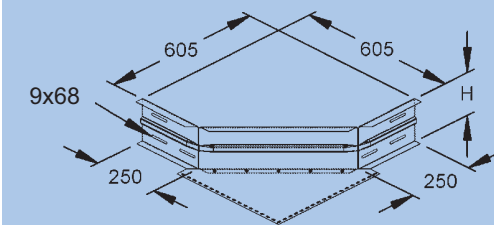
tee

- Connect sides of tee and tray with jointing pieces 154C9-A / 164C9-A.
- Bolt sides and jointing pieces with screws 16J6-P.

crossing

- Connect sides of crossing and tray with jointing pieces 154C9-A / 164C9-A.
- Bolt sides and jointing pieces with screws 16J6-P.

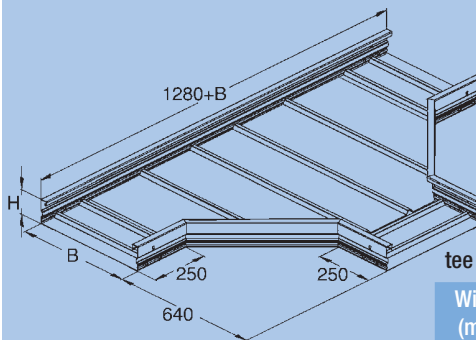
Fixing material	Page
screw 16J6-P	101



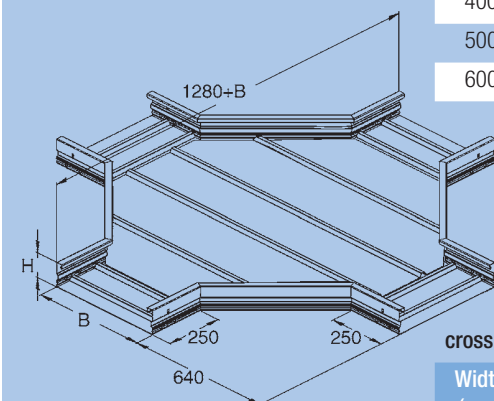
corner

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
154W17-BW	0.90	164W17-BW	0.95

including 6 screws 16J6-P (M8x16)



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154Y4-200	17.60	164Y4-200	18.48
300	154Y4-300	19.90	164Y4-300	20.90
400	154Y4-400	22.30	164Y4-400	23.42
500	154Y4-500	24.50	164Y4-500	25.73
600	154Y4-600	27.50	164Y4-600	28.88



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154Y20-200	23.80	164Y20-200	24.99
300	154Y20-300	26.20	164Y20-300	27.51
400	154Y20-400	28.70	164Y20-400	30.14
500	154Y20-500	31.40	164Y20-500	32.97
600	154Y20-600	32.10	164Y20-600	36.02

Wide span trays - System 150

Accessories for cable trays

cable protecting plate 15W11-... / 16W11-..., divider strip 153W13-A / 163W13-A / 143W13-A, edge protection 15V13-A / 18V13-A

15
16 → W11-...

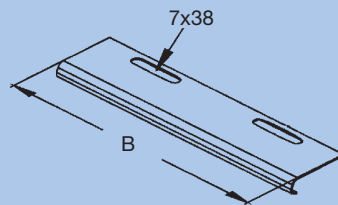
15
16 → 3W13-A

15
18 → V13-A

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461 or double dip - edge protection made of flexible plastic with steel reinforcement
Technical data	<ul style="list-style-type: none"> - suitable for all tray widths from 200 mm to 600 mm - delivery includes fixing screws
Anwendungsbereich	<ul style="list-style-type: none"> - cable protecting plate for cable protection at upward or downward connection of trays - divider strip for dividing cable trays for different kinds of cable e.g. high voltage and low voltage current

Ordering information

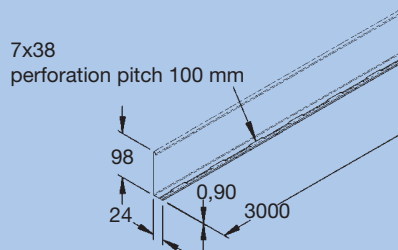
Fixing material	Page
Screw 16J6-B	187



cable protecting plate

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W11-200	0.10	16W11-200	0.11
300	15W11-300	0.15	16W11-300	0.16
400	15W11-400	0.20	16W11-400	0.21
500	15W11-500	0.25	16W11-500	0.26
600	15W11-600	0.31	16W11-600	0.33

including 2 screws 16J6-B (M6x12)



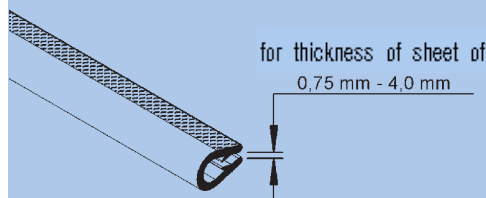
divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	153W13-A	4.05	163W13-A	4.25

including 4 screws 16J6-B (M6x12)

Length (mm)	Order No. double dip	Weight (kg/pce.)
3000	143W13-A	4.25

including 4 screws 16J6-B (M6x12)



edge protection

Clamping zone (mm)	Length (mm)	Order No. plastic	Weight (kg/m)
0.75-4	Yard goods	15V13-A	0.14
0.75-4	Yard goods	18V13-A	0.14



Accessory screw M8x16

Order No. hot dip galv.	Weight (kg/pce.)
16J6-P	0.02

Wide span trays - System 150

Covers for cable trays

15
16

W12-...

16

N13-V

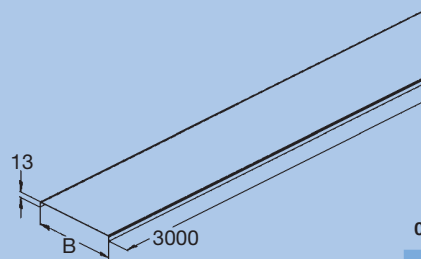
covers 15W12-... / 16W12-... for cable trays, locking device 16N13-V

Material	- sheet steel - continuously hotgalvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- suitable for all tray widths from 200 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

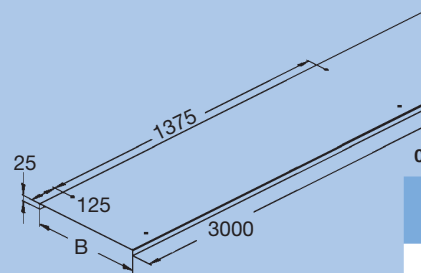
Fixing details

→ Fix covers to the cable trays with locking devices 16N13-V.



cover without locking

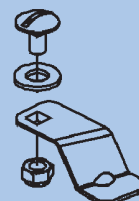
Width (mm)	Order No. bandverzinkt	Weight (kg/St.)	Order No. feuerverzinkt	Weight (kg/St.)
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



cover with locking for wide span systems

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200-RW	5.60	16W12-200-RW	5.88
300	15W12-300-RW	7.90	16W12-300-RW	8.30
400	15W12-400-RW	10.30	16W12-400-RW	10.82
500	15W12-500-RW	12.70	16W12-500-RW	13.34
600	15W12-600-RW	15.00	16W12-600-RW	15.94

pre-mounted locking device 16N13-V



locking device

Order No. hot dip galv.	Weight (kg/pce.)
16N13-V	0,03



Wide span
systems



Wide span systems

RICO cable ladders for laying cables and lines, especially power lines for various loads.

The RICO wide span ladder system with 105 mm side height for support spacing of up to 7.0 m includes:

see system pictures 11

Table of contents

Page

Wide span cable tray, perforated

153C1...-S / 163C1-...-S	106
--------------------------	-----

Molded components for wide span cable tray

bend: 153C3-...-S / 163C3-...-S, extension tee: 1543C5-...-S / 1643C15-...-S	108
tee: 153CY4-...-S / 163C4-...-S	109
crossing: 153C20-...-S / 164Y20-...-S	109
corner: 153C17-BW / 163C17-BW	109

Joining pieces for wide span cable tray

straight, bendable joint and hinge piece: 153C9-... / 163C9-..	107
exit plate: 163C8-B	107

Accessories for wide span cable tray

hold down clamps: 163J6-A	110
divider strip: 152C13-SA / 162C13-SA / 142C13-SA	110
support corner: 16U6-A	110
screw: 16J6-P	110

Covers

covers for ladders, with or without locking: 15W12-... / 16W12-...	111
--	-----

Accessories for covers

locking device: 16N13-V	111
fixing clip: 173W12-KW	111

Wide span ladders - System 105

Cable ladder

15
16
3C1-...-S

wide span cable ladder 153C1-...-S / 163C1-...-S

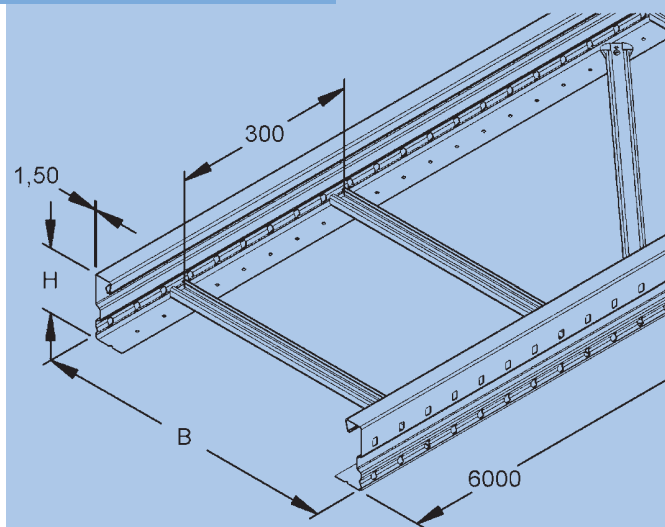
Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	<ul style="list-style-type: none"> - 6000 mm
Technische Daten	<ul style="list-style-type: none"> - side height H = 105 mm, thickness 1.5 mm - support spacing max. 7.0 m - continuous perforation of the side members for jointing pieces - rungs of C-profile 30x15, perforated fixed with 16 mm slots open to topside - 4 diagonal rungs for increased lateral stability
Field of application	<ul style="list-style-type: none"> - installation on brackets and consoles

Ordering information

Fixing details

- Use hold down clamp 163J6-A when fixing to brackets.
- Use bend 153C2-...-S / 163C2-...-S to produce curves.
- Use extension tee 153C15-...-S / 163C15-...-S or tee 153C4-...-S / 163C4-...-S to produce junctions.
- Use jointing piece 153C9-... / 163C9-... to connect ladders.

fixing material	page
hold down clamp 163J6-A	110
protective end cap for rung 15J8-S30	194



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C1-200-S	32.00	163C1-200-S	33.60
300	153C1-300-S	33.50	163C1-300-S	35.18
400	153C1-400-S	35.00	163C1-400-S	36.75
500	153C1-500-S	36.50	163C1-500-S	38.33
600	153C1-600-S	38.00	163C1-600-S	39.90

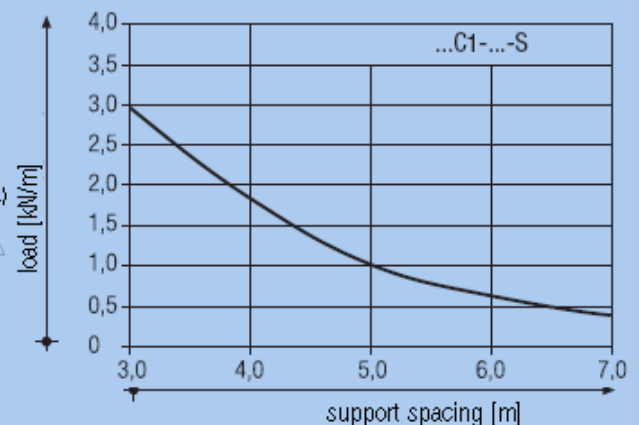
Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements!

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



joining piece 153C9-... / 163C9-..., exit plate 163C8-...-B

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - side height H = 105 mm - suitable for all ladder widths 200 mm from 600 mm - delivery including fixing screws
Field of application	<ul style="list-style-type: none"> - making straight, angular, upward and downward connection of cable ladders - exit plate for cable protection at vertical cable curves

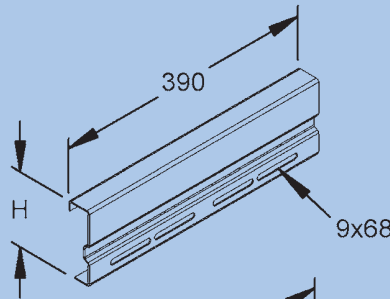


Ordering information

Fixing details

- Mount joining pieces to push it into ladder ends.
- Fasten joining pieces and ladder sides with screws 16J6-P.

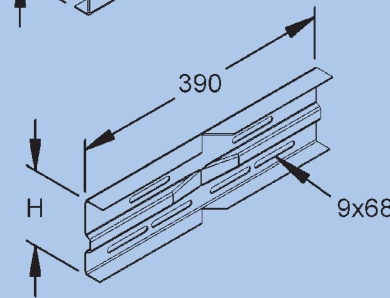
Fixing material	Page
screw 16J6-P (M8x16)	110



straight joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153C9-A	0.80	163C9-A	0.84

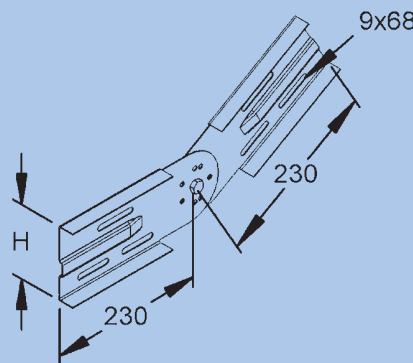
including 4 screws 16J6-P (M8x16)



bendable joint

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153C9-B	0.80	163C9-B	0.84

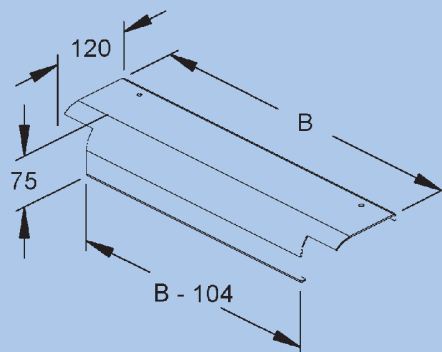
including 6 screws 16J6-P (M8x16)



hinge piece

Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153C9-C	1.00	163C9-C	1.05

including 6 screws 16J6-P (M8x16)



exit plate

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
200	163C8-200-B	0.58
280	163C8-300-B	0.89
380	163C8-400-B	1.14
480	163C8-500-B	1.48
580	163C8-600-B	1.79

including 2 fixing screws 16C8-Z

Wide span ladders - System 105

Molded components for cable ladder

15
16
3C2-...-S

15
16
3C15-...-S

bend 153C2-...-S / 163C2-...-S,
extension tee 153C15-...-S / 163C15-...-S

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 105 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- bend for making horizontal 90° curves - extension tee for making horizontal 90° curves

Ordering information

Fixing details

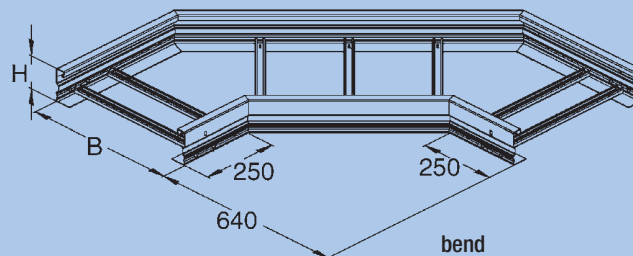
bend

- Connect sides of bend and ladder with straight joint 153C9-A / 163C9-A.
- Bolt sides and jointing pieces with screws 16J6-P.

extension tee

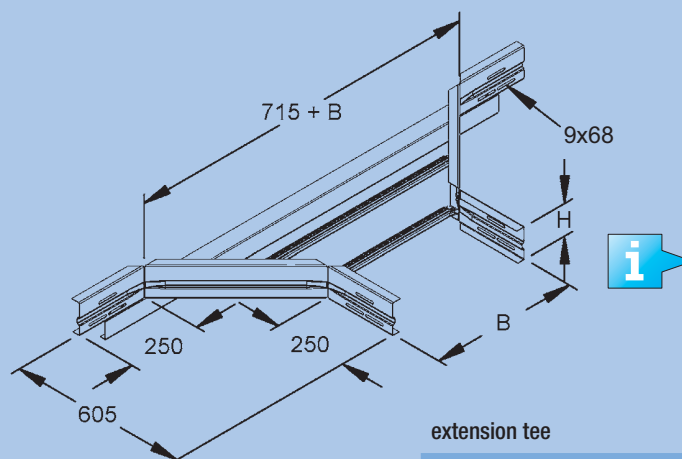
- Cut out ladder side (width of extension tee + 710 mm).
- Bore out the rung's aluminium rivets and separate with chisel.
- Insert extension tee.
- Bolt extension tee with screws 16J6-P the disengaged side ends.

Fixing material	Page
screw 16J6-P	110



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C2-200-S	6.50	163C2-200-S	6.83
300	153C2-300-S	7.40	163C2-300-S	7.77
400	153C2-400-S	8.30	163C2-400-S	8.72
500	153C2-500-S	9.20	163C2-500-S	9.66
600	153C2-600-S	10.00	163C2-600-S	10.50



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C15-200-S	9.40	163C15-200-S	10.10
300	153C15-300-S	9.60	163C15-300-S	10.30
400	153C15-400-S	9.90	163C15-400-S	10.70
500	153C15-500-S	10.20	163C15-500-S	11.00
600	153C15-600-S	10.50	163C15-600-S	11.30

including 12 screws 16J6-P (M8x16)

corner 153W17-BW / 163W17-BW, tee 153C4-...-S / 163C4-...-S, crossing 153C20-...-S / 163C20-...-S

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 105 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- tee for making horizontal 90° curves - crossing for making horizontal 90° curves

15
16
3W17-BW

15
16
3C4-...-S

15
16
3C20-...-S

Ordering informations

Fixing details

corner

→ Corner for bellied sides production of 90° bends or tee downwards.

tee

→ Connect sides of tee and ladder with straight joint 153C9-A / 163C9-A.

→ Bolt sides and jointing peices with screws 16J6-P.

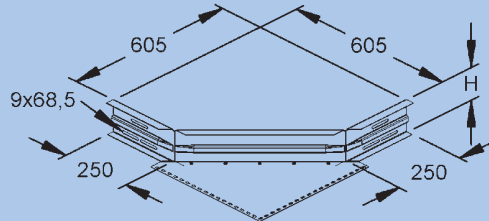
crossing

→ Connect sides of crossing and ladder with straight joints 153C9-A / 163C9-A.

→ Bolt sides and jointing piece with screws 16J6-P.

→ For a better support of cables in longitudinal direction of factory-provided available rungs, is to use C-rail 15F2-...-C and bearing clip 16J55 (see system representation 11).

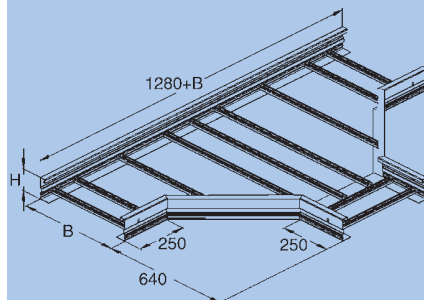
Fixing material	Page
screw 16J6-P	110
C-rail 15F2-...-C	187
bearing clip 16J55	239



corner

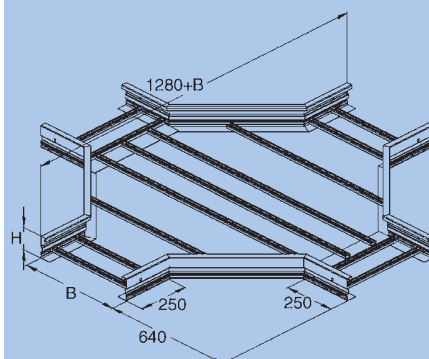
Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
153W17-BW	0.90	163W17-BW	0.95

including 6 screws 16J6-P (M8x16)



tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C4-200-S	12.40	163C4-200-S	13.02
300	153C4-300-S	14.00	163C4-300-S	14.70
400	153C4-400-S	15.60	163C4-400-S	16.38
500	153C4-500-S	17.50	163C4-500-S	18.38
600	153C4-600-S	19.40	163C4-600-S	20.37



crossing

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	153C20-200-S	17.30	163C20-200-S	18.17
300	153C20-300-S	19.30	163C20-300-S	20.77
400	153C20-400-S	21.80	163C20-220-S	22.89
500	153C20-500-S	24.90	163C20-300-S	26.15
600	153C20-600-S	26.00	163C20-220-S	27.30

Wide span ladders - System 105

Accessories for cable ladder

15
16
2C13-...-SA

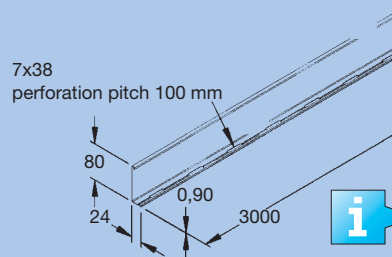
15
16
U6-A

15
16
3J6-...

**divider strip 152C13-SA / 162C13-SA / 142C13-SA,
support corner 16U6-A, hold down clamp 163J6-A, screw 16J6-P**

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461 or double dip
Technical data	- suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	- divider strip for dividing cable ladders for different kinds of cable, e.g. high voltage and low voltage current - corner anchor for fixing ladders to brackets for changes in vertical direction - hold down clamps for fixing to brackets or consoles

Ordering information



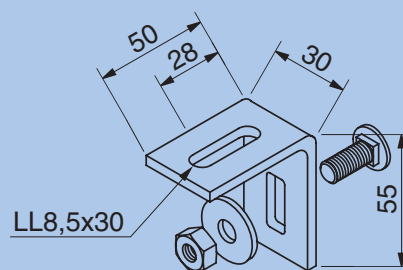
divider strip

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	152C13-SA	2.75	162C13-SA	2.89

i including 4 screws and slide nut for profile 30x15 (16C13-SZ)

Length (mm)	Order No. double dip	Weight (kg/pce.)
3000	142C13-SA	2.90

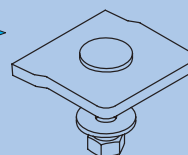
including 4 screws and slide nut for profile 30x15 (16C13-ZS)



support corner

Order No. hot dip galv.	Weight (kg/pce.)
16U6-A	0.12

including 1 screw 16J6-S (M8x20)



Installation on brackets 16B21-...-W, 16B9-...-W

hold down clamp

Order No. hot dip galv.	Weight (kg/pce.)
163J6-A	0.05



accessory screw M8x16

Bestell-Nr. hot dip galv.	Gewicht (kg/pce.)
16J6-P	0.02

cover 15W12-... / 16W12-... for cable ladder,
locking device 16N13-V, hold down clamp 173W12-KW

15 → W12-...

16 → N13-V

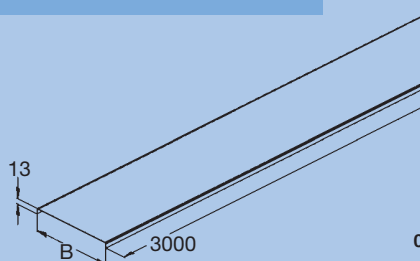
17 → 3W12-KW

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- for wide span ladders - for all ladder widths from 200 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

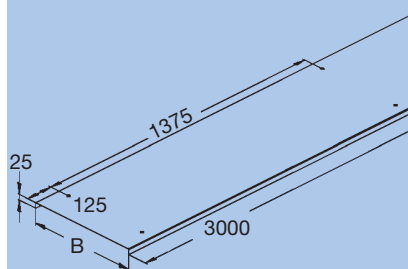
Fixing details

→ Fasten covers with locking devices 16N13-V or with fixing clips 173W12-K.



cover without locking

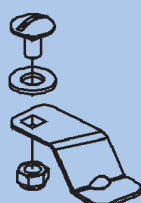
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



cover with locking for wide span systems

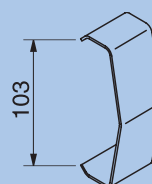
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200-RW	5.60	16W12-200-RW	5.88
300	15W12-300-RW	7.90	16W12-300-RW	8.30
400	15W12-400-RW	10.30	16W12-400-RW	10.82
500	15W12-500-RW	12.70	16W12-500-RW	13.34
600	15W12-600-RW	15.00	16W12-600-RW	15.94

pre-mounted locking device 16N13-V



locking device

Order No. hot dip galv.	Weight (kg/pce.)
16N13-V	0.03



fixing clip

Order No. stainless steel	Weight (kg/pce.)
173W12-KW	0.03



Wide span systems

RICO cable ladders for laying cables and lines, especially power lines for various loads.

The RICO wide span cable ladder system with 150 mm side height for support spacing up to 8.0 m includes:

see system pictures 12

Table of contents

Page

Wide span cable ladder

154C1-...-N / 164C1-...-N	114
154C1-...-S / 164C1-...-S	115

Molded components for wide span cable ladder

bend: 154C2-...-S / 164C2-...-S, extension tee: 154C15-...-S / 164C15-...-S	117
tee: 154C15-...-S / 164C15-...-S	118
crossing: 154C20-...-S / 164C20-...-S	118
corner 154W17-BW / 164W17-BW	118
exit plate: 163C8-...-B	116

Jointing pieces for wide span cable ladders

straight, bendable joints and hinge piece: 154C9-... / 164C9-...	116
--	-----

Accessories for wide span cable ladder

divider strip: 153C13-B / 163C13-B / 143C13-B	119
hold down clamps: 163J6-A	119
screw: 16J6-P	119

Covers

covers for ladders with or without locking: 15W12-... / 16W12-...	120
---	-----

Accessory for covers

locking device 16N13-V	120
------------------------	-----

Wide span ladders - System 150

Cable ladder

15
16
4C1-...-N

wide span ladder 154C1-...-N / 164C1-...-N

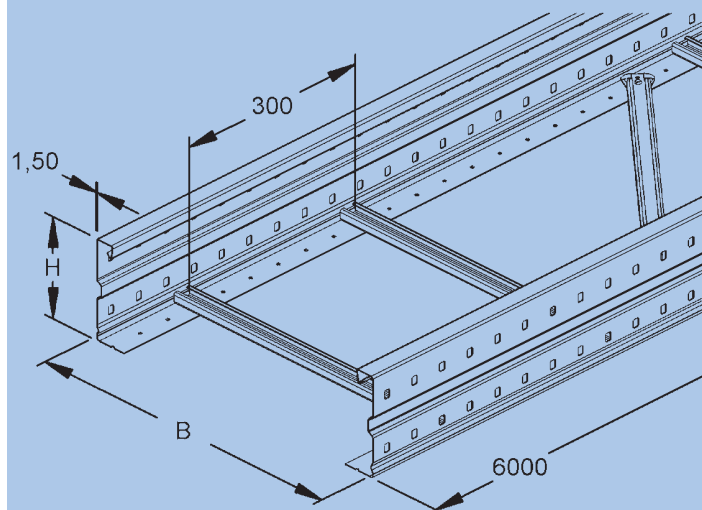
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	- side height H = 150 mm, thickness 1,5 mm - support spacing max. 8.0 m - continuous perforation of the side members for jointing pieces - rungs of C-profile 30x15 perforated, fixed with 16 mm slots open to topside - 4 diagonal rungs for increased lateral stability
Field of application	- installation on brackets

Ordering information

Fixing details

- Use hold down clamp 163J6-A when fixing to console.
- Use bend 154C2-...-S / 164C2-...-S to produce curves.
- Use extension tee 154C15-...-S / 164C15-...-S or tee 154C4-...-S / 164C4-...-S to produce junctions.
- Use jointing pieces 154C9-... / 164C9-... to connect ladders.

Fixing material	page
hold down clamp 163J6-A	119
protective end cap for rung 15J8-S30	194



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154C1-200-N	33.60	164C1-200-N	35.30
300	154C1-300-N	38.20	164C1-300-N	40.10
400	154C1-400-N	39.60	164C1-400-N	41.60
500	154C1-500-N	41.00	164C1-500-N	43.05
600	154C1-600-N	42.40	164C1-600-N	44.50

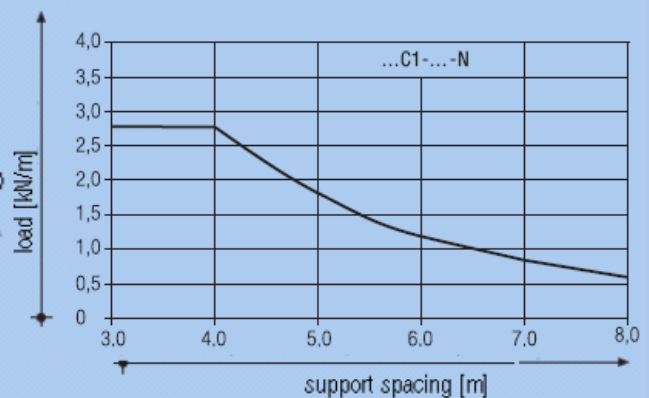
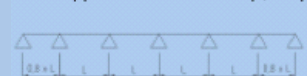
Load



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements!

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



wide span ladder 154C1-...-S / 164C1-...-S

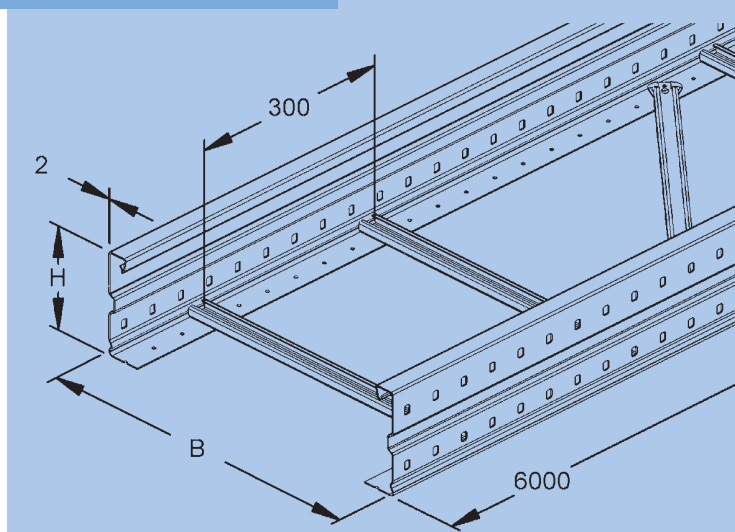


Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	<ul style="list-style-type: none"> - 6000 mm
Technical data	<ul style="list-style-type: none"> - side height H = 150 mm, thickness 2,0 mm - support spacing max. 8.0 m - continuous perforation of the side members for jointing piece - rungs of C-profile 30x15 perforated fixed with 16 mm slots open to topside - 4 diagonal rungs for increased lateral stability
Field of application	<ul style="list-style-type: none"> - installation on brackets and consoles

Ordering information

Fixing details

- Use hold down clamp 163J6-A when fixing to console.
- Use bend 154C2-...-S / 164C2-...-S to produce curves.
- Use extension tee 154C15-...-S / 164C15-...-S / or tee 154C4-...-S / 164C4-...-S to produce junctions.
- Use jointing pieces 154C9-... / 164C9-... to connect ladders.



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154C1-200-S	44.60	164C1-200-S	46.85
300	154C1-300-S	50.20	164C1-300-S	52.70
400	154C1-400-S	51.60	164C1-400-S	54.20
500	154C1-500-S	53.00	164C1-500-S	55.65
600	154C1-600-S	54.40	164C1-600-S	57.10

Fixing material page

hold down clamp 163J6-A	119
protective end cap for rung 15J8-S30	194

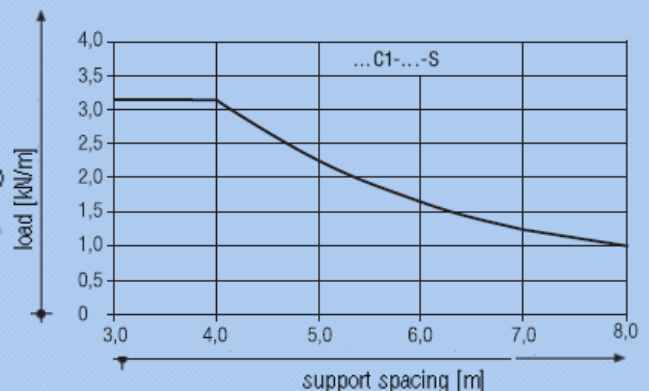
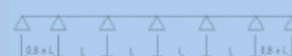
Load



It is important to pay attention to the specified max. loading supports brackets and fixing elements!

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



Wide span ladders - System 150

Joining piece for cable ladder

15
16
4C9-...

15
16
3C8-...-B

joining piece 154C9-... / 164C9-..., exit plate 163C8-...-B

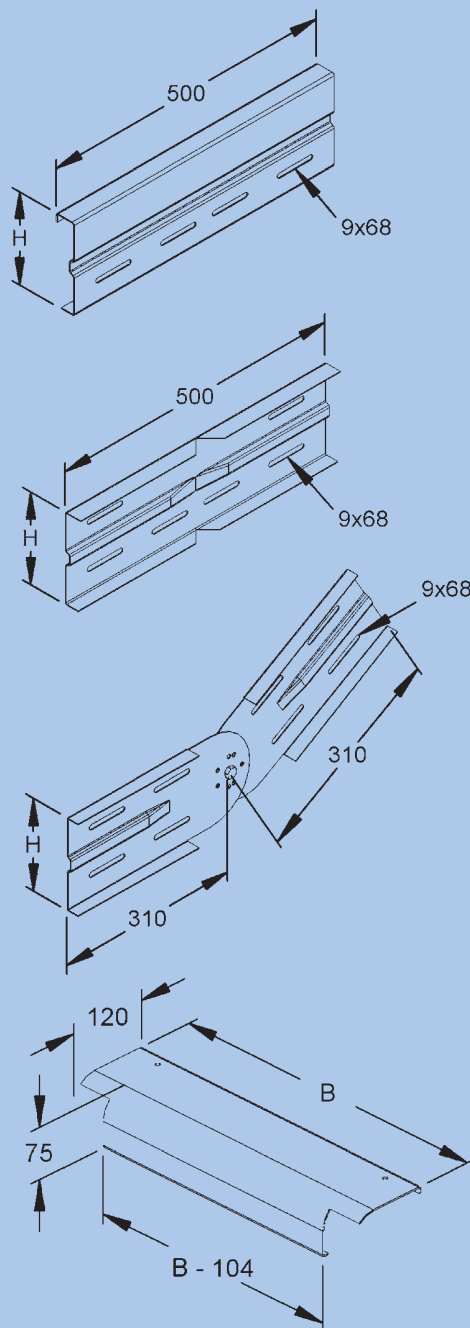
Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - side height H = 150 mm - suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	<ul style="list-style-type: none"> - to make straight, angular upward or downward connection of cable ladders - exit plate for cable protection in vertical cable bends

Ordering information

Fixing details

- Mount joining pieces to or push it into ladder ends.
- Fasten joining pieces and ladder sides with screws 16J6-P.

Fixing material	Page
screw 16J6-P (M8x16)	119



straight joint

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce.)	hot dip galv.	(kg/pce.)
154C9-A	1.80	164C9-A	1.89

including 4 screws 16J6-P (M8x16)

bendable joint

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce.)	hot dip galv.	(kg/pce.)
154C9-B	1.80	164C9-B	1.89

including 6 screws 16J6-P (M8x16)

hinge piece

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce.)	hot dip galv.	(kg/pce.)
154C9-C	1.80	164C9-C	1.89

including 6 screws 16J6-P (M8x16)

Exit plate

Width (mm)	Order No.	Weight
	hot dip galv.	(kg/pce.)
200	163C8-200-B	0.58
280	163C8-300-B	0.89
380	163C8-400-B	1.14
480	163C8-500-B	1.48
580	163C8-600-B	1.79



including 2 fixing screws 16C8-Z

bend 154C2-...-S / 164C2-...-S, extension tee 154C15-...-S / 164C15-...-S

15
16 → 4C9-...-S

15
16 → 4C15-...-S

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 150 mm - suitable for all ladder widths from 200 mm to 600 mm
Anwendungsbereich	- bend for making horizontal 90° curves - extension tee for making horizontal 90° curves

Ordering information

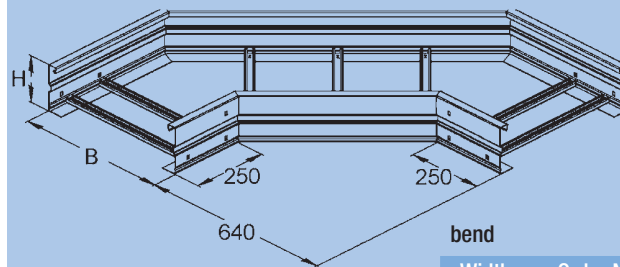
Fixing details

bend

- Connect sides of bend and ladder with straight joint 154C9-A / 164C9-A.
- Bolt sides and jointing pieces with screws 16J6-P.

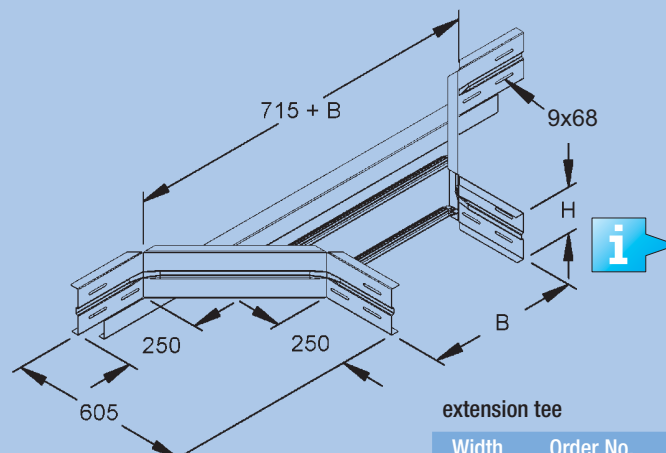
extension tee

- Cut out ladder side (width of extension tee + 710 mm).
- Bore out the rung's aluminium rivets and separate with chisel.
- Insert extension tee.
- Bolt extension tee with screws 16J6-P on the disengaged side ends.



bend

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154C2-200-S	8.20	164C2-200-S	8.61
300	154C2-300-S	9.70	164C2-300-S	10.19
400	154C2-400-S	11.50	164C2-400-S	12.08
500	154C2-500-S	13.50	164C2-500-S	14.18
600	154C3-600-S	15.30	164C2-600-S	16.07



extension tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154C15-200-S	11.80	164C15-200-S	12.30
300	154C15-300-S	12.20	164C15-300-S	12.70
400	154C15-400-S	12.60	164C15-400-S	13.10
500	154C15-500-S	13.00	164C15-500-S	13.50
600	154C15-600-S	13.40	164C15-600-S	13.90

including 12 screws 16J6-P (M8x16)

Fixing material	Page
screw 16J6-P	119

Wide span ladder - System 150

Molded components for cable ladder

15
16
4W17-...

15
16
4C4-...-S

15
16
4C20-...-S

corner 154W17-BW / 164W17-BW
tee 154C4-...-S / 164C4-...-S, crossing 154C20-...-S / 164C20-...-S

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height H = 150 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- tee for making horizontal 90° curves - crossing for making horizontal 90° curves

Ordering information

Fixing details

corner

→ Corner for construction of corner solution (90° bends or tee downwards) directly at the construction side.

tee

→ Fasten sides of tee and ladder with straight joint 154C9-A / 164C9-A.

→ Bolt sides and jointing pieces with screws 16J6-P.

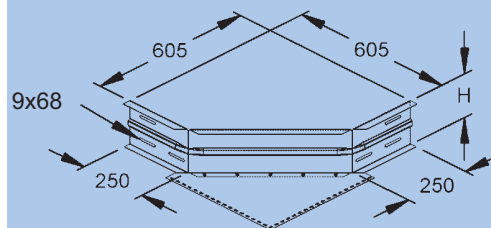
crossing

→ Fasten sides of crossing and ladders with straight joint 154C9-A / 164C9-A.

→ Bolt sides of jointing pieces with screws 16J6-P.

→ For a better support of cables in longitudinal direction of factory-provided available rungs is to use C-rails 15F2-...-C and bearing clip 16J55 (see system representation 12).

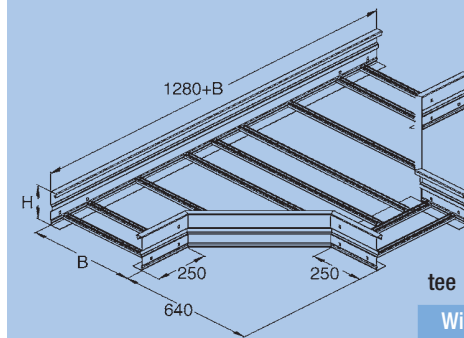
Fixing material	Page
screw 16J6-P	119
C-rail 15F2-...-C	211
bearing clip 16J55	333



corner

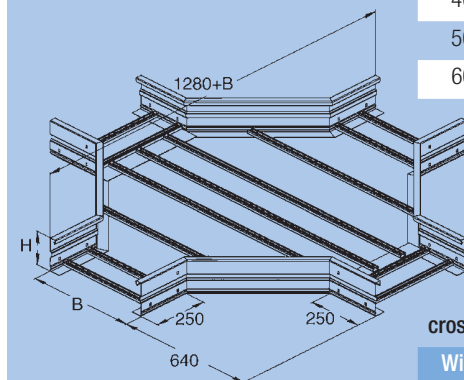
Order No.	Weight cont. hot galv. (kg/pce.)	Order No.	Weight hot dip galv. (kg/pce.)
154W17-BW	0.90	164W17-BW	0.95

including 6 screws 16J6-P (M8x16)



tee

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154C4-200-S	15.80	164C4-200-S	16.59
300	154C4-300-S	17.90	164C4-300-S	18.80
400	154C4-400-S	20.30	164C4-400-S	21.32
500	154C4-500-S	22.70	164C4-500-S	23.84
600	154C4-600-S	25.40	164C4-600-S	26.67



crossing

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	154C20-200-S	21.60	154C20-200-S	22.68
300	154C20-300-S	24.00	154C20-300-S	25.20
400	154C20-400-S	26.50	154C20-400-S	27.83
500	154C20-500-S	29.20	154C20-500-S	30.66
600	154C20-600-S	32.10	154C20-600-S	33.71

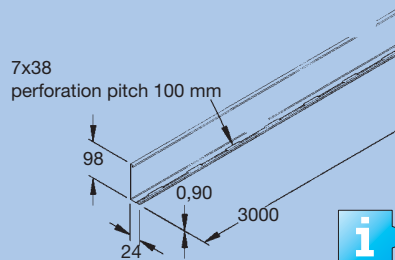
divider strip 153C13-B / 163C13-B / 143C13-B, fixing clip 163J6-A, screw 16J6-P

15
16 → 3C13-B

15
16 → 3J6-...

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 - hot dip galvanized according to DIN EN ISO 1461 or double dip
Technical data	<ul style="list-style-type: none"> - suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	<ul style="list-style-type: none"> - divider strip for dividing cable ladders for different kinds of cable, e.g. high voltage and low voltage current - hold down clamps for fixing on brackets and consoles

Ordering information



divider strip

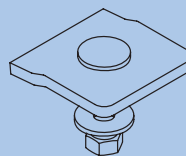
Length (mm)	Order No. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
3000	153C13-B	4.05	163C13-B	4.25

i including 4 screws and slide nut for profile 30x15 (16C13-SZ)

Length (mm)	Order No. double dip	Weight (kg/pce.)
3000	143C13-B	4.26

i including 4 screws and slide nut for profile 30x15 (16C13-SZ)

i



Installation on brackets 16-B8-...-W, 16B9-...-W

hold down clamp

Order No. hot dip galv.	Weight (kg/pce.)
163J6-A	0.05

i



accessory screw M8x16

Order No. hot dip galv.	Weight (kg/pce.)
16J6-P	0.02

Wide span ladders - System 150

Covers for cable ladder

15
16
W12-...

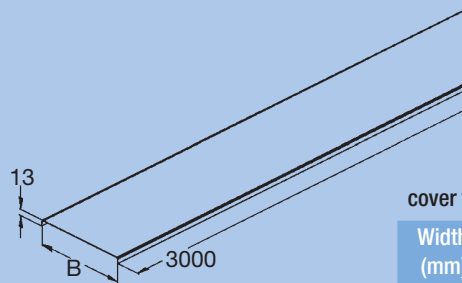
cover 15W12-... / 16W12-... for cable ladders, locking device 16N13-V

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- for cable ladders and width span cable ladders - for all ladder widths from 200 mm to 600 mm - available with or without locking
Field of application	- cable protection

Ordering information

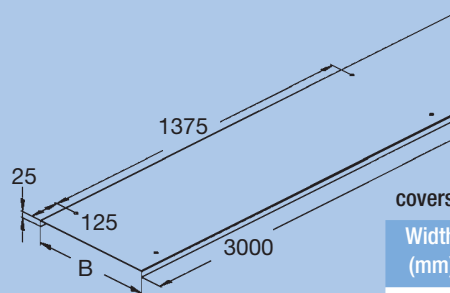
Fixing details

→ Fix covers with locking device
16N13-V.



cover without locking

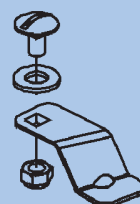
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200	5.25	16W12-200	5.51
300	15W12-300	7.70	16W12-300	8.09
400	15W12-400	10.10	16W12-400	10.61
500	15W12-500	12.50	16W12-500	13.13
600	15W12-600	14.90	16W12-600	15.65



covers with locking for wide span systems

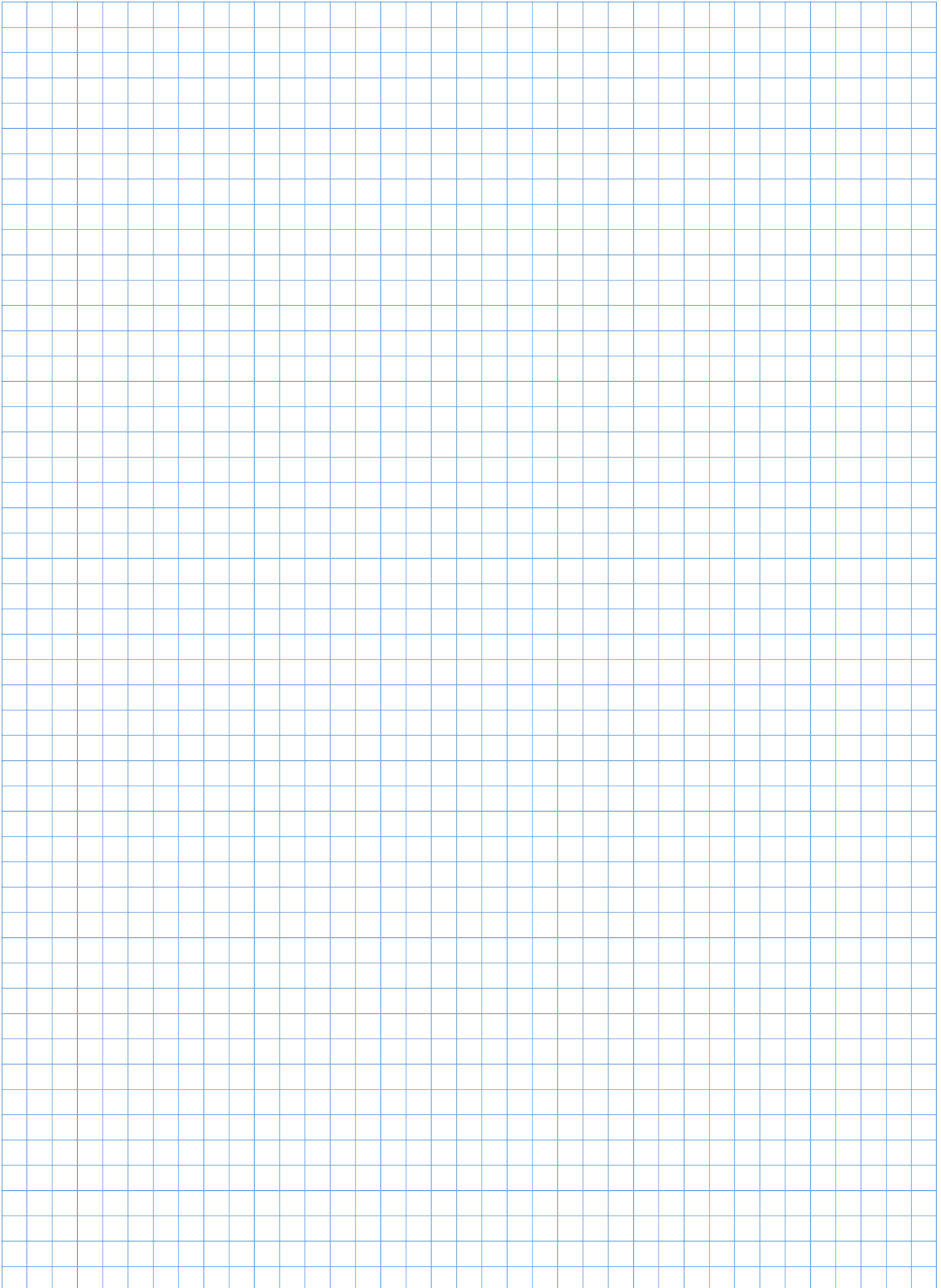
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15W12-200-RW	5.60	16W12-200-RW	5.88
300	15W12-300-RW	7.90	16W12-300-RW	8.30
400	15W12-400-RW	10.30	16W12-400-RW	10.82
500	15W12-500-RW	12.70	16W12-500-RW	13.34
600	15W12-600-RW	15.00	16W12-600-RW	15.94

pre-mounted locking device 16N13-V



locking device

Order No. hot dip galv.	Weight (kg/pce.)
16N13-V	0.03



Wide span
systems



Wide span systems

RICO cable ladders for laying cables and lines, especially power lines for various loads.

The RICO wide span cable ladder system with 200 mm side height for support spacing of up to 10.0 m includes:

see system pictures 13

Table of contents Page

Wide span cable ladder

Industrial design: 165C1-...	124
------------------------------	-----

Molded components for wide span cable ladder

bend: 165C2-...	125
vertical bends, downward and upward: 165C8-...-A, 165C8-...-B	125
tee downward: 165C3-...	126
crossing: 165C5-...	126

Jointing pieces for wide span cable ladder

bendable joints and hinge piece 165C9-...	127
jointing pieces: 165C14	127

Accessories for wide span cable ladder

divider strip: 163C13-A	128
pipe clamp: 165J6-A, 16B21-Z1	128
screw: 165C1-Z	128

Covers

covers for wide span cable ladder: 165C12-...	129
cover for molded components: 165C12-...-A, 165C12-...-T	129

Wide span ladders - System 200

Cable ladder, industrial design

16 5C1-...

wide span cable ladder 165C1-...

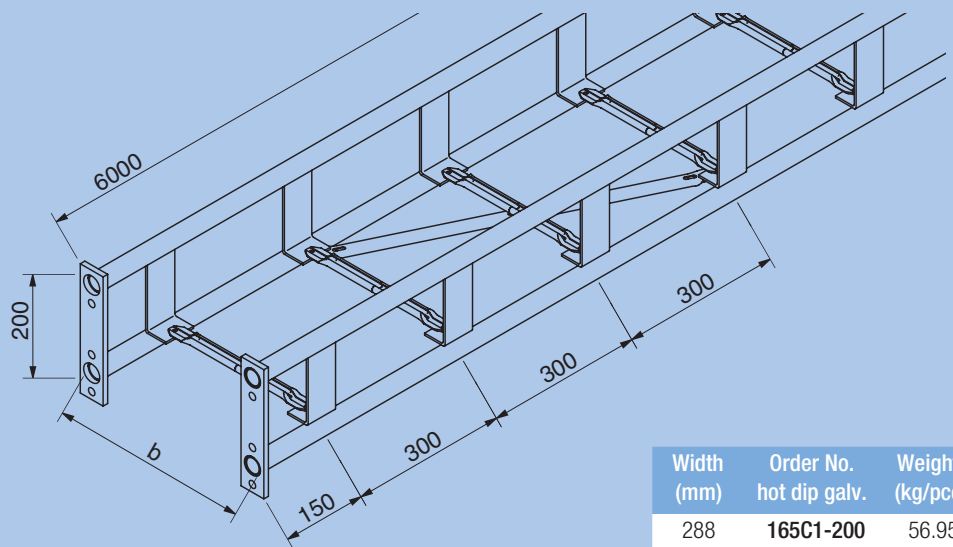
Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	- side height 200 mm - support spacing max. 10.0 m - rungs of C-profile 30x15 perforated, fixed with 16 mm slots open to topside - diagonal rungs for increased lateral stability - threaded joint at flat joint plate
Field of application	- installation on brackets and consoles - see system picture 10

Ordering information

Fixing details

- Use pipe clamps 165J6-A for fixing on brackets.
- Use pipe clamps 16B21-Z1 for fixing on consoles.
- Use bend 165C2-... or vertical bend 165C8-...-A, 165C8-...-B to produce on curves.
- Use tee 165C3-... to produce junctons.
- Use screws 165C1-Z to connect ladders.

Fixing material	Page
pipe clamp 165J6-A	128
screw 165C1-Z	128

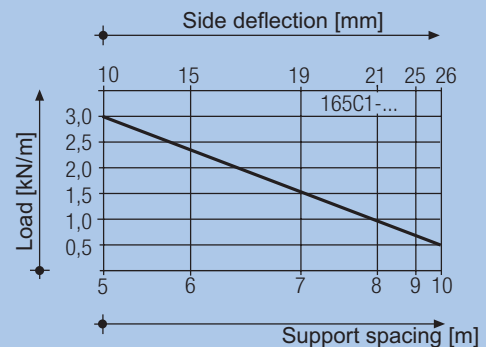


Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
288	165C1-200	56.95
388	165C1-300	57.60
488	165C1-400	58.55
588	165C1-500	61.25
688	165C1-600	62.60

including 6 screws 165C1-Z (M12x35) for straight joint



It is important to pay attention to the specified max. loading supports brackets and fixing elements!



bend 165C2-..., vertical bend 165C8-...-A, 165C8-...-B

16 → 5C2-...

16 → 5C8-...

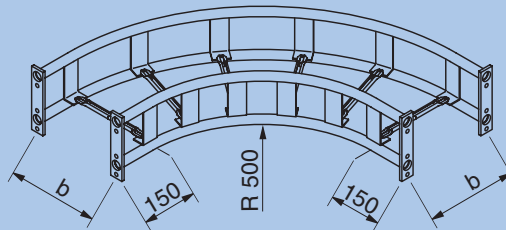
Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 200 mm - rungs of C-profile 30x15 - suitable for all ladder widths from 288 mm to 688 mm
Field of application	- to make 90° horizontal or vertical curves - see system picture 10

Ordering information

Fixing details

→ Connect sides of bend and ladder with screws 165C1-Z.

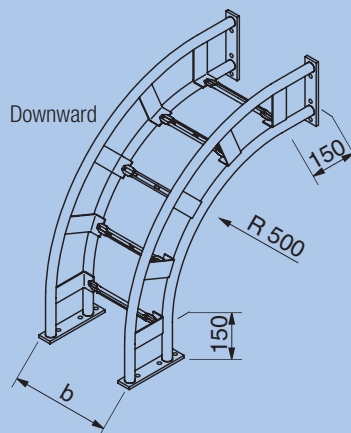
Fixing material	Page
screw 165C1-Z	128



bend

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
288	165C2-200	15.90
388	165C2-300	16.53
488	165C2-400	17.30
588	165C2-500	18.55
688	165C2-600	19.40

including 6 screws 165C1-Z for straight joint



vertical bend

Width (mm)	Order No. hot dip galv.		Weight (kg/pce.)
	downward	upward	
288	165C8-200-A	165C8-200-B	14.80
388	165C8-300-A	165C8-300-B	14.95
488	165C8-400-A	165C8-400-B	15.15
588	165C8-500-A	165C8-500-B	15.80
688	165C8-600-A	165C8-600-B	16.10

including 6 screws 165C1-Z for straight joint

Wide span ladders - System 200

Molded components for cable ladder

16 5C3-...

16 5C5-...

tee downward 165C3-..., crossing 165C5-...

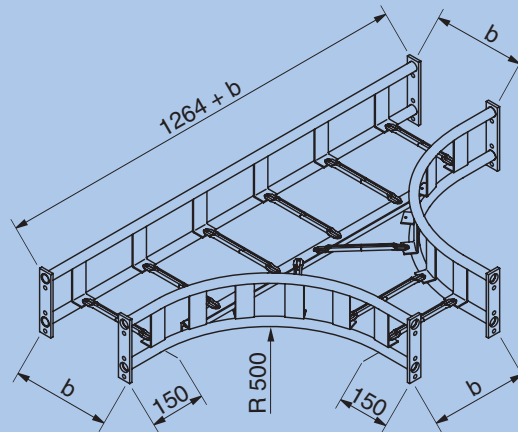
Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 200 mm - suitable for all ladder widths from 288 mm to 688 mm
Field of application	- to make 90° junctions / crossings - see system picture 10

Ordering information

Fixing details

→ Connect sides of tee downward / crossing and ladder with screws 165C1-Z.

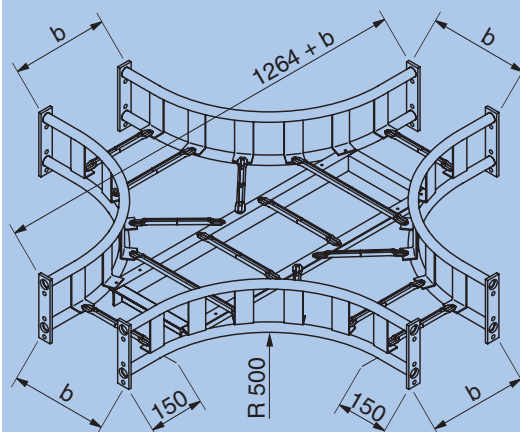
Fixing material	Page
screw 165C1-Z	128



tee downward

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
288	165C3-200	31.90
388	165C3-300	33.60
488	165C3-400	35.30
588	165C3-500	37.00
688	165C3-600	38.80

including 12 screws 165C1-Z for straight joint



crossing

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
288	165C5-200	44.00
388	165C5-300	45.80
488	165C5-400	47.40
588	165C5-500	49.50
688	165C5-600	51.40

including 18 screws 165C1-Z for straight joint

joining piece 165C9-..., joining piece 165C14

16 5C9-...

16 5C14-...

Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- side height 200 mm - suitable for all ladder widths from 288 mm to 688 mm - delivery including fixing screws
Anwendungsbereich	- realizing straight or angular ladder connections - joining piece for rigid connecting parts (suitable for length adaption, length compensation or for heat expansion) - see system picture 10

Ordering information

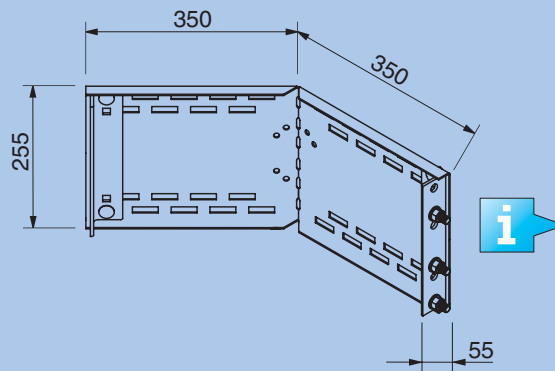
Fixing details

→ Fasten joining pieces and ladder sides with screws 165C1-Z.

length adaptation

- Cut the tube of the wide span cable ladder to size, burr and coat twice with cold zink.
- Insert the pins of the joining pieces into the tube ends of the shortened ladder up to the required length (at least 60 mm).

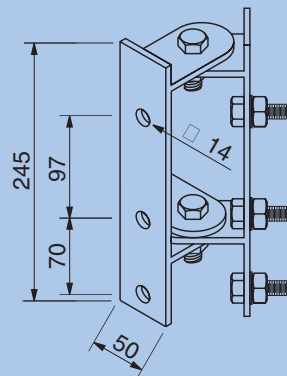
Fixing material	Page
screw 165C1-Z	128



bendable joint, outside

Order No.	Weight hot dip galv. (kg/pce.)
165C9-A	6.07

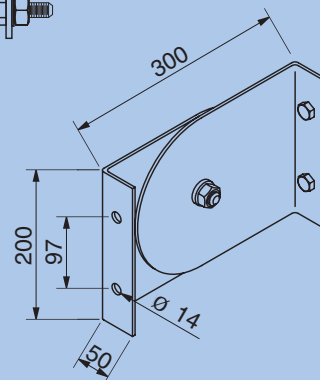
including 3 screws 165C1-Z



bendable joint, inside

Order No.	Weight hot dip galv. (kg/pce.)
165C9-B	3.72

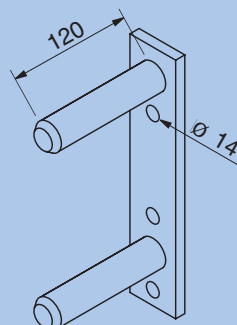
including 3 screws 165C1-Z



hinge piece

Order No.	Weight hot dip galv. (kg/pce.)
165C9-C	3.72

including 2 screws 165C1-Z



joining piece

Order No.	Weight hot dip galv. (kg/pce.)
165C14	2.16

Wide span ladder - System 200

Accessories for cable ladder

16 3C13-A

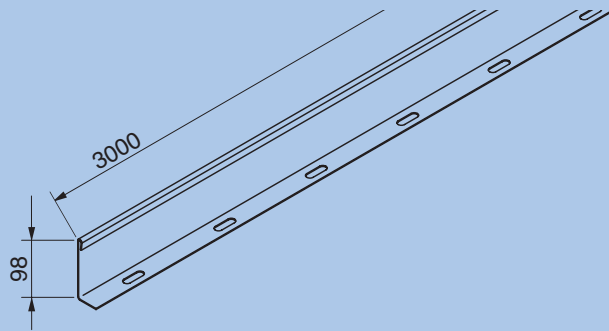
divider strip 163C13-A,
pipe clamp 165J6-A, 16B21-Z1, screw 165C1-Z

16 5J6-A

16 B21-Z1

Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- suitable for all ladder widths from 288 mm to 688 mm - delivery including fixing screws
Field of application	- divider strip for dividing the cable ladder into different cables types, for example heavy current and light current - pipe clamps for fastening to brackets, consoles or head plates (of supports 16A7-...) - see system picture 10

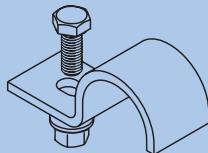
Ordering information



divider strip

Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
3000	163C13-A	3.38

including 5 screws and oblique sliding nuts for profile 30x15 16C13-ZS)

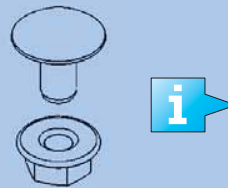


pipe clamps

Order No. hot dip galv.	Weight (kg/pce.)
165J6-A	0.12

Installation on brackets 16B8-...-W, 16B9-...-W and plates from 16A7-...

including screw



accessory screw M12x35

Order No. hot dip galv.	Weight (kg/pce.)
165C1-Z	0.07

cover 165C12-... for cable ladder and molding components

16 5C12-...

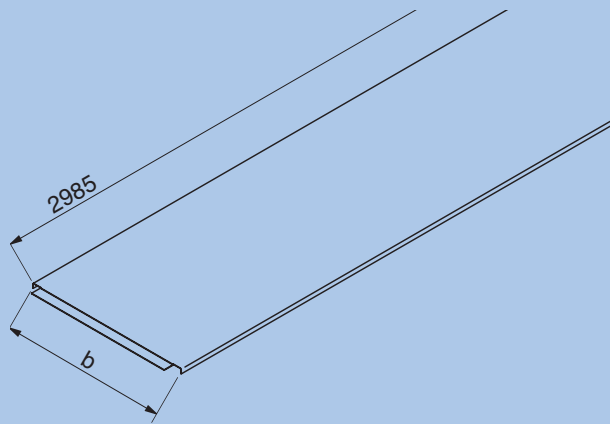
Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- suitable for all ladder widths from 288 mm to 688 mm - including pipe clamps for fastening to the ladder
Field of application	- cable protection against falling in parts in industrial plants, especially when laid under grating platforms and craneways - see system picture 10

Ordering information

Fixing details

→ Use pipe clamps 165J6-A to fasten the cover to the upper of the side section.

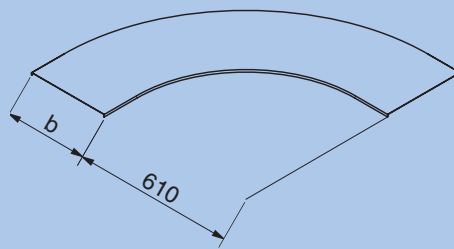
Fixing material	Page
pipe clamp 165J6-A	128



Cover for cable ladder

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
305	165C12-200	13.27
405	165C12-300	17.07
505	165C12-400	20.87
605	165C12-500	24.67
705	165C12-600	28.47

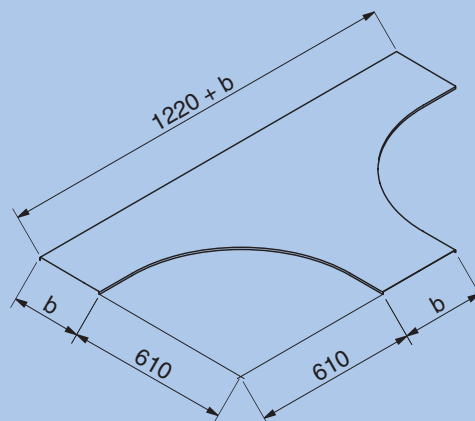
including 6 pipe clamps 165J6-A



Cover for bend (horizontal)

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
305	165C12-200-A	5.81
405	165C12-300-A	7.82
505	165C12-400-A	10.02
605	165C12-500-A	12.43
705	165C12-600-A	15.05

including 6 pipe clamps 165J6-A



Cover for tee downward

Width (mm)	Order No. hot dip galv.	Weight (kg/pce.)
305	165C12-200-T	10.80
405	165C12-300-T	13.75
505	165C12-400-T	16.90
605	165C12-500-T	20.30
705	165C12-600-T	23.90

including 6 pipe clamps 165J6-A



Support systems

This chapter contains an overview of the RICO cable support elements for various loads and applications, subdivided into product families.

Table of contents Page

Support + brackets

Combinations of supports and corresponding brackets within the installation standard, low and medium loads **133**

Combinations of supports and corresponding brackets within the industrial standard, high loads **151**
 RICO clamping system with claws and C-profile sections

Brackets + consoles

direct installation on walls and ceilings without the use of supports, low, medium and high loads **167**

Fixing material

Expansion bolts **179**
 Corner anchors and anchor bolts
 Fixing and jointing pieces
 Accessories for luminaire support tray and INSTA tray
 Accident prevention with protective end caps



Support systems

RICO-support system consists of supports and brackets for individual installation of cable trays on walls, ceilings or floors.

The RICO program in installation design for low and medium loads contains:

Table of contents page

Supports for loads up to 2.0 kN	
U-profile 50x22: 15A15-... / 16A15-...	134
head plate for screwing: 16A16-K	134
hanging support made of U-profile 50x22, with welded-on head plate: 16A16-...	135
Supports for loads up to 4.0 kN	
U-profile 50x22: 15A15-... / 16A15-...	139
head plate: 16A4-D, 16A4-E	139
hanging support made of 2 U-profiles 50 x 22: 16A10-...	140
U-profile 50x50: 16A13-...	141
head plate: 16A14-K	141
hanging support made of U-profile 50x50, with welded-on head plate: 16A14-...	142
stiffening profile: 16J14-55	144
Supports for loads up to 6.0 kN	
U-profile 60x40: 16A7-...	143
head plate: 16A8-40, connestion angle: 16A8-50, stiffening profile: 16J14-64	144
hanging profile made of U-profile 60x40, with welded-on head plate: 16A9-...	145
Brackets for supports	
bracket (load class 0.6 kN): 15B5-..., adapter piece: 15A16-A	136
bracket (load class 1.20 kN): 15B6-...	137
bracket (load class 2.50 kN): 16B7-...	138
suspension bracket for hanging from centre: 15A11-...	146
bracket (load class 0.35 kN): 06B2-...	147
bracket (load class 1.50 kN): 15B3-... / 16B3-...	148
bracket (load class 3.60 kN): 16B2-...	149
RICO-clamping system	
clamping claw: 16A4-13-D, 16A4-13-DA	161
clamping vlaw components: 16A4-13, 16A4-13-Z1, 16A4-13-Z2	162

Supports + brackets

Supports, installation standard



U-profile 15A15-... / 16A15-..., head plate 16A16-K

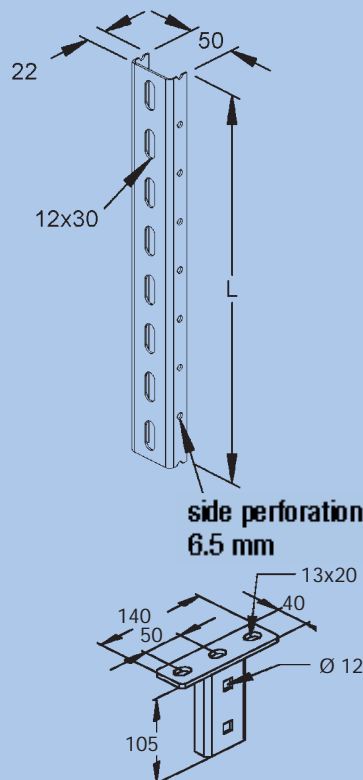
Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327 with side perforation or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 200 to 1200 mm; 2000 and 3000 mm, 6000 mm upon request
Technical data	- U-profile 50x22x2.0; perforation 12x30
Anwendungsbereich	- hanging support in connection with head plate 16A16-K - for use with brackets: 15B5-... for 100 to 400 mm brackets length 15B6-... for 100 to 400 mm brackets length 16B7-... for 100 to 400 mm brackets length

Ordering information

Fixing details

- Fix head plate with steel expansion bolt 15J1-... or anchor bolt 16J2-....
- Fix head plate with screw M10x25 at the U-profile 15A15-... / 16A15-....
- Fix bracket 15B5-..., 15B6-... and 16B7-... with screw M10x25 at the support.
- Cover profile with protective end cap 15A16-S.
- For static reasons and to enable a trouble-free setting-up of the protective end cap, the bracket should be fixed at intervals of $x = 50$ mm above en

Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
protective end cap 15A16-S	193



Length of vertical profile incl. head plate

U-profile 50x22

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15A15-200	0.26	16A15-200	0.28
300	15A15-300	0.39	16A15-300	0.41
400	15A15-400	0.52	16A15-400	0.55
500	15A15-500	0.65	16A15-500	0.69
600	15A15-600	0.78	16A15-600	0.82
700	15A15-700	0.91	16A15-700	0.96
800	15A15-800	1.04	16A15-800	1.10
900	15A15-900	1.17	16A15-900	1.23
1000	15A15-1000	1.30	16A15-1000	1.37
1100	15A15-1100	1.43	16A15-1100	1.51
1200	15A15-1200	1.56	16A15-1200	1.64
2000	15A15-2000	2.60	16A15-2000	2.73
3000	15A15-3000	3.90	16A15-3000	4.10

head plate

Order No. hot dip galv.	Weight (kg/pce.)
16A16-K	0.40

including 2 screws 16J6-1025

Load

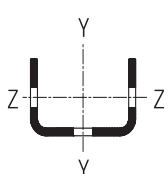
permissible bending moment

$$M = 0.25 \text{ kN}$$

permissible tensile load

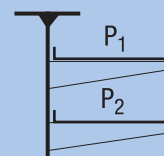
$$F_z = 2.00 \text{ kN}$$

Profile values



$$\begin{aligned} A &= 1.50 \text{ cm}^2 \\ W_y &= 2.66 \text{ cm}^3 \\ W_z &= 0.48 \text{ cm}^3 \\ I_y &= 6.66 \text{ cm}^4 \\ I_z &= 0.74 \text{ cm}^4 \end{aligned}$$

Max. ΣP

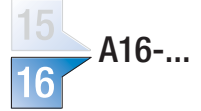


Bracket length (mm)	Load ΣP (kN)
100	2.00
200	2.00
300	1.40
400	1.10

hanging support 16A16-..., with welded-on head plate



max. load

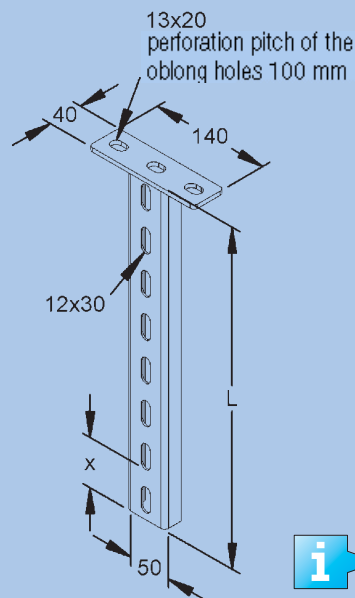


Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 201 to 1205 mm, total length = length of U-profile incl. head plate
Technical data	- hanging support made of U-pro le 50x22x2,0, perforation 12x30, with welded on head plate
Field of application	- hanging support - for use with brackets: 15B5-... for 100 to 400 mm bracket length 15B6-... for 100 to 400 mm bracket length 16B7-... for 100 to 600 mm bracket length (Pay attention to the load)

Ordering information

Fixing details

- Fix support to the ceiling with steel expansion bolt 15J1-... or anchor bolts 16J2-... or with claws 16A4-13-D at the steel grider.
- Fix the bracket 15B5-..., 15B6-... and 16B7-... with the screw M10x25 to the support.
- Cover profile end with protective end cap 15A16-S.
- For static reasons and to enable a trouble-free setting-up of the protective end cap, the bracket should be fixed at intervals of $x = 50$ mm above the end



hanging support

Total length L (mm)	Order No. hot dip galv.	Weight (kg/pce.)
201	16A16-200	0.46
301	16A16-300	0.60
401	16A16-400	0.73
501	16A16-500	0.85
601	16A16-600	0.98
705	16A16-700	1.09
805	16A16-800	1.22
905	16A16-900	1.35
1005	16A16-1000	1.49
1105	16A16-1100	1.62
1205	16A16-1200	1.75

Support system

Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
claw 16A4-13-D	161
protective and cap 15A16-S	193

Load

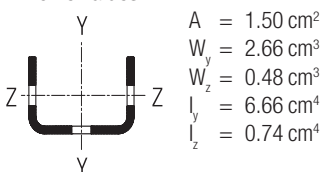
permissible bending moment

$M = 0.25$ kN

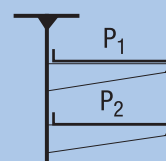
permissible tensile load

$F_z = 2.00$ kN

Profile values



Max. load ΣP



bracket length (mm)	Load ΣP (kN)
100	2.00
200	2.00
300	1.40
400	1.10

Supports + brackets

Brackets, installation standard

0.6
kN
max. load

15
16 B5-...

bracket 15B5-..., adapter piece 15A16-A

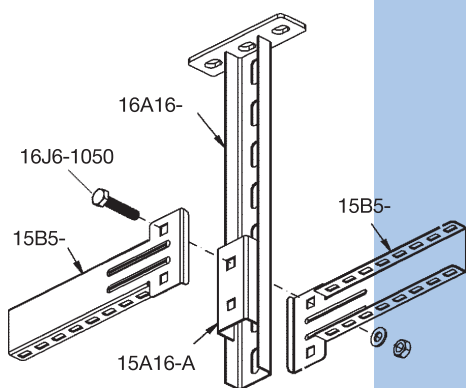
Material	- sheet steel, perforatd - continuously hot galvanized according to DIN EN 10327
Supply length	- 105 to 405 m
Field of application	- fixing on supports 16A16-...

Ordering informstion

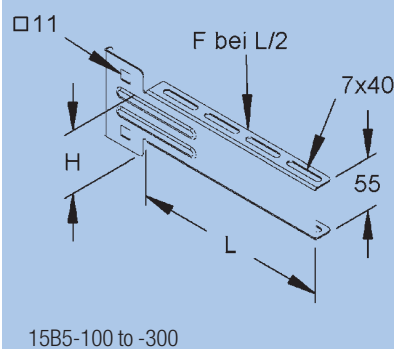
Fixing details

- Fix brackets with screw M10x25 on hanging support 16A16-....
- permissible load
F = max. 0,6 kN

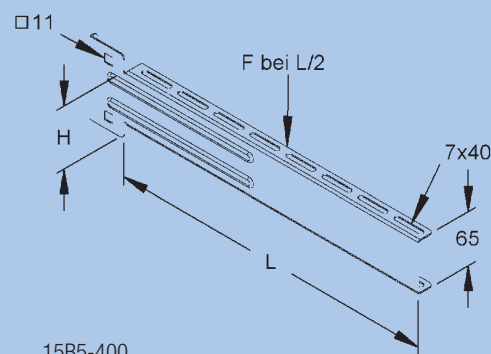
Fixing on both sides



At the fixing of 2 brackets at the same height of the hanging support 16A16-... there have to be integrated an adapter piece 15A16-A (see drawing).



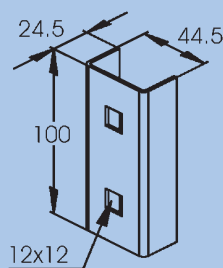
15B5-100 to -300



15B5-400

brackets

Height (mm)	Length (mm)	Order No.	Weight cont. hot galv. (kg/pce.)
73	105	15B5-100	0.20
73	205	15B5-200	0.30
73	305	15B5-300	0.43
83	405	15B5-400	0.75



adapter piece

Order No.	Weight cont. hot galv. (kg/pce.)
15A16-A	0.14

including 1 screws
16J6-1050

bracket 15B6-...

Material	- sheet steel, perforated - continuously hot galvanized according to DIN EN 10327
Supply length	- 105 to 405 mm
Field of application	- fixing on supports 16A16-...

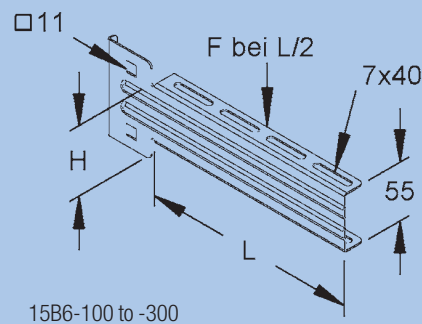


15 B6-...

Ordering information

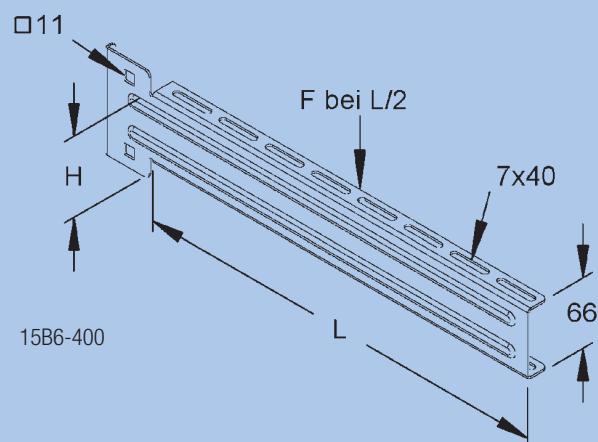
Fixing details

- Fix bracket with screw M10x25 at the hanging support 16A16-....
- permissible load **F = max. 1,2 kN**



bracket

Height (mm)	Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
73	105	15B6-100	0.24
73	205	15B6-200	0.33
73	305	15B6-300	0.47
83	405	15B6-400	0.78



Supports + brackets

Brackets, installation standard



15 B7-...

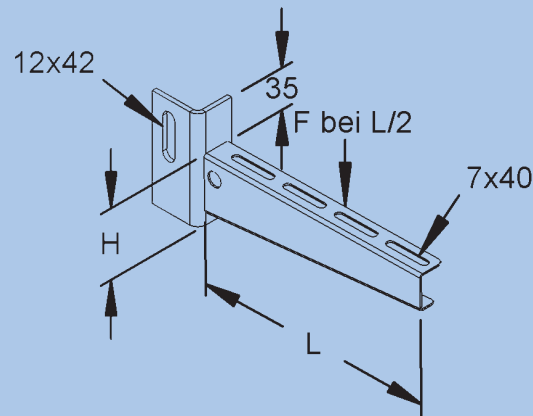
bracket 16B7-...

Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 110 to 610 mm
Field of application	- fixing on supports 16A16-...

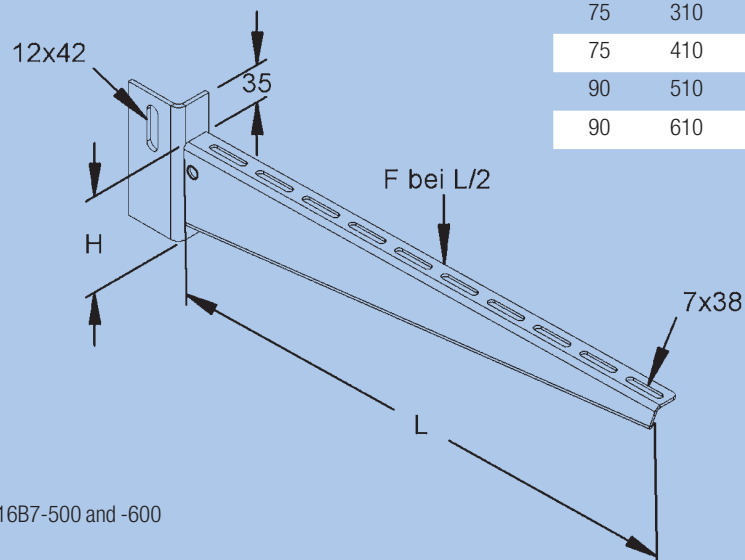
Ordering information

Fixing details

- Fix bracket with screw M10x25 at the hanging support 16A16-.... and 16A10-....
- permissible load
F = max. 2,5 kN



16B7-100 to -400



16B7-500 and -600

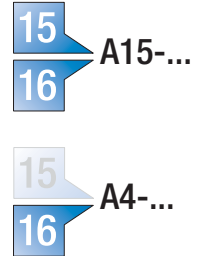
bracket

Height (mm)	Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
50	110	16B7-100	0.22
60	210	16B7-200	0.35
75	310	16B7-300	0.60
75	410	16B7-400	0.80
90	510	16B7-500	1.20
90	610	16B7-600	1.50

U-profile 15A15-... / 16A15-..., screwed heat plate 16A4-E, screwed head plate, vertical 16A4-D



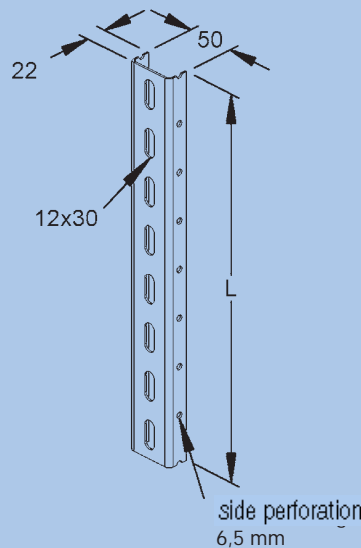
Material	- sheet steel perforated - continuously hot galvanized DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 200 to 1200 mm; 2000 and 3000 mm, 6000 mm on inquiry
Technical data	- U-profile 50x22x2; perforation 12x30
Field of application	- hanging support in connection with screwed head plate 16A4-E and two U-profiles 5A15-... / 16A15-... - for use with bracket 15B5-... for 100 to 400 mm bracket length 15B6-... for 100 to 400 mm bracket length 15B7-... for 100 to 600 mm bracket length



Ordering information

Fixing details

- Fix head plate with steel expansion bolts 15J1-....
- Fix head plate with screws 16J6-1025 to the U-profile 15A15-... / 16A15-....
- Fix bracket 15B5-..., 15B6-... 16B7-... with screw M10x25 to support.
- Cover profile with protective end cap 16A10-S.
- For static reasons and to enable a trouble-free setting-up of the protective end cap, the bracket should be fixed at intervals of $x = 50$ mm above the end of the



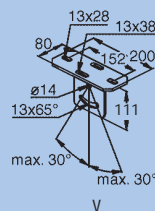
U-profile 50x22

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
200	15A15-200	0.26	16A15-200	0.28
300	15A15-300	0.39	16A15-300	0.41
400	15A15-400	0.52	16A15-400	0.55
500	15A15-500	0.65	16A15-500	0.69
600	15A15-600	0.78	16A15-600	0.82
700	15A15-700	0.91	16A15-700	0.96
800	15A15-800	1.04	16A15-800	1.10
900	15A15-900	1.17	16A15-900	1.23
1000	15A15-1000	1.30	16A15-1000	1.37
1100	15A15-1100	1.43	16A15-1100	1.51
1200	15A15-1200	1.56	16A15-1200	1.64
2000	15A15-2000	2.60	16A15-2000	2.73
3000	15A15-3000	3.90	16A15-3000	4.10

screwed head plate vertical

Order No. hot dip galv.	Weight (kg/pce.)
16A4-D	0.90

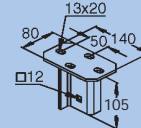
including 2 screws 16J6-1025



screwed head plate

Order No. hot dip galv.	Weight (kg/pce.)
16A4-E	0.70

including 2 screws 16J6-1025



Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
protective end cap 15A10-S	193

Load

permissible bending moment

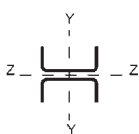
$M = 0.85$ kN

permissible tensile load

$F_z = 4.00$ kN

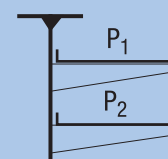
profil values

$A = 3.00$ cm ²
$W_y = 5.32$ cm ³
$W_z = 0.96$ cm ³
$I_y = 13.32$ cm ⁴
$I_z = 1.48$ cm ⁴



Load capacity by using 2 U-profile

Max. load ΣP



Bracket length (mm)	Load ΣP (kN)
100	4.00
200	4.00
300	4.00
400	3.70
500	3.00
600	2.60

Supports + brackets

Brackets, installation standard



A10-...

hanging support 16A10, with welded-on head plate

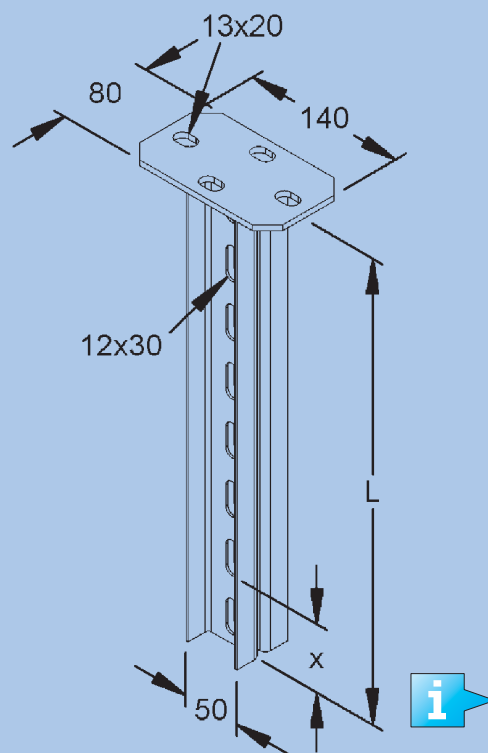
Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Lieferlänge	- 201 mm to 1505 mm, total length = length of U-pro le incl. head plate
Technical data	- hanging support made of 2 U-pro le 50x22x2, oblong hole 12x30,
Field of application	- hanging support - for use with brackets 15B5-... for 100 to 400 mm brackets length 15B6-... for 100 to 400 mm brackets length 15B7-... for 100 to 600 mm brackets length

Ordering information

Fixing material

- Fix support with steel expansion bolt 15J1-... on ceiling.
- Fix bracket 15B5-..., 15B6-... and 16B7-... with screw M10x25 to the support.
- Cover profile with protective end cap 15A10-S.
- For static reasons and to enable a trouble-free setting-up of the protective end cap, the bracket should be fixed at intervals of $x = 50$ mm above the end of the

Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
protective end cap 15A10-S	193



hanging support

Total length L (mm)	Order No. hot dip galv.	Weight (kg/pce.)
201	16A10-200	0.90
255	16A10-250	1.05
301	16A10-300	1.19
401	16A10-400	1.46
501	16A10-500	1.73
601	16A10-600	2.02
705	16A10-700	2.29
805	16A10-800	2.57
905	16A10-900	2.85
1005	16A10-1000	3.12
1105	16A10-1100	3.40
1205	16A10-1200	3.68
1305	16A10-1300	3.96
1405	16A10-1400	4.24
1505	16A10-1500	4.51

Load

permissible bending moment

$$M = 0.85 \text{ kN}$$

permissible load

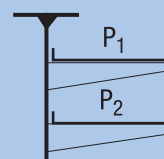
$$F_z = 4.00 \text{ kN}$$

profil values

	$A = 3.00 \text{ cm}^2$
	$W_y = 5.32 \text{ cm}^3$
	$W_z = 0.96 \text{ cm}^3$
	$I_y = 13.32 \text{ cm}^4$
	$I_z = 1.48 \text{ cm}^4$

Loading capacity by using 2 U-profilis

Max. load ΣP



Bracket length (mm)	Load ΣP (kN)
100	4.00
200	4.00
300	4.00
400	3.70
500	3.00
600	2.60

U-profile 16A13-..., head plate 16A14-K

Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 200 mm to 1500 mm, 3000 and 6000 mm
Technical data	- U-profile 50x50x2,5, perforation 13x40
Field of application	- room or hanging support in connection with head plate 16A14-K - for use with brackets 15B3-.../16B3-... for 100 to 400 mm bracket length and 16B2-... for 500 to 600 mm bracket length



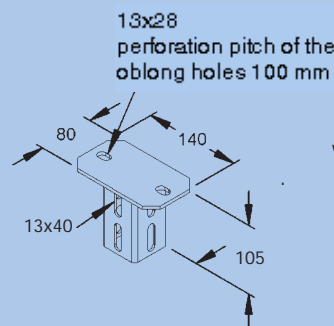
16 → A13-...

16 → A14-K

Ordering information

Fixing details

- Fix profile with steel expansion bolts 15J1-... or anchor screws 16J2-....
- Fix head plate with screws M10x25 to the U-profile 16A13-....
- Lug angle to date 16A8-50 can also be used for up to $\pm 30^\circ$ inclined ceilings.
- Bracket to profile 16B2-... with screw 16J6-1025
15B3-.../16B3-... with screw 16J6-1025
- Cover profile ends with protective end cap 15J8-B.

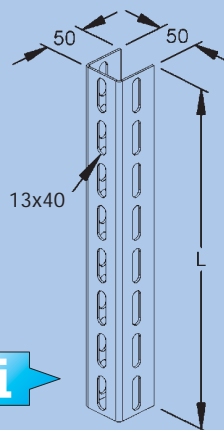


head plate

Order No. hot dip galv.	Weight (kg/pce.)
16A14-K	0.83
2	M10x25

U-profile

Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
200	16A13-200	0.48
300	16A13-300	0.72
400	16A13-400	0.96
500	16A13-500	1.20
600	16A13-600	1.44
700	16A13-700	1.68
800	16A13-800	1.92
900	16A13-900	2.16
1000	16A13-1000	2.40
1100	16A13-1100	2.64
1200	16A13-1200	2.88
1300	16A13-1300	3.12
1400	16A13-1400	3.36
1500	16A13-1500	3.60
3000	16A13-3000	7.19
6000	16A13-6000	14.38



Load

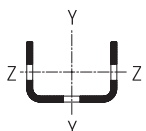
permissible bending moment

$M = 0.70 \text{ kN}$

permissible tensile load

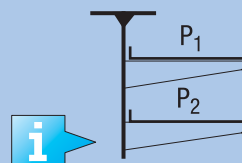
$F_z = 4.00 \text{ kN}$

profile values



A	$= 3.57 \text{ cm}^2$
W_y	$= 6.26 \text{ cm}^3$
W_z	$= 2.57 \text{ cm}^3$
I_y	$= 15.64 \text{ cm}^4$
I_z	$= 9.49 \text{ cm}^4$

Max. load ΣP (steel load beam. capacity)



Brackets length (mm)	Load ΣP (kN)
100	4.00
200	4.00
300	4.00
400	3.10
500	2.50
600	2.10

Supports + brackets

Supports, installation standard



16 A14-...

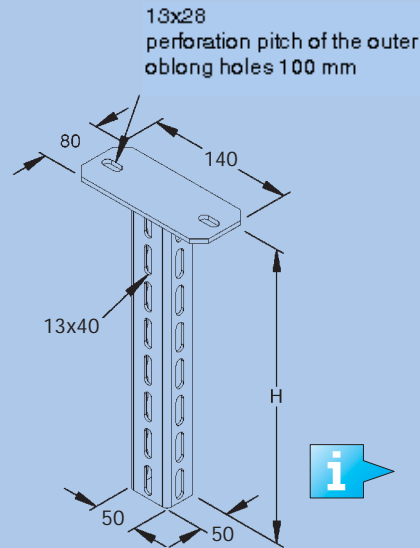
hanging support 16A14-... with welded-on head plate

Material	- sheet steel, perforation - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 205 mm to 2005 mm, total length = length of U-profile incl. heat plate
Technical data	- Hanging support made of U-profile 50x50x2,5; perforation 13x40 - welded-on heat plate
Field of application	- room or hanging support - for use with brackets - 15B3-.../16B3-... for 100 to 400 mm brackets length and - 16B2-... for 500 to 600 mm brackets length

Ordering information

Montagehinweise

- Fix support to ceiling with steel expansion bolt 15J1-... or anchor screws 16J2-... or to steel girders with claws 16A4-13-D.
- Fix brackets to profile:
16B2-... with screw 16J6-1025
15B3-.../16B3-... with screw 16J6-1025
- Cover support end with protective end cap 15J8-B.
- Use stiffening profile 16J14-55 when the brackets (>300 mm) is fastened at the bottom part of the support and is totally loaded.



hanging support

Total length L (mm)	Order No. hot dip galv.	Weight (kg/pce.)
205	16A14-200	1.00
255	16A14-250	1.12
305	16A14-300	1.24
405	16A14-400	1.48
505	16A14-500	1.72
605	16A14-600	1.96
705	16A14-700	2.20
805	16A14-800	2.44
905	16A14-900	2.68
1005	16A14-1000	2.92
1105	16A14-1100	3.16
1205	16A14-1200	3.40
1505	16A14-1500	4.12
2005	16A14-2000	5.13

Load

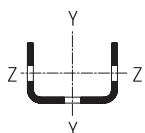
permissible bending moment

$M = 0.70 \text{ kN}$

permissible tensile load

$= 4.00 \text{ kN}$

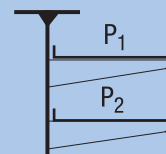
profile values



$A = 3.57 \text{ cm}^2$
 $W_y = 6.26 \text{ cm}^3$
 $W_z = 2.57 \text{ cm}^3$
 $I_y = 15.64 \text{ cm}^4$
 $I_z = 9.49 \text{ cm}^4$

Max. load ΣP

()



Bracket length (mm)	Load ΣP (kN)
100	4.00
200	4.00
300	4.00
400	3.10
500	2.50
600	2.10

U-profile 16A7-...

Material	- sheet steel, perforation - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 200 mm to 4500 mm
Technische Daten	- U-profile 60x40x4, perforation 11x40
Field of application	- wall support - room or hanging support in connection with head plate 16A8-... - for use with brackets 06B2-..., 16B2-..., 15B3-..., 16B3-...



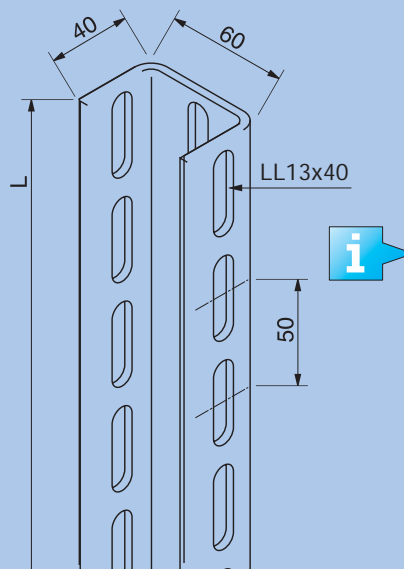
16 A7-...

Ordering information

Fixing details

- Fix profile with steel expansion bolts 15J1-... or anchor bolts 16J2-....
- Cover profil end with protective end cap 15J8-U60.
- Fix bracket 06B2-..., 16B2-..., 15B3-... to the profil with screw 16J6-1025.
- Use stiffening plate when the bracket (> 300 mm) is fastened at the bottom part of the support and is totally loaded.

Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
protective end cap 15J8-U60	193
screw 16J6-1025	187
head plate 16A8-...	144



U-profile 60x40

Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
200	16A7-200	0.64
300	16A7-300	0.96
400	16A7-400	1.28
500	16A7-500	1.60
600	16A7-600	1.92
700	16A7-700	2.24
800	16A7-800	2.56
900	16A7-900	2.88
1000	16A7-1000	3.20
1100	16A7-1100	3.52
1200	16A7-1200	3.84
for every further 100 mm		0.32
4500	16A7-4500	14.40

Support systems

Load

permissible bending moment

$$M_b = 1,20 \text{ kNm}$$

permissible tensile load

$$F_z = 6,00 \text{ kN}$$

profile values

$$\begin{aligned}
 A &= 3,72 \text{ cm}^2 \\
 W_y &= 6,93 \text{ cm}^3 \\
 W_z &= 2,61 \text{ cm}^3 \\
 I_y &= 20,80 \text{ cm}^4 \\
 I_z &= 6,96 \text{ cm}^4
 \end{aligned}$$

Bracket length L	Load ΣP [kN]	steel load bearing capacity		max load "P" under cons. of the permissible expansion bolt loads (uncracked concrete)					
		Load P distributed evenly	Load ΣP [kN]	15J1-FAZ-1010					
		$\Sigma M=0$	6,00	Diagram showing load distribution for lengths 100, 200, 300, 400, 500, 600 mm.					
100	6,00	Load ΣP 12,00 kN		up to 10 layers	up to 8 layers	up to 4 layers			
200	5,50			$P \leq 0,20$	$P \leq 0,30$	$P \leq 0,45$	$P \leq 0,60$	$P \leq 0,85$	$P \leq 1,00$
300	5,00								
400	4,00								
500	3,50								
600	3,00								

Supports + brackets

Supports, installation standard



16 A8-...

16 J14-...

head plate 16A8-40, connection angle 16A8-50 stiffening profile 16J14-55 / 16J14-64

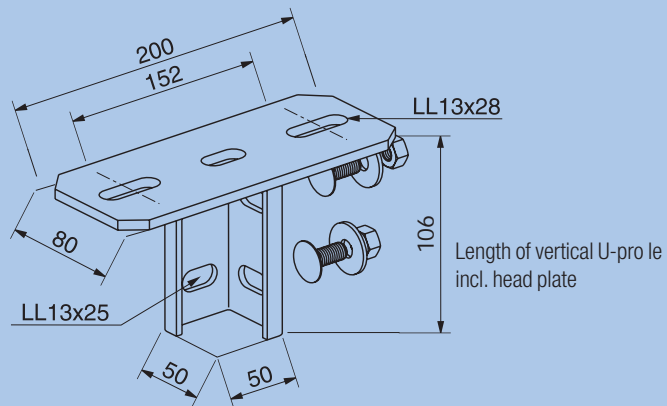
Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- head plate 16A8-40 and connection angle 16A8-60 for fixing to horizontal ceilings and steel griders. - connection angle 16A8-50 for fixing to horizontal and inclined ceilings and steel griders up to 30°
Field of application	- realisation of room and hanging supports in connection with U-profile 16A7-...

Ordering information

Fixing details

- Fix head plate with screws 16J6-1025 to U-profile 16A7-....
- Adjust the connection angle 16A8-50 for inclined ceilings up to $\pm 30^\circ$.
- Install a screw retention in case of dynamic loads in vibration or shock environments.

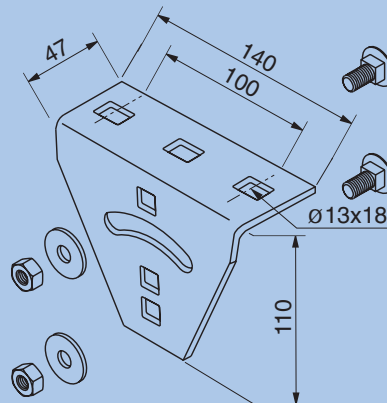
Fixing material	Page
Screw 16J6-1025	187



head plate

Order No.	Weight hot dip galv. (kg/pce.)
16A8-40	1.08

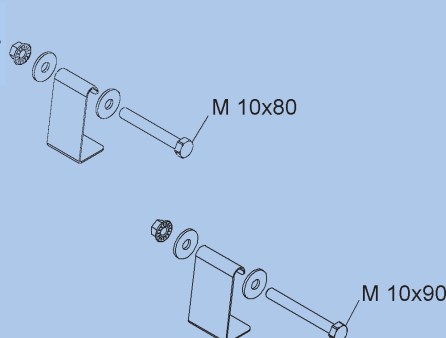
including 2 screws 16J6-1025 (M10x25)



connecting angle

Order No.	Weight hot dip galv. (kg/pce.)
16A8-50	0.48

including 2 screws 16J6-1025 (M10x25)



stiffening profile

Order No.	Weight hot dip galv. (kg/pce.)
16J14-55	0.07
16J14-64	0.08

16J14-55 usable for U-profile 50x50
16J14-64 usable for U-profile 60x40

head plate 16A9-..., with welded-on head plate

Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 206 mm to 2006 mm, total length = length of U-pro le incl. head plate
Technical data	- hanging support made of U-pro le 60x40, perforation 13x40, with welded on head plate
Field of application	- room or hanging support - suitable for use with brackets 06B2-... / 16B2-..., 15B3-... / 16B3-...



16 A9-...

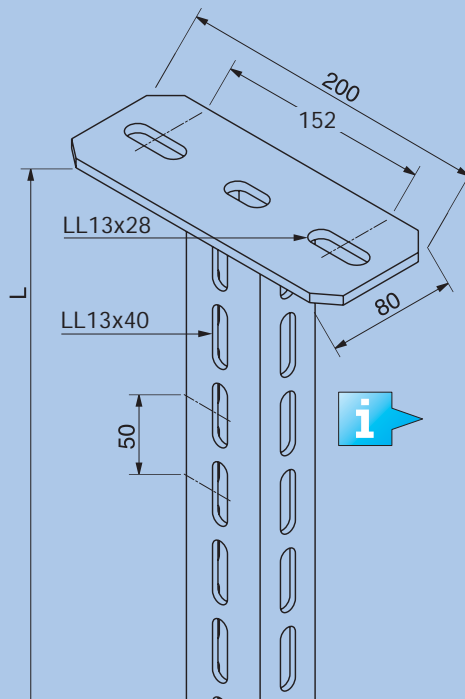
Ordering information

Fixing details

- Fix support to ceilings with steel expansion bolts 15J1-... or anchor screws 16J2-... or to steel grider with claws 16A4-1-D.
- Cover support end with protective end cap 15J8-U60.
- Fix bracket 06B2-... / 16B2-..., 15B3-... / 16B3-... to profile with screw 16J6-1025.

Fixing material Page

steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
protective end cap 15J8-U60	193
claw screw 16A4-1-D	159
screw 16J6-1025	187



Hanging support

Total length L (mm)	Order No. hot dip galv.	Weight (kg/pce.)
206	16A9-200	1,35
306	16A9-300	1,66
406	16A9-400	1,99
506	16A9-500	2,29
606	16A9-600	2,58
706	16A9-700	2,90
806	16A9-800	3,30
906	16A9-900	3,46
1006	16A9-1000	4,09
1106	16A9-1100	4,43
1206	16A9-1200	4,76
for every further 100 mm		0,32
2006	16A9-2000	7,08

Support systems

Load

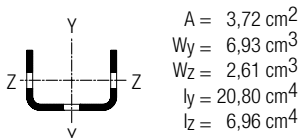
permissible bending moment

$$M_b = 1,20 \text{ kNm}$$

permissible tensile load

$$F_z = 6,00 \text{ kN}$$

profile values



Bracket length L	steel load bearing capacity		max load "P" under cons. of the permissible expansion bolt loads (uncracked concrete)					
	Load ΣP [kN]	Load P distributed evenly $\Sigma M=0$	100	200	300	400	500	600
100	6,00							
200	5,50							
300	5,00							
400	4,00							
500	3,50							
600	3,00							

Supports + brackets

Suspension bracket

0.25
kN
max. load

15

16

A11-...

suspension bracket 15A11-...

Material	- steel - elektrogalvanized, A3B
Supply length	- 97 mm to 297 mm
Technical data	- middle suspension for free laying cables (no wrapping) - thickness 5 mm
Field of application	- suspension in cable trays with 60 mm side height and max. width of 300 mm

Ordering information

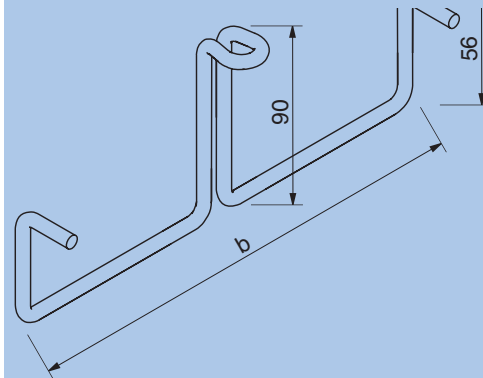
Fixing details

- Insert bracket sloped from the top to the cable trays.
- The bracket locks into the tray tab ends when placed upright.
- Middle suspension by means of threaded rods M8/M10 and accessories.

Fixing material

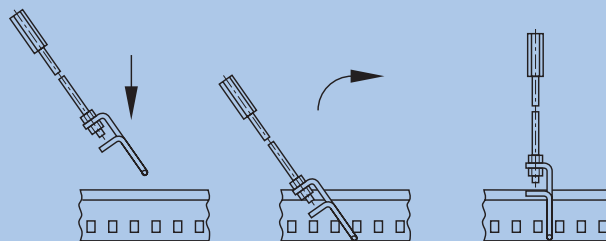
Page

steel expansion bolt 15J1-...	180
threaded rod 15J4-...	185
washers 16J4-...	185
nuts 16J4-...	185



suspension brackets

Width (mm)	Order No. electrogalv.	Weight (kg/pce.)
97	15A11-100	0.07
197	15A11-200	0.11
297	15A11-300	0.19



bracket 06B2-...

Material	- flat steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 120 mm to 320 mm
Technical data	- thickness of material 6 mm
Field of application	- mounting to walls, anchor rails or steel structures existing on site - installation on supports 16A7-... oder 16A9-...



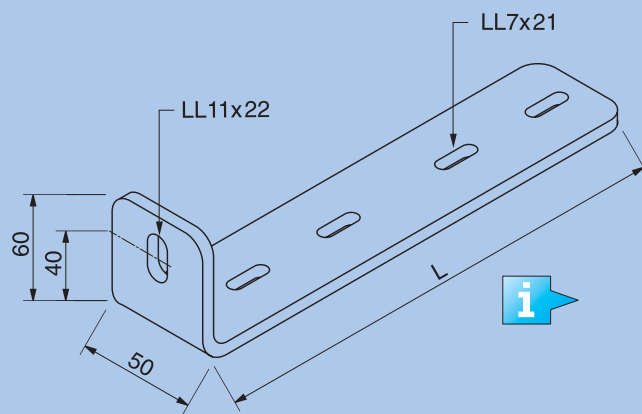
Ordering information

Fixing details

- Fix brackets to walls with expansion bolt 15J1-....
- Fix brackets to anchor rails at side with anchor bolts 16J2-....
- Fix bracket to supports 16A7-... or 16A9-... with screws 16J6-1025.

Fixing material

Fixing material	Page
steel expansion bolt 15J1-FAZ-1010	180
anchor bolt 16J2-...	183
screw 16J6-1025	187

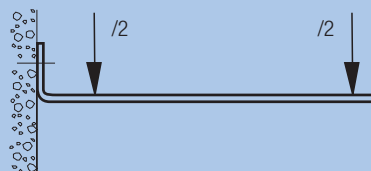


bracket

Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
120	06B2-100	0.40
220	06B2-200	0.64
320	06B2-300	0.87

Support systems

Load



B k	Σ	Σ Ex
≤ 335	0,35 kN	2,25 kN

Supports + brackets

Brackets, installation standard

1.5
kN
max load

15
16 B3-...

bracket 15B3-... / 16B3-...

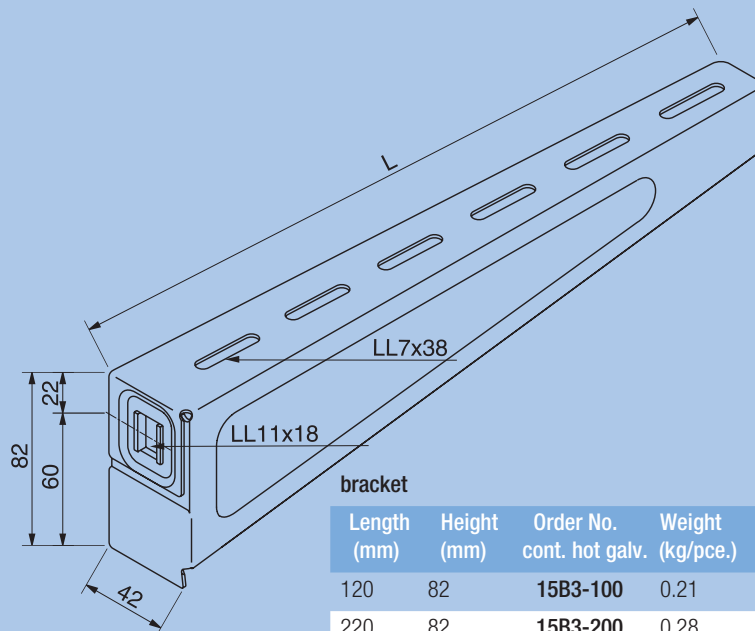
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 110 mm to 420 mm or 510 and 610 mm
Field of application	- installation on walls, existing anchor rails or steel constructions on site - installation on supports 15A17-.../16A17-..., 15A19-.../16A19-... and 16A7-..., 16A9-... and 16A14-...

Ordering information

Fixing details

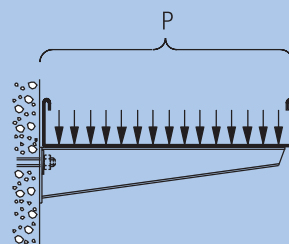
- Fix bracket to concrete walls with expansion bolts 15J1-....
- Fix bracket to anchor rails at site with anchor bolts 16J2-....
- Fix bracket to support 16A7-..., 16A9-... or 16A14-... with screws 16J2-1025.
- Fix bracket 100 bis 400 to support 15A17-.../16A17-... or 15A19-.../ 16A19-... with screws 16J6-S.

Fixing material	Page
steel expansion bolt 5J1-...	180
anchor bolt 16J2-...	183
screw 16J6-1020	187
screw 16J6-S	187



Length (mm)	Height (mm)	Order No. cont. hot galv.	Weight (kg/pce.)	Order No. hot dip galv.	Weight (kg/pce.)
120	82	15B3-100	0.21	16B3-100	0.22
220	82	15B3-200	0.28	16B3-200	0.33
320	82	15B3-300	0.42	16B3-300	0.45
420	82	15B3-400	0.49	16B3-400	0.58
510	115	15B3-500	1.00	-	-
610	115	15B3-600	1.40	-	-

Load



max. load "P" under consideration of the permissible expansion bolt loads

bracket length L [mm]	exp. bolt types 15J1-FAZ-1010 max. P
120	1,50 kN
220	1,50 kN
320	1,50 kN
420	1,50 kN
510	1,20 kN
610	1,20 kN

bracket 16B2-...

Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 110 mm to 1030 mm
Field of application	- installation on walls, anchor rails or steel constructions at site - installation on supports 16A7-... or 16A9-...



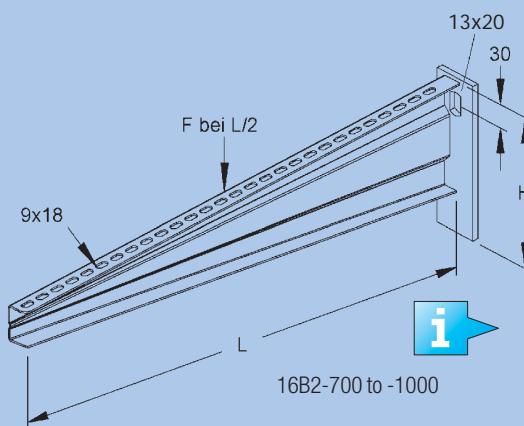
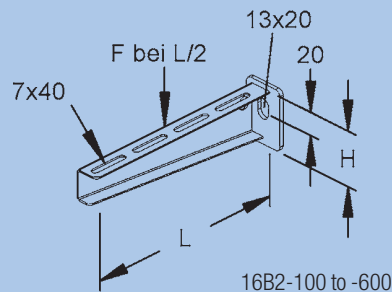
16 B2-...

Bestellinformation

Montagehinweise

- Fix bracket to walls with expansion bolts 15J1-.....
- Fix bracket to anchor rails at site with anchor bolts 16J2-.....
- Fix bracket to supports 16A7-... 16A9-... with screws 16J6-1025.
- Fasten bracket to existing steel structures by means of clamping, screwing or welding.

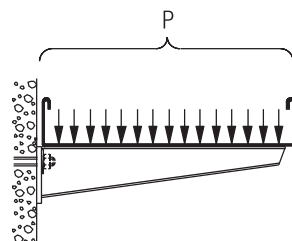
Fixing material	Page
Steel expansion bolt 15J1-...	180
Anchor screw 16J2-...	183
Screw 16J6-1025	187



Bracket

Height (mm)	Length (mm)	Order No. hot dip galv.	Weight (kg/pce.)
45	110	16B2-100	0.20
55	210	16B2-200	0.30
65	310	16B2-300	0.60
75	410	16B2-400	0.80
90	510	16B2-500	1.20
90	610	16B2-600	1.35
195	730	16B2-700	1.80
195	830	16B2-800	2.00
195	930	16B2-900	2.30
195	1030	16B2-1000	2.60

Load



max load "P" under consideration of the permissible exp. bolt loads

bracket length L [mm]	Expansion bolt types	
	15J1-FAZ-1210 max. P	15J1-FH-15B max. P
116	3,60 kN	3,60 kN
216	2,65 kN	3,60 kN
316	1,90 kN	3,25 kN
418	1,45 kN	2,50 kN
518	1,45 kN	2,45 kN
618	1,20 kN	2,10 kN
718	0,85 kN	1,40 kN



Support systems

RICO-support systems consist of supports and brackets for individual installation of cable trays to walls, ceilings or floors.

The RICO program in industrial design for high loads contains:

Table of contents page

Supports for loads up to 10.0 kN	
H-Support: 16A1-...	152
head plates for screwing, to horizontal ceilings: 16A4-A, 16A4-AQ	153
to slanted ceilings: 16A4-B, 16A4-BQ	154
hanging support, with welded-on head plate: 16A3-...	155
head plate adapter for clamping on: 16A4-0	156
Brackets for supports	
brackets (load class 3.6 kN): 16B1-...	157
brackets (load class 5.0 kN): 16B8-...-W especially for wide span cable trays or wide span cable ladders	158
RICO-Clamping technics	
claws: 16A4-1-D, 16A4-1-DA	159
components for claws: 16A4-1, 16A4-Z1, 16A4-Z2	160
clamping claws: 16A4-13-D, 16A4-13-DA	161
components for clamping claws: 16A4-13, 16A4-13-Z1, 16A4-13-Z2	162
C-rail: 16A4-...-K	163
double C-rail: 16F55-...-A	164
C-rail: 15F2-...-C	165
profile clamp: 15PK6-20	165

Supports + brackets

Supports, industrial standard

10.0
kN
max. load

16 A1-...

H-support 16A1-...

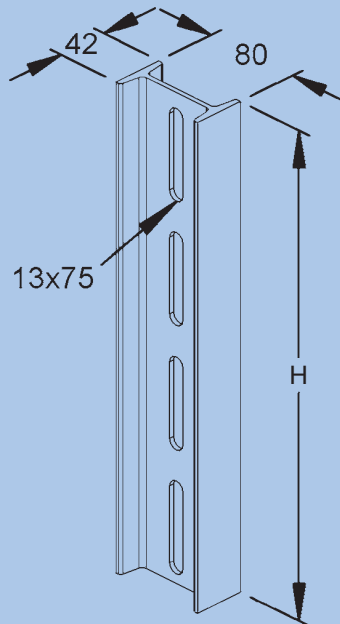
Material	- hot rolled profile I 80 according to DIN 1025 part 1 - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 200 mm to 6000 mm
Technical data	- H-profile without head plate - head plates for fastening to ceiling or floor can be screwed on.
Field of application	- wall support - room or hanging support in connection with head plates 16A4-... - usable with brackets 16B1-..., 16B8-...-WW

Ordering information

Fixing details

- Fix support with steel expansion bolts 15J1-... or anchor bolts 16J2-...
- Cover support ends with protective end caps 15J8-A.
- Fasten bracket 16B1-..., 16B8-...-WW with bracket accessories 16B1-Z to support.

Fixing material	page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
protective end cap 15J8-A	193
head plates 16A4-A / AQ	153
head plates 16A4-B / BQ	154



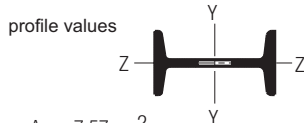
H-supports I 80

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
200	16A1-200	1.20
300	16A1-300	1.80
400	16A1-400	2.40
500	16A1-500	3.00
600	16A1-600	3.60
700	16A1-700	4.20
800	16A1-800	4.80
900	16A1-900	5.40
1000	16A1-1000	6.00
every further 100mm		0.60
6000	16A1-6000	36.00

Load

permissible bending moment
 $M_B = 2,25 \text{ kNm}$

permissible tensile load
 $F_Z = 10,00 \text{ kN}$



$A = 7,57 \text{ cm}^2$
 $W_y = 19,50 \text{ cm}^3$
 $W_z = 3,00 \text{ cm}^3$
 $I_y = 77,80 \text{ cm}^4$
 $I_z = 6,29 \text{ cm}^4$

max. Belastung «P» (Stahltragfähigkeit)		max. Belastung «P» bei Berücksichtigung der zulässigen Dübellasten (ungerissener Beton)						
Auslegerlänge L [mm]	Belastung	10xP	8xP	4xP	2xP	1xP	1xP	
100	6,00	100	200	300	400	500	600	
200	5,60	10xP	10xP	6xP	3xP	2xP	2xP	
300	5,30							
400	5,00							
500	4,75							
600	4,50							
Lasten P gleichmäßig verteilt								
$\Sigma M=0$								
Belastung ΣP [kN]								
10,0								
Auslegerlänge	L=100	L=200	L=300	L=400	L=500	L=600		
Auslegerlast	$P \leq 0,20 \text{ kN}$	$P \leq 0,30 \text{ kN}$	$P \leq 0,45 \text{ kN}$	$P \leq 0,70 \text{ kN}$	$P \leq 0,85 \text{ kN}$	$P \leq 1,00 \text{ kN}$		

head plates 16A4-A, 16A4-AQ, for horizontal ceilings

Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- head plates for installation to horizontal ceilings and steel girders - Length of the jointing profile incl. head plate - load like hanging support 16A3-...
Field of application	- realisation of hanging supports such as 16A3-... by screwing onto H-supports 16A1-... - usable for RICO clamping technics



16 A4-A

16 A4-AQ

Ordering information

Fixing details

- Fix head plate to H-support 16A1-... with screws 16J6-1025.
- Fix head plate to ceiling with steel expansion bolts 15J1-... or anchor bolts 16J2-... or to steel girders with claws 16A4-1-D.
- Install a screw retention in case of dynamic loads in vibration or shock environment.

Fixing material	page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
claw 16A4-1-D	159
screw 16J6-1025	187

head plate

Order No.	Weight (kg/pce)
16A4-A	1.30

incl. 2 screws
16J6-1025 (M10x25)

head plate, transverse

Order No.	Weight (kg/pce)
16A4-AQ	1.34

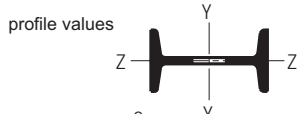
incl. 2 screws
16J6-1025 (M10x25)

Support systems

Load

permissible bending moment
 $M_D = 2,25 \text{ kNm}$

permissible tensile load
 $F_Z = 10,00 \text{ kN}$



- $A = 7,57 \text{ cm}^2$
- $W_y = 19,50 \text{ cm}^3$
- $W_z = 3,00 \text{ cm}^3$
- $I_y = 77,80 \text{ cm}^4$
- $I_z = 6,29 \text{ cm}^4$

max load "P" / steel load bear. capacity			max load "P" under consideration of permissible exp bolt load (uncracked concrete)						
bracket length L [mm]	load	15J1-FAZ-10T0	15J1-FAZ-12T0						
			10xP	8xP	4xP	2xP	1xP	1xP	
100	6,00	10xP	10xP	6xP	3xP	2xP	2xP		
200	5,60	15J1-FH-15B		7xP	4xP	3xP	2xP		
300	5,30	15J1-FAZ-12T0 mit 16A4-0		10xP	7xP	5xP	4xP		
400	5,00	15J1-FH-15B mit 16A4-0			10xP	9xP	7xP		
500	4,75								
600	4,50								

nxP = number of layers

bracket length	L=100	L=200	L=300	L=400	L=500	L=600
bracket load	P ≤ 0,20kN	P ≤ 0,30kN	P ≤ 0,45kN	P ≤ 0,70kN	P ≤ 0,85kN	P ≤ 1,00kN

Supports + brackets

Supports, industrial standard

10.0
kN
max. load

16 A4-B

16 A4-BQ

head plates 16A4-B, 16A4-BQ, for slanted ceilings

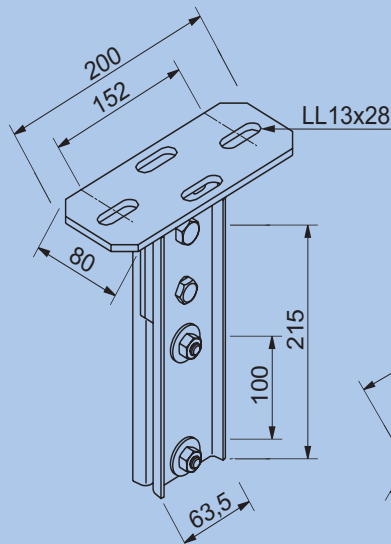
Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- head plate for installation to horizontal ceilings and steel girders
Field of application	- realisation of hanging supports such as 16A3-... by screwing onto H-supports 16A1-... - suitable for RICO clamping technics

Ordering information

Fixing details

- Fix head plate to H-support 16A1-... with screws 16J6-1025.
- Fix head plate to ceilings with steel expansion bolts 15J1-... or anchor bolts 16J2-... or to steel girder with claws 16A4-1-D.
- Set upper screw into outer oblong hole, in order to increase the adjustment range (25° to 50°).

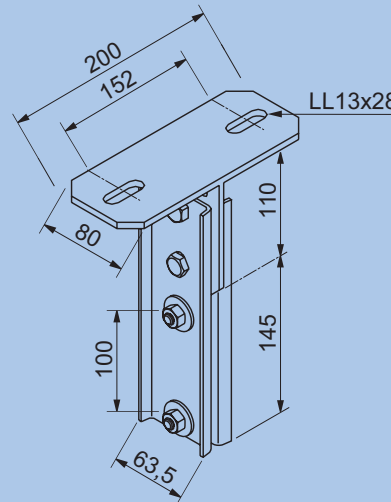
Fixing material	page
steel expansion bolts 15J1-...	180
anchor bolt 16J2-...	183
claws 16A4-1-D	159
screws 16J6-102	187



head plate

Order No.	Weight hot dip galv. (kg/pce)
16A4-B	1.92

incl. 2 screws
16J6-1025 (M10x25)



head plate, vertical

Order No.	Weight hot dip galv. (kg/pce)
16A4-BQ	1.94

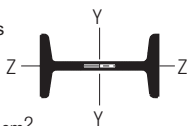
incl. 2 screws
16J6-1025 (M10x25)

Load

permissible bending moment
 $M_D = 2,25 \text{ kNm}$

permissible tensile load
 $F_Z = 10,00 \text{ kN}$

profile values



$A = 7,57 \text{ cm}^2$
 $W_y = 19,50 \text{ cm}^3$
 $W_z = 3,00 \text{ cm}^3$
 $I_y = 77,80 \text{ cm}^4$
 $I_z = 6,29 \text{ cm}^4$

max. load "P" / steel load bear. capacity		max. load "P" under consideration of permissible exp bolt load (uncracked concrete)					
bracket length L [mm]	load	10xP	8xP	4xP	2xP	1xP	1xP
100	6,00	10xP	8xP	4xP	2xP	1xP	1xP
200	5,60	10xP	10xP	6xP	3xP	2xP	2xP
300	5,30						
400	5,00						
500	4,75						
600	4,50						
	load P distributed evenly						
	$\Sigma M=0$						
	load ΣP [kN]						
	10,0						
		nxP = number of layers					
bracket length	L=100	L=200	L=300	L=400	L=500	L=600	
bracket load	P≤0,20kN	P≤0,30kN	P≤0,45kN	P≤0,70kN	P≤0,85kN	P≤1,00kN	

hanging support 16A3-..., with welded-on head plate

Material	- hot rolled profile I 80 according to DIN 1025 part 1 - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 206 mm to 2506 mm, total length = length of the I80-profile incl. head plate
Technical data	- hanging support with welded-on standard head plate - permissible load can be increased by enclosing the head plate with head plate adapter
Field of application	- room or hanging support - suitable for RICO clamping technics - usable with brackets 16B1-... or 16B8-...-W



16 A3-...

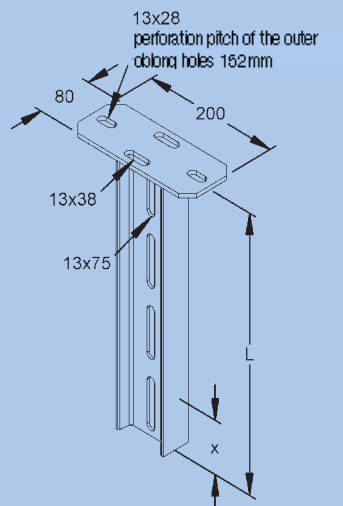
Ordering information

Fixing details

Fix support to ceilings with steel expansion bolts 15J1-... or anchor bolts 16J2-... or to steel girder with claws 16A4-1-D.

- Cover support end with protective end cap 15J8-A.
- Fasten bracket 16B1-..., 16B8-...-W with bracket accessories 16B1-Z to support.

Fixing material	page
steel expansion bolt 15J1-...	180
achor bolt 16J2-...	183
protective end cap 15J8-A	193
claw 16A4-1-D	159
head plate adapter 16A4-0	156



hanging support I 80

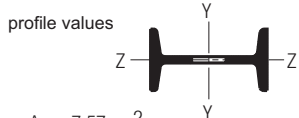
Total length L (mm)	Order No. hot dip galv.	Weight (kg/pce)
206	16A3-200	2.00
306	16A3-300	2.40
406	16A3-400	3.00
506	16A3-500	3.60
606	16A3-600	4.20
706	16A3-700	4.80
806	16A3-800	5.40
906	16A3-900	6.00
1006	16A3-1000	6.60
every further 100 mm		0.60
2506	16A3-2500	15.60

Support systems

Load

permissible bending moment
 $M_b = 2,25 \text{ kNm}$

permissible tensile load
 $F_z = 10,00 \text{ kN}$



$A = 7,57 \text{ cm}^2$
 $W_y = 19,50 \text{ cm}^3$
 $W_z = 3,00 \text{ cm}^3$
 $I_y = 77,80 \text{ cm}^4$
 $I_z = 6,29 \text{ cm}^4$

max load "P" / steel load bear. capacity		max load "P" under consideration of permissible exp bolt load (uncracked concrete)					
bracket length L [mm]	load	10xP	8xP	4xP	2xP	1xP	1xP
		100	200	300	400	500	600
100	6,00	10xP	8xP	4xP	2xP	1xP	1xP
200	5,60	10xP	10xP	6xP	3xP	2xP	2xP
300	5,30			7xP	4xP	3xP	2xP
400	5,00			10xP	7xP	5xP	4xP
500	4,75				10xP	9xP	7xP
600	4,50						
	load P distributed evenly						
	$\Sigma M=0$						
	load ΣP [kN]						
	10,0						
	bracket length	L=100	L=200	L=300	L=400	L=500	L=600
	bracket load	$P \leq 0,20 \text{ kN}$	$P \leq 0,30 \text{ kN}$	$P \leq 0,45 \text{ kN}$	$P \leq 0,70 \text{ kN}$	$P \leq 0,85 \text{ kN}$	$P \leq 1,00 \text{ kN}$

Supports + brackets

Supports, industrial standard

16.0
kN
max. load

16 A4-0

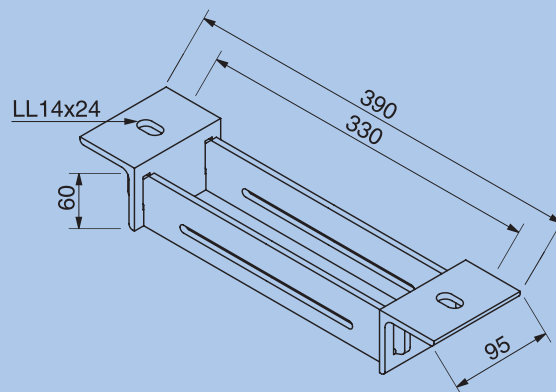
head plate adapter 16A4-0, for reinforcing the head plate of the hanging support 16A3-...

Material	<ul style="list-style-type: none"> - steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - particularly easy to assemble because it is only interconnected - encloses the standard head plate, thus increasing the reinforcement - the erected flat steel plates introduce the load optimally into the buildings
Field of application	<ul style="list-style-type: none"> - load introduction element for supports 16A3-... with very high load bearing capacity, if the relevant regulations for expansion bolts are observed, in particular in concrete tension zone.

Ordering information

Fixing details

- Interconnect the parts.
- Ensure load introduction into the building.



adapter for single and double sided layings

Order No. hot dip galv.	Weight (kg/pce)
16A4-0	2.24

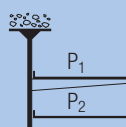
Load

Load specifications based on supporting structure.

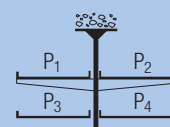
If expansion bolts are used for fastening, take their torque values into consideration.

max load "P"

single-sided laying



double-sided laying



	ΣP	$\Sigma M = 0$	ΣP
Bracket	100 - max. 7,7 kN		- max. 16,0 kN
Bracket	300 - max. 5,7 kN		
Bracket	500 - max. 4,5 kN		

bracket 16B1-..., accessory for bracket 16B1-Z

Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 115 mm to 615 mm
Technical data	- can be adjusted to any height by using the bracket accessory 16B1-Z
Field of application	- installation to H-support 16A1-... or 16A3-...

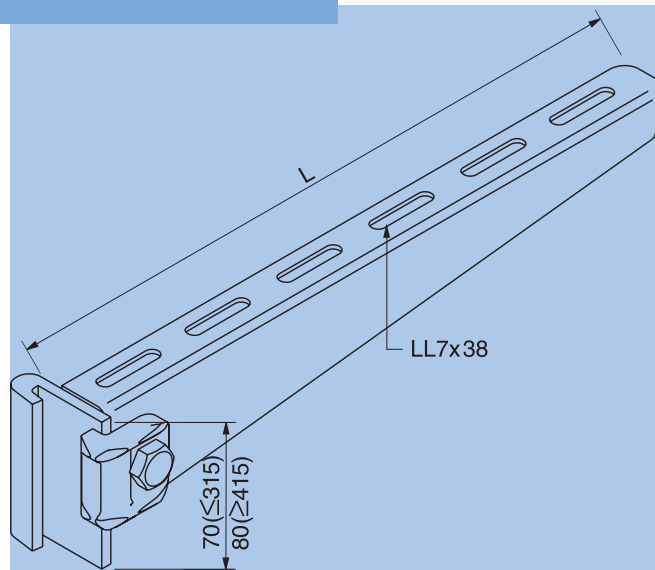


16 B1-...

Ordering information

Fixing details

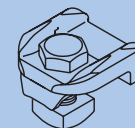
→ Fix bracket to support 16A1-... / 16A3-... with accessory for brackets 16B1-Z.



bracket

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
115	16B1-100	0.36
215	16B1-200	0.52
315	16B1-300	0.68
415	16B1-400	0.86
515	16B1-500	1.20
615	16B1-600	1.34

incl. bracket accessory 16B1-Z



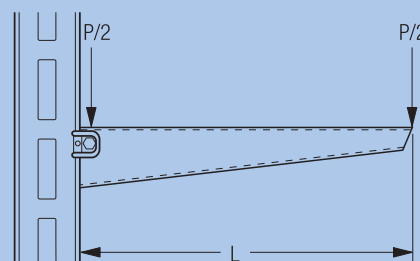
accessory for bracket

Order No. hot dip galv.	Weight (kg/pce)
16B1-Z	0.12

einschl. 1 Schraube M10x35

Load

permissible load "P"
max. 3,6 kN



L

Supports + brackets

Brackets, industrial standard



16 B8-...-W

bracket 16B8- ... -W

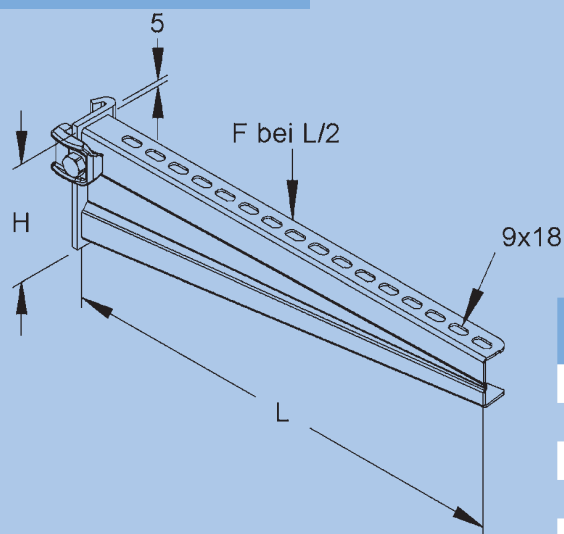
Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 230 mm to 1030 mm
Technical data	- bracket, "heavy design" - can be adjusted to any height by using the accessory for bracket 16B1-Z
Field of application	- installation on H-supports 16A1-... or 16A3-... - specially for wide span cable trays or wide span cable ladders

Ordering information

Fixing details

- Fix bracket to support 16A1- ... , 16A3- ... with accessory for brackets 16B - Z.
- When using wide span cable trays or wide span cable ladders ensure that the load is introduced into the building.

Fixing material	page
accessory for bracket 16B1-Z	157



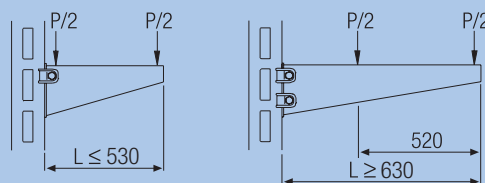
bracket

Length (mm)	Height (mm)	Order No. hot dip galv.	Weight (kg/pce)
230	110	16B8-200-W	1.40
330	110	16B8-300-W	1.90
430	110	16B8-400-W	2.15
530	150	16B8-500-W	2.65
630	150	16B8-600-W	2.90
730	150	16B8-700-W	4.15
830	190	16B8-800-W	4.60
930	190	16B8-900-W	5.35
1030	190	16B8-1000-W	6.15

incl. accessory for bracket 16B1-Z,
from 600 mm 2 x 16B1-Z

Load

permissible load "P"
max. 5,0 kN



claws 16A4-1-D, 16A4-1-DA

Material	<ul style="list-style-type: none"> - annealed cast iron, steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - connections without drilling or welding - no weakening of the cross- sections or surface damage - short installation time and modification possible at any time
Field of application	<ul style="list-style-type: none"> - clamping system for all electrical installations - clamping on of H-supports 16A1-.../16A3-... with head plates 16A4-A, 16A4-B as well as C-rails 16A4-...-K to steel girders on site



16 → A4-1-...

Ordering information

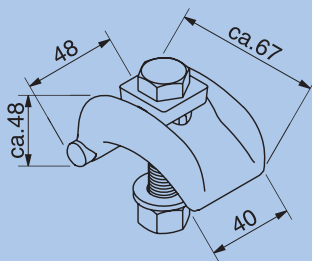
Fixing details

Flange widths 60 mm–100 mm

→ Use claws 16A4- 1- D to fasten hanging supports 16A3- ... or 16A9-... directly.

Flange widths > 100 mm

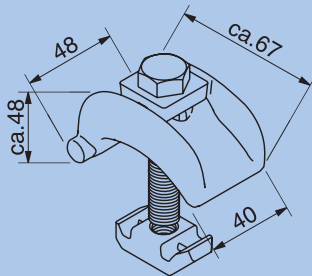
→ Use claws 16A4- 1 -DA together with c-rails 16A4- ... - K to fasten hanging supports of all types.



claw (pair)

Clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pair)
0 ... 30	16A4-1-D	0.80

incl. screws 16A4-Z2 (M12x75)



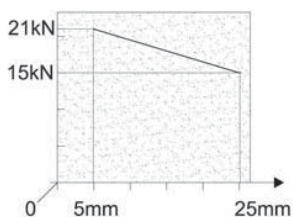
claw (pair)

Clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pair)
0 ... 30	16A4-1-DA	0.84

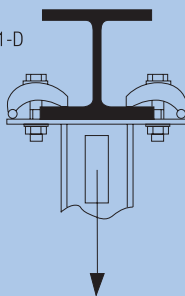
incl. screws 16A4-Z1 (M12x65)

Trag-
konstruktionen

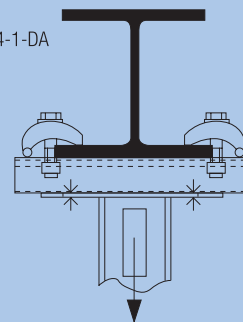
Load



16A4-1-D



16A4-1-DA



RICO-clamping technics

Claws

10.0
kN
max. load

16 → A4-1

16 → A4-...

components 16A4-1, 16A4-Z1, 16A4-Z2

Material

- annealed cast iron, steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- connections without drilling and welding
- no weakening of the cross-sections or surface damage
- short installation time and modification possible at any time

Field of application

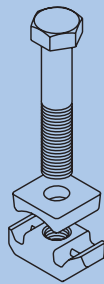
- clamping system for all electrical installations
- clamping on of H-supports 16A1-.../16A3-... with head plates 16A4-A, 16A4-B as well as C-rails 16A4-...-K to steel girders on site

Ordering information



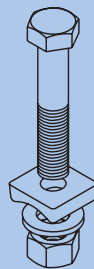
claw

Clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)
0 ... 30	16A4-1	0.28



accessory M12x65

Order No. hot dip galv.	Weight (kg/pce)
16A4-Z1	0.14

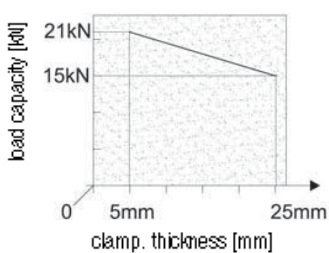


accessory M12x75

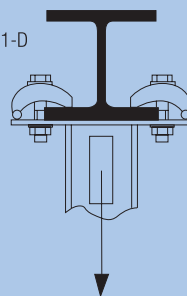
Order No. hot dip galv.	Weight (kg/pce)
16A4-Z2	0.12

Load

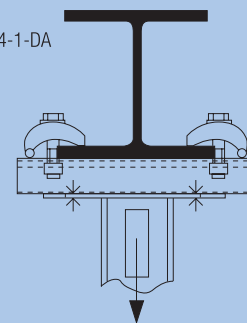
max. loads of the claws



16A4-1-D



16A4-1-DA



The load capacity of teh suspension depends on the type of the c-rail and the flange width of the H-profile

clamping claws 16A4-13-D, 16A4-13-DA

Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	- connection without drilling or welding - no weakening of the cross-sections or surface damage - short installation time and modification possible at any time
Field of application	- clamping system for all electrical installations



16 A4-13-...

Ordering information

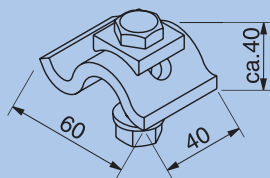
Fixing details

Flange widths 60 mm–100 mm

→ Use clamping claws 16A4-13-D to fasten hanging supports 16A9-... directly.

Flange widths > 100 mm

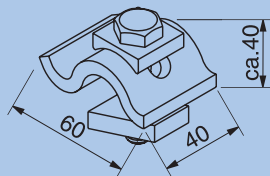
→ Use clamping claws 16A4-13-DA together with C-rails 16F2-...-L or 16A4-...-K to fasten hanging supports 16A9-... or 15A19-... .



clamping claw (pair)

Clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pair)
0 ... 25	16A4-13-D	0.40

incl. screws 16A4-13-Z2 (M10x50)



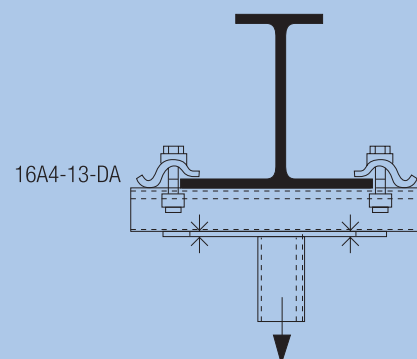
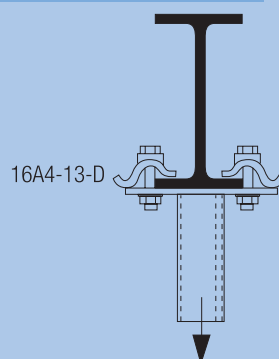
clamping claw (pair)

Clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pair)
0 ... 25	16A4-13-DA	0.42

incl. screws 16A4-13-Z1 (M10x50)

Load

max. loads of the claws



RICO-clamping technics

Clamping claws



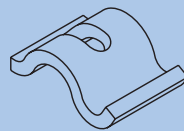
16 A4-13-...

components 16A4-13, 16A4-13-Z1, 16A4-13-Z2

Material
Technical data
Field of application

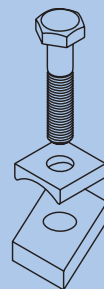
- steel
- hot dip galvanized according to DIN EN ISO 1461
- connections without drilling or welding
- no weakening of the cross-sections or surface damage
- short installation time and modification possible at any time
- clamping system for all electrical installations

Ordering information



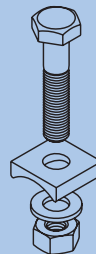
clamping claws

Clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)
0 ... 25	16A4-13	0.12



accessory M10x50

Order No. hot dip galv.	Weight (kg/pce)
16A4-13-Z1	0.09

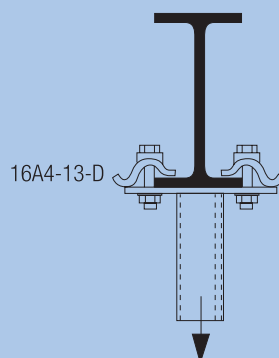


accessory M10x50

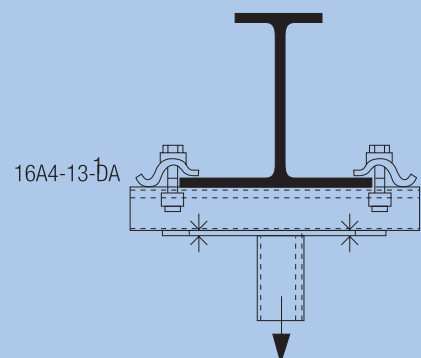
Order No. hot dip galv.	Weight (kg/pce)
16A4-13-Z2	0.08

Load

max. loads of the claws



permissible load "P" 10.0 kN
tightening moment max. 46 Nm



permissible load "P" 10.0 kN
tightening moment max. 46 Nm

C-rail 16A4-...-K

15
16 A4-...-K

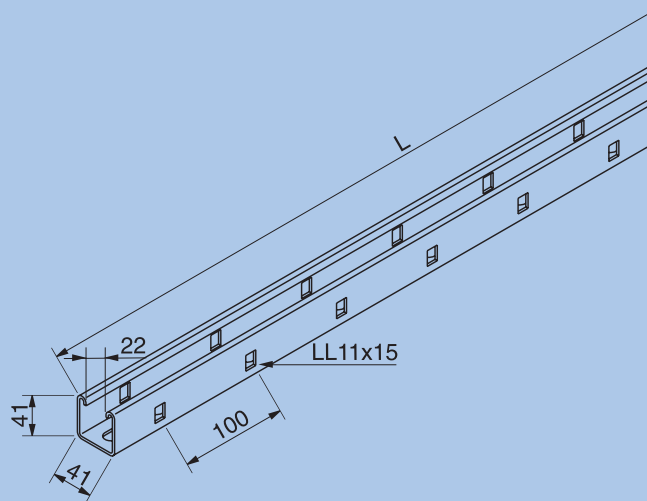
Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 200 mm to 3000 mm
Technical data	- C-profile 41x41x2,5, perforation 13x30, spacing 50 mm
Field of application	- clamping system for all electrical installations - realisation of clamping head plates and supports in connection with claws or clamping claws

Ordering information

Fixing details

→ For fastening support structures to steel girders C-rails 16A4- ... -K as connecting element together with claws or clamping claws.

Fixing material	page
claws 16A4-1-D / 16A4-1-DA	159
claws 16A4-13-D / 16A4-13-DA	161

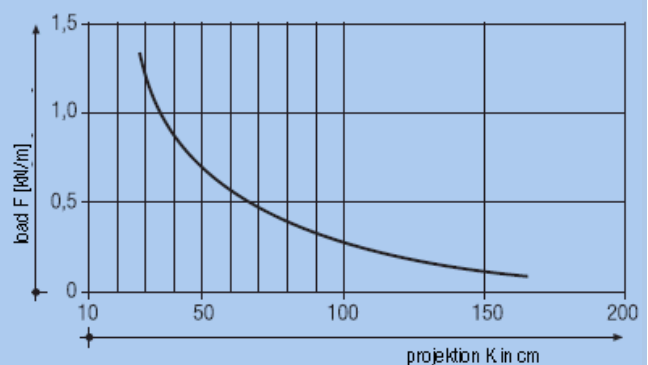
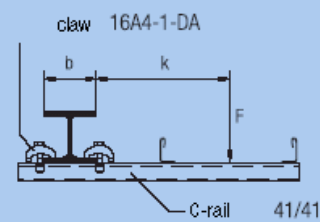


C-rail 41x41x2,5, perforated (13x30), hole spacing 50 mm

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
200	16A4-200-K	0.50
300	16A4-300-K	0.75
400	16A4-400-K	1.00
500	16A4-500-K	1.25
600	16A4-600-K	1.50
700	16A4-700-K	1.75
800	16A4-800-K	2.00
900	16A4-900-K	2.25
1000	16A4-1000-K	2.50
1100	16A4-1100-K	2.75
1200	16A4-1200-K	3.00
every further 100 mm		0.25
3000	16A4-3000-K	7.50

Support systems

Load



RICO-clamping technics

C-rail

15
16 F55-...-A

double-C-rail 16F55-4500-A

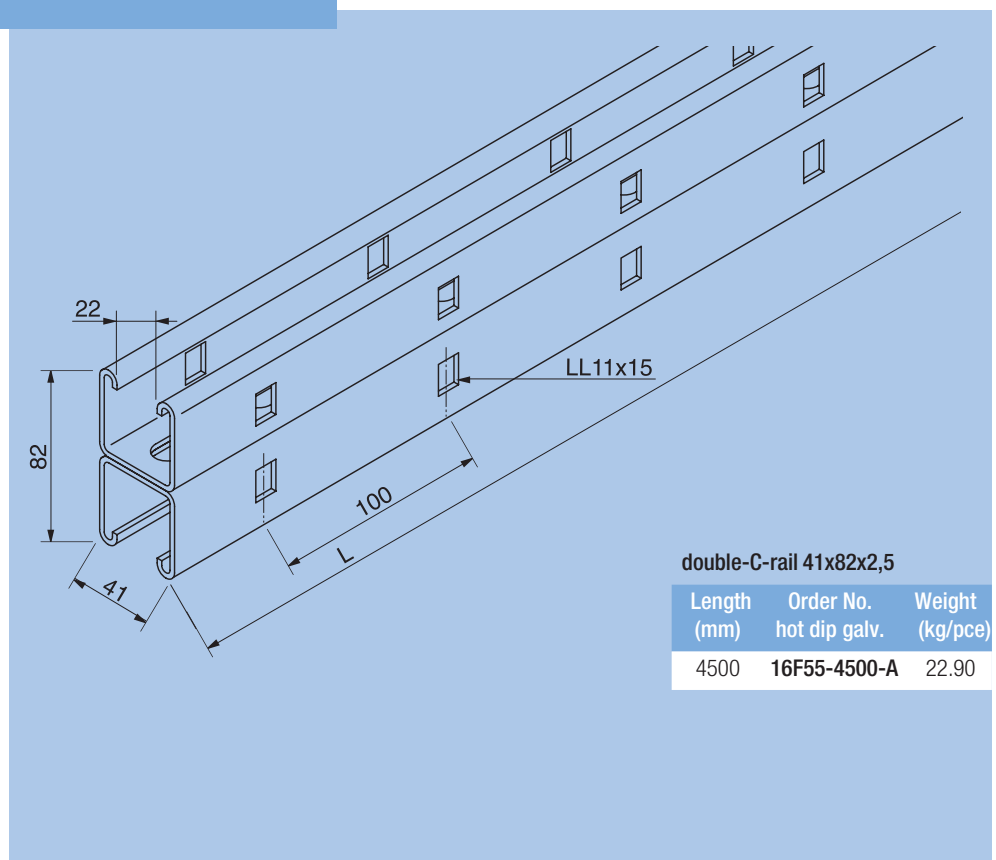
Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 4500 mm
Technical data	- double C-profile section 41x82x2,5, perforation 13x30, division 50 mm - shear-resistant connection of the individual profiles by means of special rivet after hot dip galvanization (no crevice corrosion)
Field of application	- clamping system for all electrical installations - realisation of clamping head plates and supports in connection with claws

Ordering information

Fixing details

- Use double C-rails if the load capacity of the C-rails 16A4- ... -K is insufficient (for loads and possible projections refer to the diagram)
- For realising connections to steel girders for holding hanging supports or as a crossbeam between girders on site use double C-profile section with claws 16A4-1-DA

Fixing material	page
claw 16A4-1-D / 16A4-1-DA	159
screw 16J4-1070	185



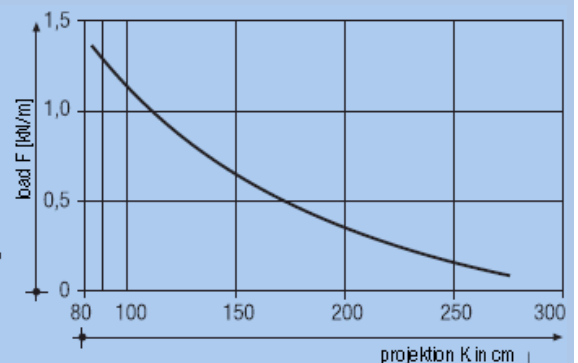
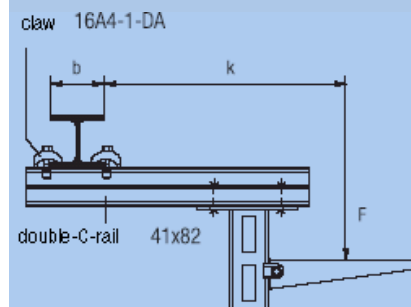
Load

permissible load and projections for :
Double C-profile 41x82

Minimum width for hold-down connection dimension $b \geq 100$ mm



Always screw through both profiles when fixing hanging loads (for example 15J4-1070).



C-profile rail 15F2-...-C profile clamp 15PK6-20

15
16 → F2-...-C

15 → PK6-20

Material	- continuously hot galvanized according to DIN EN 10327
Supply length	- 200 mm to 500 mm
Technical data	- C-profile 30x15, perforation 9x15, pitch 25 mm
Field of application	- clamping system for all electrical installations

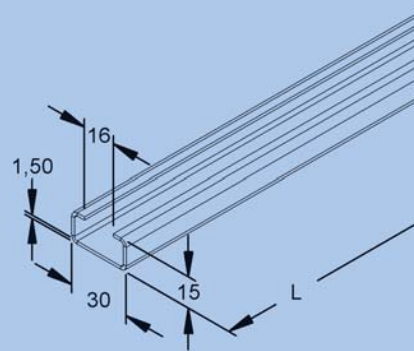
Ordering information

Fixing detail

→ profile clamp for clamping the C-rail to the steel girder.

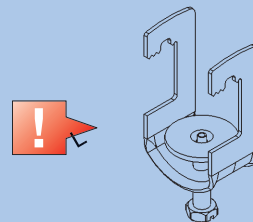
Attention:
Installation of the rail only with slot to the profile!

Usable for:
Support profile with a flange width of 6-20 mm



C-rail 30x15, perforated (9x15), perforation pitch 25 mm

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)
200	15F2-200-C	0.14
300	15F2-300-C	0.20
400	15F2-400-C	0.27
500	15F2-500-C	0.32

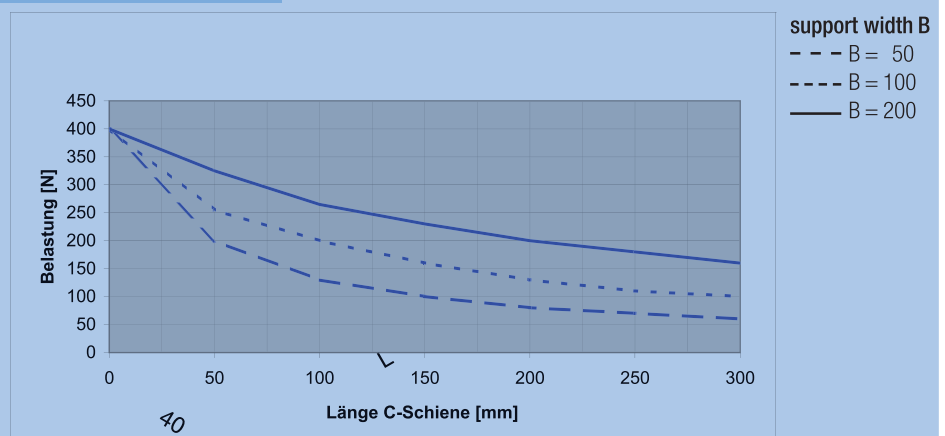
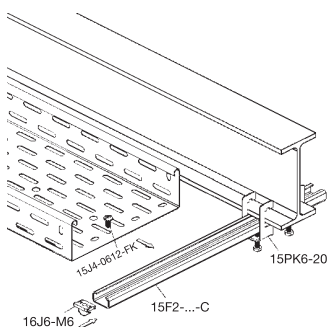


profile clamp

Order No. cont. hot galv.	Weight (kg/pce)
15PK6-20	0.05

Screw 15J4-0612-FK and slide nut 16J16-M6 must be ordered separately.

Belastbarkeit





Support systems

RICO support systems consist of brackets in various load classes or of wall consoles for very heavy loads, for individual installation of cable trays on walls or ceilings.

The RICO program for direct installation on walls or ceilings without the use of supports includes:

Table of contents Page

Bracket and console for wall mounting

central suspender 0,70 (load class 0,70 kN): 16B17-...	168
bracket (load class 1,5 kN): 15A20-... / 16A20-...	169
support console (load class 0,95 kN): 15B18-..., distance piece: 15B18-D	170
bracket (load class 0,35 kN): 06B2-...	147
bracket (load class 1,25 kN): 16B13-...	171
bracket (load class 1,50 kN): 15B3-... / 16B3-...	172
bracket (load class 3,60 kN): 16B2-...	173
bracket (load class 5,00 kN): 16B9-...-W for wide span systems	174
console (load class 10,0 kN): 16B21-... for wide span systems	175

Support elements for fixing

jointing profile: 16J9-...	176
corner support: 16J10	176
tube bracket adapter: 16B27, 16B34, 16B43, 16B49	176

Brackets + Consoles

Central suspender



B17-...

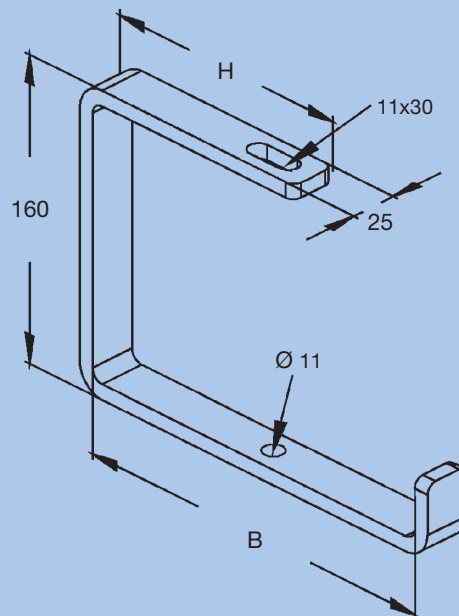
central suspender 16B17-...

Material	<ul style="list-style-type: none"> - flat steel, perforated - material thickness 8,0 mm - hot dip galvanized according to DIN EN ISO 1461
Supply length	<ul style="list-style-type: none"> - central suspender: 100 mm bis 400 mm
Field of application	<ul style="list-style-type: none"> - installation on ceilings

Ordering information

Fixing details

→ Central suspender:
C-stirrup for central cable-tray
suspender via threaded rod M10.

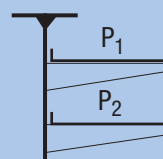


central suspender

for cable-tray width (mm)	Height (mm)	Order No. fhot dip galv.	Weight (kg/pce)
100	85	16B17-100	0.54
200	135	16B17-200	0.78
300	185	16B17-300	1.01
400	235	16B17-400	1.51

Load

Max. load ΣP



bracket length (mm)	load ΣP (kN)
104	0.6
204	0.6
304	0.6
404	0.2

brackets 15A20-... / 16A20-...

Material	- sheet steel - continuously hot galvanized according to DIN EN ISO 10372 or - hot dip galvanized according to DIN EN ISO 1461 - material thickness 1,75 mm
Supply length	- 163 mm to 463 mm
Field of application	- wall mounting

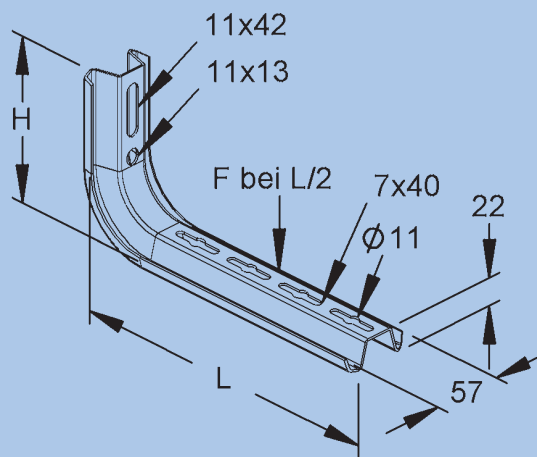


Ordering information

Fixing details

- Fix bracket to walls with 15J1-FAZ-expansion bolts 15J-FAZ-0830 .
- Fix tray on support console with screws M6x12.
- For directly wall mounting a distance piece 15B18-D is necessary.

Fixing material	Page
distance piece 15B18-D	170
steel expansion bolt 15J1-...	180



brackets

Load capacity (kN)	Height (mm)	Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
1,50	132	163	15A20-100	0.31	16A20-100	0.34
1,10	132	263	15A20-200	0.43	16A20-200	0.47
0,75	132	363	15A20-300	0.55	16A20-300	0.61
0,50	132	463	15A20-400	0.68	16A20-400	0.75

Brackets + Consoles

Consoles, wall mounting

0.95
kN

max. load

15

16

B18-...

support console 15B18-..., distance piece 15B18-D

Material

- sheet steel, perforated
- material thickness 1,75 mm
- continuously hot galvanized according to DIN EN 10372
- hot dip galvanized according to DIN EN ISO 1461

Supply length

- support console: 161 mm to 361 mm

Field of application

- installation on ceilings or on concrete walls

Ordering information

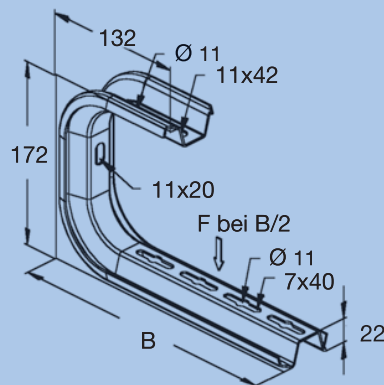
Fixing details

- Fix support console with steel expansion bolts 15J1-... to ceiling or to concrete walls.
- Fix tray on support console with screws M6x12. (screws are included) .
- For the installation on walls and ceilings a distance piece 15B18-D is necessary.

Fixing material

Page

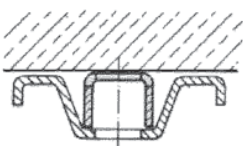
steel expansion bolt 15J1-... 180



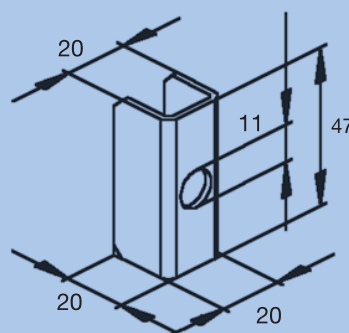
support console

Load capacity F (kN)	Width (mm)	Order No. cont. dip galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
0,95	161	15B18-100	0.55	16B18-100	0.64
0,70	261	15B18-200	0.70	16B18-200	0.82
0,50	361	15B18-300	0.85	16B18-300	0.99

Installation with distance piece



Use 1 piece for
installation to walls or
ceilings



distance piece

dimensions (mm)	Order No. cont. hot galv.	Weight (kg/pce)
20x20x47	15B18-D	0.03

bracket 16B13-..., adjustable for slopes

Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 360 mm to 710 mm
Technical data	- wide range of angular displacement covers many slopes occurring on site to maximum of 60° upwards and 25° downwards
Field of application	- wall mounting on sloping walls, on the interior surfaces of concrete tubes and tunnels - installation on concrete walls or on anchor rails on site

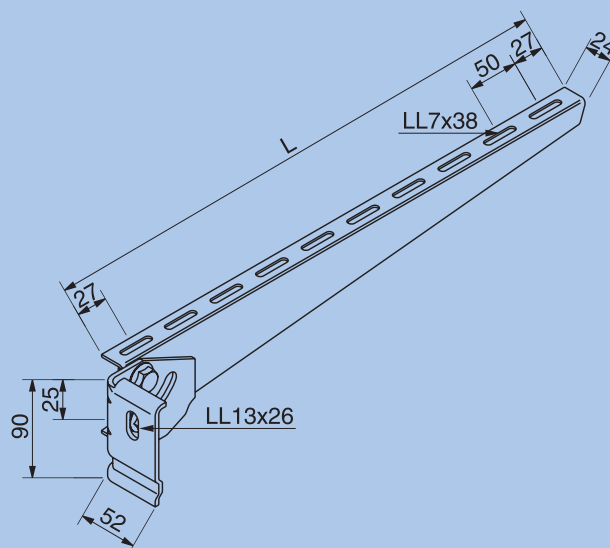


Ordering information

Fixing details

- Fix bracket to concrete walls with expansion bolts 15J1-
- Fix bracket to anchor rails at site with anchor bolts 16J2-
- If the brackets are inclined upward, the cable tray must be moved away from the wall. In this case choose a bracket with 50mm additional length.

Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183

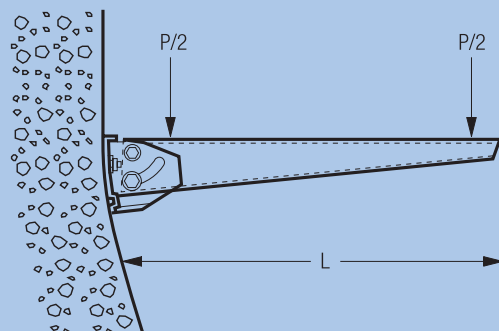


bracket

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
360	16B13-350	0.88
410	16B13-400	0.96
460	16B13-450	1.18
510	16B13-500	1.27
560	16B13-550	1.37
610	16B13-600	1.46
660	16B13-650	1.75
710	16B13-700	1.84

Load

permissible load "P"
max. 1,25 kN
for a bolt tightening force
of M=165 Nm



Brackets + Consoles

Brackets, wall mounting

1.5
kN
max. load

15
16 B3-...

bracket 15B3-... / 16B3...

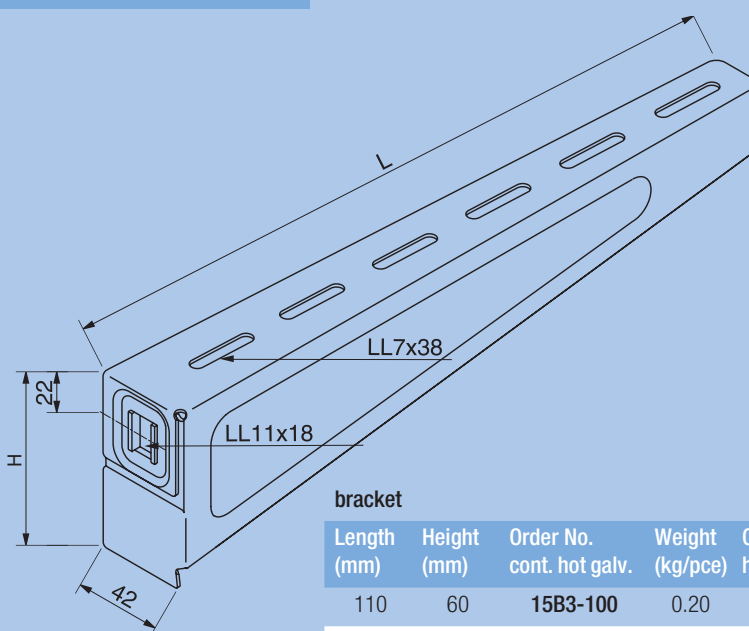
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 120 mm to 420 mm alternatively 510 mm and 610 mm
Field of application	- installation on walls, on site existing anchor rails or steel constructions - installation on supports 15A17-.../16A17-..., 15A19-.../16A19-... / 16A7-..., 16A9-... and 16A14-...

Ordering information

Fixing details

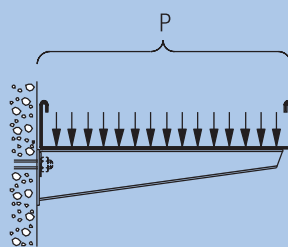
- Fix bracket to walls with expansion bolts 15J1- ...
- Fix bracket to anchor rails at site or to 16A14- ... with anchor bolts 16J2- ...
- Fix bracket to supports 16A7- ..., 16A9-... oder 16A14-... with screws 16J6-1020
- Fix bracket 100 to 400 to support 15A17-... / 16A17-... or 15A19-... / 16A19-... with screw 16J6-S.

Fixing material	page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-.	183
screw 16J6-1020	187
screw 16J6-S	187



bracket					
Length (mm)	Height (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
110	60	15B3-100	0.20	16B3-100	0.20
210	80	15B3-200	0.30	16B3-200	0.30
320	82	15B3-300	0.42	16B3-300	0.45
420	82	15B3-400	0.49	16B3-400	0.58
510	115	15B3-500	1.00	-	-
610	115	15B3-600	1.40	-	-

Load



Max load "P" under consideration of the permissible expansion bolt loads

Bracket - length L [mm]	Expansion bolt type 18J1-FAZ-1010 max. P
110	1,20 kN
210	1,20 kN
310	1,20 kN
410	1,20 kN

bracket 16B2-...

Material	- sheet steel, perforated - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 116 mm to 718 mm
Field of application	- installation on walls, on site existing anchor rails or steel constructions - installation on hanging supports 16A7-..., 16A9-...



16 B2-...

Ordering information

Fixing details

- Fix bracket to wall with expansion bolt 15J1- ...
- Fix bracket to anchor rails at site with anchor bolts 16J2-...
- Fix bracket to hanging supports 16A7-..., 16A9- ..., with screws 16J6-1025.
- Fix bracket to already existing steel constructions with clamps, screws or welding.

Fixing material	page
steel expansion bolt 15J1-...	180
anchor screw 16J2-...	183
screw 16J6-1025	187

bracket			
Height (mm)	Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
45	110	16B2-100	0.20
55	210	16B2-200	0.30
65	310	16B2-300	0.60
75	410	16B2-400	0.80
90	510	16B2-500	1.20
90	610	16B2-600	1.35
195	730	16B2-700	1.80
195	830	16B2-800	2.00
195	930	16B2-900	2.30
195	1030	16B2-1000	2.60

Support systems

Load

max. load "P" under consideration of the permissible expansion bolt loads

bracket length [mm]	Expansion bolt types	
	15J1-FAZ-1010 max. P	15J1-FAZ-1210 max. P
110	2,00 kN	3,60 kN
210	1,40 kN	2,50 kN
310	1,30 kN	2,20 kN
410	1,20 kN	2,00 kN
510	1,20 kN	2,00 kN
610	1,00 kN	1,70 kN
730	-	2,90 kN
830	-	2,30 kN
930	-	2,00 kN
1030	-	1,70 kN

Brackets + Consoles

Brackets, wall mounting



16 B9-...-W

bracket 16B9-...-W

Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 230 mm to 1030 mm
Technical data	- bracket "heavy duty" - 2 holes for wall mounting with expansion bolts, upper expansion bolt fixing for highest load capacity; reduce permissible load by 30% if lower hole is used
Field of application	- for wide span cable trays or wide span cable ladders

Ordering information

Fixing details

Wall mounting

Fix bracket with steel expansion bolt 15J1-...

Clamp fixing

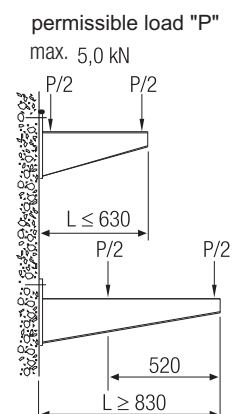
→ Fix bracket to jointing profile 16J9-... with screws 16J12-A.

→ Fix jointing profile to steel supports with claw 16A4-1-DA.

Fixing material	Page
steel expansion bolt 15J1-...	180
jointing profile 16J9-...	176
claw 16A4-1-DA	159
fixing screw 16J12-A	187

bracket			
Length (mm)	Height (mm)	Order No. hot dip galv.	Weight (kg/pce)
230	110	16B9-200-W	1.06
330	110	16B9-300-W	1.28
430	110	16B9-400-W	1.52
530	150	16B9-500-W	1.93
630	150	16B9-600-W	2.22
730	150	16B9-700-W	2.96
830	195	16B9-800-W	3.56
930	195	16B9-900-W	4.01
1030	195	16B9-1000-W	4.78

Load



max. load under consideration of the permissible exp. bolt loads

bracket length L [mm]	expansion bolt type	
	15J1-FAZ-1010 max. P	15J1-FAZ-1210 max. P
230	5,00 kN	5,00 kN
330	3,30 kN	5,00 kN
430	2,60 kN	4,60 kN
530	2,60 kN	4,60 kN
630	2,30 kN	4,10 kN
730	1,80 kN	3,20 kN
830	1,80 kN	3,20 kN
930	1,50 kN	2,70 kN
1030	1,30 kN	2,30 kN

console 16B21-..., wall bracket 16B22-...

Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- Console 16B21-... - 240 mm to 1040 mm - wall bracket 16B22-... - 230 mm to 1030 mm
Technical data	- long connection angle on upper strap, providing full exploitation of - permissible expansion bolt load at anchoring depths up to 80 mm
Field of application	- use of wide span systems or long brackets - installation on site existing anchor rails or steel constructions



16 B21-...

16 B22-...

Ordering information

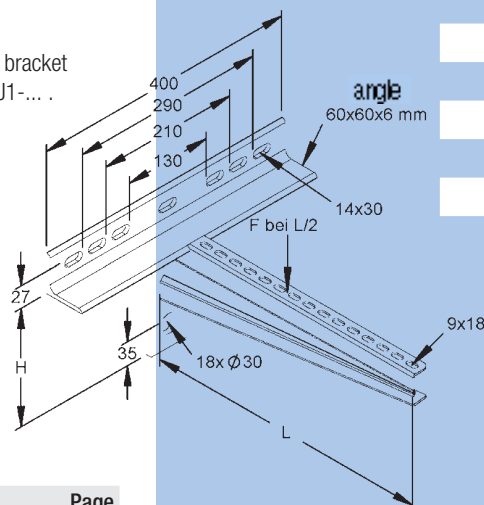
Fixing details

clamp fixing

→ clamp fixing on steel supports up to 300 mm anchoring depths with claws 16A4-1-D.

wall mounting

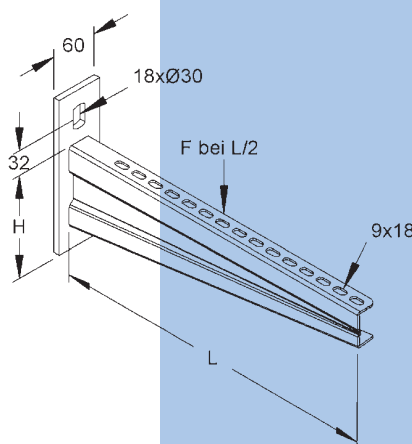
→ fix console or wall bracket expansion bolts 15J1-...



console

Load capacity F (kN)		Height (mm)	Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
flange width ≤ 300 mm	flange width ≤ 220 mm				
10.00	10.00	206	240	16B21-200	3.81
10.00	10.00	206	340	16B21-300	4.28
9.36	10.00	256	440	16B21-400	4.99
8.89	10.00	256	540	16B21-500	5.58
8.53	10.00	306	640	16B21-600	6.42
7.37	8.00	306	740	16B21-700	7.68
6.55	7.00	306	840	16B21-800	8.49
6.28	6.50	356	940	16B21-900	9.56
5.69	6.00	356	1040	16B21-1000	10.45

Fixing material	Page
steel expansion bolt 15J1-...	180
claw 16A4-1-D	159



wall bracket

Load capacity F (kN)		Height (mm)	Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
Load cap. at L/2 expansion bolt 15J1-FAZ-1625	steel load capacity				
10.00	10.00	83	230	16B22-200	1.64
10.00	10.00	108	330	16B22-300	2.30
10.00	10.00	133	430	16B22-400	3.02
9.50	10.00	133	530	16B22-500	3.60
9.50	10.00	158	630	16B22-600	4.44
8.50	10.00	158	730	16B22-700	5.70
8.50	10.00	183	830	16B22-800	6.51
7.50	10.00	183	930	16B22-900	7.58
7.50	10.00	208	1030	16B22-1000	8.47

Brackets + Consoles

Support elements

16 J9-...

16 J10-...

16 B-...

jointing profile 16J9-..., corner support 16J10, tube bracket adapter 16B27 / 16B34 / 16B43 / 16B49

Material

- steel
- hot dip galvanized according to DIN EN ISO 1461

Field of application

- jointing profile for installation on steel constructions
- corner support to connect bracket 16B9-...-W, when cable support elements have to be lead around a support or a building
- tube bracket adapter to clamp wall bracket 16B2-... or 15B3-... to tubes

Ordering information

Fixing details

Jointing profile

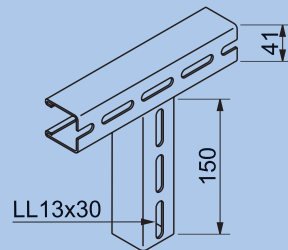
- Screw bracket to jointing profile 16J9-... with 16J12-A.
- Clamp the profile to steel supports at site with claw 16A4-1-DA.

Corner support

- Fix bracket 16B9-...-W to corner support 16J10 with 2 screws 16J12-A.
- Fix corner support 16J10 to the wall with 2 steel expansion bolts 15J1- BLA- 1082.

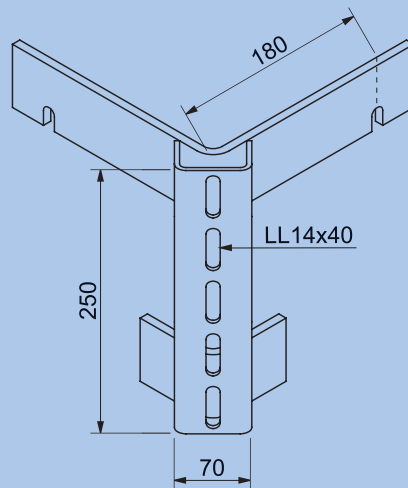
Tube bracket adapter

- Fix wall bracket and tube bracket adapter 16B-... to the tube with screws supplied.



jointing profile

flange width to (mm)	Order No. hot dip galv.	Weight (kg/pce)
100	16J9-200	0.80
200	16J9-300	1.14
300	16J9-400	1.39

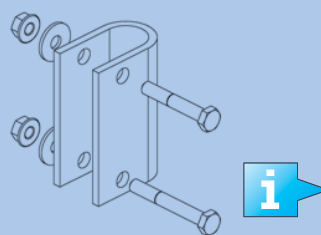


corner support

Order No. hot dip galv.	Weight (kg/pce)
16J10	3.24

2 screws 16J12-A and 2 expansion bolts 15J1-FAZ-1210 must be ordered separately.

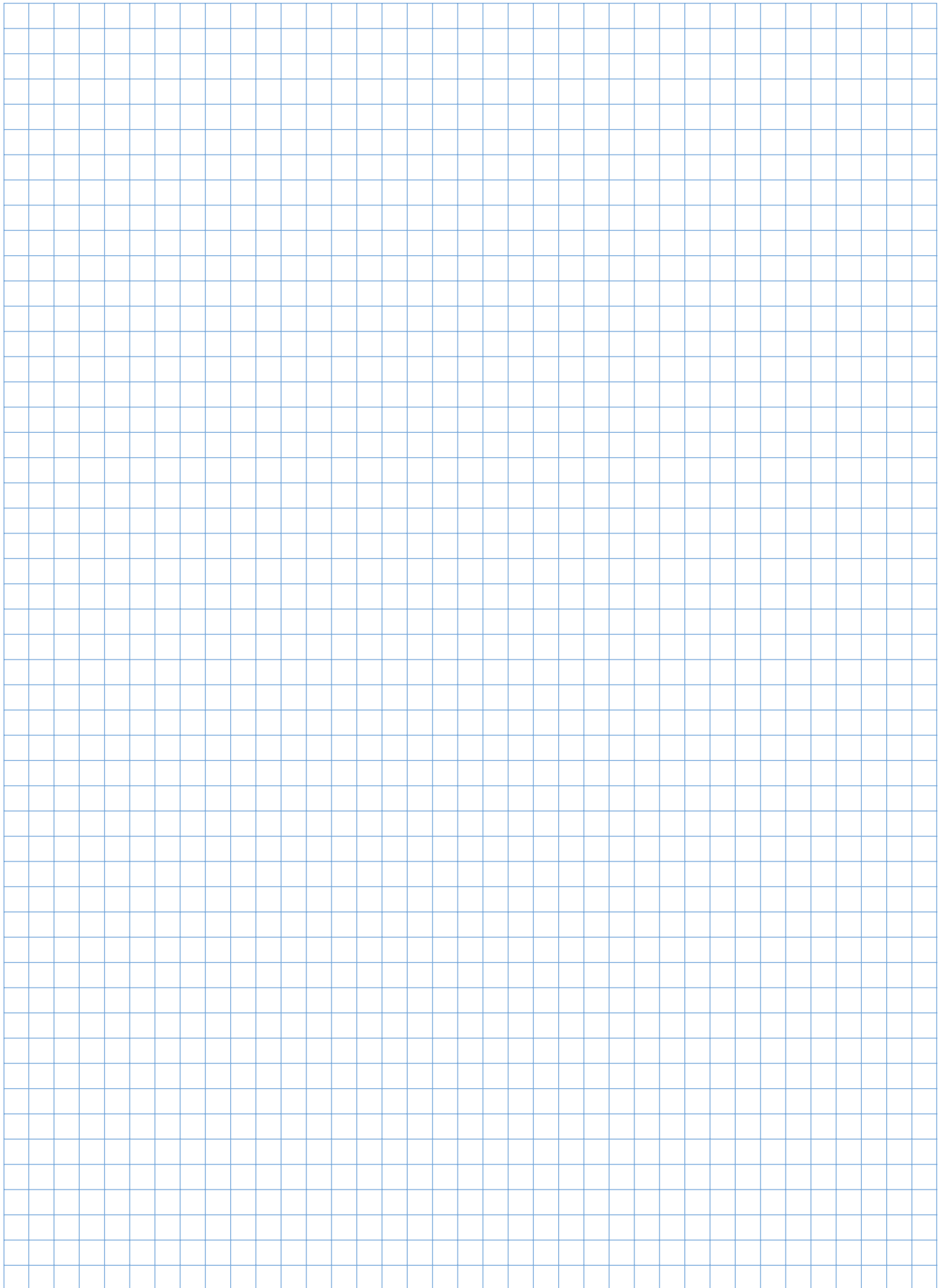
Fixing material	Page
steel expansion bolt 15J1-...	180
anchor bolt 16J2-...	183
screw 16J12-A	187
claws 16A4-1-DA	159



tube bracket adapter

for tubes	Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
3/4" (Außen-Ø 26,75 mm)	27	16B27	0.54
1" (Außen-Ø 33,50 mm)	34	16B34	0.58
1 1/4" (Außen-Ø 42,25 mm)	43	16B43	0.70
1 1/2" (Außen-Ø 48,25 mm)	49	16B49	0.76

incl. fixing screws





Support systems

The complete program of expansion bolts, anchor bolts fixing screws for fixing the RICO system components.

Table of contents

Page

Expansion bolt and accessories (drill bits, drive-in punch, mortar press)

expansion bolts, for mounting in reinforced concrete : 15J1-... / 18J1-...	180
expansion bolts, for mounting in masonry building material : 15J1-...	181, 182

Anchor bolts and anchor corners

anchor bolts, for mounting of components on anchor rails: 16J2-...	183
anchor corner, for mounting stanchions and vertical cable ladders on walls and ceilings : 16J3-...	184

Support constructions and jointing pieces

thrust washer: 16J4-...-S, threaded rod: 15J4-..., fixing screws: 16J4-1070, Washers: 16J4-...-S / 16J4-...-SG, hexagonal nuts: 16J4-...-M	185
jointing sleeves: 15J4-..., serrated lock washers: 16J4-...-F	
jointing piece: 16J5-B, straight joints: 16J5-F, 151L02-A / 161L02-A, fixing screws: 16J5-Z	186
hold down clamps: 16J6-A, 163J6-..., pipe clamp: 165J6-A, 16B21-Z1, 16B21-ZR, connection angle: 16J6-C fixing screws: 16J6-..., 16J12-A	187
support bracket: 16J7-A, counter punch 16J23-A, support clamp: 16J21-10, compensating plate: 15J6-... / 16J6-...	188

Installation accessories for luminaire support tray

knotted chain: 15N28-30, replacement chain link: 15N28-01	189
eye bolt: 15N21-...	189, 190
suspension bracket: 15N30-..., threaded sleeve: 15N24, internal-thread expansion bolt and setting tool: 15J1-..., ceiling hook: 15N23	189
trapezoidal-sheet suspension: 15J21-D, fixing screw : 16N21-110	190

Installation accessories for INSTA tray

eye bolts: 15N21-..., ceiling hook: 15N22, 15N23	192
suspension bracket: 15N30-..., knotted chain: 15N28-30, replacement chain link: 15N28-01 trapezoidal-sheet suspension: 15J21-D, fixing screw: 16N21-110	191

Accident prevention

protective end caps: 15J8-..., 15A16-S, edge protection: 15V13-A / 15V13-B	193
protective end caps: 153J8-... / 154J8-...	194
cold galvanizing set: 15J19-A, zinc spray: 15J19-B	194

Fixing technics

Expansion bolts + accessory

15
18
J1-...

expansion bolt 15J1-... / 18J1-... and accessory,
for installation in reinforced concrete

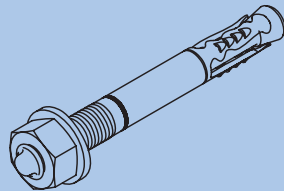
Ordering information

Fixing details

All RICO expansion bolts are in compliance with Building Construction Standards.

Suitable expansion bolts are available for every type of fixing (zone subject to tensile forces, uncracked concrete, masonry building material).

Our specialists will be pleased to advise you on any questions you may have.



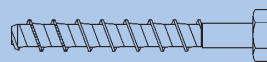
steel expansion bolt, type FAZ

Size	Load class (kN)	Anchoring depth (mm)	PU (pce)	Order No. galvanized	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)	clamp. width (mm)
M8	2.4	65	50	15J1-FAZ-0810	0.03	18J1-FAZ-0810	0.10	10
M8	2.4	65	50	15J1-FAZ-0830	0.04	18J1-FAZ-0830	0.10	30
M10	4.3	80	50	15J1-FAZ-1010	0.07	18J1-FAZ-1010	0.07	10
M12	7.6	95	20	15J1-FAZ-1210	0.10	18J1-FAZ-1210	0.10	10
M16	13.4	110	10	15J1-FAZ-1625	0.24	–	–	25



steel expansion bolt, type FH

Size	Load class (kN)	Anchoring depth (mm)	PU (pce)	Order No. galvanized	Weight (kg/pce)	clamping width (mm)
M10	7.6	105	25	15J1-FH-15B	0.12	10
M12	11.9	120	20	15J1-FH-1880B	0.14	10



concrete screw

Size	Load class (kN)	Anchoring depth (mm)	PU (pce)	Order No. galvanized	Weight (kg/pce)	clamp. width (mm)
M10	4.0	95	50	15J1-FBS-1015S	0.10	15



nail anchor type FNA

Anchoring ø (mm)	Load class (kN)	Anchoring depth (mm)	PU (pce)	Order No. electrogalv.	Weight (kg/pce)	clamp. width (mm)
6	0.5-1.2	45	50	15J1-FNA6	0.02	5

expansion bolts 15J1-... and accessory, for installation in reinforced concrete and masonry building material

15 J1-...

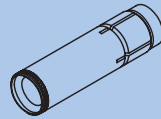
Ordering information

Fixing details

All RICO expansion bolts are in compliance with Building Construction Standards.

Suitable expansion bolts are available for every type of fixing (zone subject to tensile forces, uncracked concrete, masonry building material)

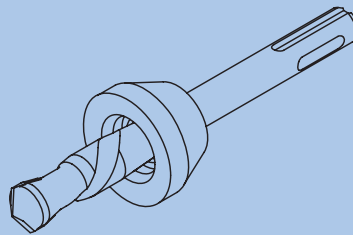
Our specialists will be pleased to advise you on any questions you may have.



internal-thread expansion bolt, type FZEA

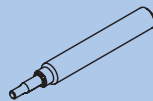
	Load class (kN)	Anchor. depth (mm)	Order No. galvanized	Weight (kg/pce)
M10	3.0	43	15J1-FZEA-1240	0.02
M12	3.6	43	15J1-FZEA-1440	0.03

Screws, threaded rods, etc have to be ordered separately.



headed drill bit, type FZEA

Order No. galvanized	Weight (kg/pce)
15J1-FZUB-1240	0.12
15J1-FZUB-1440	0.13



drive-in punch, type FZEA

Order No. galvanized	Weight (kg/pce)
15J1-FZED-12	0.20
15J1-FZED-14	0.21



grouting threaded rod M10

	Load class (kN)	Anchor. depth (mm)	Order No. galvanized	Weight (kg/pce)
M10	—	75	15J1-FIS-A10110M	0.15

Screws, threaded rods, etc. must be ordered separately.



Fixing technics

Expansion bolts + accessory

15 J1-...

expansion bolt 15J1-... and accessory,
for masonry building material

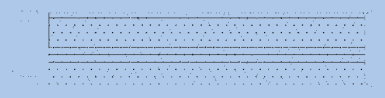
Ordering information

Fixing details

All RICO expansion bolts are in compliance with Building Construction Standards.

Suitable expansion bolts are available for every type of fixing (zone subject to tensile forces, uncracked concrete, masonry building material)

Our specialists will be pleased to advise you on any questions you may have.



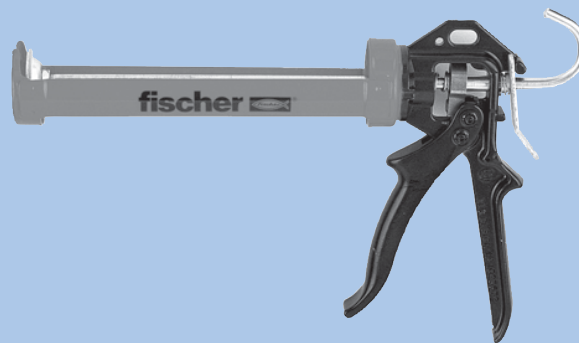
grouting net anchor

OrderNo.	Weight (kg/pce)
15J1-FIS-H16130K	0.05



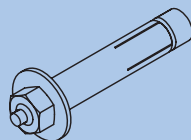
grouting mortar sufficient for max. 18 bore holes

OrderNo.	Weight (kg/pce)
15J1-FIS-V360S	0.50



press gun

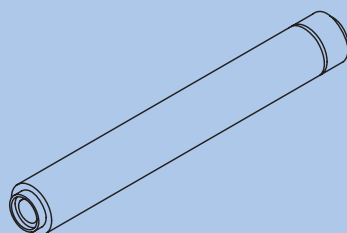
OrderNo.	Weight (kg/pce)
15J1-FIS-AM	1.00



foam mortar expansion bolt

Load class (kN)	Order No. galvanized	Weight (kg/pce)
M10 0.80	15J1-PBD-1010	0.10

Mounting without drilling, only setting tool 15J1-EWP-1010 required



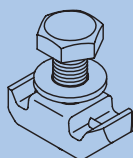
setting tool, type PBD

Order No. galvanized	Weight (kg/pce)
15J1-EWP-1010	0.12

anchor bolts 16J2-...,
for installation of components to anchor rails

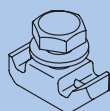


Ordering information



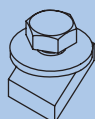
anchor bolts, clamping thickness max. 12 mm

for C-profile	with ScREW	M _{max} (Nm)	Order No. hot dip galv.	Weight (kg/pce)
40x22 + 41x41	M8x30	20	16J2-A-0830	0.06
40x22 + 41x41	M10x30	40	16J2-A-1030	0.08
41x41	M12x35	70	16J2-A-1235	0.10



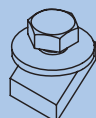
anchor bolts, clamping thickness max. 8 mm

for C-profile	with Screws	M _{max} (Nm)	Order No. hot dip galv.	Weight (kg/pce)
40x22 + 41x41	M8x25	20	16J2-B-0825	0.06
40x22 + 41x41	M10x25	40	16J2-B-1025	0.07



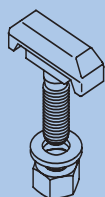
anchor bolts, clamping thickness max. 6 mm

for C-profile	with Screws	M _{max} (Nm)	Order No. hot dip galv.	Weight (kg/pce)
40x22 + 41x41	M5x25	5	16J2-C-0525	0.02
40x22 + 41x41	M6x20	8	16J2-C-0620	0.04
40x22 + 41x41	M8x20	15	16J2-C-0820	0.05
40x22 + 41x41	M10x25	40	16J2-C-1025	0.06



anchor bolts, clamping thickness max. 6 mm

for C-profile	with Screws	M _{max} (Nm)	Order No. hot dip galv.	Weight (kg/pce)
30x15	M6x16	8	16J2-D-0616	0.02
30x15	M8x16	10	16J2-D-0816	0.03



anchor bolts (PU 50 pce.)

for C-profile	with Screws	M _{max} (Nm)	Clamp. thickn.	Order No. hot dip galv.	Weight (kg/pce)
50x30 + 49x30	M10x30	18	8	16J2-K	0.06
50x30 + 49x30	M12x40	32	12	16J2-A	0.10

15

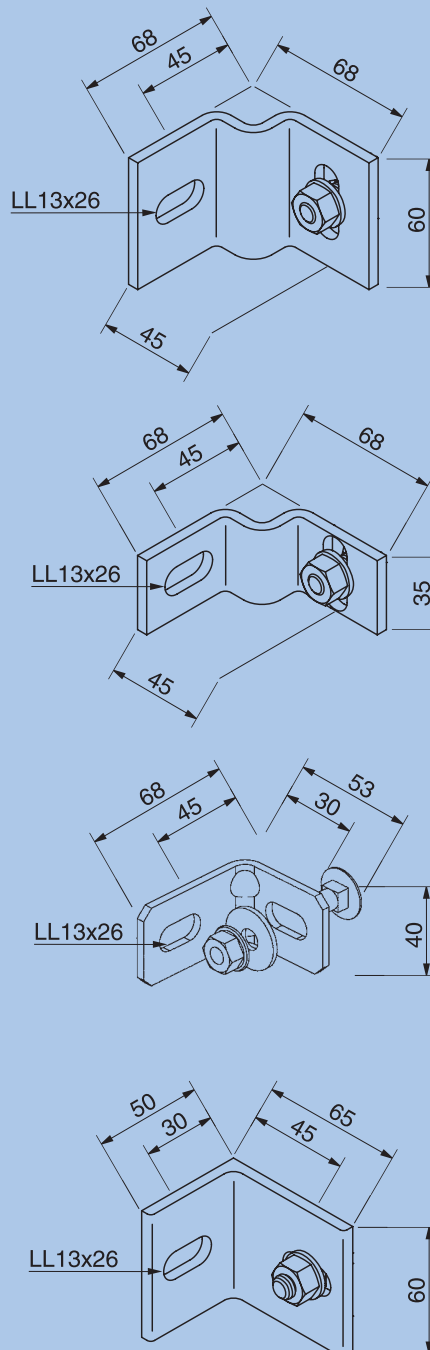
16

J3-...

anchor corner 16J3-...,
for installation of supports and vertical cable ladders to walls or ceilings

Ordering information

Fixing material	Page
steel expansion bolts 15J1-...	180
fixing screw 16J6-1025	187



anchor block

Order No. hot dip galv.	Weight (kg/pce)
16J3-B	0.34

incl. 1 screw
16J6-1025

anchor block

Order No. hot dip galv.	Weight (kg/pce)
16J3-C	0.22

incl. 1 screw
16J6-1025

anchor corner

Order No. hot dip galv.	Weight (kg/pce)
16J3-D	0.22

incl. 1 screw
16J6-1025

anchor corner

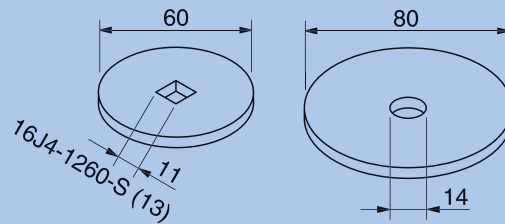
Order No. hot dip galv.	Weight (kg/pce)
16J3-D1	0.32

incl. 1 screw
16J6-1025

thrust washer 16J4-...-S,
 threaded rods 15J4-...-1000, fixing screws 16J4-1070
 washers 16J4-...-S, 16J4-...-SG, flange nut 16J4-...-M

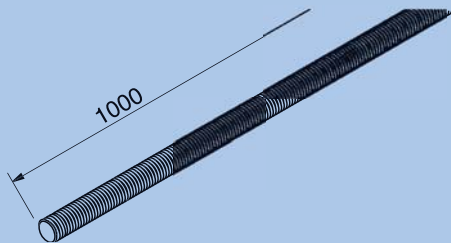
15
 16 J4-...

Ordering information



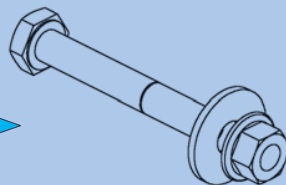
thrust washer

Order No.	Weight (kg/pce)
16J4-1060-S	0.10
16J4-1260-S	0.10
16J4-1280-S	0.22



threaded rod DIN 975-A3B

Dimensions	Order No.	Weight (kg/pce)
M6 x 1000	15J4-M6-1000	0.16
M8 x 1000	15J4-M8-1000	0.32
M10 x 1000	15J4-M10-1000	0.48
M12 x 1000	15J4-M12-1000	0.70



fixing screw DIN 931-8.8

Dimensions	Order No.	Weight (kg/pce)
M10 x 70	16J4-1070	0.09



washers DIN 125

Dimensions	Order No.	Weight (kg/pce)
Ø 6,4 x 12	16J4-06-S	0.001
Ø 8,4 x 16	16J4-08-S	0.002
Ø 10,5 x 20	16J4-10-S	0.004
Ø 13 x 24	16J4-12-S	0.006



washers DIN 9021

Dimensions	Order No.	Weight (kg/pce)
Ø 6,4 x 18	16J4-06-SG	0.003
Ø 8,4 x 24	16J4-08-SG	0.006
Ø 10,5 x 30	16J4-10-SG	0.012
Ø 13 x 37	16J4-12-SG	0.027



flange nut DIN EN 1661-8

Dimensions	Order No.	Weight (kg/pce)
M6	16J4-06-M	0.004
M8	16J4-08-M	0.007
M10	16J4-10-M	0.013
M12	16J4-12-M	0.020

Fixing technics

Support constructions and jointing pieces

15 J4-...

16

16 J5-...

jointing sleeves 15J4-..., serrated lock washer 16J4-...-F,
jointing pieces 16J5-B, straight joint 16J5-F,
fixing screws 16J5-Z

Ordering information



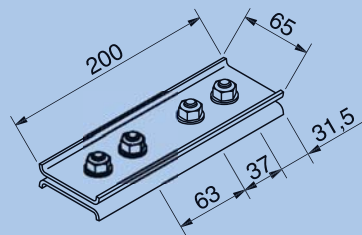
jointing sleeve

Dimensions	Order No. electro galv.	Weight (kg/pce)
M6 x 50	15J4-0650	0.02
M8 x 50	15J4-0850	0.04
M10 x 50	15J4-1050	0.06
M12 x 50	15J4-1250	0.08



serrated lock washer DIN 6798

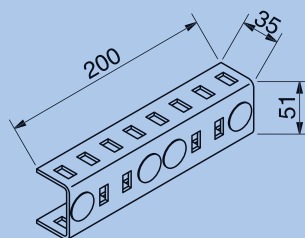
Dimensions	Order No. hot dip galv.	Weight (kg/pce)
A 6,4	16J4-06-F	0.0003
A 8,4	16J4-08-F	0.0005
A 10,5	16J4-10-F	0.0010
A 13	16J4-12-F	0.0015



jointing piece for 16A1-..., 16A3-...

Order No. hot dip galv.	Weight (kg/pce)
16J5-B	0.80

incl. 4 screws
16J6-1025 (M10x25)



straight joint for 16A7-..., 16A9-...

Order No. hot dip galv.	Weight (kg/pce)
16J5-F	0.42

incl. 4 screw
16J6-1020 (M10x20)



fixing screw M10x25

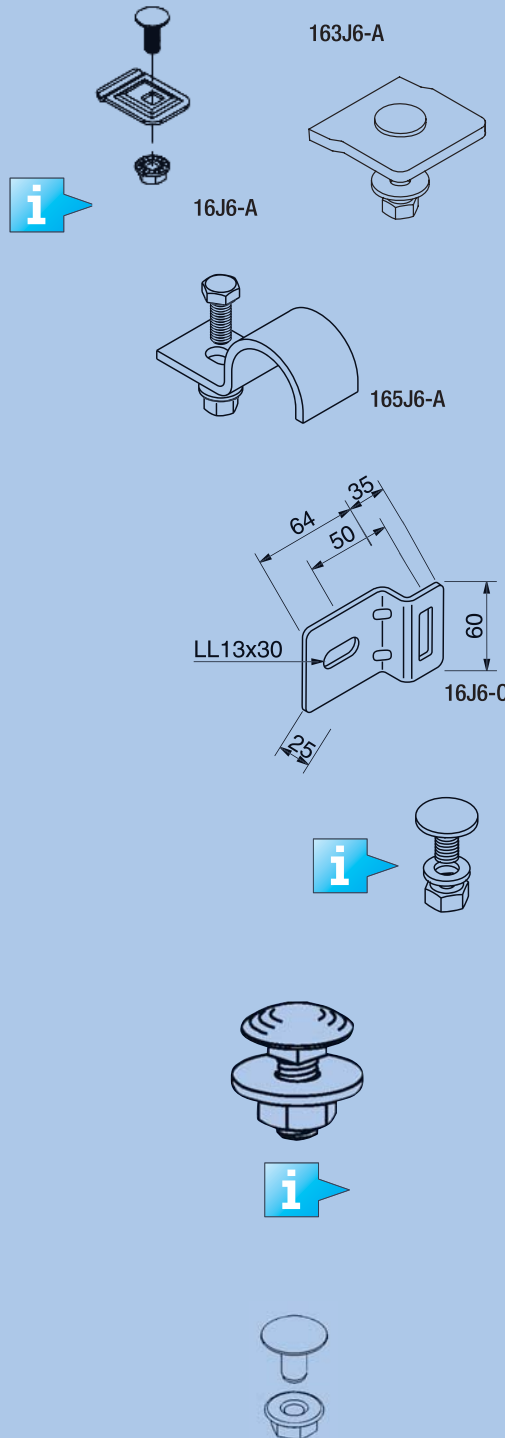
Order No. hot dip galv.	Weight (kg/pce)
16J5-Z	0.08

incl. flange nut

hold down clamps 16J6-A, 163J6-...
 pipe clamps 1" 165J6-A
 connection angle 16J6-C
 fixing screws 16J6-..., 16J12-A, 15J6-1050

15
 16 J6-...

Ordering information



hold down clamps

with screw	PU (pce)	Order No. hot dip galv.	Weight (kg/pce)
M6 x 12	100	16J6-A	0.02
M6 x 20	50	163J6-A	0.06

pipe clamp 1"

with screw	PU (pce)	Order No. hot dip galv.	Weight (kg/pce)
M8 x 20	50	165J6-A	0.12

installation on bracket 16B8-...-W, 16B9-...-W and cross heads from 16A7

connection angle

Order No. hot dip galv.	Weight (kg/pce)
16J6-C	0.18

fixing screw

Size	PU (pce)	Order No. electrogalv.	Weight (kg/pce)
M10 x 50	10	15J6-1050	0.05

fixing screws

Size	PU (pce)	Order No. hot dip galv.	Weight (kg/pce)
M6 x 12	100	16J6-B	0.01
M6 x 16*	100	16J6-D	0.01
M6 x 20*	50	16J6-F	0.01
M8 x 16	100	16J6-P	0.02
M8 x 16*	100	16J6-Q	0.02
M8 x 20	100	16J6-R	0.02
M8 x 20*	100	16J6-S	0.04
M10 x 20*	100	16J6-1020	0.05
M10 x 25*	100	16J6-1025	0.05
M12 x 25	40	16J12-A	0.06
M12 x 35	30	16J6-1235	0.07

* fixing screw with big washer according to DIN 9021 + flange nut according to DIN EN 1661-8

Fixing technics

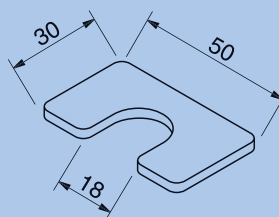
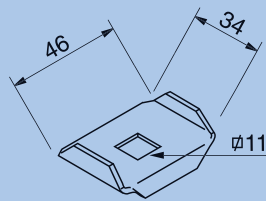
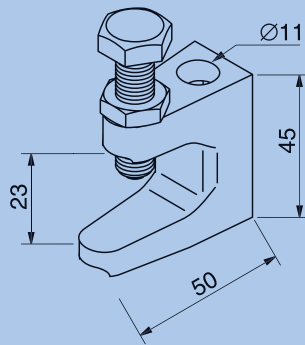
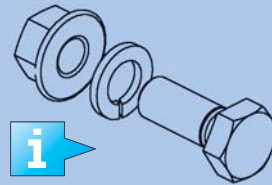
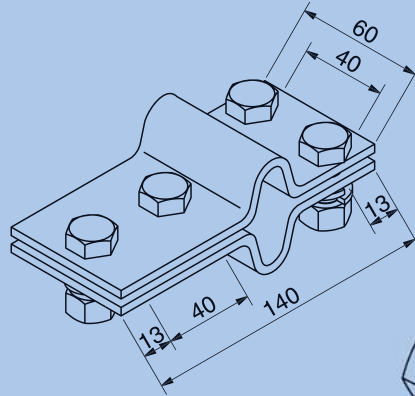
Support constructions and jointing pieces

15
16 J...

support bracket 16J7-A with accessory screws,
support clamp 16J21-10, counter punch 16J23-A,
compensating plate 15J6-... / 16J6-...

Ordering information

Fixing material	Page
threaded rod 15J4-M10	185



support bracket

Order No. hot dip galv.	Weight (kg/pce)
16J7-A	0.74

incl. 4 screws
16J7-AZ

accessory screw M12x30 DIN 933 with flange nut

Order No. hot dip galv.	Weight (kg/pce)
16J7-AZ	0.06

support clamp

Order No. hot dip galv.	Weight (kg/pce)
16J21-10	0.16

for light electrical installations on steel supports,
threaded rods to M10, flange thickness up to
23 mm, special screw with cup point and
counter nut.

counter punch

Order No. hot dip galv.	Weight (kg/pce)
16J23-A	0.03

for open profile side of teh C-rail 40x22
and 30x15

compensating plate

Order No. cont. hot galv.	Order No. hot dip galv.	Weight (kg/pce)
15J6-G10	–	0.01
15J6-G15	–	0.01
15J6-G20	–	0.02
–	16J6-G30	0.03

material thickness of 1.0 to 3.0 mm

knotted chain 15N28-30, replacement chain link 15N28-01, eye bolt 15N21-06, suspension bracket 15N30-..., threaded sleeve 15N24, internal-thread expansion bolt and setting tool 15J1-..., ceiling hook 15N23

15 N...

15 J1-...

Material	- steel - electrogalvanized (A3B)
Field of application	- suspension of the luminaire support tray - fastening of the luminaire support rail to concrete ceilings

Ordering information

Fixing details

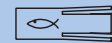
- Use knotted chain 15N28-30 and suspension bracket 15N30-50 to suspend the luminaire support rail.
- Use eye bolt 15N21- ... with slide nuts in the case of anchor rails embedded in concrete.
- Threaded sleeve M6 for middle suspension with threaded rod (M6).



knotted chain

Order No. electrogalv.	Weight (kg/m)
15N28-30	0.16

supply length 30 m



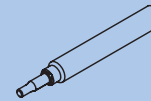
int.-thread exp. bolt M6

Order No. electrogalv.	Weight (kg/pce)
15J1-EA-M6	0.01



replacement chain link

Order No. electrogalv.	Weight (kg/pce)
15N28-01	0.007



setting tool

Order No. electro galv.	Weight (kg/pce)
15J1-EAW-H6	0.05



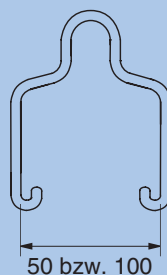
eye bolt with
nut M6x60

Order No. electrogalv.	Weight (kg/pce)
15N21-06	0.022



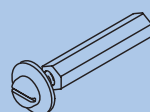
ceiling hook 6 x 60

Order No. electrogalv.	Weight (kg/pce)
15N23	0.018



suspension bracket

Order No. electrogalv.	Weight (kg/pce)
15N30-50	0.02
15N30-100	0.05



threaded sleeve M6

Order No. electrogalv.	Weight (kg/pce)
15N24	0.03

incl. screw M6x16

Fixing technics

Accessory for luminaire support tray

15
16 N...

15
16 J21-D

eye bolt 15N21-..., trapezoidal-sheet suspension 15J21-D, fixing screw 16N21-110

Material

- sheet steel, steel
- continuously hot galvanized according to DIN EN 10327, electrogalvanized (A3B) or hot dip galvanized according to DIN EN ISO 1461

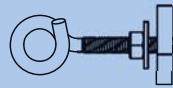
Field of application

- fastening the luminaire support tray to anchor rails embedded in concrete or to ceilings with trapezoidal ceilings

Ordering information

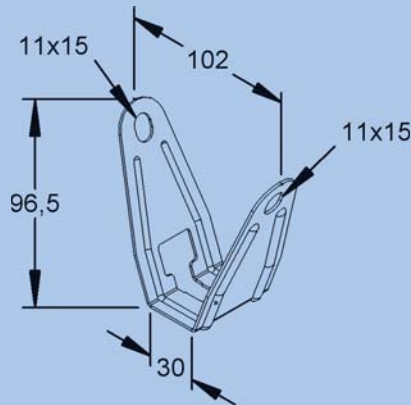
Fixing details

→ fix trapezoidal-sheet suspension 15J21-D with fixing screw 16N21-110 (M8x110)



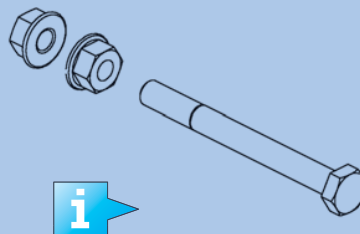
eye bolt M6x60

Order No. electrogalv.	Weight (kg/pce)
15N21-23	0.025
15N21-30	0.030
15N21-40	0.060



trapez.-sheet suspension

Order No. cont. hot galv.	Weight (kg/pce)
15J21-D	0.09



fixing screw M8 x 110

Order No. hot dip galv.	Weight (kg/pce)
16N21-110	0.06

with two flange nuts, for trapezoidal-sheet suspension 15J21-D



suspension bracket 15N30-..., knotted chain 15N28-30, replacement chain link 15N28-01, trapezoidal-sheet suspension 15J21-D, fixing screw 16N21-110

15
16 N...

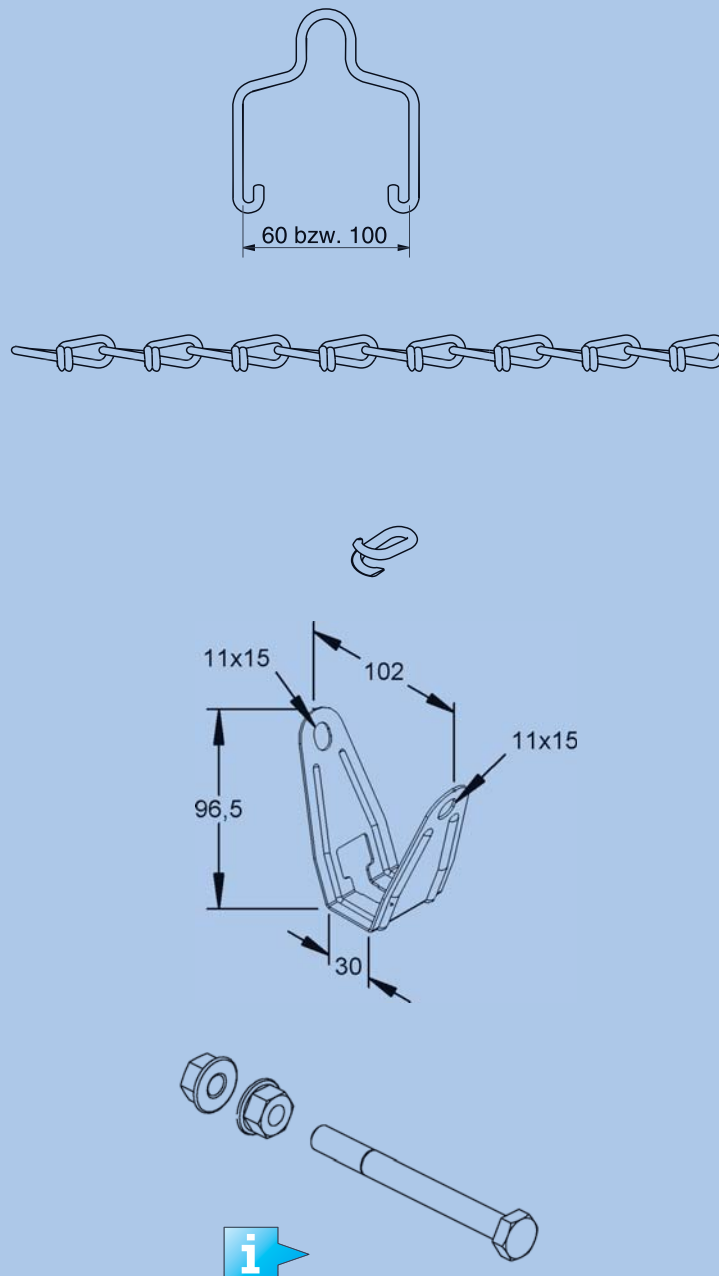
15 J21-D

Material	<ul style="list-style-type: none"> - steel, electrogalvanized (A3B) - sheet steel, continuously hot galvanized according to DIN EN 10327 - screw hot dip galvanized according to DIN EN ISO 1461
Field of application	<ul style="list-style-type: none"> - suspension of the INSTA-tray - fixing of the INSTA-tray to trapezoidal-sheet ceiling

Ordering information

Fixing details

- Use knotted chain 15N28-30 and suspension bracket 15N30-... to suspend the INSTA-tray.
- Fasten trapezoidal-sheet suspension 15J21-D by means of fixing screw 16N21-110 (M8x110).



suspension bracket

Order No.	Weight (kg/pce)
15N30-60	0.03
15N30-100	0.05

knotted chain

Order No.	Weight (kg/m)
15N28-30	0.16
Supply length 30 m	

replacement chain link

Order No.	Weight (kg/pce)
15N28-01	0.007

trapez.-sheet suspension

Order No.	Weight cont. hot galv. (kg/pce)
15J21-D	0.09

fixing screw M8x110

Order No.	Weight hot dip galv. (kg/pce)
16N21-110	0.06

with two flange nuts, for trapezoidal-sheet suspension 15J21-D

Fixing technics

Accessory for INSTA-tray

15
16
N...

eye bolt 15N21-..., ceiling hook 15N22, 15N23

Material	- steel - electrogalvanized (A3B)
Field of application	- fixing of the INSTA-tray to anchor rail embedded in concrete or to concrete ceilings

Ordering information

Fixing details

Eye bolt 15N21 (M6)

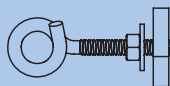
→ In the case of anchor rail embedded in concrete use eye bolt 15N21 (M6x60) with slide nut.

Ceiling hook 15N22 with plastic expansion bolt

→ In concrete ceilings use ceiling hook 15N22 (6x60) with plastic expansion bolt S8 .

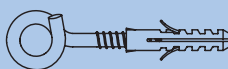
Ceiling hook 15N23

→ In wooden construction use ceiling hooks 15N23 (6x60) .



eye bolt M6x60

for profile	Order No. electrogalv.	Weight (kg/pce)
23 x 11	15N21-23	0.025
30 x 15	15N21-30	0.030
40 x 22	15N21-40	0.060



ceiling hook 6 x 60 mit plastic expansion bolt S8

Order No. electrogalv.	Weight (kg/pce)
15N22	0.020



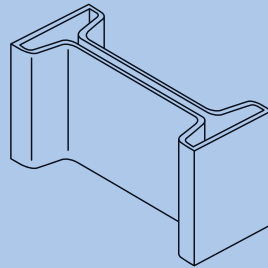
ceiling hook 6 x 60

Order No. electrogalv.	Weight (kg/pce)
15N23	0.018

protective end caps 15J8-..., 15A16-S, 15A10-S,
for accident prevention in yellow (DIN 4118),
edge protection 15V13-A / 18V13-A

15 J8-...
15 V13-A
18

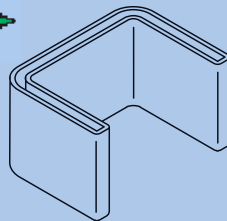
Ordering information



protective end cap
for H-support

Order No. plastic	Weight (kg/pce)
15J8-A	0.04

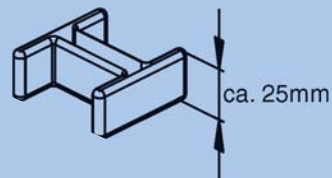
new



protective end cap

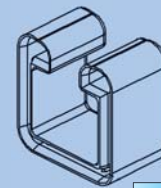
for U-support

Order No. plastic	Weight (kg/pce)
15A17-..., 15A19-... 16A17-..., 16A19-...	15J8-U50 0.01
16A7-..., 16A9-...	15J8-U60 0.02
16F6-...	15J8-U70 0.01
16A13-..., 16A14-...	15J8-B 0.02



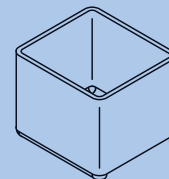
protective end cap for
double U-profile 50x22

Order No. plastics	Weight (kg/pce)
15A10-S	0.04



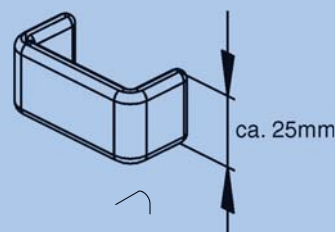
protective end cap
41x41

Order No. plastic	Weight (kg/pce)
15J8-D	0.03



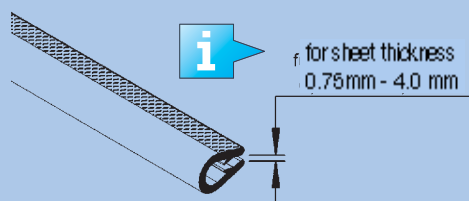
protective end cap for
C-profile 40x22

Order No. plastic	Weight (kg/pce)
15J8-E	0.02



protective end cap for
U-profile 50x22

Order No. plastics	Weight (kg/pce)
15A16-S	0.03



edge protection

clamping range (mm)	Order No. plastics	Weight (kg/m)
0.75-4	15V13-A	0.14
0.75-4	18V13-A	0.14

Trag-
konstruktionen

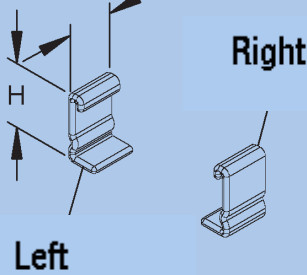
15 J8-...

15 J19-...

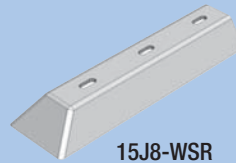
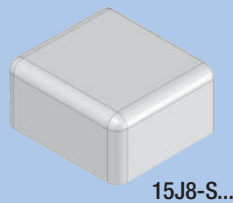
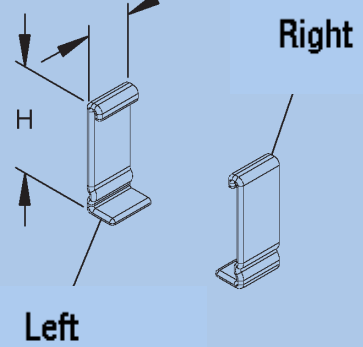
protective end caps 151J8-C, 153J8-C, 15J8-S25, 15J8-S30, 15J8-WSR for accident prevention in yellow (DIN 4118), cold galvanizing set 15J19-A, zinc spray 15J19-B

Ordering information

40-45 mm



40-45 mm



protective end cap

for cable ladders	Order No. plastics	Weight (kg/pair)
151C1-..., 161C1-...	151J8-C	0.04
153C1-..., 163C1-...	153J8-C	0.06

protective end cap

	Order No. plastics	Weight (kg)
for crimp wide span tray (floor sheet)	15J8-WSR	0.0012
for rung 30x15 for wide span ladder	15J8-S30	0,0057
for rung 25x15 for standard ladder	15J8-S25	0,0054



Cold galvanizing set

Order No.	Weight (kg/pce)
15J19-A	0.75

zinc spray 400 ml

Order No.	Weight (kg/pce)
15J19-B	0.50

For mending of galvanization in dry interior.







Vertical cable ladders

RICO-vertical cable ladders for laying cable vertically.

The RICO vertical cable ladder program includes:

see system picture 14

Table of contents	Page
Vertical cable ladders for wall mounting (Load class 1.0kN/maund 1.75kN/m)	200
Vertical cable ladder components	204
Vertical cable ladders for wall mounting and free standing arrangement in spaces up to 4.5 m (Load class 1.75 kN/m)	206
Vertical cable ladders for wall mounting and free standing arrangement in spaces up to 6.0 m (Load class 1.75 kN/m)	208
profile rails for support constructions	211



Vertical cable ladders

RICO vertical cable ladders for laying cable vertically.

The RICO vertical cable ladder program includes:

see pictures 14

Table of contents

Page

Vertical cable ladders for wall mounting (Load class 1.0 kN/m and 1.75 kN/m)

vertical cable ladders, ready made: 151L1-...-3... / 161L1-...-3...	200
vertical cable ladders, ready made: 151L1-...-6... / 161L1-...-6...	201
vertical cable ladders, ready made: 151L1-...-C... / 161L1-...-C...	202, 203

Vertical cable ladder components

straight joint 151E11-A / 161E11-A	204
C-rung 05L12-... / 06L12-...	204
C-rung 15L12-...-C / 16L12-...-C	205

Vertical cable ladders for wall mounting and free standing arrangement in spaces up to 3.0 m (Load class 1.75 kN/m)

vertical cable ladder kit: 161L03-...-C	206
straight joint: 16J5-F, anchor corner: 16J3-D	206
vertical cable ladders components: U-Profil 16A7-4500, C-Sprossen 16L12-...-C	207

Vertical cable ladders for wall mounting in free standing arrangements in spaces up to (Load class 1.75 kN/m)

vertical cable ladder kits: 16L3-...-C, 16L3-...-L	208
vertical cable ladder components: H-support: 16A1-6000, C-rung 16L13-...-C, L-rung 16L13-...-L	209
anchor block: 16J3-B, anchor corner: 16J3-D1, jointing piece: 16J5-B connection angle: 16J6-C, fitting angle: 16L4-C, support corner: 16U6-A	210

Profile rail for support constructions

C-profile rail: 15F2-... / 16F2-..., 15F22-... / 16F22-..., 16F5-..., 16F55-...	211-213
mounting angle: 16F4-4500-A	213
mounting rail: 16F6-6000-A	213

Vertical cable ladders

Vertical cable ladders

1.0
kN/m
max. load

15

16

1L1-...

vertical cable ladder 151L1-...-3.. / 161L1-...-3..

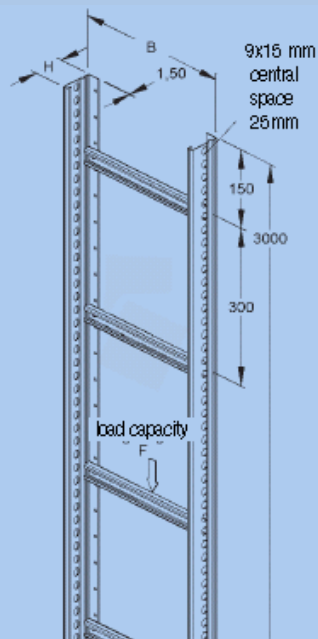
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- standard design, riveted ready to install - rungs of C-profile 30x15, thickness 1.5 mm. rung spacing 300 mm and 600 mm, side height 60 mm
Field of application	- for wall mounting - covers on request

Ordering information

Fixing details

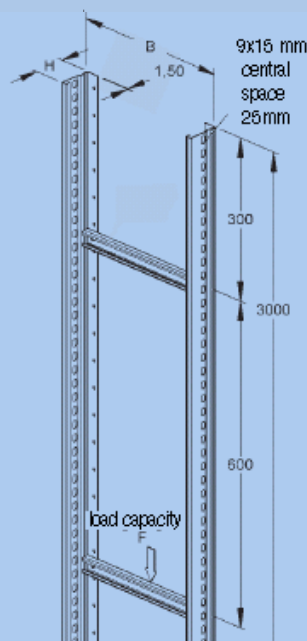
- Connect sides with straight joint 151E11-A / 161E11-A .
- Fix vertical cable ladders to wall with connection angle 16J6-C
- Use steel expansion bolt 15J1-FAZ-0810 for fixing .

Fixing material	Page
straight joint 151E11-A / 161E11-A	204
rungs 30x15 05L12-... / 06L12-...	204
connection angle 16J6-C	210
steel expansion bolt 15J1-...	180
screw 16J6-S	187



vertical cable ladder, assembled with rungs of C-profile 30x15, perforated, rung spacing 300 mm, supply length 3000 mm

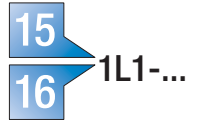
Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-33	8.80	161L1-200-33	9.24
300	151L1-300-33	9.60	161L1-300-33	10.08
400	151L1-400-33	10.40	161L1-400-33	10.92
500	151L1-500-33	11.15	161L1-500-33	11.71
600	151L1-600-33	11.95	161L1-600-33	12.55



vertical cable ladder, assembled with rungs of C-profile 30x15, perforated, rung spacing 600 mm, supply length 3000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-36	8.00	161L1-200-36	8.40
300	151L1-300-36	8.40	161L1-300-36	8.82
400	151L1-400-36	8.80	161L1-400-36	9.24
500	151L1-500-36	9.25	161L1-500-36	9.71
600	151L1-600-36	9.65	161L1-600-36	10.13

vertical cable ladder 151L1-...-6.. / 161L1-...-6..



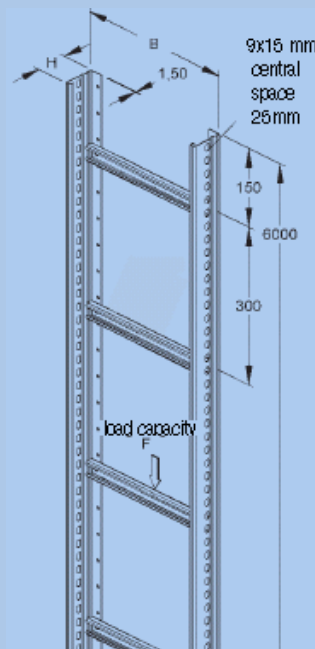
Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	<ul style="list-style-type: none"> - 6000 mm
Technical data	<ul style="list-style-type: none"> - standard design, riveted ready to install - rungs of C-profile 30x15, thickness 1.5 mm. - rung spacing 300 mm and 600 mm, side height 60 mm
Field of application	<ul style="list-style-type: none"> - for wall mounting - covers on request

Ordering information

Fixing details

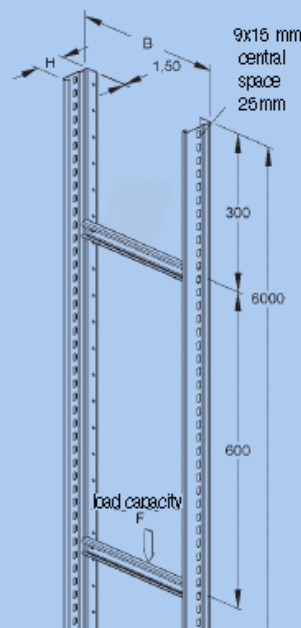
- Connect sides with straight joint 151E11-A / 161E11-A .
- Fix vertical cable ladders to wall with connection angle 16J6-C
- Use steel expansion bolt 15J1-FAZ-0810 for fixing .

Fixing material	Page
straight joint 151E11-A / 161E11-A	204
rungs 30x15 05L12-... / 06L12-...	204
connection angle 16J6-C	210
steel expansion bolt 15J1-...	180
screw 16J6-S	187



vertical cable ladder, assembled with rungs of C-profile 30x15, perforated, rung spacing 300 mm, supply length 6000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-63	17.65	161L1-200-63	18.53
300	151L1-300-63	19.20	161L1-300-63	20.16
400	151L1-400-63	20.75	161L1-400-63	21.80
500	151L1-500-63	22.30	161L1-500-63	23.42
600	151L1-600-63	23.90	161L1-600-63	25.10



vertical cable ladder, assembled with rungs of C-profile 30x15, perforated, rung spacing 600 mm, supply length 6000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-66	16.00	161L1-200-66	16.80
300	151L1-300-66	16.80	161L1-300-66	17.64
400	151L1-400-66	17.65	161L1-400-66	18.53
500	151L1-500-66	18.50	161L1-500-66	19.43
600	151L1-600-66	19.30	161L1-600-66	20.27

Vertical cable ladders

Vertical cable ladders

1.75
kN/m
max. load

15
16
1L1-...

vertical cable ladders 151L1-...-C3.. / 161L1-...-C3..

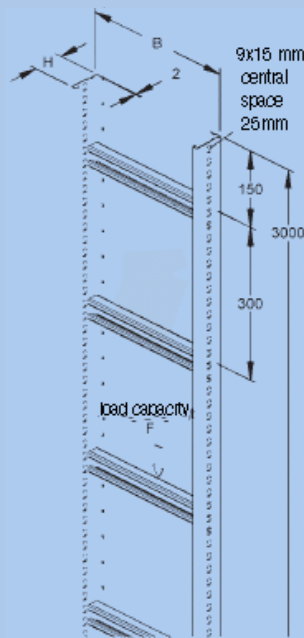
Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height H=60 mm, thickness 2.2 mm - rungs of C-profile 40x22 - rung spacing 300 mm and 600 mm - standard design, riveted ready to install
Field of application	- for wall mounting - covers on request

Ordering information

Fixing details

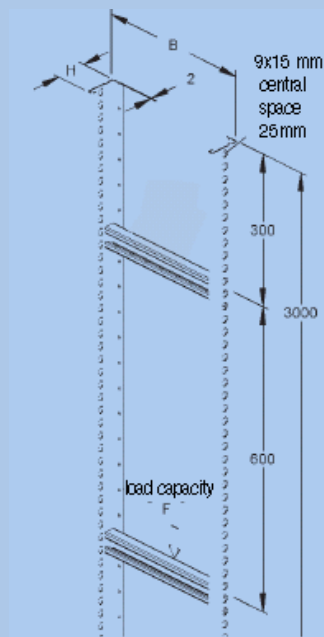
- Connect sides with straight joints 151E11-A / 161E11-A .
- Fix vertical cable ladders with connection angle 16J6-C to walls.
- Use steel expansion bolts 15J1-FAZ-0810 for fixing.

Fixing material	Page
straight joint 151E11-A / 161E11-A	204
rungs 40x22 15L12-...-C / 16L12-...-C	205
connection angle 16J6-C	210
steel expansion bolt 15J1-...	180
screw 16J6-S	187



vertical cable ladder, assembled with rungs of C-profile 40x22, perforated, rung spacing 300 mm, supply length 3000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-C33	11.95	161L1-200-C33	12.30
300	151L1-300-C33	12.80	161L1-300-C33	13.80
400	151L1-400-C33	14.20	161L1-400-C33	15.30
500	151L1-500-C33	15.60	161L1-500-C33	16.80
600	151L1-600-C33	17.00	161L1-600-C33	18.30



vertical cable ladder, assembled with rungs of C-profile 40x22, perforated, rung spacing 600 mm, supply length 3000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-C36	10.00	161L1-200-C36	10.80
300	151L1-300-C36	10.70	161L1-300-C36	11.50
400	151L1-400-C36	11.40	161L1-400-C36	12.30
500	151L1-500-C36	12.10	161L1-500-C36	13.00
600	151L1-600-C36	12.90	161L1-600-C36	13.90

vertical cable ladder 151L1-...-C6.. / 161L1-...-C6..

Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10142 or hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	<ul style="list-style-type: none"> - side height H=60 mm, thickness 2,2 mm - rungs of C-profile 40x22 - rung spacing 300 mm and 600 mm - standard design, riveted ready to install
Field of application	<ul style="list-style-type: none"> - for wall mounting - covers on request

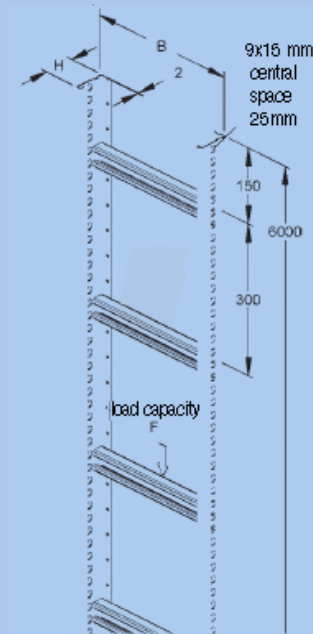


Ordering information

Fixing details

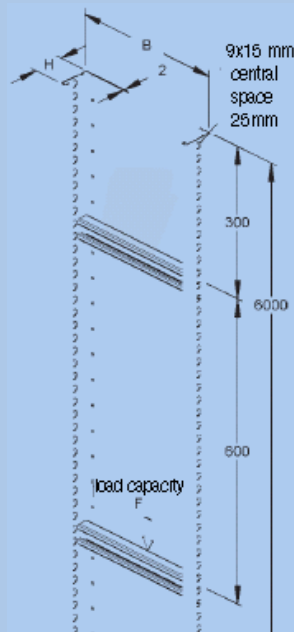
- Connect sides with straight joints 151E11-A / 161E11-A .
- Fix vertical cable ladders with connection angle 16J6-C to walls.
- Use steel expansion bolts 15J1-FAZ-0810 for fixing.

Fixing material	Page
straight joint 151E11-A / 161E11-A	204
rungs 40x22 15L12-...-C / 16L12-...-C	205
connection angle 16J6-C	210
steel expansion bolt 15J1-...	180
screw 16J6-S	187



vertical cable ladder, assembled with rungs of C-profile 40x22 perforated, rung spacing 300 mm, supply length 6000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-C63	23.90	161L1-200-C63	25.10
300	151L1-300-C63	27.10	161L1-300-C63	28.46
400	151L1-400-C63	30.30	161L1-400-C63	31.82
500	151L1-500-C63	33.50	161L1-500-C63	35.18
600	151L1-600-C63	36.70	161L1-600-C63	38.54



vertical cable ladder, assembled with rungs of C-profile 40x22, perforated, rung spacing 600 mm, supply length 6000 mm

Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	151L1-200-C66	20.70	161L1-200-C66	21.74
300	151L1-300-C66	22.30	161L1-300-C66	23.42
400	151L1-400-C66	23.90	161L1-400-C66	25.10
500	151L1-500-C66	25.50	161L1-500-C66	26.78
600	151L1-600-C66	27.10	161L1-600-C66	28.46

Vertical cable ladders

Vertical cable ladders components

- 15 → 1E11-A
- 16 →
- 05 → L12-...
- 06 →

straight joint 151E11-A / 161E11-A, C-rungs 05L12-... / 06L12-...

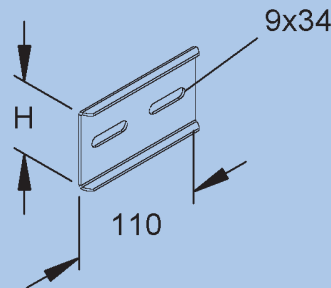
Material	- sheet steel - continuously hot galvanized according to DIN EN 10142 or hot dip galvanized according to DIN EN ISO 1461
Technical data	- for side height H=60 mm - supply includes fixing screws - rungs of C-profile 30x15
Field of application	- straight joint for producing straight connections for vertical cable ladders

Ordering information

Fixing details

- Put on or push in straight joint on vertical cable ladder ends.
- Screw the straight joint and the sides of the vertical cable ladder with 2 screws 16E1-Z.

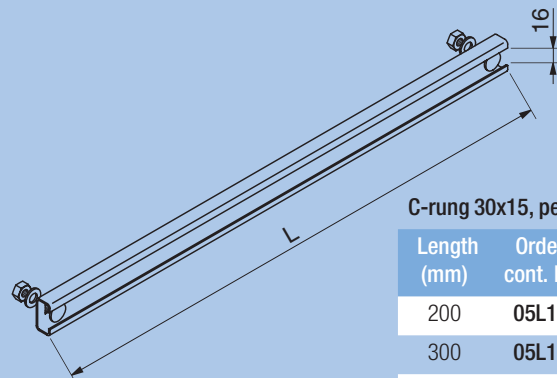
Fixing material	Page
screw 16J6-P	187



straight joint

Order No.	Weight	Order No.	Weight
cont. hot galv.	(kg/pce)	hot dip galv.	(kg/pce)
151E11-A	0.14	161E11-A	0.15

i incl. 2 screws 16J6-P (M8x16)



C-rung 30x15, perforated

Length (mm)	Order No.	Weight	Order No.	Weight
	cont. hot galv.	(kg/pce)	hot dip galv.	(kg/pce)
200	05L12-200	0.18	06L12-200	0.20
300	05L12-300	0.26	06L12-300	0.28
400	05L12-400	0.34	06L12-400	0.36
500	05L12-500	0.40	06L12-500	0.44
600	05L12-600	0.49	06L12-600	0.52
700	05L12-700	0.56	06L12-700	0.60
800	05L12-800	0.64	06L12-800	0.68

incl. 2 screws 16J6-P (M8x16)

C-rungs 15L12-...-C / 16L12-...-C

15
16 → L12-...-C

Material

- sheet steel
- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461

Technical data

- medium duty design
- rungs of C-profile 40x22

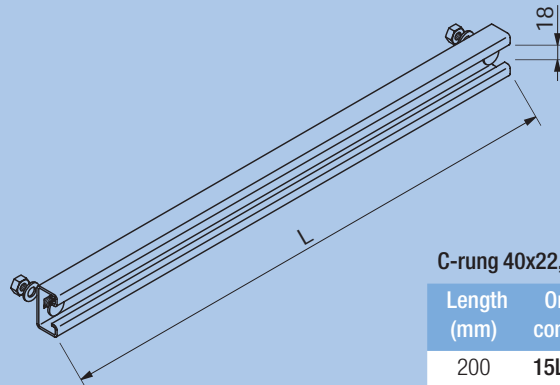
Ordering information

Fixing material

screw 16J6-P

Page

187



C-rung 40x22, perforated

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
200	15L12-200-C	0.29	16L12-200-C	0.33
300	15L12-300-C	0.42	16L12-300-C	0.47
400	15L12-400-C	0.55	16L12-400-C	0.61
500	15L12-500-C	0.69	16L12-500-C	0.76
600	15L12-600-C	0.82	16L12-600-C	0.91
700	15L12-700-C	0.98	16L12-700-C	1.03
800	15L12-800-C	1.12	16L12-800-C	1.20

incl. 2 screws 16J6-P (M8x16)

Vertical cable ladders

Vertical cable ladders

1.75
kN/m

max. load

15

1L03-...-C

16

15

J...

16

vertical cable ladders kit 161L03-...-C, straight joint 16J5-F, anchor corner 16J3-D

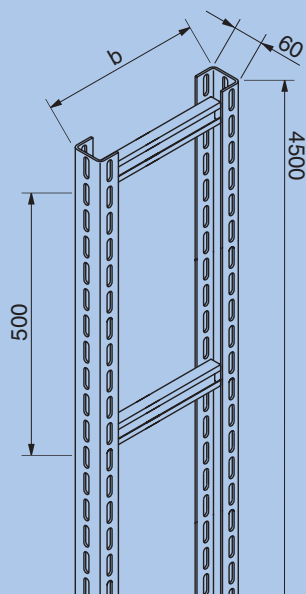
Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 4500 mm
Technical data	- heavy duty design, only as kit available - side of U-profile 60x40, rungs of C-profile 40x22 - rung spacing 500 mm (other rung spacing possible)
Field of application	- wall mounting - for free standing arrangement in spaces up to 4,5 m in height - covers on request

Ordering information

Fixing details

- Connect vertical cable ladder with straight joint 16J5-F.
- Include single rungs 16L12-...-C (40x22) in orders for changed rung spacing.
- Fix vertical cable ladders to walls with connection angle 16J6-C
- Fix vertical cable ladders to floors or ceilings with anchor corner 16J3-D or 16J3-D1 or head plate 16A8-40.
- Use steel expansion bolt 15J1-... for fixing.

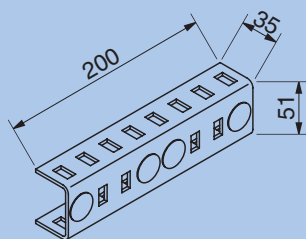
Fixing material	Page
rungs 40x22	205
16L12-...-C	
steel expansion bolt 15J1-...	180
anchor corner 16J3-D1	210
connection angle 16J6-C	210
screw 16J6-P	187
screw 16J6-1020	187
screw 16J6-1025	187
head plate 16A8-40	144



vertical cable ladder, kit with C-rungs 40x22, perforated

Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
215	161L03-200-C	31.77
315	161L03-300-C	33.03
415	161L03-400-C	34.29
515	161L03-500-C	35.64
615	161L03-600-C	36.99
715	161L03-700-C	38.07
815	161L03-800-C	39.60
915	161L03-900-C	41.31
1015	161L03-1000-C	42.03
1115	161L03-1100-C	44.82
1215	161L03-1200-C	45.00

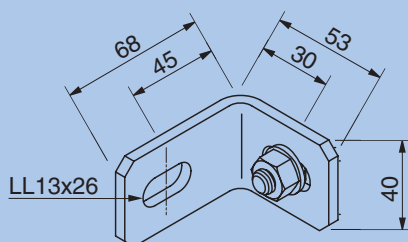
i incl. fixing screws 16J6-P



straight joint

Order No. hot dip galv.	Weight (kg/pce)
16J5-F	0.42

incl. fixing screw
16J6-1020



anchor corner

Order No. hot dip galv.	Weight (kg/pce)
16J3-D	0.22

incl. 1 screw
16J6-1025

U-profile 16A7-4500, C-rung 16L12-...-C

Material	<ul style="list-style-type: none"> - sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - heavy duty design - side of U-profile 60x40, rungs of C-profile 40x22 - rungs including fixing screws
Field of application	<ul style="list-style-type: none"> - to make vertical cable ladders like 161L03-...-C - wall mounting - for free standing arrangement in spaces up to 4,5 m height - covers on request

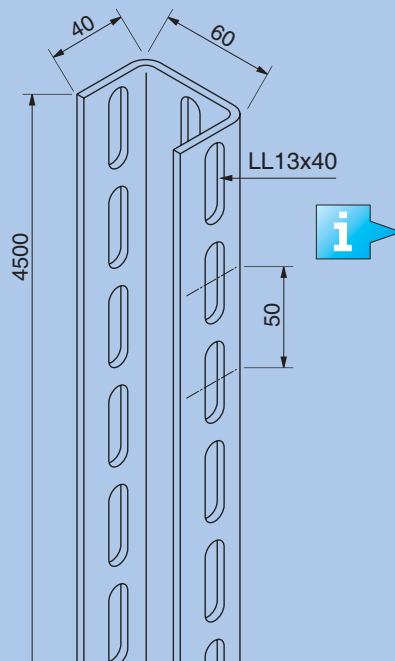


16 A7-4500

16 L12-...-C

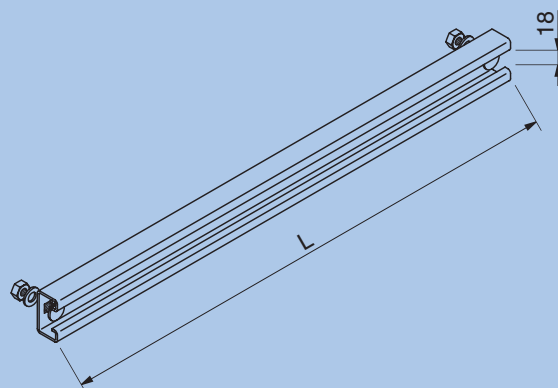
Ordering information

Fixing material	Page
straight joint 16J5-F	206
anchor corner 16J3-D	206
connection angle 16J6-C	210
screw 16J6-P	187



U-profile 60x40

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
4500	16A7-4500	14.40



C-rung 40x22, perforated

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
200	16L12-200-C	0.33
300	16L12-300-C	0.47
400	16L12-400-C	0.61
500	16L12-500-C	0.76
600	16L12-600-C	0.91
700	16L12-700-C	1.03
800	16L12-800-C	1.20
900	16L12-900-C	1.39
1000	16L12-1000-C	1.47
1100	16L12-1100-C	1.78
1200	16L12-1200-C	1.80

incl. 2 screws 16J6-P
(M8x16)

Vertical cable ladders

Vertical cable ladders

1.75
kN/m
max. load

16 L3-...-C

16 L3-...-L

vertical cable ladders kits 16L3-...-C, 16L3-...-L

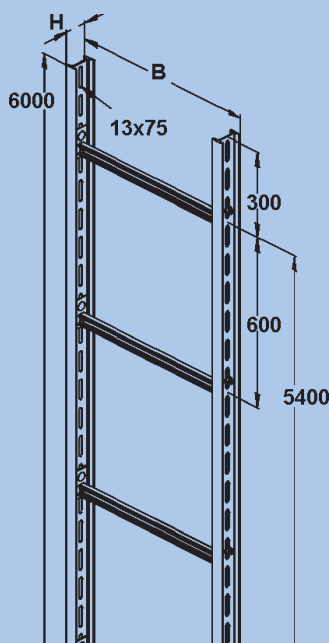
Material	- hot rolled profile I 80, sheet steel - hot dip galvanized according to DIN EN ISO 1461
Supply length	- 6000 mm
Technical data	- industrial design, only available as kit - side of hot rolled profile I 80, rungs of C-profile 40x22 or L-profile 40x40 - rung spacing 600 mm (other rung spacings possible)
Field of application	- wall mounting - for free standing arrangement in spaces up to 6.0 m in height - covers on request

Ordering information

Fixing details

- Connect vertical cable ladders with jointing piece 16J5-B.
- Order single rungs for changed rung spacing: 16L13-...-C (40x22) 16L13-...-L (L 40x50).
- Fix vertical cable ladders to walls with anchor block 16J3-B.
- Fix vertical cable ladders to ceiling or wall with anchor corner 16J3-D1 or head plate 16A4-... .
- Use steel expansion bolt 15J1-... for fixing.

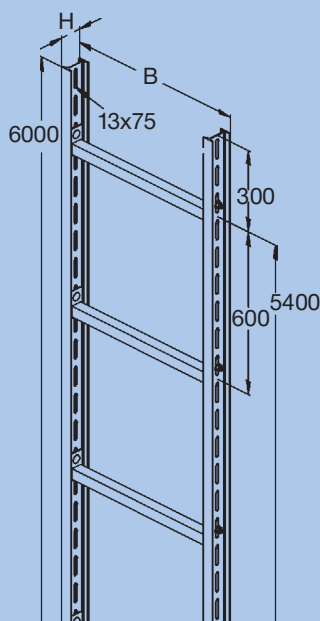
Fixing material	Page
jointing pieces 16J5-B	210
rungs 16L13-...-C	209
rungs 16L13-...-L	209
anchor blocks 16J3-B	210
anchor corner 16J3-D1	210
head plate 16A4-...	153
steel expansion bolt 15J1-...	180
screw 16J6-1025	187
screw 16J6-S	187



vertical cable ladder, kit with C-rungs 40x22

Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
280	16L3-200-C	79.5
380	16L3-300-C	82.0
480	16L3-400-C	84.5
580	16L3-500-C	87.0
680	16L3-600-C	89.5
780	16L3-700-C	92.0
880	16L3-800-C	94.5
980	16L3-900-C	96.8
1080	16L3-1000-C	99.0
1180	16L3-1100-C	101.6
1280	16L3-1200-C	104.0

incl. screws 16J6-1025



vertical cable ladder, kit with L-rungs 40x40

Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
280	16L3-200-L	80.2
380	16L3-300-L	82.8
480	16L3-400-L	85.4
580	16L3-500-L	88.0
680	16L3-600-L	90.6
780	16L3-700-L	93.2
880	16L3-800-L	95.8
980	16L3-900-L	98.4
1080	16L3-1000-L	101.0
1180	16L3-1100-L	103.6
1280	16L3-1200-L	106.2

incl. screws 16J6-1025

H-support 16A1-6000, C-rung 16L13-...-C, L-rung 16L13-...-L

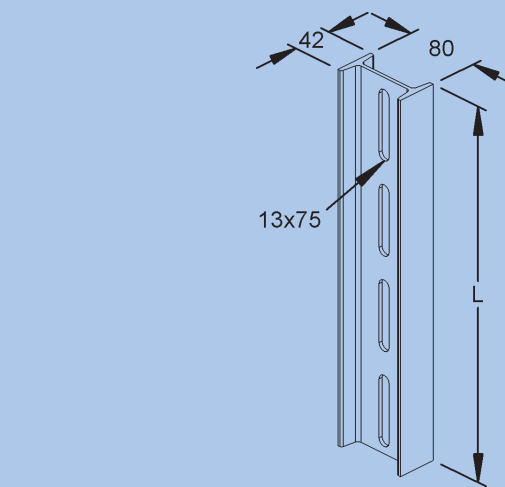
1.75
kN/m
max. load

Material	<ul style="list-style-type: none"> - hot rolled profile I 80, sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - industrial design - side of hot rolled profile I 80, rungs of C-profile 40x22 or L-profile 40x40 - rungs including fixing screws and clamping plate
Field of application	<ul style="list-style-type: none"> - to make vertical cable ladders like 16L3-...-C, 16L3-...-L - wall mounting - free standing arrangement in spaces up to 6.0 m height - covers on request

- 16** A1-6000
- 15** L13-...-C
- 16** L13-...-L

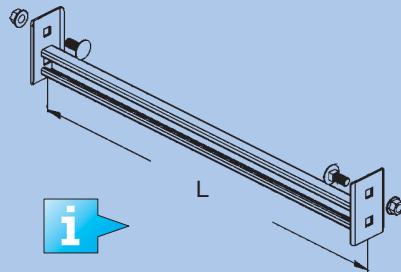
Ordering information

Fixing material	Page
jointing pieces 16J5-B	210
fitting angle 16L4-C	210
anchor block 16J3-B	210
anchor corner 16J3-D1	210
screw 16J6-1025	187
screw 16J6-S	187
head plate 16A4-A	153



H-support I 80

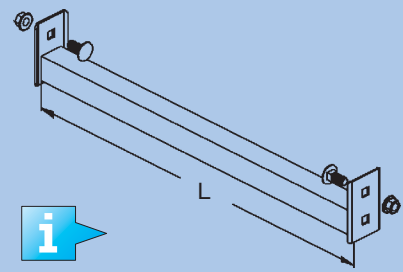
Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
6000	16A1-6000	36.00



C-rung 40x22

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
234	16L13-200-C	0.75
334	16L13-300-C	1.00
434	16L13-400-C	1.25
534	16L13-500-C	1.50
634	16L13-600-C	1.75
734	16L13-700-C	2.00
834	16L13-800-C	2.25
934	16L13-900-C	2.48
1034	16L13-1000-C	2.72
1134	16L13-1100-C	2.96
1234	16L13-1200-C	3.20

incl. screws 16J6-1025



L-rung 40x40

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
234	16L13-200-L	0.82
334	16L13-300-L	1.08
434	16L13-400-L	1.34
534	16L13-500-L	1.60
634	16L13-600-L	1.86
734	16L13-700-L	2.12
834	16L13-800-L	2.38
934	16L13-900-L	2.64
1034	16L13-1000-L	2.90
1134	16L13-1100-L	3.16
1234	16L13-1200-L	3.42

incl. screws 16J6-1025

Vertical cable ladders

Vertical cable ladders - fixing technology

15

16

J...

16

L4-C

15

16

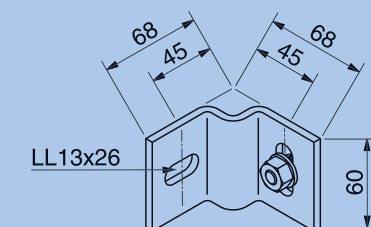
U6-A

anchor blocks 16J3-B, anchor corner 16J3-D1, jointing piece 16J5-B, connection angle 16J6-C, fitting angle 16L4-C, support corner 16U6-A

Material	- steel - hot dip galvanized according to DIN EN ISO 1461
Field of application	- for fixing vertical cable ladders to walls or ceilings

Ordering information

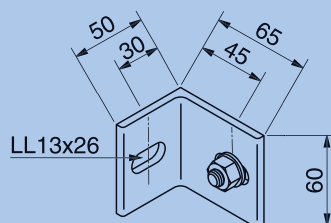
Fixing material	Page
screw 16J6-1025	187
screw 16J5-Z	186
screw 16J6-S	187



anchor blocks

Order No. hot dip galv.	Weight (kg/pce)
16J3-B	0.34

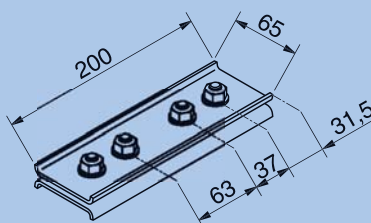
incl. 1 screw 16J6-1025



anchor corner

Order No. hot dip galv.	Weight (kg/pce)
16J3-D1	0.32

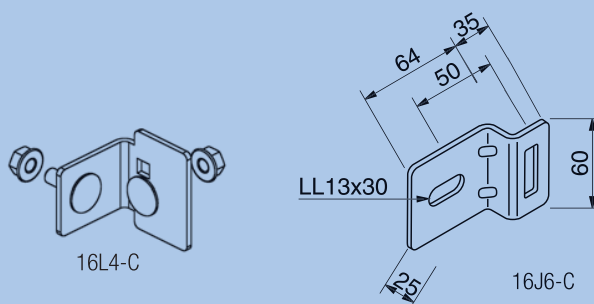
incl. 1 screw 16J6-1025



jointing piece for H-support

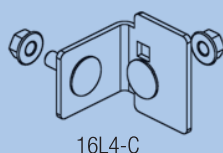
Order No. hot dip galv.	Weight (kg/pce)
16J5-B	0.80

incl. 4 screws 16J6-1025



connection angle

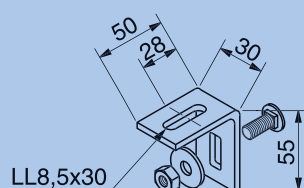
Order No. hot dip galv.	Weight (kg/pce)
16J6-C	0.18



fitting angle

Order No. hot dip galv.	Weight (kg/pce)
16L4-C	0.16

incl. fixing material



support corner

Order No. hot dip galv.	Weight (kg/pce)
16U6-A	0.12

incl. 1 screw
16J6-S (M8x20)

C-profile rails 15F2-3000-B / 16F2-3000-B, 15F2-3000-C / 16F2-3000-C, 15F2-3000-E / 16F2-3000-E



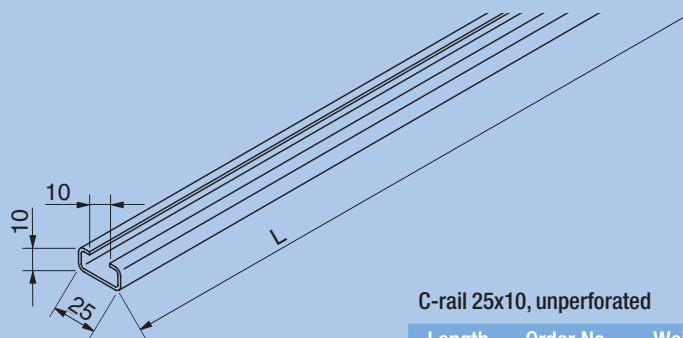
Material

- sheet steel
- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461

Field of application

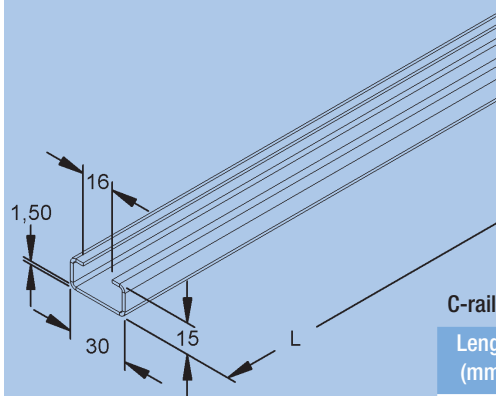
- to make support elements

Ordering information



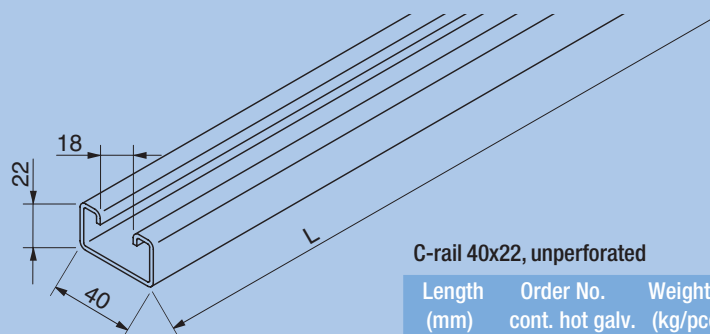
C-rail 25x10, unperforated

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-B	1.71	16F2-3000-B	1.83



C-rail 30x15, perforated (9x15), perforation pitch 25 mm

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-C	1.98	16F2-3000-C	2.16



C-rail 40x22, unperforated

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-E	4.23	16F2-3000-E	4.50

Vertical cable ladders

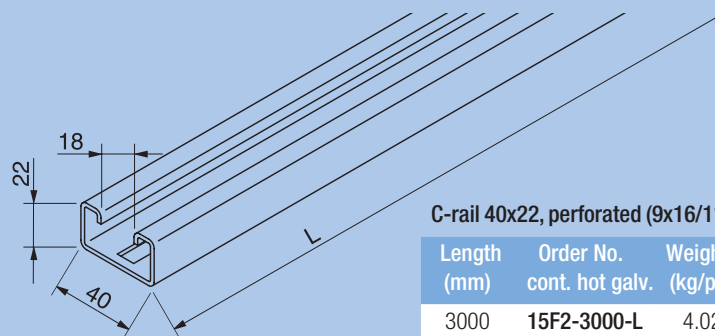
Profile rails

- 15 F2-...
- 16
- 15 F22-...
- 16
- 15 F5-...-A
- 16

C-profile rails 15F2-3000-L / 16F2-3000-L, 15F22-3000-E / 16F22-3000-E / 16F5-4500-A

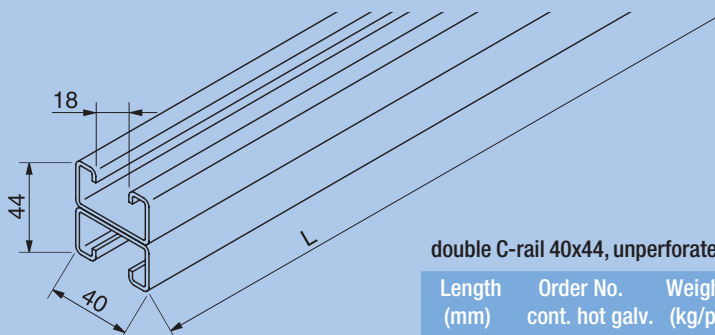
Material	<ul style="list-style-type: none"> - sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Field of application	<ul style="list-style-type: none"> - to make support elements for cable laying

Ordering information



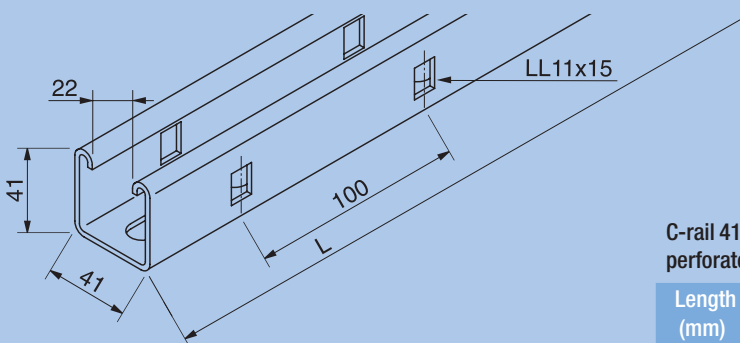
C-rail 40x22, perforated (9x16/11), peroration pitch 25 mm

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-L	4.02	16F2-3000-L	4.26



double C-rail 40x44, unperforated

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F22-3000-E	8.46	16F22-3000-E	9.00



C-rail 41x41x2,5, perforated (13x30), peroration pitch 50 mm

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
4500	16F5-4500-A	11.40

C-profile rails 16F55-4500-A
 mounting angle 16F4-4500-A
 mounting rail 16F6-6000-A

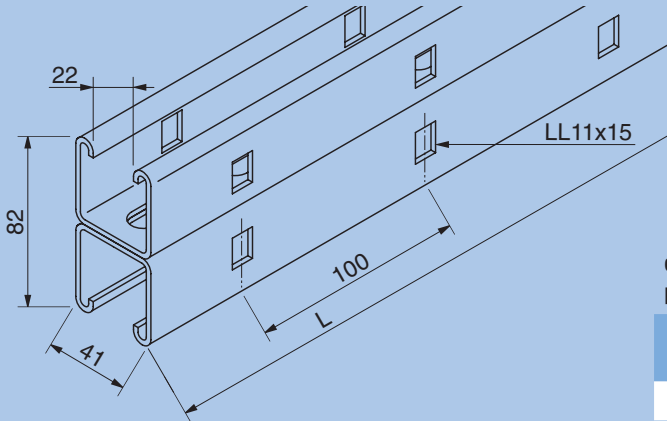
Material	- sheet steel - hot dip galvanized according to DIN EN ISO 1461
Field of application	- to make support constructions

15
16 F55-...-A

15
16 F4-...-A

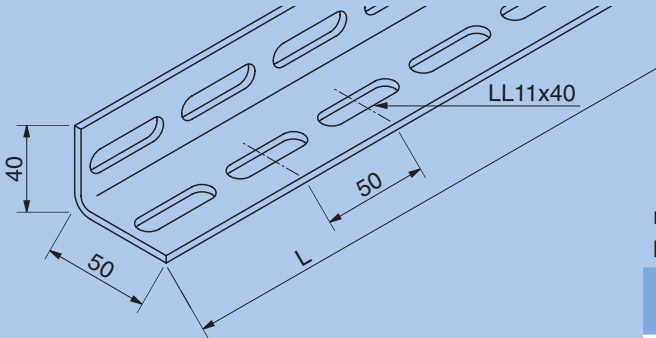
15
16 F6-...-A

Ordering information



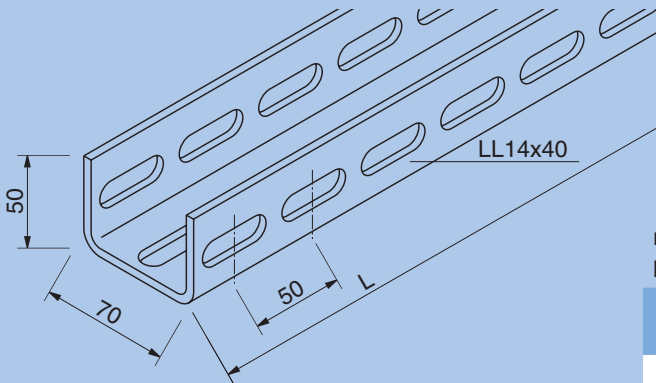
double C-rail 41x82x2,5, perforated (13x30), pitch 50 mm

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
4500	16F55-4500-A	22.90



mounting angle L40x50, perforated (11x40), pitch 50 mm

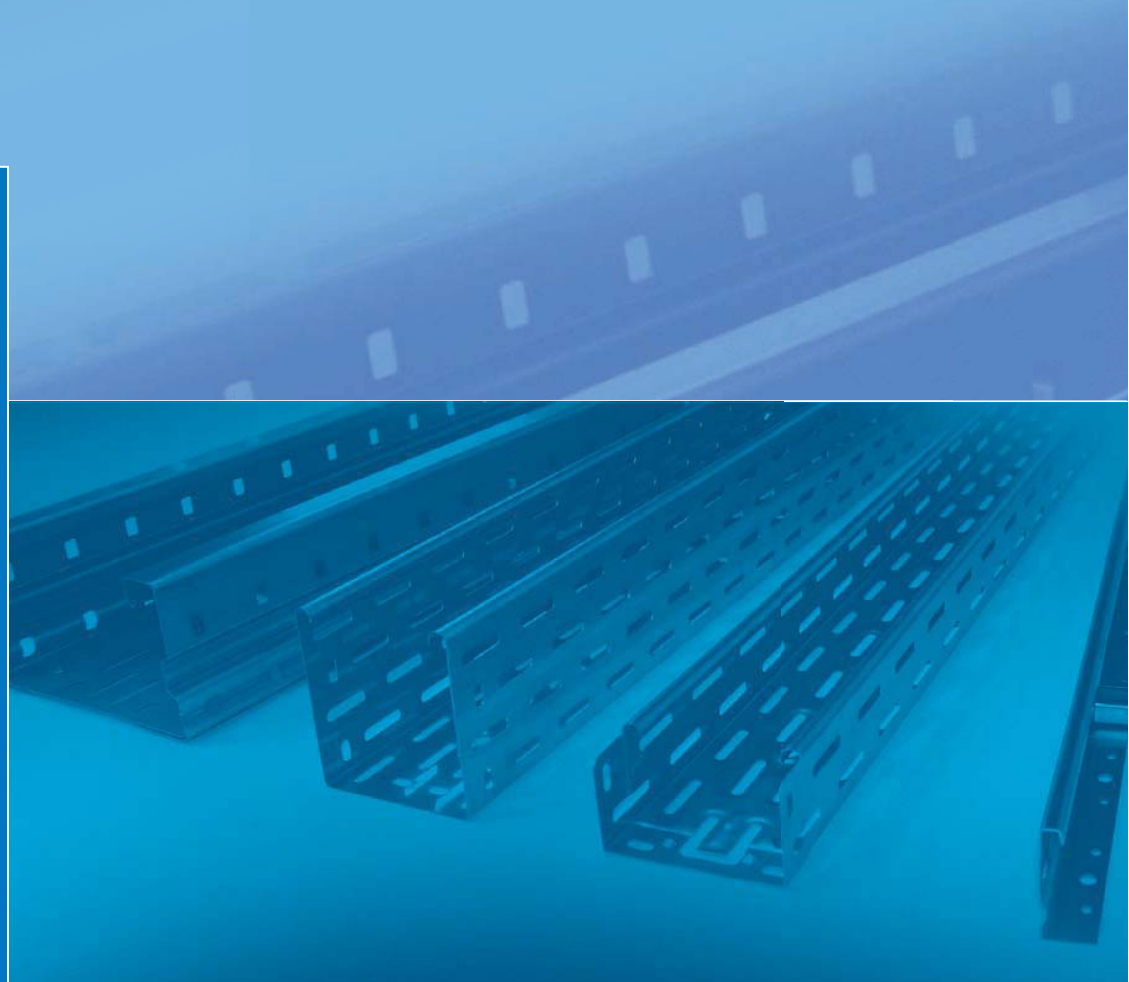
Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
4500	16F4-4500-A	9.60



mounting angle U70x50, perforated (14x40), pitch 50 mm

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
6000	16F6-6000-A	24.12

Vertical cable ladders

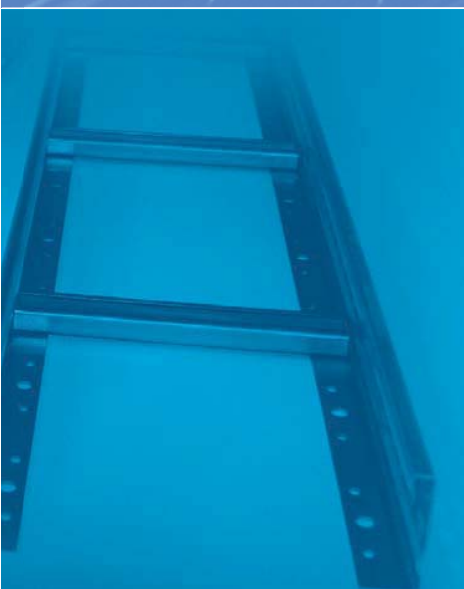


Stainless steel

The RICO product system made of stainless steel.

The stainless steel program contains:

Table of contents	Page
Support systems	217
Special trays	
Trellis trays	243
Luminaire support trays	253
Standard trays	
60 mm side height	257
110 mm side height	267
Standard ladder	277
Vertical cable ladders	287
Wide span systems	
Wide span tray, 105 mm or 150 mm side height	295
Wide span ladder, 105 mm or 150 mm side height	309





Stainless steel

This chapter contains an overview of the RICO support systems in stainless steel for various loads and applications, subdivided into product families.

Table of contents

Page

Brackets for supports

brackets (load class 0,35kN) 07B2-...	218
brackets (load class 1,20kN) 17B3-... / 18B3-...	219
brackets (load class 3,60kN) 17B2 / 18B2-...	220
brackets (load class 5,00kN) 17B9-...-W	221
brackets (load class 1,20 kN) 17B6-... / 18B6-...; adapter piece 17A16-A	223
brackets (load class 2,50 kN) 17B7-... / 18B7-...	225

Supports

hanging supports of U-profile 50x22 with welded-on head-plate 17A16-... / 18A16-...	222
hanging support made of 2 U-profiles 50x22 with welded-on head plate 17A10-... / 18A10-...	224
U-profile 50x22: 17A15-... / 18A15-...	225
head plate: 17A16-K / 18A16-K, 17A4-E; 17A4-D / 18A4-D; 17A4-C	226
splice plate 17A15-V / 18A15-V	226
U-profile 100x22: 17A30-3000	227
splice plate 17A30-V	227
head plate: 17A5-E	227
clamping head plate 17A5-K; 17A5-P	228
hanging support of U-profile 60x40 with welded-on head plate 17A9-...	229
U-profile 60x40 17A7-...; splice plate 17J5-F	230
head plate 17A8-40	231

Profile rail

C-profile 30x15 17F2-...-C	231
C-rail 40x22 17F2-3000-L / 18F2-...-L	231
C-rail 41x41 17A4-...-K	232
C-rail 41x41 17F5-4500-A	233

Fixing and jointing pieces

hook head screw 18J2-E-...	231
profile clamp 17A14-W..., Universal clamp 18BS40-...	233
wall support corner: 17J3-L, anchor corner 17J3-D	234
corner console: 17J41, support corner (pair) 17J50	234
link chain: 17N29-..., S-hook 17N29, threaded rod 17J4-...-1000	235
hexagonal nut 17J4-...-M	235
screws and washers 17J2-..., 17J4-..., 17J6-... / 18J4-..., 18J6-...	236
suspension bracket: 17N30-..., trapez. sheet suspension 17J21-D, ceiling bracket 17J15-D	237
support angle: 17J7-...	238
clamping claw 19A4-1-...	239
anchor bolts: 17J2-...	240

Stainless steel

bracket, support or wall mounting



max. load

07 B2-...

bracket 07B2-...

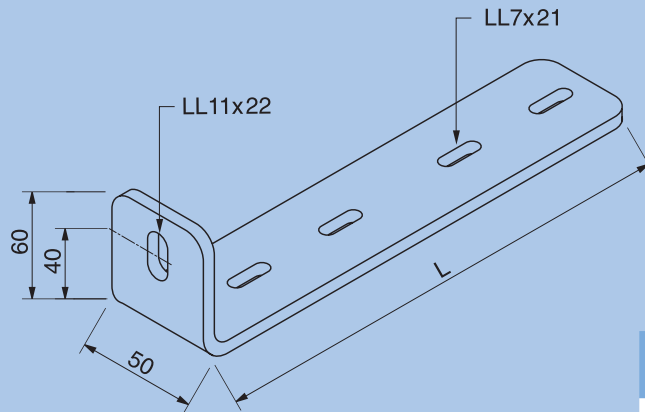
Material	- NIRO-flat, material: 1.4301 (V2A)
Supply length	- 120 mm to 320 mm
Technical data	- material thickness 6 mm
Field of application	- installation to concrete walls, anchor rails or steel structures existing on site - installation to supports 17A7-... / 17A9-...

Ordering information

Fixing details

- Fix bracket with expansion bolt 18J1-FAZ-1010 to concrete walls.
- Fix bracket with screws 17J6-1025 to supports 17A7-... / 17A9-....

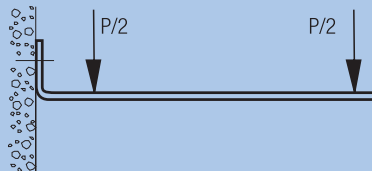
Fixing material	Page
steel expansion bolt 18J1-...	180
screw 17J6-1025	236



bracket

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
120	07B2-100	0.38
220	07B2-200	0.57
320	07B2-300	0.83

Load



bracket length	ΣP steel	ΣP expansion bolt
≤ 320 mm	0,35 kN	2,25 kN

bracket 17B3-... / 18B3-...



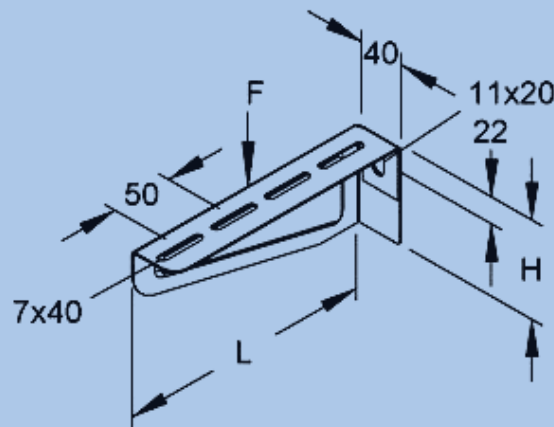
Material	- sheet steel - stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Supply length	- 110 mm to 410 mm
Field of application	- installation on walls, existing anchor rails or steel constructions on site - installation on supports 17A17-... and 17A9-...

Ordering information

Fixing details

- Fix bracket to concrete walls with expansion bolts 15J1-....
- Fix bracket to anchor rails at site with anchor bolts 16J2-....
- Fix bracket to support 16A7-..., 16A9-... or 16A14-... with screws 16J2-1025.

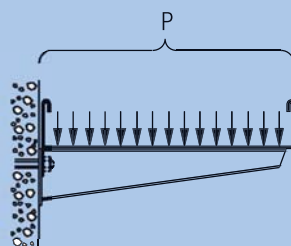
Fixing material	Page
steel expansion bolt 18J1-...	180
anchor bolt 17J2-...	240
screw 17J6-1025	235



bracket

Length (mm)	Height (mm)	Order No. stainl. steel A2	Order No. stainl. steel A4	Weight (kg/pce)
110	60	17B3-100	18B3-100	0.20
210	80	17B3-200	18B3-200	0.30
310	85	17B3-300	18B3-300	0.43
410	115		18B3-400	0.60

Load



Max. load "P" under consideration of the permissible expansion bolt load

bracket length L [mm]	expan. bolt type 18J1-FAZ-1010 max. P
110	1,20 kN
210	1,20 kN
310	1,20 kN
410	1,20 kN

Stainless steel

bracket, support or wall mounting

3.6
kN
max. load

17
18 B2-...

bracket 17B2-..., 18B2-...

Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Supply length	- 110 mm to 1010 mm
Field of application	- installation to concrete walls, anchor rails or steel constructions existing on site - installation on supports 17A7-... / 17A9-...

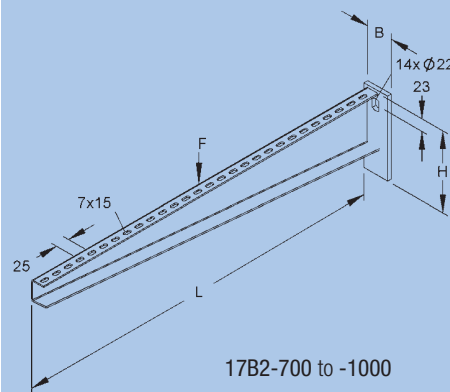
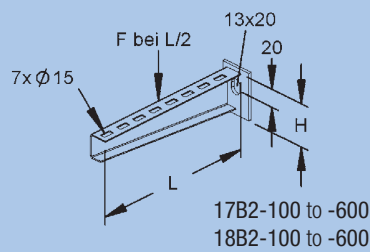
Ordering information

Fixing details

Ausleger mit Dübeln 18J1-... an Betonwänden befestigen.

→ Ausleger mit Schrauben 17J6-1025 an Stielen 17A7-... / 17A9-... befestigen.

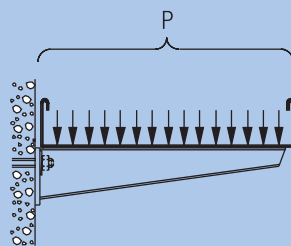
Befestigungsmaterial	Seite
Stahl-Spreizdübel 18J1-...	180
Schraube 17J6-1025	236



bracket

Height (mm)	Length (mm)	Order No. stainl. steel A2	Order No. stainl. steel A4	Weight (kg/pce)
45	110	17B2-100	18B2-100	0.20
55	210	17B2-200	18B2-200	0.30
65	310	17B2-300	18B2-300	0.60
90	410	17B2-400	18B2-400	0.80
110	510	17B2-500	18B2-500	1.20
110	610	17B2-600	18B2-600	1.35
150	710	17B2-700		1.80
150	810	17B2-800		2.00
150	910	17B2-900		2.30
150	1010	17B2-1000		2.60

Load



max. load "P" under consideration of the permissible expansion bolt load

bracket length L [mm]	expansion bolt type	
	18J1-FAZ-1010 max. P	18J1-FAZ-1210 max. P
110	2,00 kN	3,60 kN
210	1,40 kN	2,50 kN
310	1,30 kN	2,20 kN
410	1,20 kN	2,00 kN
510	1,20 kN	2,00 kN
610	1,00 kN	1,70 kN
710	-	2,00 kN
810	-	2,00 kN
910	-	1,50 kN
1010	-	1,50 kN

bracket 17B9-...-W

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 230 mm to 1033 mm
Technical data	- Bracket "heavy duty design" - 1 expansion bolt drillings for wall mounting
Field of application	- for wide span cable trays or wide span cable ladders



17 B9-...-W

Ordering information

Fixing details

Wall mounting

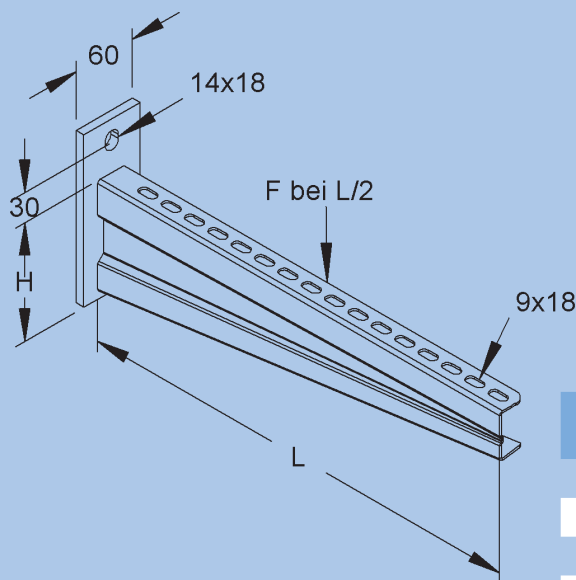
→ Fix bracket with steel expansion bolts 18J1-...

Installation with clamping

→ Screw brackets to connection profile 17J9-... with screw 17J12-A

→ Fix connection profile to steel girder with claw 19A4-1-DA

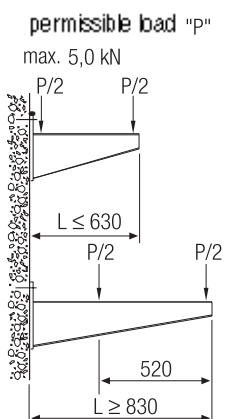
Fixing material	Page
steel expansion bolt 18J1-...	180
clamping claw 19A4-1-DA	239



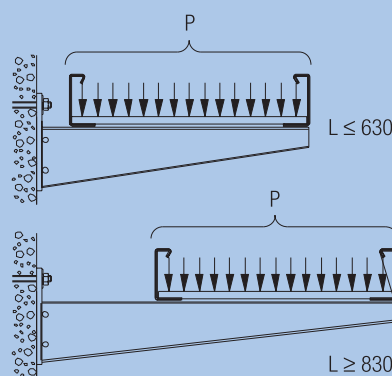
Length (mm)	Height (mm)	Order No. stainl. steel	Weight (kg/pce)
230	110	17B9-200-W	0.99
330	110	17B9-300-W	1.19
430	110	17B9-400-W	1.43
530	150	17B9-500-W	1.81
630	150	17B9-600-W	2.08
730	195	17B9-700-W	2.77
830	195	17B9-800-W	3.33
930	195	17B9-900-W	3.75
1030	195	17B9-1000-W	4.19

Stainless steel

Load



max. load "P" under consideration of the permissible expansion bolt loads



bracket length L [mm]	expansion bolt type	
	18J1-FAZ-1010 max. P	18J1-FAZ-1210 max. P
230	5,00 kN	5,00 kN
330	3,30 kN	5,00 kN
430	2,60 kN	4,60 kN
530	2,60 kN	4,60 kN
630	2,30 kN	4,10 kN
730	1,80 kN	3,20 kN
830	1,80 kN	3,20 kN
930	1,50 kN	2,70 kN
1030	1,30 kN	2,30 kN

Stainless steel

Supports, installation standard

2.0
kN
max. load

17
18 **A16-...**

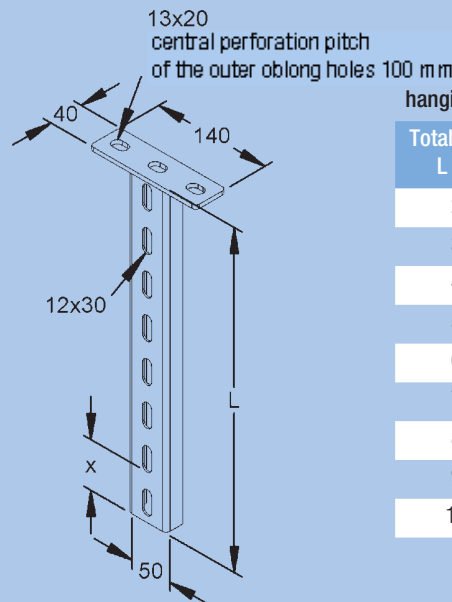
hanging support 17A16-..., 18A16-..., with welded-on head plate

Material	- sheet steel, perforated - stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Supply length	- 204 to 1204 mm, total length = length of U-profile incl. head plate
Technical data	- hanging support made of U-profile 50x22x2,0, perforation 12x30, with welded on head plate
Field of application	- hanging support - for use with brackets: 17B6-.../18B6-... bei 100 to 400 mm bracket length 17B7-.../18B7-... bei 100 to 400 mm bracket length (Pay attention to the load)

Ordering information

Fixing details

- Fix support to the ceiling with steel expansion bolt 18J1-... or anchor bolts 17J2-... or with claws 19A4-1-... at the steel girder.
- Fix the bracket 17B6-.../18B6-... and 17B7-.../18B7-... with the screw M10x25 to the support.
- Cover profile end with protective end cap 15A16-S.
- For static reasons and to enable a trouble-free setting-up of the protective end cap, the bracket should be fixed at intervals of $x = 50$ mm above the end



hanging support

Total length L (mm)	Order No. stainl. steel (A2)	Bestell-Nr. stainl. steel (A4)	Weight (kg/pce)
204	17A16-200	18A16-200	0.42
304	17A16-300	18A16-300	0.55
404	17A16-400	18A16-400	0.67
504	17A16-500	18A16-500	0.82
604	17A16-600		0.95
704	17A16-700		1.08
804	17A16-800		1.21
904	17A16-900		1.34
1004	17A16-1000		1.47

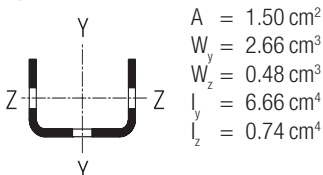
Fixing material	Page
steel expansion bolt 18J1-...	180
anchor bolt 17J2-...	240
claw 19A4-1-...	239
protective end cap 15A16-S	193

Load

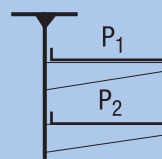
permissible bending moment
 $M_b = 0,25$ kNm

permissible tensile load
 $F_z = 2,00$ kN

profile values



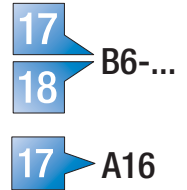
max. load ΣP



bracket length (mm)	load ΣP (kN)
100	2.00
200	2.00
300	1.40
400	1.10

bracket 17B6-..., 18B6-..., adapter piece 17A16-A

Material	- stainless steel, material: 1.4301 (VA2) or 1.4571 (VA4)
Supply length	- 105 to 405 mm
Field of application	- installation on supports 17A16-.../18A16-...



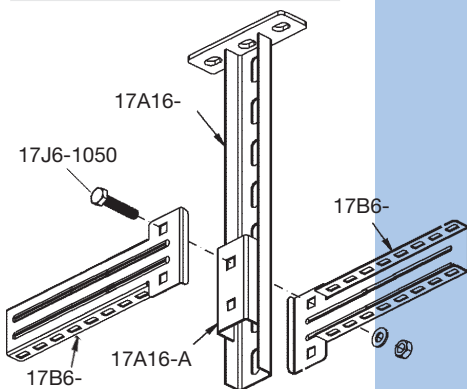
Ordering information

Fixing details

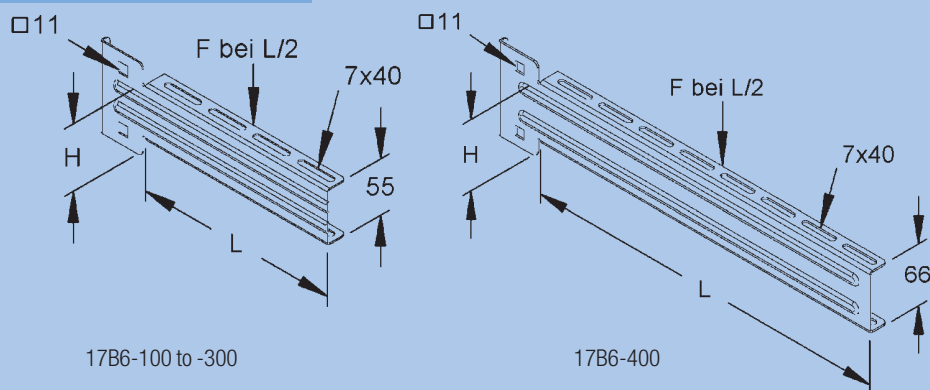
→ Fix bracket to support 17A16-.../
18A16-... with screws M10x25.

→ permissible load
F = max. 1.2 kN

double-sided installation

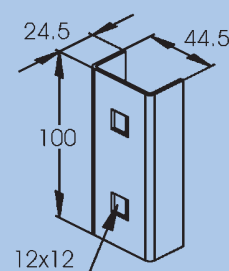


When you want to install 2 brackets at the support 17A16-... on equal height you must mount an adapter piece 17A16-A (see sketch).



bracket

Height (mm)	Length (mm)	Order No. stainl. steel (A2)	Order No. stainl. steel (A4)	Weight (kg/pce)
73	105	17B6-100	18B6-100	0.20
73	205	17B6-200	18B6-200	0.30
73	305	17B6-300	18B6-300	0.43
83	405	17B6-400	18B6-400	0.75



adapter piece

Order No. stainl. steel (A2)	Weight (kg/pce)
17A16-A	0.14

incl. 1 screw
17J6-1050

Stainless steel

Supports, installation standard



max. load



A10-...

hanging support 17A10-..., 18A10-..., with welded-on head plate

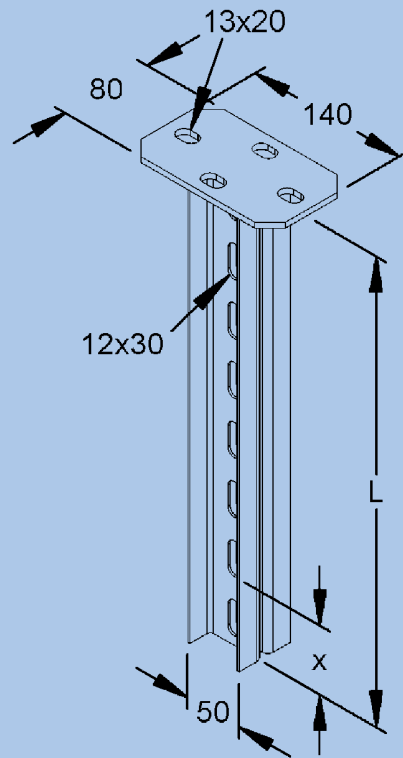
Material	- sheet steel, perforated - stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Lieferlänge	- 204 mm to 1204 mm, total length = length of U-profile incl. head plate
Technical data	- hanging support made of 2 U-profile 50x22x2.0 oblong hole 12x30,
Field of application	- hanging support - for use with brackets 17B6-.../18B6-... bei 100 to 400 mm bracket length 17B7-.../18B7-... bei 100 to 600 mm bracket length

Ordering information

Fixing material

- Fix support with steel expansion bolt 18J1-... on ceiling.
- Fix bracket 17B6-.../18B6-... and 17B7-.../18B7-... with screw M10x25 to the support.
- Cover profile with protective end cap 15A10-S.
- For static reasons and to enable a trouble-free setting-up of the protective end cap, the bracket should be fixed at intervals of $x = 50$ mm above the end of the

Fixing material	Page
steel expansion bolt 18J1-...	180
anchor bolt 17J2-...	240
protective end cap 15A10-S	193



hanging support

Total length L (mm)	Order No. stainl. steel (A2)	Order No. stainl. steel (A4)	Weight (kg/pce)
205	17A10-200	18A10-200	0.90
255	17A10-250	18A10-250	1.05
305	17A10-300	18A10-300	1.19
405	17A10-400	18A10-400	1.46
505	17A10-500	18A10-500	1.73
605	17A10-600	18A10-600	2.02
705	17A10-700		2.31
805	17A10-800		2.60
905	17A10-900		2.89
1005	17A10-1000		3.18

Load

permissible bending moment

$$M_b = 0.85 \text{ kNm}$$

permissible tensile load

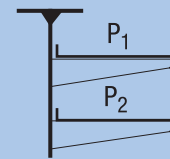
$$F_z = 4.00 \text{ kN}$$

profile values

	$A = 3.00 \text{ cm}^2$
	$W_y = 5.32 \text{ cm}^3$
	$W_z = 0.96 \text{ cm}^3$
	$I_y = 13.32 \text{ cm}^4$
	$I_z = 1.48 \text{ cm}^4$

load capacity by using 2 U-profiles

Max. load ΣP



bracket length (mm)	load ΣP (kN)
100	4.00
200	4.00
300	4.00
400	3.70
500	3.00
600	2.60

bracket 17B7-..., 18B7-..., U-profile 17A15-..., 18A15-3000



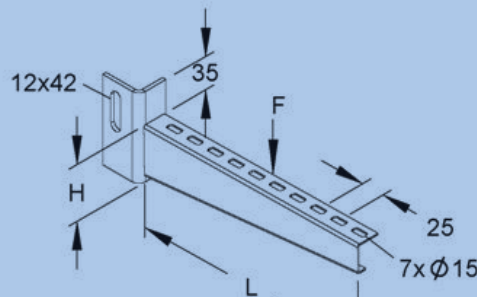
Material	- sheet steel, perforated - stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Supply length	- bracket 110 to 610 mm - U-profile 50 x 22 x 2,0, perforation 12 x 30, 3000 mm or 6000 mm long
Field of application	- installation to supports 17A16-... / 18A16-... and 17A10-... / 18A10-...

17 B7-...
18 B7-...
17 A15-...
18 A15-...

Ordering information

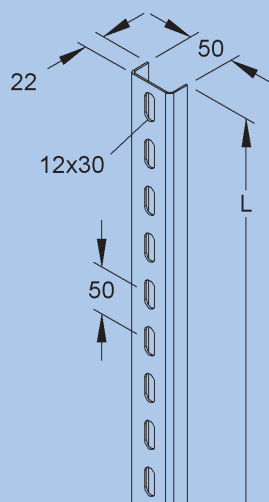
Fixing details

- Fix bracket with screw M10x25 to hanging support 17A16-... / 18A16-... and 17A10-... / 18A10-...
- permissible load
F = max. 2,5 kN



bracket

Height (mm)	Length (mm)	Order No. stainl. steel (A2)	Order No. stainl. steel (A4)	Weight (kg/pce)
50	110	17B7-100	18B7-100	0.22
60	210	17B7-200	18B7-200	0.35
75	310	17B7-300	18B7-300	0.60
75	410	17B7-400	18B7-400	0.80
90	510	17B7-500		1.20
90	610	17B7-600		1.50



U-profile

Length (mm)	Order No. stainl. steel (A2)	Order No. stainl. steel (A4)	Weight (kg/pce)
3000	17A15-3000	18A15-3000	3.90
6000	17A15-6000		7.80

Stainless steel

Installation accessory

17

18

A15-V

splice plate 17A15-V, 18A15-V
head plate 17A16-K, 18A16-K
head plate 17A4-...

17

18

A16-K

Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Technical data	- total length L = Length of the U-profile incl. head plate
Field of application	- suitable with U-Profil 17A16-.../18A16-... and 17A15-.../18A15-...

17

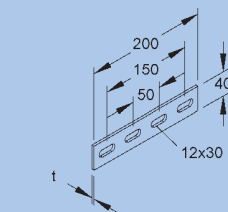
18

A4-...

Ordering information

Fixing details

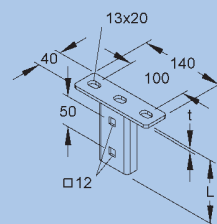
- Splice plate for connecting two U-Profilen 17A15-.../18A15-...
- Fix head plate with screws 17J6-1025 to U-Profil 17A16-.../18A16-...
- head plate 17A16-K, 18A16-K and 17A4-E for installation to horizontal ceilings.
- head plates 17A4-D, 18A4-D and 17A4-C for installation to sloped ceilings



splice plate

material thickness (mm)	Order No. stainl. steel	Weight (kg/pce)
4	17A15-V	0.22
4	18A15-V	0.22

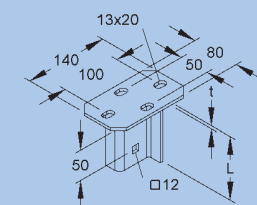
incl. fixing screws



head plate

Total length L (mm)	head plate thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
104	4	17A16-K	0.4
104	4	18A16-K	0.4

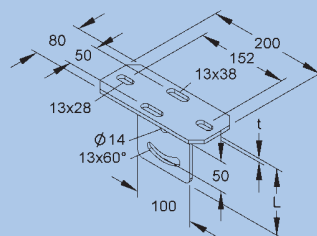
incl. fixing screws



head plate

Total length L (mm)	head plate thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
105	5	17A4-E	0.7

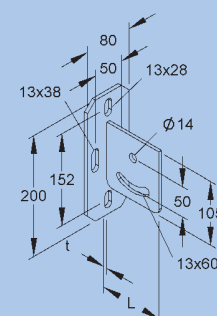
incl. fixing screws 17J6-1025



head plate

Total length L (mm)	head plate thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
111	6	17A4-D	0.9
111	6	18A4-D	0.9

incl. fixing screws



head plate

Total length L (mm)	head plate thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
106	6	17A4-C	0.9

incl. fixing screws 17J6-1025

U-profile 17A30-3000, splice plate 17A30-V, head plate 17A5-E

17 A30-...

17 A5-...

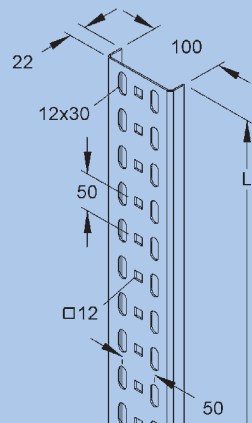
Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm - Total length L = Length of the profile incl. head plate
Technical data	- U-profile 100 x 22, perforation 12 x 30
Field of application	- Hanging support in connection with head plate 17A5-E

Ordering information

Fixing details

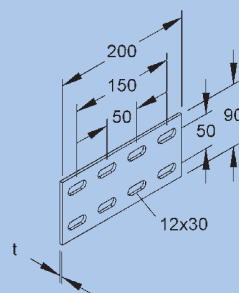
- for producing hanging supports and support systems with system components
- head plate 17A5-E for installation to whorizontal ceilings.

Fixing material	page
screw 17J6-1025	236



U-profile 100x22

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
300	17A30-3000	5.49



splice plate

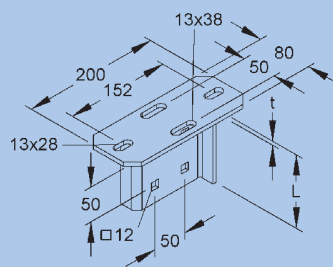
Material thickness (mm)	Order No. stainl. steel	Weight (kg/pce)
4	17A30-V	0.51

incl. 8 fixing screws 17J6-1025

Belastbarkeit

Profilwerte

A	=	4,02 cm ²
W_y	=	13,12 cm ³
W_z	=	1,04 cm ³
I_y	=	65,64 cm ⁴
I_z	=	1,80 cm ⁴



head plate

Total length L (mm)	head plate thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
106	6	17A5-E	1.15

incl. 4 fixing screws 17J6-1025

17 A5-...

clamping head plate 17A5-K, 17A5-P

Material	- sheet steel - stainless steel, material: 1.4301 (V2A)
Technical data	- total length L = Length of the profile incl. head plate
Field of application	- for horizontal clamped fixing for bracket flange width of max. 240 mm - suitable with U-profile 17A30-...

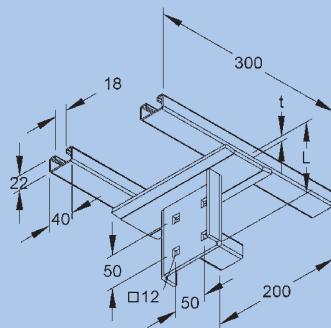
Ordering information

Fixing details

- kind of installation 17A5-K
- crossing to support profile
- kind of installation 17A5-P
- parallel to support profile

Fixing material

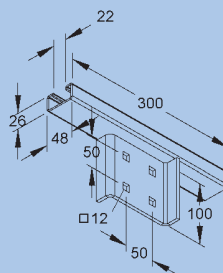
screw 17J6-1025 page 236



clamping head plate

Total length L (mm)	head plate height t (mm)	slot width (mm)	Order No. stainl. steel	Weight (kg/pce)
108	8	18	17A5-K	2.55

incl. 4 screws 17J6-1025 (M10x25)



clamping head plate

slot width (mm)	Order No. stainl. steel	Weight (kg/pce)
18	17A5-P	2.15

incl. 2 screws
17J6-1025 (M10x25)

hanging support 17A9-..., with welded-on head plate stiffening profile 17J14-64



Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 206 mm to 2006 mm, total length L = Length of U-profile incl. head plate
Technical data	- Hanging support made of U-Profil 60x40 mm, oblong hole 13x40 with pitch 50 mm, with welded-on head plate
Field of application	- fixing to ceiling or floor - suitable with brackets 07B2-..., 17B2-... und 17B3-...

17 A9-...

17 J14-64

Ordering information

Fixing details

- Fix support to ceiling with stainless steel expansion bolt 18J1-... or anchor bolt 17J2-...
- Cover support end with protective end cap 15J8-U60 .
- Fix bracket 07B2-..., 17B2-... and 17B3-... with screw 17J6-1025 to profile.
- Use stiffening profile 17J14-64 if bracket (>300mm) will be fixed to support and will be full loaded.

Fixing material	page
steel expansion bolt 18J1-...	180
protective end cap 15J8-U60	193
screw 17J6-1025	236

Total length L (mm)	Order No. stainl. steel	Weight (kg/pce)
206	17A9-200	1.31
306	17A9-300	1.62
406	17A9-400	1.93
506	17A9-500	2.24
606	17A9-600	2.55
706	17A9-700	2.86
806	17A9-800	3.17
906	17A9-900	3.48
1006	17A9-1000	3.79
1106	17A9-1100	4.10
1206	17A9-1200	4.41
every further 100 mm		0.31
2006	17A9-2000	6.89

Order No. stainl. steel	Weight (kg/pce)
17J14-64	0.08

Load diagram

permissible bending moment

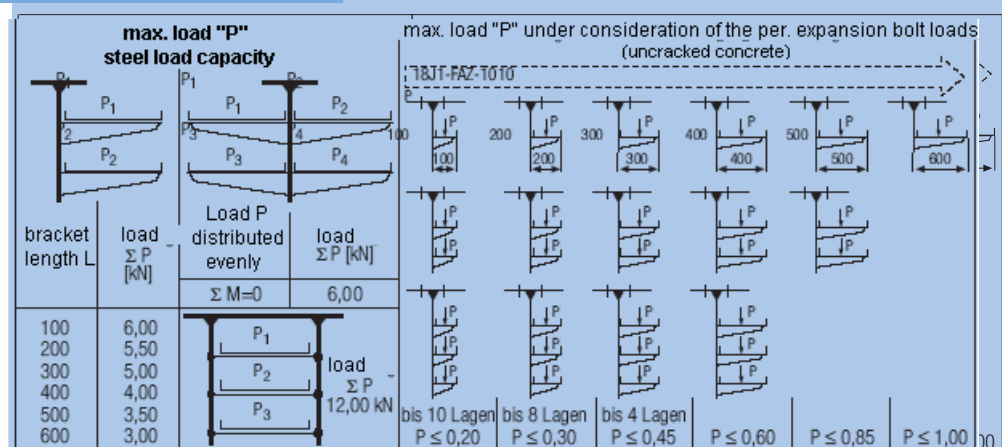
$$M_D = 1,20 \text{ kNm}$$

permissible tensile load

$$F_Z = 6,00 \text{ kN}$$

profile values

A =	3,72 cm ²
W _y =	6,93 cm ³
W _z =	2,61 cm ³
I _y =	20,80 cm ⁴
I _z =	6,96 cm ⁴



Supports



17 A7-...

U-profile 17A7-..., without head plate, splice plate 17J5-F

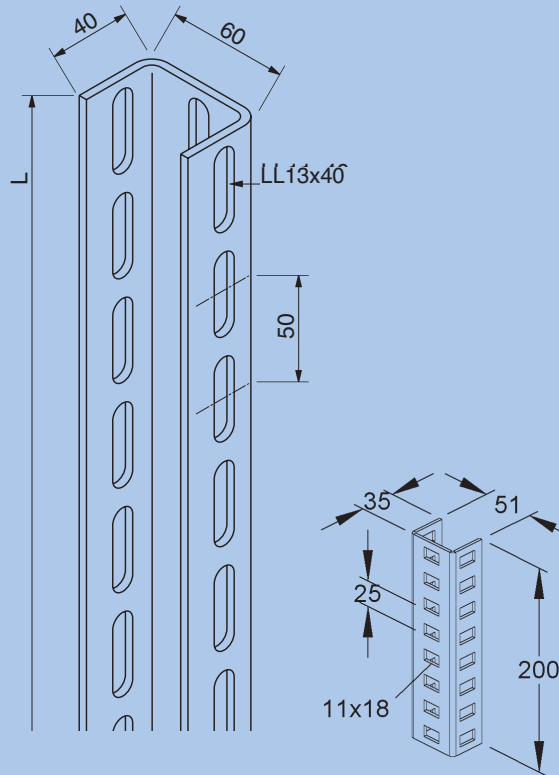
Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 200 mm to 4500 mm
Technical data	- U-profile 60x40 mm, oblong hole 13x40 with pitch 50 mm
Field of application	- wall support - room or hanging support in connection with head plate 17A8-40 or corner console 17J41 - suitable with brackets 07B2-..., 17B2-... and 17B3-...

Ordering information

Fixing details

- Fix profile with stainless steel expansion bolt 18J1-...
- Cover profile end with protective end cap 15J8-U60.
- Fix bracket 07B2-..., 17B2-... and 17B3-... with screw 17J6-1025 to profile.
- Use stiffening profile 17J14-64 if bracket (>300 mm) will be fixed at the bottom side of the support and will be full loaded.

Fixing material	page
steel expansion bolt 18J1-...	180
protective end cap 15J8-U60	193
screw 17J6-1025	236
stiffening profile 17J14-64	229



U-profile 60x40

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
200	17A7-200	0.62
300	17A7-300	0.93
400	17A7-400	1.24
500	17A7-500	1.55
600	17A7-600	1.86
700	17A7-700	2.17
800	17A7-800	2.48
900	17A7-900	2.79
1000	17A7-1000	3.10
1100	17A7-1100	3.41
1200	17A7-1200	3.72
every further 100 mm		0.26
2000	17A7-2000	6.20
4500	17A7-4500	13.94

splice plate

Order No. stainl. steel	Weight (kg/pce)
17J5-F	0.42

Load diagram

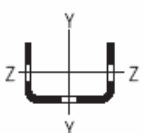
permissible bending moment

$$M_b = 1,20 \text{ kNm}$$

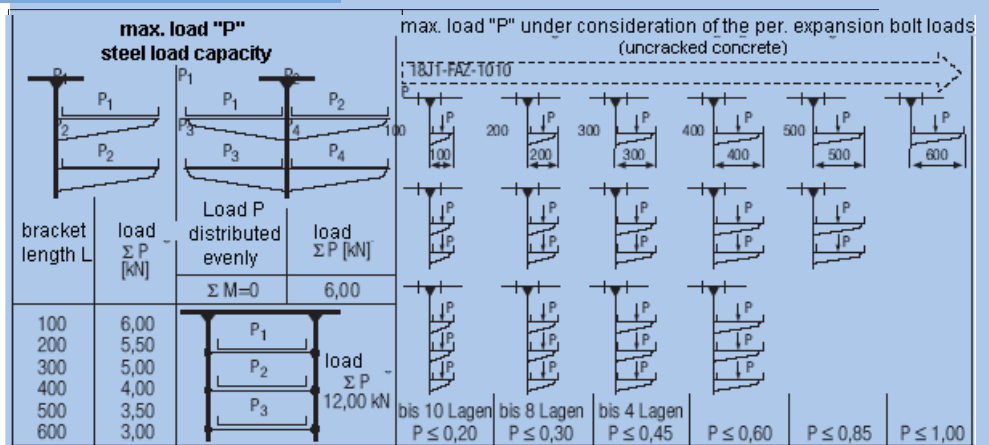
permissible tensile load

$$F_z = 6,00 \text{ kN}$$

profile values

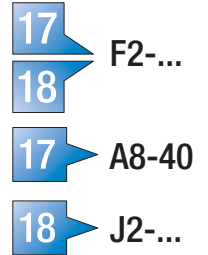


$A = 3,72 \text{ cm}^2$
$W_y = 6,93 \text{ cm}^3$
$W_z = 2,61 \text{ cm}^3$
$I_y = 20,80 \text{ cm}^4$
$I_z = 6,96 \text{ cm}^4$



C-profile 17F2-..., 18F2-..., head plate 17A8-40

Material	- stainless steel, material: 1.4301 (V2A) and 1.4571 (V4A)
Supply length	- 3000 mm or 6000 mm
Field of application	- installation of stands, suspensions and cable grate areas with jointing pieces and fixing accessory - to produce head connections for fixing to ceilings in connection with C-rails 17A4-...-K and U-profiles 17A7-...



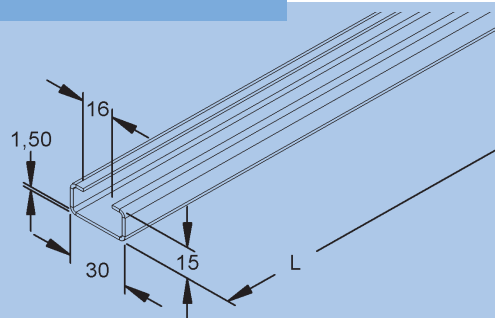
Ordering information

Fixing detail.

- Fix head plate with screws 17J6-1025 to profiles 17A7-... or C-rails 17A4-...-K.
- Hook-head screw 18J2-E-... usable for every place in the profile

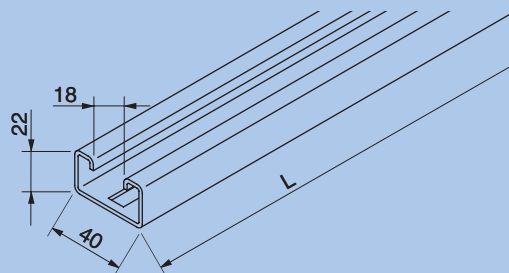
Fixing material	page
screw 17J6-1025	236

→ Further anchor bolts are on page 240.



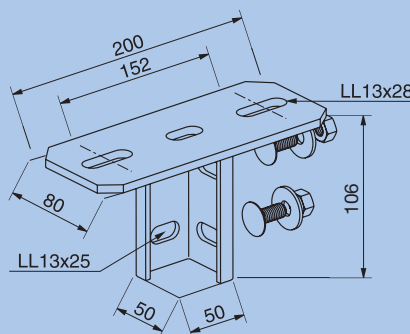
C-profile 30x15, perforated (7,5x15), perforation pitch 25 mm, slot width 16 mm

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
3000	17F2-3000-C	2.25
6000	17F2-6000-C	4.50



C-rail 40x22, perforated (11,5x30), perforation pitch 50 mm, slot width 18 mm

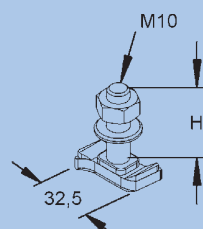
Length (mm)	Order No. stainl. steel	Weight (kg/pce)
3000	17F2-3000-L	4.68
3000	18F2-3000-L	4.68
6000	18F2-6000-L	9.36



head plate

Order No. stainl. steel	Weight (kg/pce)
17A8-40	1.10

incl. 2 screws 17J6-1025 (M10x25)



hook-head screws for C-profile 40x22

Dimensions	Order No. stainl. steel (A4)	Weight (kg/pce)
M10x30	18J2-E-1030	0.04
M10x50	18J2-E-1050	0.05

incl. nut and washer

Stainless steel

C-rail

17 → ...-K

C-rail 17A4-...-K

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 200 mm to 3000 mm
Field of application	- wall support - Hanging support in connection with head plate 17A8-40 - clamping system to produce clamping head plates and supports in connection with claws.

Ordering information

Fixing details

C-rails 17A4-...-K as connection element to claws from the basis for fastening support systems to steel support.

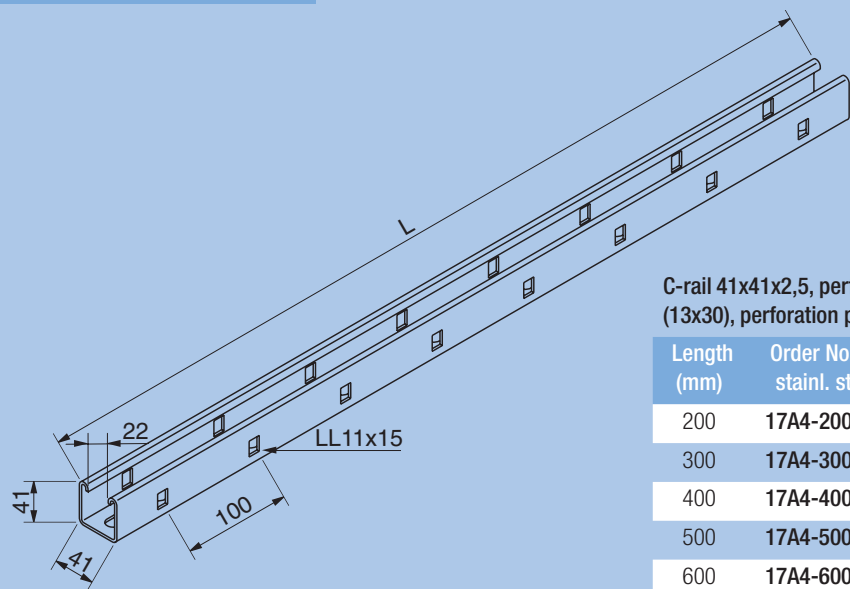
Wall mounting

→ Fix C-rail with stainless steel 18J1-FAZ-1010 or with anchor corner 17J3-D.

Ceiling mounting

→ Fix C-rail with head plate 17A8-40 to ceiling.

Fixing material	page
steel expansion bolt 18J1-...	180
head plate 17A8-40	231
claw 19A4-1-...	239



C-rail 41x41x2,5, perforated (13x30), perforation pitch 50 mm

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
200	17A4-200-K	0.48
300	17A4-300-K	0.70
400	17A4-400-K	0.92
500	17A4-500-K	1.13
600	17A4-600-K	1.37
700	17A4-700-K	1.62
800	17A4-800-K	1.86
900	17A4-900-K	2.02
1000	17A4-1000-K	2.25
every further 100 mm		0.22
3000	17A4-3000-K	7.00

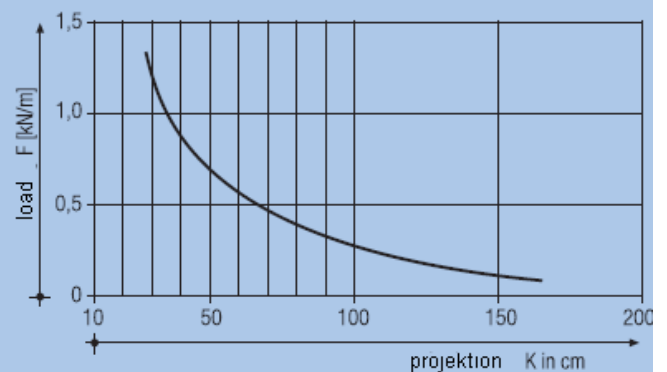
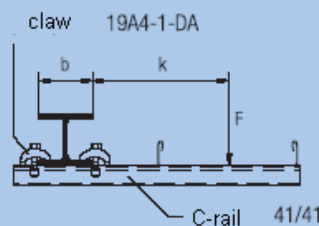
Load diagram

permissible load and projections for:

C-rail 41/41 - simple profile

values after curves

minimum width for hold-down connection dimensions $b \geq 100\text{mm}$



C-profile 17F5-..., universal clip 18BS40-..., profile clamp 17A14-W...

17 F5-...

18 BS40-...

17 A14-...

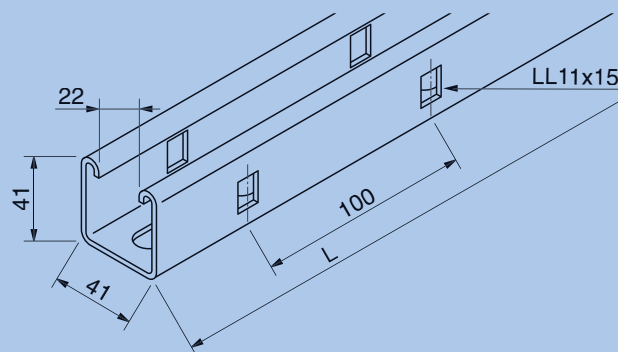
Material	- stainless steel, material: 1.4301 (V2A) and 1.4571 (V4A)
Supply length	- 4500 mm
Field of application	- installation of stands, suspensions and cable grate areas with jointing pieces and fixing accessory

Ordering information

Fixing details

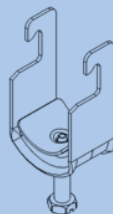
→ universal clip 18BS40-... with thrust trough, for 1 cable usable for C-profile with 18-22 mm slot width

→ Further clips are in the chapter clips until page 341.



C-rail 41x41x2,5, perforated (13x30), perforation pitch 50 mm, slot width 22 mm

Length (mm)	Order No. stainl. steel (A2)	Weight (kg/pce)
4500	17F5-4500-A	11.00

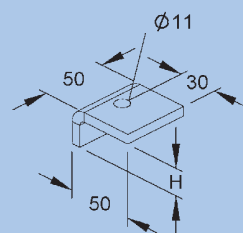


Universal clip

number cabel	clamp. width (mm)	Order No. stainl. steel (A4)	Weight (kg/pce)	PU (pce)
1	6-12	18BS40-12	0.024	100
1	10-14	18BS40-14	0.027	100
1	14-18	18BS40-18	0.029	100
1	18-22	18BS40-22	0.033	100
1	22-26	18BS40-26	0.042	100
1	26-30	18BS40-30	0.046	100

profile clamp

Height (mm)	flange width t (mm)	Order No. stainl. steel (A2)	Weight (kg/pce)	PU (pce)
10	5-9	17A14-W10	0.15	10
15	10-14	17A14-W15	0.18	10
20	15-19	17A14-W20	0.20	10
25	20-24	17A14-W25	0.24	10
30	25-29	17A14-W30	0.30	10
35	30-34	17A14-W35	0.36	10
40	35-39	17A14-W40	0.44	10



Stainless steel

Installation accessory for supports and C-rails

17 J...

wall connection corner 17J3-L, corner console 17J41, anchor corner 17J3-D, connection corner 17J50, installation accessory

Material

- stainless steel, material: 1.4301 (V2A)

Field of application

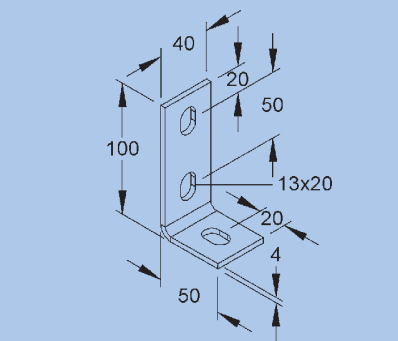
- corner console 17J41 for installation to horizontal ceilings and steel girders
- connection corner 17J50 for installation to horizontal and slanted ceilings and steel girders up to 30°
- wall connection corners for installation to floor, ceilings or walls

Ordering information

Fixing details

- Fix corner consoles and connection corners with screws 17J6-1025 to U-profiles 17A7-... or C-rails 17A4-...-K .
- Corner console for connecting U-profiles and/or for using as knodded corners for support systems.

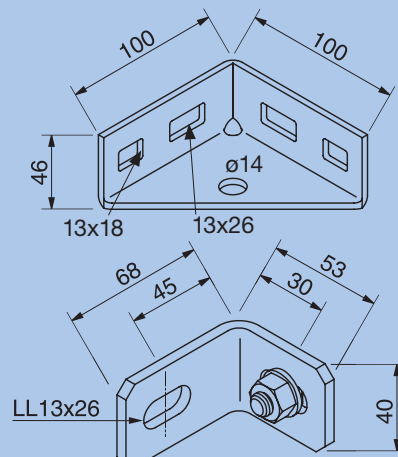
Fixing material	page
screw 17J6-1025	236



wall connection corners

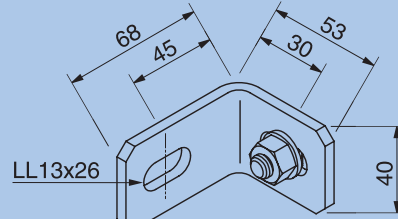
Order No.	Weight stainl. steel (kg/pce)
17J3-L	0.19

incl. 1 screw 17J6-1025 (M10x25)



corner console

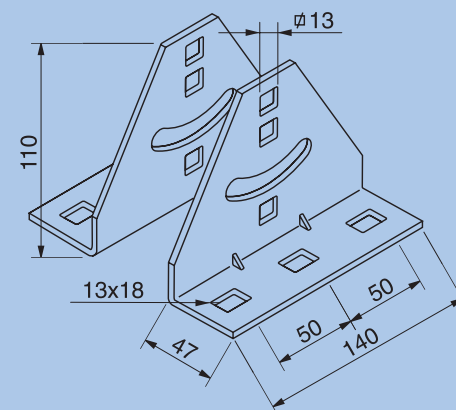
Order No.	Weight stainl. steel (kg/pce)
17J41	0.39



anchor corner

Order No.	Weight stainl. steel (kg/pce)
17J3-D	0.15

incl. 1 screw 17J6-1025 (M10x25)



connection corner (pair)

Order No.	Weight stainl. steel (kg/pce)
17J50	0.86

link chain 17N29-..., S-hook 17N29, threaded rod 17J4-M..., hexagonal nut 17J4-...

17 N...

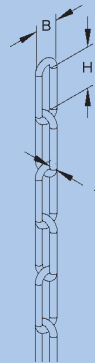
17 J...

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- threaded rod: 1000 mm - link chain: 30 m

Ordering information

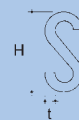
Fixing details

- link chain 17N29-...
for suspensions
- S-hook 17N29
usable for link chains



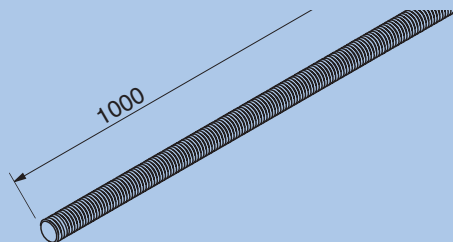
link chain according to DIN 763

Dimens. (mm) HxBxT	perm. F (kN)	Order No. stainl. steel	Weight (kg/pce)
22x8x2	0.5	17N29-20	2.1
26x13x3	1.2	17N29-30	4.8



S-hook

Dimensios (mm) HxT	Order No. stainl. steel	Weight (kg/pce)
35x4	17N29	0.007



threaded rod

Dimensions	Order No. stainl. steel	Weight (kg/pce)
M10 x 1000	17J4-M10-1000	0.65
M12 x 1000	17J4-M12-1000	0.75

nuts and washers have to be ordered separately.



hexagonal nut

thread	Order No. stainl. steel	Weight (kg/pce)
M10	17J4-10-M	0.02
M12	17J4-12-M	0.03

Stainless steel

Fixing and jointing components

17 J4-...
18

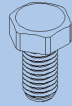
hexagonal screw 17J4-.../18J4-...
mushroom head screw 17J6-.../18J6-...
underlay washer 17J4-.../18J4-...
anchor bolt 17J2-C-1025

17 J6-...
18

Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Field of application	- for installation of components to anchor rails

17 J2-...

Ordering information



hexagonal screw according to DIN 933

Dimensions	Order No. stainl. steel A2	Order No. stainl. steel A4	Weight (kg/pce)
M8x16	17J4-0816	18J4-0816	0.02
M8x40	17J4-0840		0.02
M10x25	17J4-1025	18J4-1025	0.04
M10x40	17J4-1040		0.05
M10x70	17J4-1070		0.06

incl. flange nut



mushroom head screw

Dimensions	Order No. stainl. steel A2	Order No. stainl. steel A4	Weight (kg/pce)
M6x12	17J6-B	18J6-B	0.01
M6x16	17J6-0810	-	0.02
M10x25	17J6-1025	18J6-1025	0.04
M10x50	17J6-1050	-	0.05

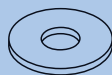
incl. flange nut



mushroom-head screw

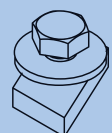
Dimensions	Order No. stainl. steel A4	Weight (kg/Spce)
M6x45	17J6-0645	0.02
M8x45	17J6-0845	0.02

incl. flange nut



underlay washer

Width (mm)	fixing hole ø mm	Order No. stainl. steel	Weight (kg/pce)
18	6.4	17J4-06-SG	0.003
25	8.4	17J4-08-SG	0.007
18	6.4	18J4-06-SG	0.003



anchor screws, clamping thickness max. 6 mm

for C-profiles	with screws	M _{max} (Nm)	Order No. stainl. steel	Weight (kg/pce)
40x22 + 41x41	M10x25	40	17J2-C-1025	0.06

suspension bracket 17N30-...
trapezoidal bracket 17J21-D
ceiling bracket 17J15-D

17 J...

17 N...

Material

- stainless steel, material: 1.4301 (V2A)

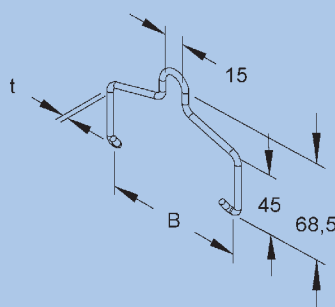
Field of application

- suspending of luminaire support trays
- fixing of luminaires support trays to trapezoidal sheet ceilings

Ordering information

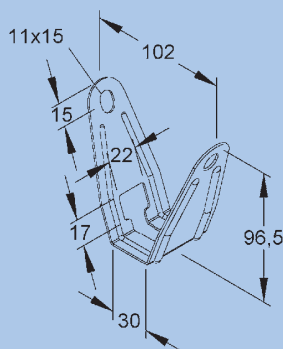
Fixing detailsontagehinweise

→ ceiling bracket 17J15-D for installation to slanted ceilings.



suspension brackets to clip in

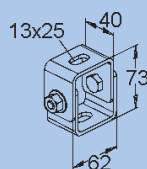
Width (mm)	Order No. stainl. steel	Weight (kg/pce)
50	17N30-50	0.02
60	17N30-60	0.03
100	17N30-100	0.05



trapez. sheet suspension

Order No. stainl. steel	Weight (kg/pce)
17J21-D	0.09

suitable for threaded rod M10



ceiling bracket

Order No. stainl. steel	Weight (kg/pce)
17J15-D	0.45

suitable for threaded rod M12

stainless steel

claws 19A4-1-DA, 19A4-1-D

10.0
kN
max. load

Material	<ul style="list-style-type: none"> - annealed cast iron, hot dip galvanized and plastic coated - colour grey - screws in stainless steel A2
Technical data	<ul style="list-style-type: none"> - connection without drilling or welding - no weakening of the cross-sections or surface damage - short installation time and modification possible at any time
Field of application	<ul style="list-style-type: none"> - clamping system for installations - clamping of hanging supports 17A9-... and U-profiles 17A7-... with head plates 17A8-40 to steel girders on site

19 ▶ **A4-1-DA**

19 ▶ **A4-1-D**

Ordering information

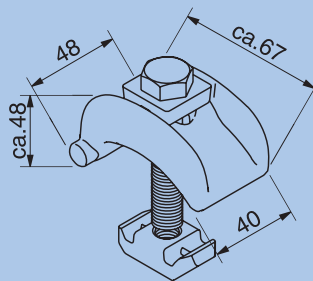
Fixing details

Flange width 60 mm - 100 mm

→ Use claws 19A4-1-D to fasten hanging supports 17A9-... directly.

Flange width > 100 mm

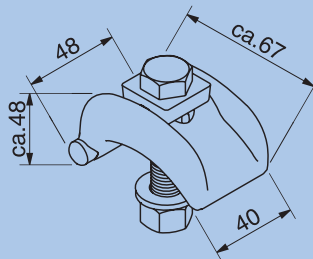
→ Use claws 19A4-1-DA together with C-rail 17A4-...-K to fasten hanging supports of all types.



claw (pair)

Clamping range (mm)	Order No.	Weight (kg/pair)
0-30	19A4-1-DA	0.84

incl. screws M12x65



claws (pair)

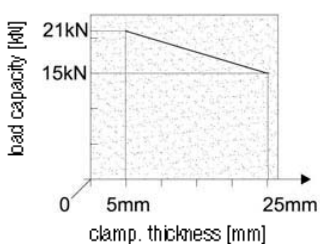
Clamping range (mm)	Order No.	Weight (kg/pair)
0-30	19A4-1-D	0.80

incl. screws M12x75

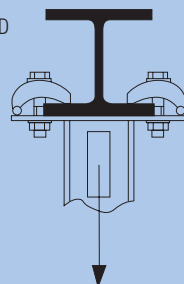
stainless steel

Load

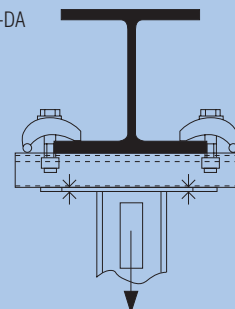
max. loads of the claws



19A4-1-D



19A4-1-DA



The load capacity of the suspension depends on the type of the C-rail and the flange width of the H-profile

17 J2-...

anchor bolts 17J2-A-..., 17J2-C-..., 17J2-D-...

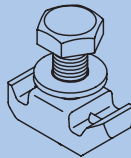
Material

- stainless steel, material: 1.4301 (V2A)

Field of application

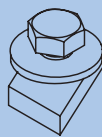
- for installation of components to anchor rails

Ordering information



anchor bolts, clamping thickness max. 12 mm

for C-profile	with screw	M _{max} (Nm)	Order No. stainl. steel	Weight (kg/pce)
40x22 + 41x41	M8x30	20	17J2-A-0830	0.06
40x22 + 41x41	M10x30	40	17J2-A-1030	0.07
41x41	M12x35	70	17J2-A-1235	0.10



anchor bolts, clamping thickness max. 6 mm

for C-profile	with screw	M _{max} (Nm)	Order No. stainl. steel	Weight (kg/pce)
40x22 + 41x41	M6x20	8	17J2-C-0620	0.04
40x22 + 41x41	M8x20	15	17J2-C-0820	0.05
40x22 + 41x41	M10x25	40	17J2-C-1025	0.06



anchor bolts, clamping thickness max. 6 mm

for C-profile	with screw	M _{max} (Nm)	Order No. stainl. steel	Weight (kg/pce)
30x15	M6x16	8	17J2-D-0616	0.02
30x15	M8x16	10	17J2-D-0816	0.03



stainless steel



Stainless steel

This chapter contains an overview of the RICO trellis trays in stainless steel for various loads and applications.

Table of contents

Page

Trellis tray

trellis tray: 170S1-40 / 171S1-50	244
trellis tray: 171S1-...-L	245
trellis tray: 171S1-..., heavy design	246
C-trellis tray: 171S1-...-CD, heavy design	247

Accessory for trellis trays

divider strip: 17S13-A	248
joint for divider strip: 17W13-V	248
screwless straight joint: 17S13-E / 17S14-E	248
universal joint: 17S14-A	249
divider strip fixing clamp: 17S14-D	249
trellis tray fixing clamp: 17S17-D	249
fixing plate for wall and floor: 17S16-C	250
mounting bracket: 17S17-A	250
hook screw: 17S14-B	250

Cover for trellis tray

cover for trellis tray: 17S12-...	251
-----------------------------------	-----

Stainless steel

Trellis tray

17 OS1-...

17 1S1-...

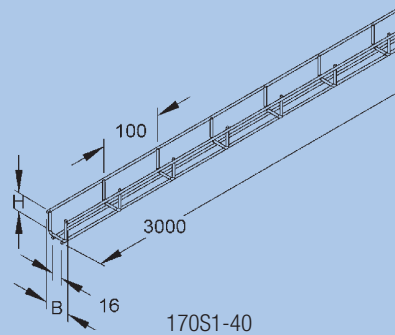
trellis tray 170S1-40, 171S1-50

Material	- steel wire, welded on points - stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- side height 40 mm or 60 mm
Field of application	- suitable for light electro installations

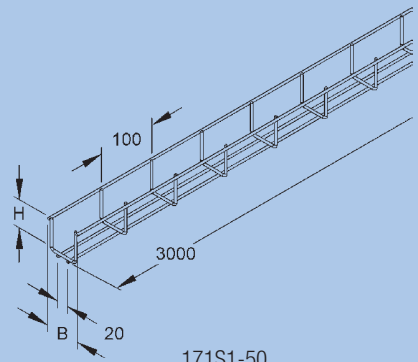
Ordering information

Fixing details

- Installation on brackets
- For horizontal and vertical curves of the trellis tray cut out longitudinal and transverse wires.
- Use universal jointing piece 17S14-A to fix tray and bends.



170S1-40

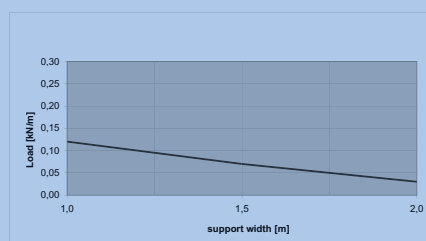


171S1-50

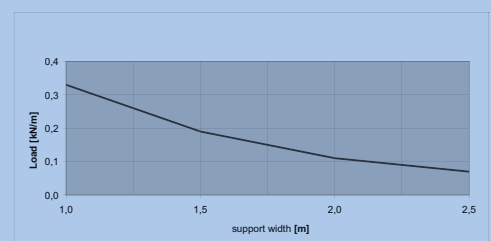
trellis tray, U-form

Height (mm)	Width (mm)	Mat.-thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
40	40	3.5	170S1-40	1.13
60	60	4.5	171S1-50	2.10

Load diagram



170S1-40



170S1-50

trellis tray 171S1-...-L

17 ...-L

Material	- steel wire, welded on points - stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- side height 60 mm - standard support spacing 1.5 m
Field of application	- suitable for light electric installations

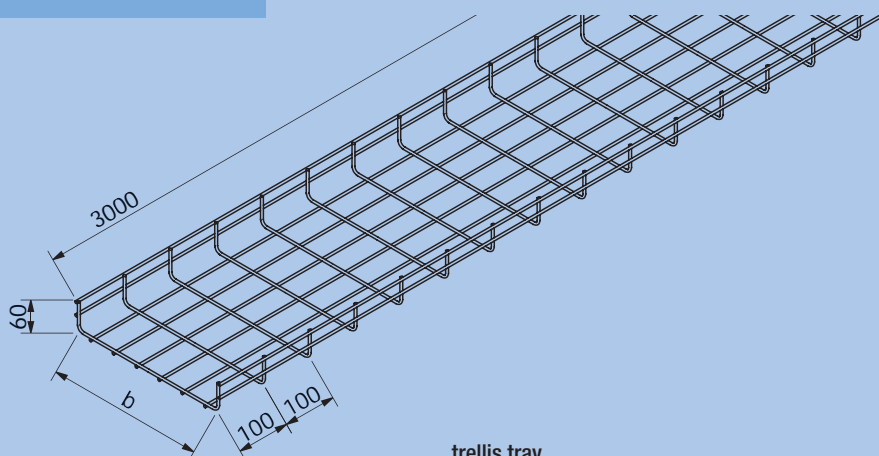
Ordering information

Fixing details

- Installation on brackets
- For horizontal and vertical curves of trellis tray cut out longitudinal and transverse wires.
- Use universal jointing piece 17S14-A to fix tray and bends.

Right angle connection of trellis tray

- Cut out side sections of trellis trays.
- Fix trellis trays at contacting points with universal jointing piece 17S14-A



trellis tray

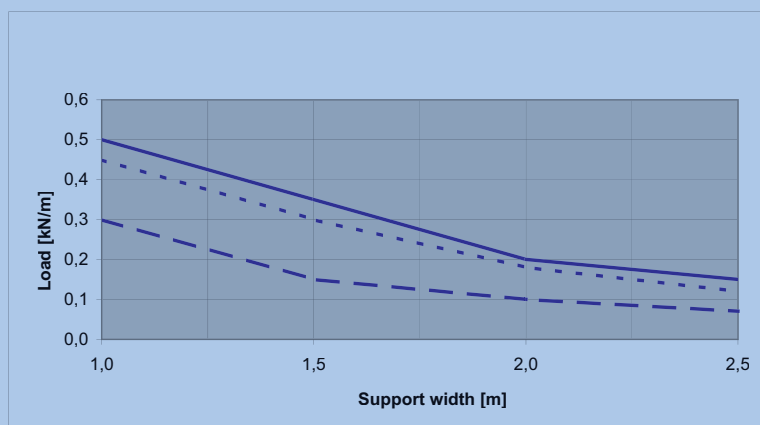
Width (mm)	Mat.-thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
100	3.5	171S1-100-L	1.86
150	3.5	171S1-150-L	2.22
200	3.5	171S1-200-L	2.52
300	4	171S1-300-L	4.20
400	4	171S1-400-L	5.10

stainless steel

Load diagram

Cable tray width B

- - - B = 100-200 mm
- - - - B = 300 mm
- B = 400 mm



Stainless steel

Trellis tray

17 1S1-...

trellis tray 171S1-...

Material	- steel wire, welded on points - stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- side height 60 mm - heavy design: Mat.-thickness 4.5 mm - standard support spacing 1.5 m
Field of application	- suitable for light electro installations

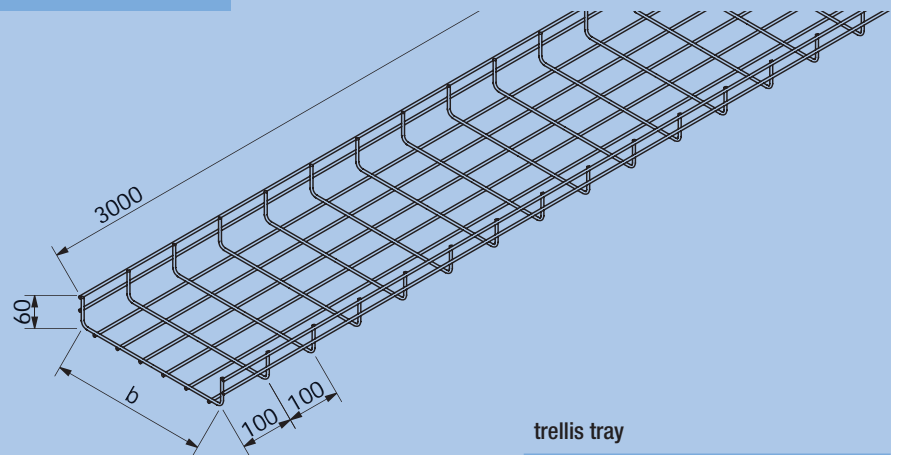
Ordering information

Fixing details

- Installation on brackets
- For horizontal and vertical curves of trellis trays cut out longitudinal and transverse wired.
- Use universal jointing piece 17S14-A to fix tray and bends.

Right angle connection of trellis tray

- Cut out side sections of the trellis tray.
- Fix trellis trays at contacting points with universal jointing piece 17S14-A.



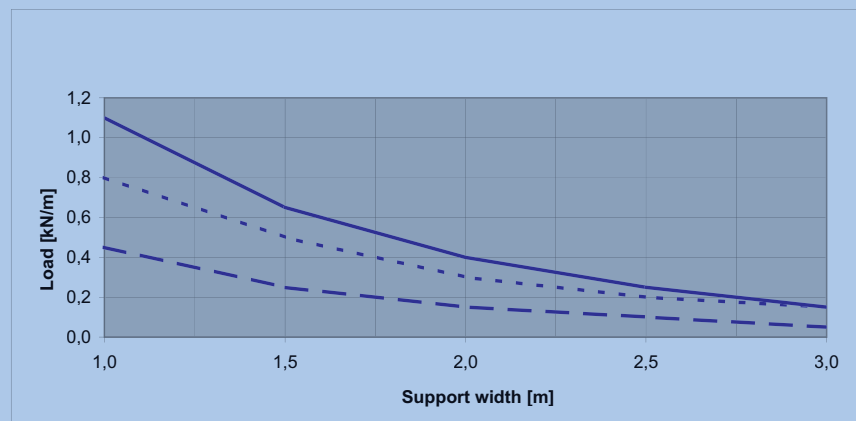
trellis tray

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
100	171S1-100	3.0
150	171S1-150	3.5
200	171S1-200	4.2
300	171S1-300	5.3
400	171S1-400	6.5
500	171S1-500	7.6
600	171S1-600	8.9

Load diagram

Cable tray width B

- - - B = 100 mm
- B = 200-300 mm
- B = 400 mm



C-trellis tray 17S1-...-CD

Material	- steel wire, welded on point - stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- side height 78 mm - heavy design - Material thickness 4.5 mm - standard support spacing 2 m
Field of application	- suitable for light electro installations and as feed line for consuming units

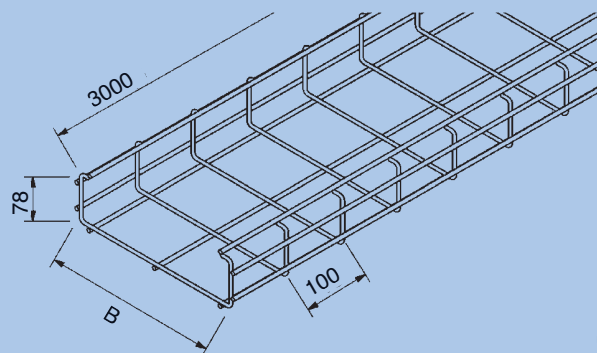
Ordering information

Fixing details

- Installation on brackets
- Hook screw 17S14-B for fixing the C-trellis tray at the bracket.
- Cut out longitudinal and transverse wires for producing curves of the C-trellis tray.
- Connections of the C-trellis tray can be made with straight joint 17S14-A.
- Straight joints as well as additional connections at the floor of the C-trellis tray.

Right angle connection of C-trellis tray

- Fix the C-trellis trays at the upper side edge with universal jointing piece 17S14-A .



C-trellis tray

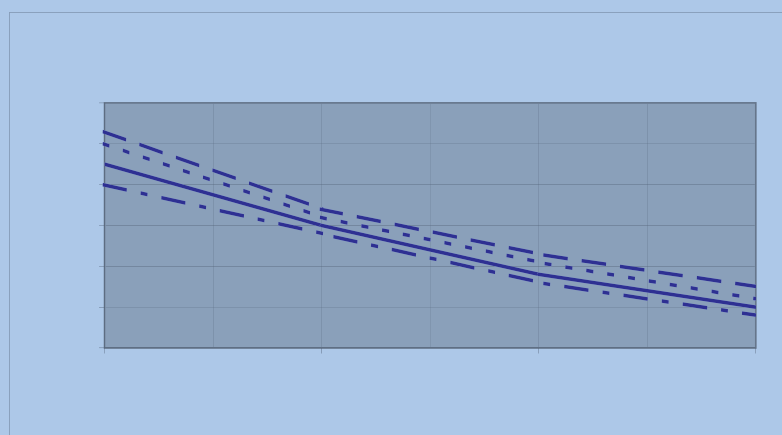
Width (mm)	Order No. stainl. steel	Weight (kg/pce)
78	17S1-50-CD	1.65
118	17S1-100-CD	2.37
218	17S1-200-CD	4.14
318	17S1-300-CD	6.00
418	17S1-400-CD	7.29
518	17S1-500-CD	8.58

stainless steel

Load diagram

Cable tray width B

- · — · B = 50 mm
- B = 100 mm
- B = 200-300 mm
- - - B = 400-500 mm



Stainless steel

Joint and divider strip for trellis tray

17 S13-...

17 S14-...

17 W13-...

divider strip 17S13-A
joint for divider strip 17W13-V
straight joint, screwless 17S13-E/17S14-E

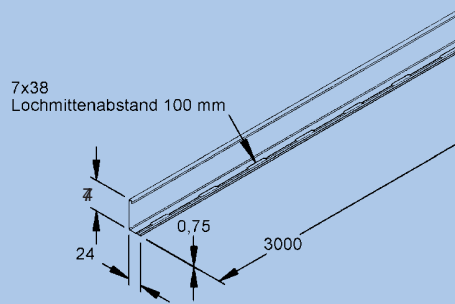
Material
Field of application

- stainless steel, material: 1.4301 (V2A)
- divider strip for subdividing the tray for different cable types
- joint for divider strip for the mechanical, electrical and at the straight for joints of the divider strips at length side
- straight joint for producing lengthwise joints of trellis trays

Ordering information

Montagehinweise

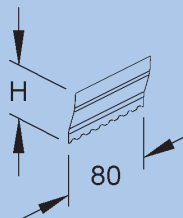
- straight joint for screwless connection, the only tool you need is a screwdriver.
- The continuously perforated fold of the divider strip grants a stepless installation.
- The connection of the divider strips effects by clip in of the joints for divider strips at the straight.



divider strip

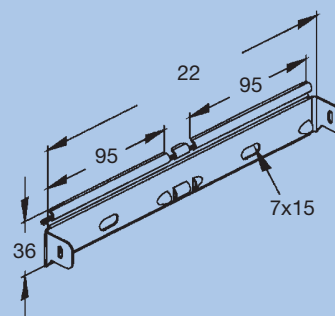
Height (mm)	Mat.-thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
47	0.8	17S13-A	1.35

incl. 4 screws 17J6-B



joint for divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
46.5	17W13-V	0.01



straight joint, screwless

for wire ø (mm)	Order No. stainl. steel	Weight (kg/pce)
3.5-4.0	17S13-E	0.06
4.0-5.0	17S14-E	0.08

universal joint 17S14-A
 divider strip fixing clamp 17S14-D
 fixing clamp for trellis tray 17S17-D

17 S14-...

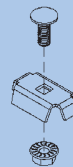
17 S17-...

Material	- stainless steel, material: 1.4301 (V2A)
Field of application	- universal joint for producing tray connections and for fixing bends - divider strip fixing clamp for fixing the divider strip in the trellis tray - trellis tray fixing clamp for fixing trellis trays at floor or side

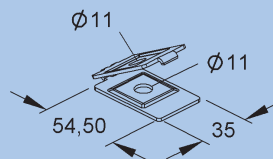
Ordering information



universal joint	
Order No. stainl. steel	Weight (kg/pce)
17S14-A	0.04

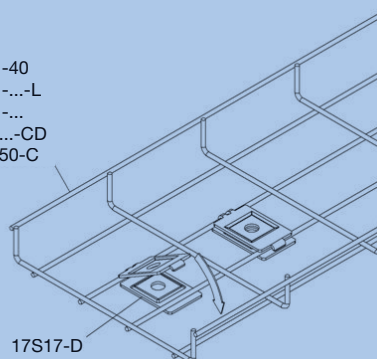


divider strip fixing clamp	
Order No. stainl. steel	Weight (kg/pce)
17S14-D	0.03



trellis tray fixing clamp	
Order No. stainl. steel	Weight (kg/pce)
17S17-D	0.06

170S1-40
 171S1-...-L
 171S1-...
 17S1-...-CD
 16S1-50-C



stainless steel

Stainless steel

Accessory for trellis tray

17 S-...

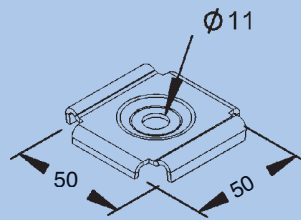
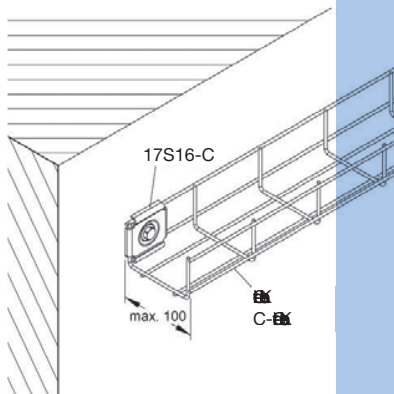
fixing plate for wall and floor 17S16-C
hook screw 17S14-B
mounting bracket 17S17-A

Material	- stainless steel, material: 1.4301 (V2A)
Field of application	- installation of trellis trays to walls, ceilings and floors - hook screw for fixing trellis trays to brackets

Ordering information

Fixing details

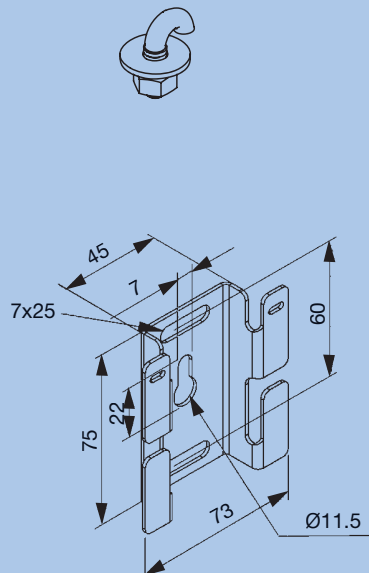
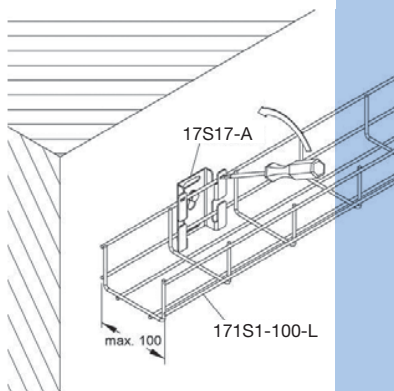
→ Fixing plate for wall and floor for wall mounting of trellis trays which are max. 100 mm wide and for floor mounting for trellis trays with a central length-wire space of 50mm.



fixing plate for wall and floor

Order No.	Weight (kg/pce)
17S16-C	0.05

→ mounting bracket for a screwless wall mounting of trellis trays up to a width of 100 mm, central threaded rod suspensions up to a width of 300mm.



hook screw

Order No.	Weight (kg/pce)
17S14-B	0.03

incl. U-washer and hexagonal nut

mounting bracket

Order No.	Weight (kg/pce)
17S17-A	0.09

Cover for trellis tray 17S12-...

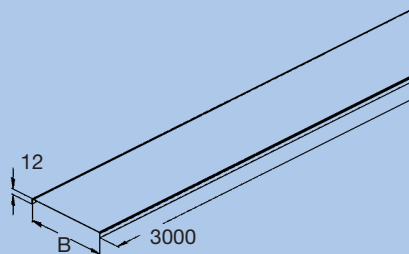
17 S12-...

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- Material thickness 0.8 mm
Field of application	- for covering the trellis trays for cable protection

Ordering information

Fixing details

→ Snap the covers onto the trellis trays in U-form.



cover for trellis trays

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
60	17S12-60	1.71
100	17S12-100	2.49
150	17S12-150	3.47
200	17S12-200	4.38
300	17S12-300	6.33



Stainless steel

This chapter contains an overview of the RICO luminaire support trays in stainless steel for various loads and applications.

Table of contents

Page

Luminaire support tray

luminaire support tray 50mm side height: 17N1-...-K	254
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Accessory for luminaire support tray

universal joint: 17E11-A	255
cable protection: 15N20-...	255
cover for luminaire support tray: 17N12-...-LR	255

Stainless steel

Luminaire support tray

17 N1-...

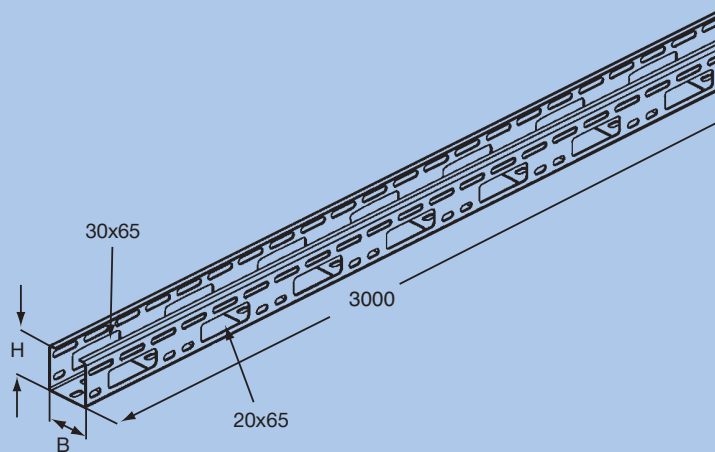
luminaire support tray 17N1-... with sheet thickness 1.5 mm

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- side height 50 mm - Width 50 mm or 100 mm - Material thickness 1.5 mm - side opening 20 x 65 mm for cable design - floor opening 30 x 65 mm
Field of application	- for cable, lines and as luminaire support

Ordering information

Fixing details

- Use screws M6 for fixing the luminaire tray to the floor.
- Use screws M6 for side connection.
- With staggered placed side and floor perforation for stepless fixing and connection of the system components.



luminaire support tray

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
50	17N1-50-K	3.81
100	17N1-100-K	4.90

universal joint 17E11-A cable protection ring 15N20-... cover for luminaire support tray 17N12-...

17 N12-...

15 N20-...

Material	- stainless steel, material: 1.4301 (V2A) - cable protection made of plastic
Supply length	- cover 3000 mm
Field of application	- Joint to produce straight, angular, upward or downward rail connection - cable protection for protecting the cable while put out of the floor or side openings

Ordering information

Fixing details

universal joint

→ Use universal joint as straight joint, bendable joint, hinge piece and tee.

demand: 2 pieces every straight

cable protection

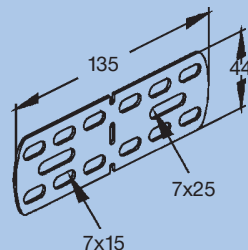
→ Insert a cable protection ring 15N20-30 in case of cable outlets through the bottom opening.

→ Insert a cable protection ring 15N20-30 in case of cable outlets through the side opening.

cover for luminaire support tray

→ locking devices are made of material 1.4571 (V4A)

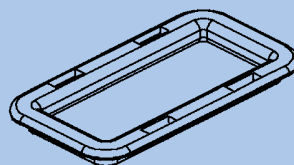
→ Because of outside influences like e.g. wind load an usage outside is only possible with a additional secure (self-tapping screws, steel band, etc).



universal joint

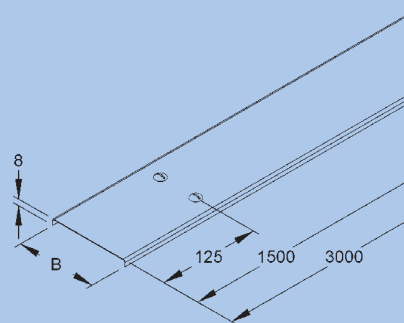
Order No. stainl. steel	Weight (kg/pce)
17E11-A	0,07

incl. 2 screws 17J6-B



cable protection ring for side and floor opening, plastic transparent

Internal dims. H x B	Order No. plastic	Weight (kg/pce)
14,5 x 58	15N20-20	0.005
24 x 58	15N20-30	0.005



cover for luminaire support tray with locking device

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
50	17N12-05-LR	1.80
100	17N12-10-LR	2.88



Stainless steel

This chapter contains an overview of the RICO cable tray system of stainless steel subdivided into product families for various loads and applications.

Table of contents

Page

Cable trays, unperforated or perforated

Standard design, perforated: 171W23-..., 171W2-... / 181W23-...	258
Standard design, unperforated: 171W1-...	259

Molded components for cable trays

bend: 171W3-...-B	262
extension tee: 171W15-...-B	262
corner: 171W17-B / 181W17-B	262

Jointing pieces for cable trays

universal joint: 17E11-A / 18E11-A	260
straight joint / bendable joint / hinge piece: 17E12-...	261
joint cover plate: 17W7-...	261
reducing plate: 171W18-...	263

Accessory for cable trays

divider strip: 17W13-A / 171W13-A / 181W13-A	260
joint for divider strip: 17W13-V / 171W13-V	260
cable protecting plate: 17W11-...	264
mounting plate: 17Y34-MP1	264

Covers

covers for trays, with or without locking device: 17W12-...	273
covers for molded components: 17W12-...-B / 17W12-...-BR; 17W12-...-T / 17W12-...-TR	274

Accessory for covers

locking device: 17N12-V / 17N14-V	273
fixing clip: 171W12-K	273
fixing spring: 17W12-K	273

Stainless steel

Cable trays 60

17 1W23-...

18 1W23-...

17 1W2-...

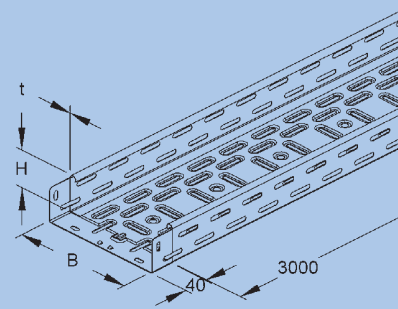
cable trays 171W23-.../ 181W23-.../171W2-...

Material	- stainless steel, material: 1.4301 (V2A), perforated
Supply length	- 3000 mm
Technical data	- side height 60 mm, standard support spacing 1.5 m, Material thickness 171W23-.../181W23-... - 0.8 mm, 171W2-... - 0.9 mm
Field of application	- Installation to brackets and consoles

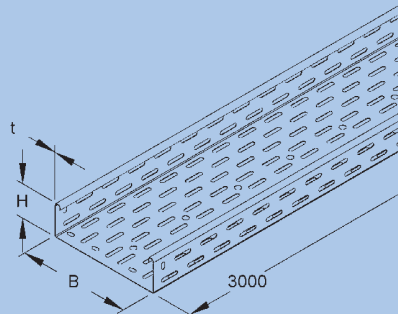
Ordering information

Fixing details

- Use screw 17J6-B/18J6-B to fix to bracket.
- Use bend 171W3-...-B or corner 171W17-B/181W17-B to produce curves.
- Use tee 171W15-...-B to produce junctions.
- Use joining piece 171E12-... and joint cover plates 17W7-... to connect trays (without integrated jointing pieces)
- The embedded straight joint with strap in connectors guarantees a fast and easy installation. cable trays 171W23-100 to 400 and 181W23-100 to 400.
- Use universal joint 18E11-A for additional connection of cable trays 181W23-...



Width 100 - 400 mm



Width 500 - 600 mm

cable tray

Width (mm)	Order No. stainl. steel V2A	Order No. stainl. steel V4A	Weight (kg)
100	171W23-100*	181W23-100*	3,90
200	171W23-200*	181W23-200*	5,61
300	171W23-300*	181W23-300*	7,32
400	171W23-400*	181W23-400*	9,21
500	171W2-500	-	11,61
600	171W2-600	-	13,92

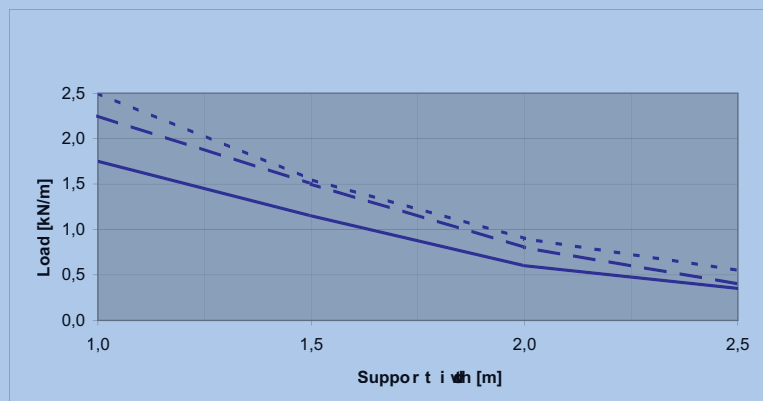
* incl. embedded straight joint and screws
W2-cable trays without integrated joint

Fixing material	Page
screw 17J6-B/18J6-B	263

Load diagram

Cable tray width B

- B = 100-200 mm
- - - B = 300-400 mm
- B = 500-600 mm



cable trays 171W1-..., unperforated

17 1W1-...

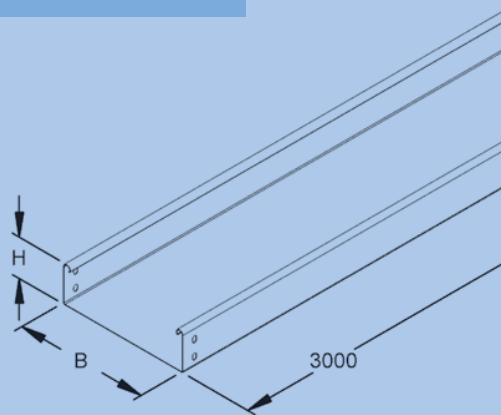
Material	- stainless steel, material: 1.4301 (V2A), unperforated
Supply length	- 3000 mm
Technical data	- side height 60 mm, standard support width 1.5 m - electrical bonding with 1 screw 17J6-B
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

- Use screw 17J6-B for fixing to bracket.
Use bend 171W3-...-B or corner 171W17-B to produce curves.
- Use extension tee 171W15-...-B to produce junctions.
- Use straight joint 171E12-... as well as joint cover plate 17W7-... for additional connections.

Fixing material	page
screw 17J6-B	263



Cable tray

Width (mm)	Material thickness t	Order No. stainl. steel	Weight (kg/pce)
100	0.8	171W1-100	4.77
200	0.8	171W1-200	6.45
300	0.8	171W1-300	8.76
400	0.8	171W1-400	10.56
500	0.9	171W1-500	14.16
600	0.9	171W1-600	16.17

incl. U-form inlaying straight joint and screws 17J6-B

Stainless steel

Accessory for cable trays 60

17 W13-...

17 1W13-...

18

17 E11-A

18

universal joint 17E11-A / 18E11-A joint for divider strip 17W13-V / 171W13-V divider strip 17W13-A / 171W13-A / 181W13-A

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- divider strip for subdividing the cable tray for different cable types - Universal joint is usable as T-joint, bendable joint hinge piece and as joint cover

Ordering information

Fixing details

universal joint

→ There exists a lot of possibilities to use this universal joint. This allows an installation without molded components or the usage for extraordinary installations.

divider strip

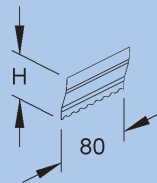
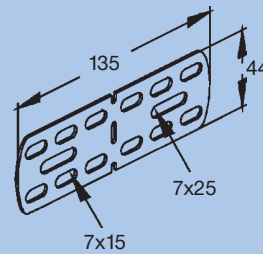
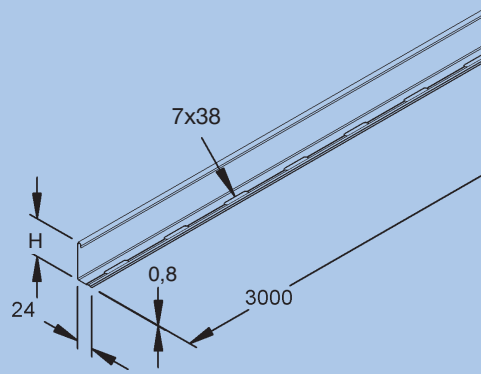
→ The continuously perforated fold of the divider strip grants a stepless installation. Central hole spacing of the oblong holes 7 x 38 mm is 100 mm.

joint for divider strip

→ for mechanical, electrical and lengthwise connection of the divider strips at the straight.

→ The connection of the divider strip effects by clip in the joints for divider strips at the straight.

Fixing material	page
screw 17J6-B/18J6-B	263



divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
47	17W13-A	1.35
55	171W13-A	2.01
55	181W13-A	2.01

incl. fixing screws

universal joint

Order No. stainl. steel	Weight (kg/pce)
17E11-A	0.07
18E11-A	0.07

incl. 4 screws
17J6-B (M6x12)/18J6-B

joint for divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
46,5	17W13-V	0.01
54,5	171W13-V	0.02

joining piece 171E12-..., joint cover plate 17W7-...

17 1E12-...

17 W7-...

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height 60 mm - suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- joining piece to produce straight, angular, upward or downward tray connections. - Joint cover plate for covering the cutting edges at tray straights

Ordering information

Fixing details

- Mount joining piece to or push it into tray ends.
- Fasten joining piece and sides of the tray with 2 screws 17J6-B.

straight joint

- Cover cutting edges at straight with joint cover plate 17W7-...

bendable joint

- Make a mitre cut for large changes of direction (max. 90°).

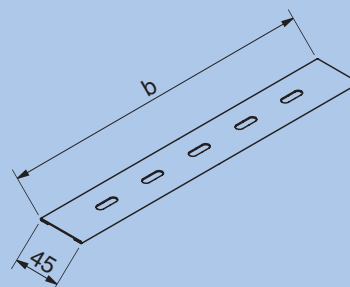
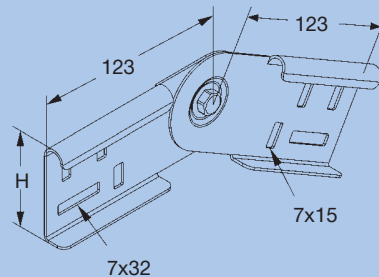
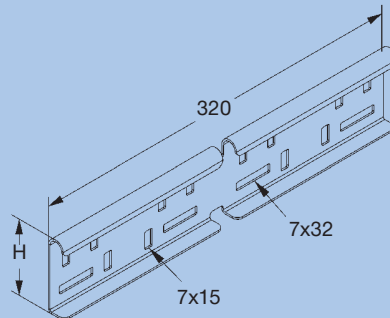
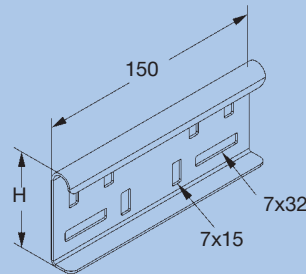
hinge piece

- Insert cable protecting plate 17W11-... at upper break point.
- Cover cutting edges with edge protection 15V13-A.

joint cover plate

- Use bolts to screw the joint cover plate 17W7-...

Fixing material	page
screw 17J6-B	263
edge protection 15V13-A	13
edge protection 18V13-A	13



straight joint

Order No.	Weight stainl. steel (kg/pce)
171E12-A	0.20

incl. 2 screws
17J6-B (M8x12)

bendable joint

Order No.	Weight stainl. steel (kg/pce)
171E12-B	0.36

incl. 2 screws
17J6-B (M6x12)

hinge piece

Order No.	Weight stainl. steel (kg/pce)
171E12-C	0.31

incl. 4 screws
17J6-B (M6x12)

joint cover plate

Width (mm)	Order No.	Weight stainl. steel (kg/pce)
90	17W7-100	0.06
190	17W7-200	0.11
290	17W7-300	0.15
390	17W7-400	0.21
490	17W7-500	0.25
590	17W7-600	0.30

incl. fixing screws
17J6-D

Stainless steel

Molded components for cable tray 60

17 1W3-...-B

17 1W15-...-B

17 1W17-B

18

bend 171W3-...-B,
extension tee 171W15-...-B,
corner 171W17-B / 181W17-B

Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Technical data	- side height 60 mm - suitable for all tray widths from 100 mm to 600 mm - integrated joint with pre-perforated connection holes for an easy installation
Field of application	- to produce horizontal 90°-curves and 90°-junctions

Ordering information

Fixing details

bend

- Place bend on tray ends.
- Fasten bend side to tray with screws 17J6-B

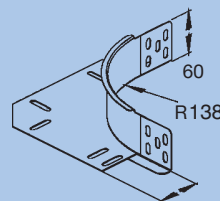
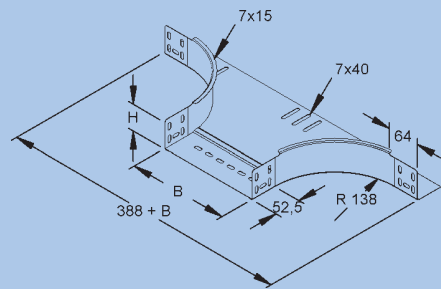
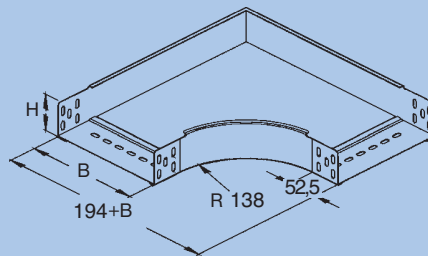
extension tee

- Cut out tray side (length of cut out = width of tee + 280mm)
- Deburr cut edges.
- Using pliers, fold over tab ends of tray on both sides and clamp.
- Place extension tee over the cut out and fasten to tray sides with screws 17J6-B.
- Fasten floor plates with 3 screws 17J6-B .

corner

- Cut out inside of the trays (length of cut out = widths of tray + 145 mm).
- Deburr cut edges.
- Using pliers, fold over tab ends of tray on both sides and clamp.
- Place corner on the tray ends overlapping in the 90°-angle.
- Screw trays with 2 screws 17J6-B on side.
- Screw the floors of the corner and of the tray with screws 17J6-B .

Fixing material	page
screw 17J6-B	263



bend

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
100	171W3-100-B	0.78
200	171W3-200-B	1.31
300	171W3-300-B	1.98
400	171W3-400-B	2.76
500	171W3-500-B	3.68
600	171W3-600-B	4.72

incl. screws 17J6-B

extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
100	171W15-100-B	0.63
200	171W15-200-B	0.78
300	171W15-300-B	0.93
400	171W15-400-B	1.28
500	171W15-500-B	1.46
600	171W15-600-B	1.65

incl. screws 17J6-B

corner

Order No. stainl. steel	Weight (kg/pce)
171W17-B	0.30
181W17-B	0.33

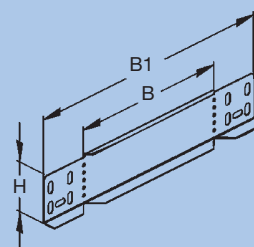
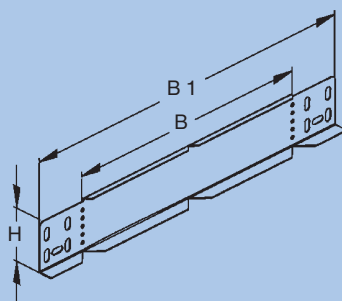
incl. 6 screws 17J6-B

reducing joint 171W18-..., mounting accessory

17 1W18-...

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height 60 mm - suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- reducing joint for connecting trays with different widths

Ordering information



* Additionally usable as bendable joint by usage of central bending edge

reducing joint outer part

B 1 (mm)	Width B (mm)	Order No. stainl. steel	Weight (kg/pce)
222*	100	171W18-100	0.12
322	200	171W18-200	0.17
422*	300	171W18-300	0.24
522	400	171W18-400	0.30
622	500	171W18-500	0.37
722	600	171W18-600	0.44

incl. 4 screws 17J6-B



mounting accessory

screw	Order No. stainl. steel	Weight (kg/pce)
M6x12	17J6-B	0.01
M6x12	18J6-B	0.01

Stainless steel

Accessory for cable trays 60

17 1W11-...

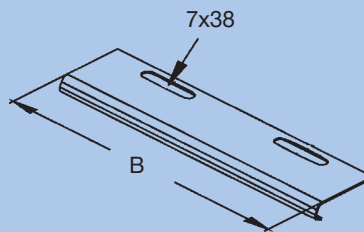
17 Y34-...

cable protecting plate 17W11-... mounting plate 17Y34-MP1

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- cable protecting plate for protecting the cables in vertical curves - Mounting plate to mount distributor boxes or connection boxes

Ordering information

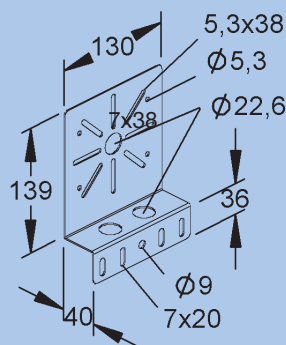
Fixing material	page
screw 17J6-B	263



cable protecting plate

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
100	17W11-100	0.05
200	17W11-200	0.10
300	17W11-300	0.15
400	17W11-400	0.20
500	17W11-500	0.25
600	17W11-600	0.31

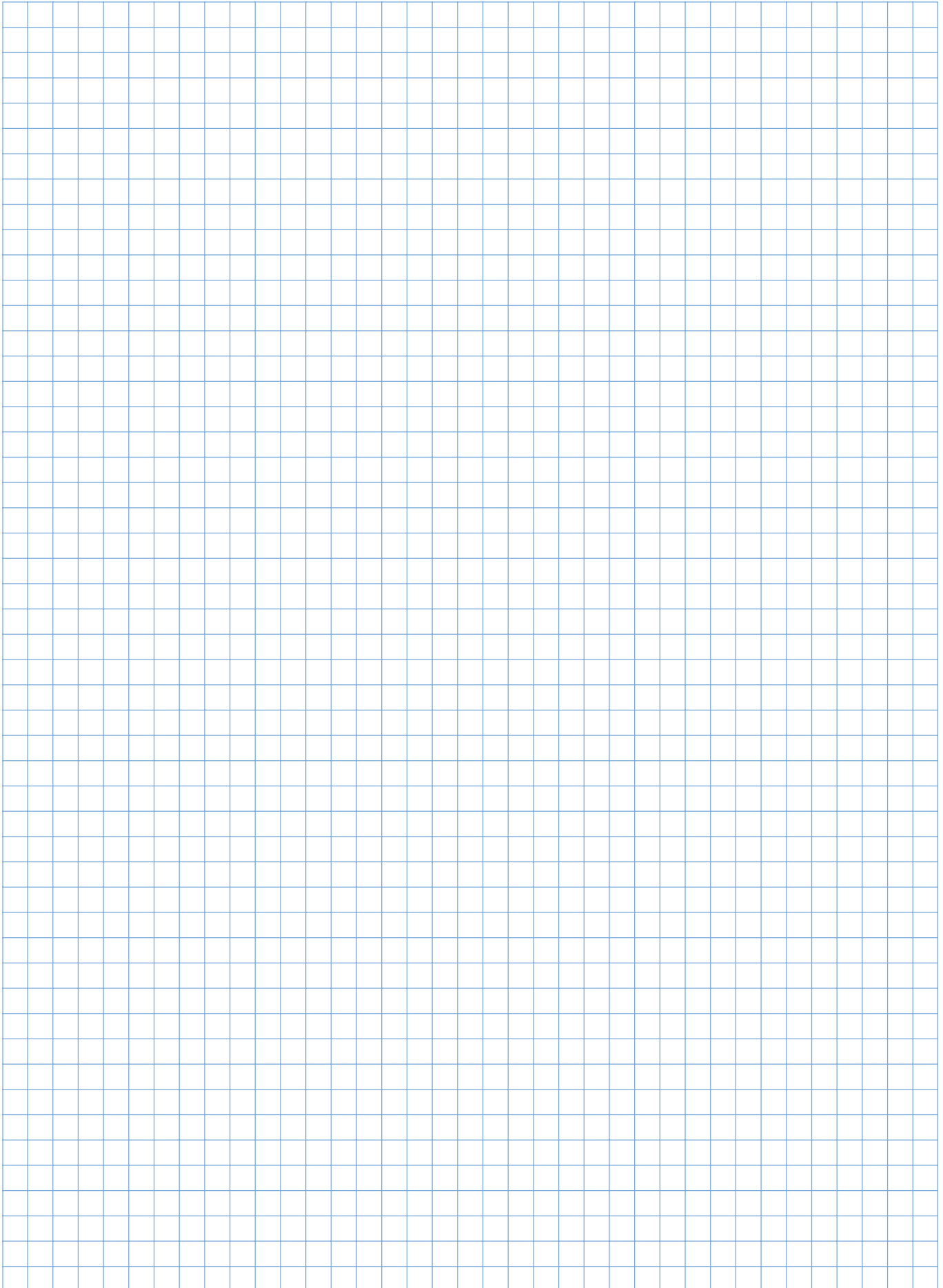
incl. 2 screws 17J6-D (M6x16)



mounting plate

Order No. stainl. steel	Weight (kg/pce)
17Y34-MP1	0.31

incl. 2 screws 17J6-B (M6x12)



Stainless steel



Stainless steel

This chapter contains an overview of the RICO cable tray system in stainless steel for various loads and applications subdivided into product families.

Table of contents

Page

Cable trays

standard design, perforated or unperforated: 173W2-... / 173W1-...	268
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Molded components for cable trays

extension tee 173W15-...-B	270
corner: 173W17-B	270

Joining pieces for cable trays

U-form straight joint: 173E13-A-...	269
straight joint: 173E12-A	269
hinge piece, inlaying: 173E13-C	271
reducing joint: 173W18-...	271

Accessory for cable trays

divider strip: 173W13-A	269
joint for divider strip: 173W13-V	269
cable protecting plate: 17W11-...	272
mounting plate: 17Y34-MP1	272
support corners: 17U6-A, screws: 17J6-P, 17J6-F	275

Covers

covers for trays, with or without locking device: 17W12-...	273
covers for molded components: 17W12-...-B / 17W12-...-BR / 17W12-...-T / 17W12-...-TR	274

Accessory for covers

locking device: 17N12-V / 17N14-V	273
fixing clip: 171W12-K / 173W12-K110	273
fixing spring: 17W12-K	273

Stainless steel

Cable tray 110

17 3W2-...

17 3W1-...

cable tray perforated 173W2-...
cable tray unperforated 173W1-...

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- side height 110 mm - support width max. 2.5 m
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

→ bottom plate and side rail perforated with staggered punch holes, extra row of centric punch holes (diameter 11mm) in the bottom of the tray.

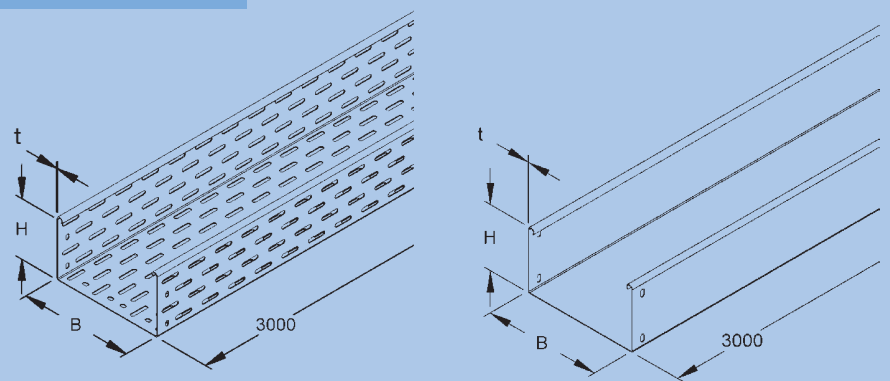
→ Use screw 17J6-B to fix on brackets.

→ Use 173W17-BW to produce curves.

→ Use extension tee 173W15-...-B to produce junctions.

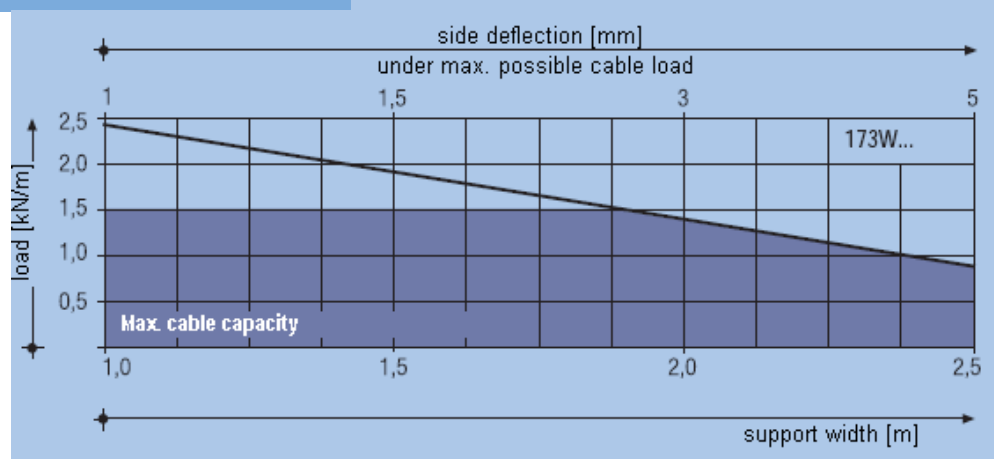
→ Use jointing piece 173E12-A or 173E13-A-... to connect trays.

Fixing material	page
screw 17J6-B	263



Mat.-thickn. t (mm)	Width (mm)	Order No. perforated	Weight (kg/pce)	Order No. unperforated	Weight (kg/pce)
0.8	100	173W2-100	5.52	173W1-100	6.36
0.8	200	173W2-200	7.62	173W1-200	8.76
0.8	300	173W2-300	9.21	173W1-300	10.71
0.9	400	173W2-400	12.27	173W1-400	14.25
0.9	500	173W2-500	14.16	173W1-500	16.46
0.9	600	173W2-600	15.21	173W1-600	17.66

Load diagram



U-form straight joint 173E13-A-... straight joint 173E12-A divider strip 173W13-A joint for divider strip 173W13-V

17 → 3E13-...
17 → 3W13-...
17 → 3E12-A

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- U-form straight joint for tray 173W... - divider strip for subdividing the tray for different cable types

Ordering information

Fixing details

divider strip

- staggered perforated fold grants a stepless installation. Central hole spacing of the oblong holes 7 x 38 mm is 100 mm.

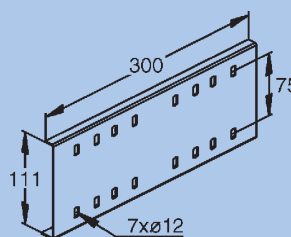
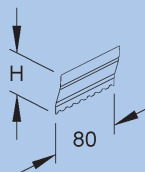
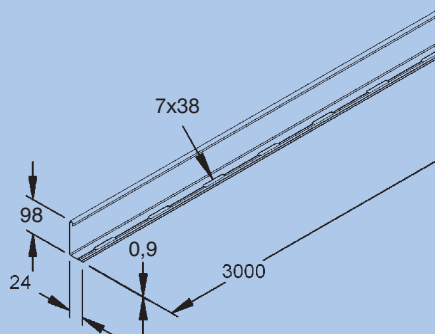
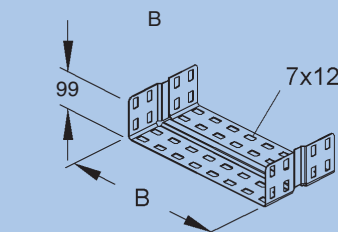
joint for divider strip

- for mechanical, electrical and lengthwise connection of the divider strips at the straight.
- The connection of the divider strips effects by clip in the joints for divider strips at the straight.

straight joint

- for the electrical and lengthwise connection of cable trays.
demand: 2 pieces for every straight

Fixing material	page
screw 17J6-B	263



U-form straight joint

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
100	173E13-A-100	0.17
200	173E13-A-200	0.24
300	173E13-A-300	0.30
400	173E13-A-400	0.36
500	173E13-A-500	0.42
600	173E13-A-600	0.48

incl. fixing screws

divider strip

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
3000	173W13-A	2.76

incl. 4 screws 17J6-B (M6x12)

joint for divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
97.5	173W13-V	0.03

straight joint

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
111	173E12-A	0.64

incl. 4 fixing screws 17J6-D

Stainless steel

Molded components for cable trays 110

17 3W15-...

17 3W17-B

extension tee 173W15-...-B corner 173W17-B

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height 110 mm - suitable for all tray widths from 100 mm to 600 mm - integrated joint with pre-perforated connection holes for an easy installation
Field of application	- to produce 90°-curves and 90°-junctions

Ordering information

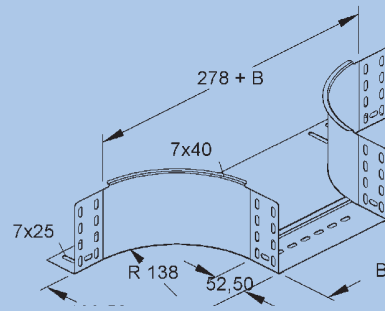
Fixing details

extension tee

- Cut out tray side (length of cut out = width of tee + 320mm)
- Deburr cut edges
- Using pliers, fold over tab ends of tray on both sides and clamp
- Use tee to fix on cutout and fasten it to tray sides with screws 17J6-B.
- Fasten floor plates with 3 screws 17J6-B.

corner

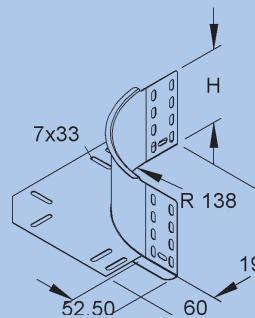
- Cut out inside of trays (length of cut out = width of tray + 145 mm).
- Deburr cut edges.
Fold over tab ends of trays and clamp.
- Place corner on the tray ends overlapping in the 90°-angle.
- Fasten tray sides with 2 screws 17J6-B.
- Fasten floors of corner and trays with screws 17J6-.



extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
100	173W15-100-B	0.89
200	173W15-200-B	1.08
300	173W15-300-B	1.19
400	173W15-400-B	1.54
500	173W15-500-B	1.72
600	173W15-600-B	1.91

incl. 10 screws 17J6-B



corner

Order No. stainl. steel	Weight (kg/pce)
173W17-B	0.42

incl. 6 screws 17J6-B

Fixing material	Page
screw 17J6-B	263

reducing joint 173W18-...
hinge piece 173E13-C

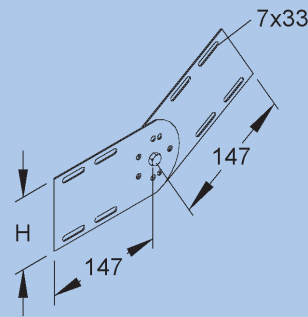
17 3W18-...
17 3E13-C

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- reducing joint side height 110 mm - hinge piece side height 93 mm - suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- reducing joint for connecting trays with different widths

Ordering information

Fixing details

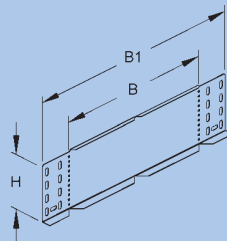
- reducing joint 173W18-100 and 173W18-300 to produce horizontal changes of direction.
- hinge piece 173E13-C to produce vertical bendable connections of staggered cable trays.



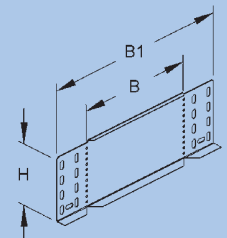
hinge piece

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
93	173E13-C	0.45

incl. 4 fixing screws M6x12



* additionally usable as bendable joint by a central bending edge.



reducing joint

Height H (mm)	Width B(mm)	Width B1(mm)	Order No. stainl. steel	Weight (kg/pce)
110	50	172	173W18-50	0.15
110*	100	222	173W18-100	0.21
110	200	322	173W18-200	0.31
110*	300	422	173W18-300	0.41
110	400	522	173W18-400	0.52
110	500	622	173W18-500	0.62
110	600	722	173W18-600	0.72

incl. 4 fixing screws M6x12

Stainless steel

Accessory for cable tray 100

17 ➔ W11-...

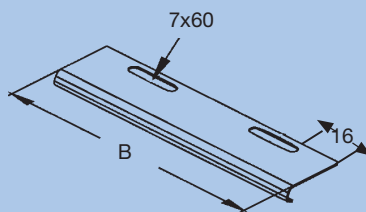
17 ➔ Y34-...

cable protecting plate 17W11-... mounting plate 17Y34-MP1

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 100 mm to 600 mm - delivery incl. fixing screws
Field of application	- cable protecting plate for protecting the cables in vertical curves - Mounting plate to mount distributor boxes or connection boxes

Ordering information

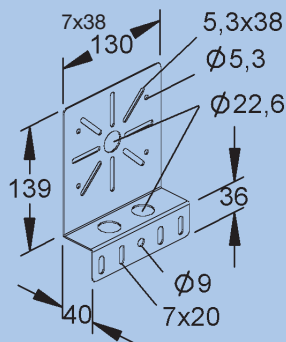
Fixing material	page
screw 17J6-B	263



cable protecting plate

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
100	17W11-100	0.05
200	17W11-200	0.10
300	17W11-300	0.15
400	17W11-400	0.20
500	17W11-500	0.25
600	17W11-600	0.30

incl. 2 screws 17J6-D (M6x16)



mounting plate

Order No. stainl. steel	Weight (kg/pce)
17Y34-MP1	0.31

incl. 2 screws 17J6-B (M6x12)

cover 17W12-...,
cover with locking device 17W12-...-R,
locking device 17N..., fixing clip 171W12-K, 173W12-K110
fixing spring 17W12-K

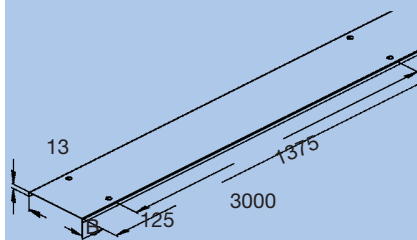
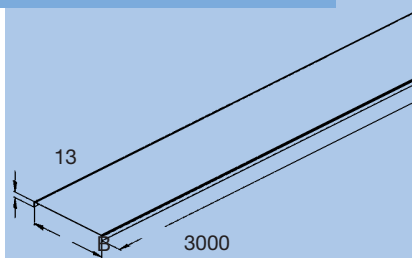
17 W12-...
18
17 N...

Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Supply length	- 3000 mm
Technical data	- suitable for all tray widths from 100 mm to 600 mm - deliverable with or without locking device
Field of application	- protection of cables

Ordering information

Fixing details

- Fix cover with fixing clip 171W12-K, 173W12-K110 or fixing spring 17W12-K
- The covers made of stainless steel V2A and V4A are all with locking devices made of material 1.4571 (V4A)



cover without locking device

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
100	17W12-100	2.85
200	17W12-200	5.25
300	17W12-300	7.70
400	17W12-400	10.10
500	17W12-500	12.50
600	17W12-600	14.90

cover with locking device for standard tray

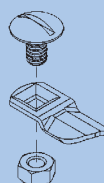
Width (mm)	Order No. stainl. steel (A2)	Order No. stainl. steel (A4)	Weight (kg/pce)
100	17W12-100-R	18W12-100-R	2.91
200	17W12-200-R	18W12-200-R	5.31
300	17W12-300-R	18W12-300-R	7.78
400	17W12-400-R	18W12-400-R	10.18
500	17W12-500-R	18W12-500-R	12.60
600	17W12-600-R	18W12-600-R	15.00

pre-mounted locking device 17N12-V



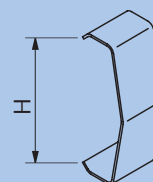
locking device for cover standard tray

Order No. stainl. steel	Weight (kg/pce)
17N12-V	0.02



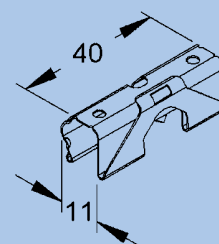
locking device for cover molded components

Order No. stainl. steel	Weight (kg/pce)
17N14-V	0.02



fixing clip

Height H (mm)	Order No. stainl. steel	Weight (kg/pce)
58	171W12-K	0.02
108	173W12-K110	0.03



fixing spring for cover cable trays

Order No. stainl. steel	Weight (kg/pce)
17W12-K	0.05

Stainless steel

Covers for molded components

17 W12-...

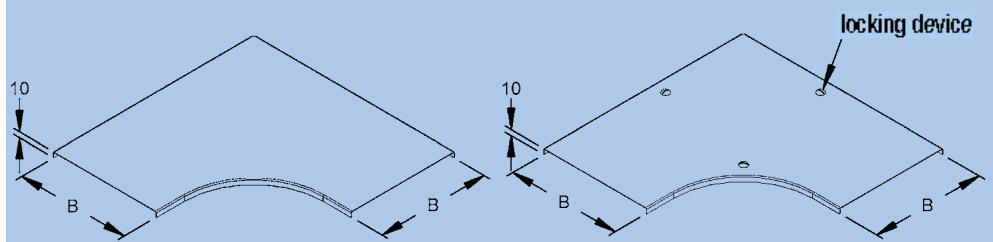
cover 17W12-...-B and 17W12-...-BR for bend
cover 17W12-...-T and 17W12-...-TR for extension tee

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- for all tray widths from 100 mm to 600 mm
Field of application	- protection of cables

Ordering information

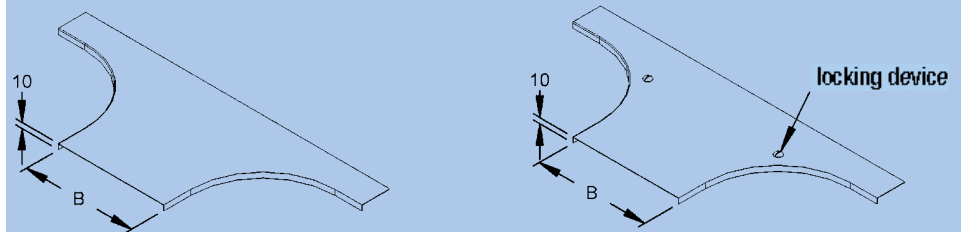
Fixing details

→ Fix covers with fixing clip 171W12-K/173W12-K110.



cover with locking device

Width (mm)	without locking		with locking	
	Order No. stainl. steel	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
100	17W12-100-B	0.40	17W12-100-BR	0.43
200	17W12-200-B	0.85	17W12-200-BR	0.87
300	17W12-300-B	1.42	17W12-300-BR	1.45
400	17W12-400-B	2.65	17W12-400-BR	2.68
500	17W12-500-B	3.69	17W12-500-BR	3.71
600	17W12-600-B	4.88	17W12-600-BR	4.90



cover for extension tee

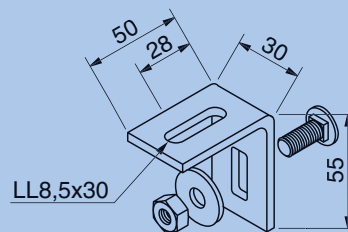
Width (mm)	without locking		with locking	
	Order No. stainl. steel	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
100	17W12-100-T	0.47	17W12-100-TR	0.49
200	17W12-200-T	0.66	17W12-200-TR	0.68
300	17W12-300-T	0.87	17W12-300-TR	0.89
400	17W12-400-T	1.04	17W12-400-TR	1.06
500	17W12-500-T	1.26	17W12-500-TR	1.28
600	17W12-600-T	1.42	17W12-600-TR	1.44

support corner 17U6-A, screw 17J6-P, 17J6-F

17 U6-A

Material	- stainless steel, material: 1.4301 (V2A)
Field of application	- support corner for fixing trays on brackets with vertical changes of direction

Ordering information



support corner

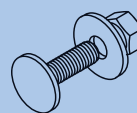
Order No.	Weight stainl. steel (kg/pce)
17U6-A	0.12

incl. 1 screw
17J6-S (M8x20)



accessory screw M8x16

Order No.	Weight stainl. steel (kg/pce)
17J6-P	0.02



accessory for installation on brackets (M6x20)

Order No.	Weight stainl. steel (kg/pce)
17J6-F	0.01

Stainless steel



Stainless steel

This chapter contains an overview of the RICO cable ladder system in stainless steel for various loads and applications subdivided into product families.

Table of contents

Page

Cable ladders

light design 60mm side height 171C1-...-L63 / 181C1-...-L63	278
---	-----

Molded components for cable ladders

bend: 171C2-...-A	280
expansion tee: 171C15-...	280
crossing: 171C20-...	281
corner 181C20-...-A	281

Jointing pieces for cable ladders

straight joint/ bendable joint/ high piece 171E11-.../ 181E11-...	282
screw: 17J6-P / 18J6-P	282
hold down clamp: 17J6-A / 18J6-A	282

Accessory for cable ladders

divider strip: 170C13-A	279
divider strip fixing clamp: 17C13-M	279
flat corner: 17C7-400-A	279
support corner: 17U6-A, screw: 17C8-Z	279
exit plate: 17C8-...-B	281
protective end cap (pair): 151J8-C	285
wall connection corner: 17J3-G / 18J3-G / 17J3-L	285

Covers

covers for ladders, with or without locking device: 17W12-...	283
covers for molded components: 17C12-...-A / 17C12-...-AR / 17C12-...-T / 17C12-...-TR	284

Accessory for covers

locking device: 17N12-V	283
fixing clip: 171W12-K	283

Stainless steel

Cable ladders

17
18
1C1-...-L63

cable ladder 171C1-...-L63 with side thickness 1.5 mm

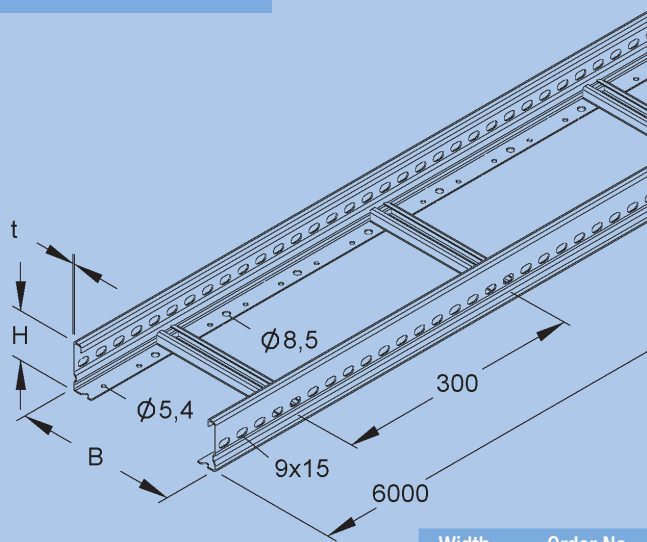
Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A), sides perforated
Supply length	- 6000 mm, 3000 mm deliverable on request - cable ladders are delivered folded to reduce transport volume
Technical data	- side height 60 mm, side thickness 1.5 mm - standard support width 1.5 m - rungs made of C-profile 25x15 perforated with slot 11 mm mounted open to topside.
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

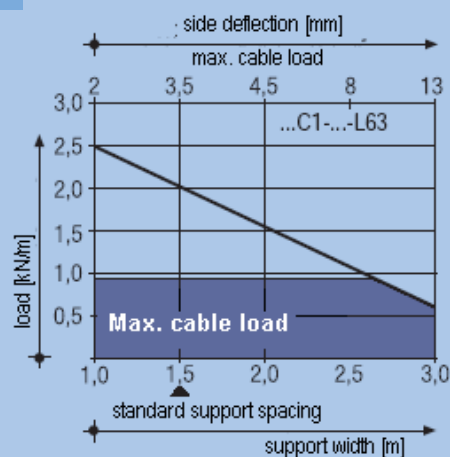
- Use hold down clamp 17J6-A / 18J6-A when fixing to brackets.
- Use bend 171C2-... to produce curves.
- Use extension tee 151C15-... / 161C15-... to produce junctions.
- Use jointing piece 171E11-... to connect trays.

Fixing material	page
hold down clamp 17J6-A/18J6-A	282
protective end cap for rung 15J8-S25	194



Width (mm)	Order No. stainl. steel (A2)	Order No. stainl. steel (A4)	Weight (kg/pce)
200	171C1-200-L63	181C1-200-L63	15.40
300	171C1-300-L63	181C1-300-L63	16.90
400	171C1-400-L63	181C1-400-L63	18.40
500	171C1-500-L63	181C1-500-L63	19.90
600	171C1-600-L63	181C1-600-L63	21.40

Load diagram



divider strip 170C13-A, support corner 17U6-A,
flat corner 17C7-400-A, fixing screws 17C8-Z,
divider strip fixing clamp 17C13-M

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 200 mm to 600 mm
Field of application	- divider strip for subdividing the cable ladders for different cable trays e. g. high voltage and low voltage current - support corner for fixing ladders on brackets with vertical change of direction - flat corner for later addition of exits without sawing

17 170C13-A

17 17U6-A

17 17C7-400-A

17 17C13-M

Ordering information

Fixing details

→ divider strip fixing clamp for fixing divider strips to cable ladders with rungs of 11 mm slot width.

divider strip

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
3000	170C13-A	1.50

incl. 4 fixing clips (17C13-M)

support corner

Order No. stainl. steel	Weight (kg/pce)
17U6-A	0.12

incl. 1 screw 17J6-S (M8x20)

divider strip fixing clamp

Order No. stainl. steel	Weight (kg/pce)
17C13-M	0.03

flat corner

Radius (mm)	Order No. stainl. steel	Weight (kg/pce)
400	17C7-400-A	0.90

incl. 4 screws 17C8-Z

fixing screw M6x20

Order No. stainl. steel	Weight (kg/pce)
17C8-Z	0.015

Stainless steel

Molded components for cable ladders

17 1C2-...-A

17 1C15-...

bend 171C2-...-A, extension tee 171C15-...

Material	- stainless steel, material: 1.4301 (V2A), sides perforated
Technical data	- side height 60 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- bend to produce horizontal 90°-curves - extension tee to produce 90°-junctions

Ordering information

Fixing details

bend

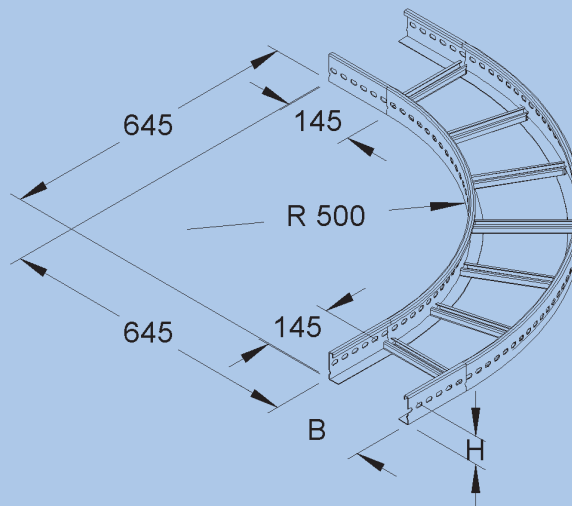
→ Connect sides of bend and ladder with straight joint 171E11-A and screws 17J6-P.

extension tee

- Cut out ladder sides. (width of extension tee + 1280 mm).
- Bore out the rung's rivets and separate with chisel.
- insert extension tee.
- Connect sides of tee and ladder with straight joint 171E11-A and screws 17J6-P.

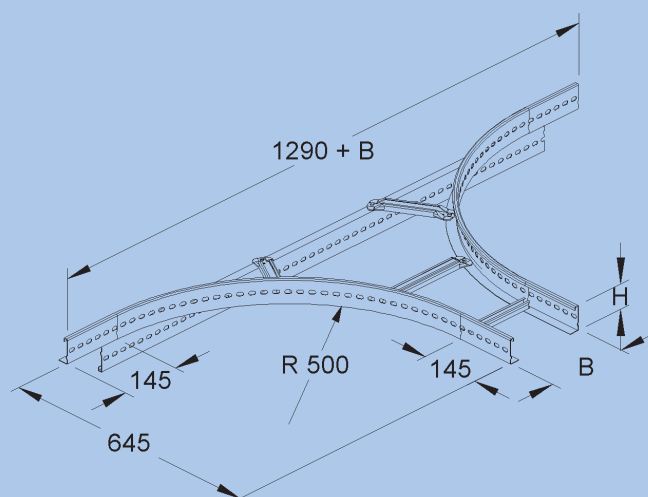
→ Fasten loose rungs of ladders with fixing screws at support side of the extension tee.

Fixing material	page
screw 17J6-P	282



Bogen

Breite (mm)	Bestell-Nr. Edelstahl	Gewicht (kg/St.)
200	171C2-200-A	4,10
300	171C2-300-A	4,70
400	171C2-400-A	5,40
500	171C2-500-A	5,90
600	171C2-600-A	6,50



extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	171C15-200	5.39
300	171C15-300	5.64
400	171C15-400	6.01
500	171C15-500	6.39
600	171C15-600	6.79

incl. 8 screws 17J6-B (M6x12)

crossing 171C20-...,
exit plate 17C8-...-B
corner 181C20-...-A

Material

Technical data

Field of application

- stainless steel, material: 1.4301 (V2A) and 1.4571 (V4A)
- suitable for all ladder widths from 200 mm to 600 mm
- crossing to produce horizontal 90° junctions
- exit plate for protecting the cables in vertical cable bends

17 → 1C20-...

17 → C8-...-B

18 → 1C20-...-A

Ordering information

Fixing details

crossing

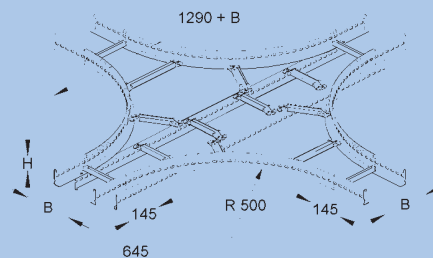
- Connect sides of crossing and ladders with straight joint 171E11-A and screws 17J6-P.

Befestigungsmaterial

Seite

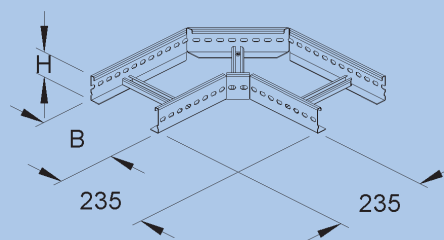
Schraube 17J6-P

282



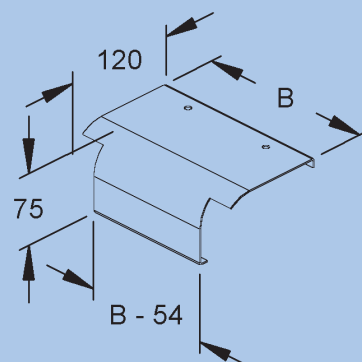
crossing

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	171C20-200	7.60
300	171C20-300	8.80
400	171C20-400	10.00
500	171C20-500	10.80
600	171C20-600	12.20



corner

Width (mm)	Order No. stainl. steel A4	Weight (kg/pce)
200	181C20-200-A	1.80
300	181C20-300-A	2.20
400	181C20-400-A	2.70



exit plate

Width (mm)	Order No. stanil. steel	Weight (kg/pce)
190	17C8-200-B	0.51
290	17C8-300-B	0.82
390	17C8-400-B	1.06
490	17C8-500-B	1.41
590	17C8-600-B	1.72

incl. 2 fixing screws

Joining pieces for cable ladders

17
18
1E11-...

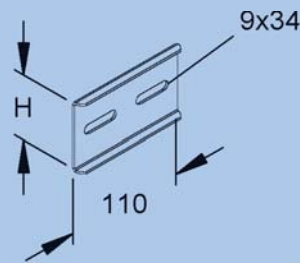
Joining pieces 171E11-... / 181E11-... screw 17J6-P, hold down clamp 17J6-A / 18J6-A

Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Technical data	- side height H = 60 mm - suitable for all ladder widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- to produce straight, angular, upward or downward ladder connections

Ordering information

Fixing details

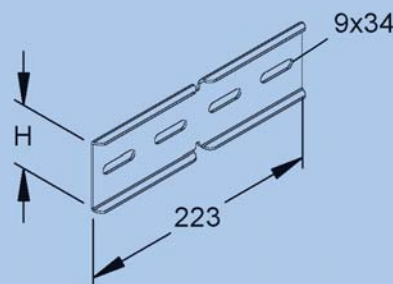
- Mount joining pieces to or push it into ladder ends.
- Fasten joining pieces and ladder side with 2 screws 17J6-P / 18J6-P.



straight joint

Order No. stainl. steel A2	Order No. stainl. steel	Weight (kg/pce)
171E11-A	181E11-A	0.14

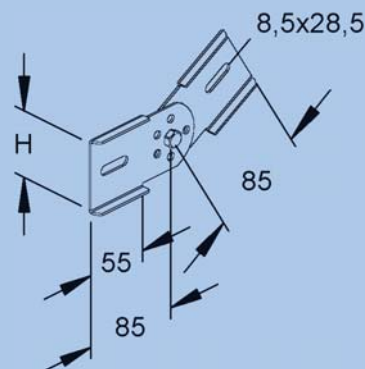
incl. 2 screws 17J6-P / 18J6-P (M8x16)



bendable joint

Order No. stainl. steel A2	Order No. stainl. steel A4	Weight (kg/pce)
171E11-B	181E11-B	0.33

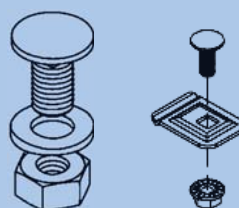
incl. 2 screws 17J6-P / 18J6-P (M8x16)



hinge piece

Order No. stainl. steel A2	Order No. stainl. steel A4	Weight (kg/pce)
171E11-C	181E11-C	0.31

incl. 2 screw 17J6-P / 18J6-P (M8x16)



mounting accessory

	Order No. stainl. steel	Weight (kg/pce)
screw	17J6-P	0.02
	18J6-P	0.02
hold down clamp	17J6-A	0.02
	18J6-A	0.02

cover 17W12-... for cable ladders, locking device 17N12-V, fixing clip 171W12-K

17 W12-...

17 N12-V

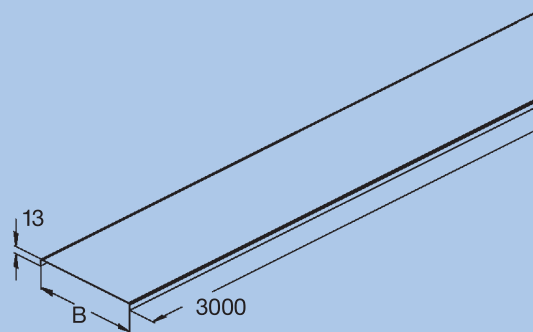
17 1W12-K

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- for cable ladders - for all ladder widths from 200 mm to 600 mm - deliverable with or without locking device
Field of application	- protection of cables

Ordering information

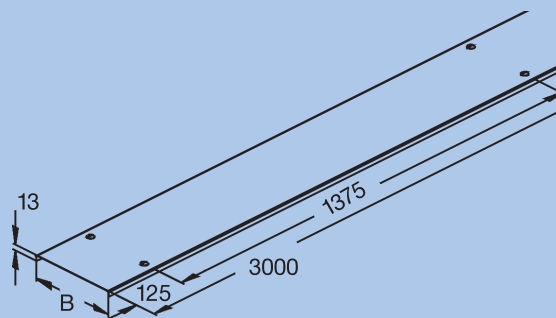
Fixing details

→ Fix covers with fixing clips
171W12-K.



cover without locking device

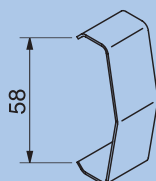
Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	17W12-200	5.25
300	17W12-300	7.70
400	17W12-400	10.10
500	17W12-500	12.50
600	17W12-600	14.90



cover with locking device
(pre-perforated)

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	17W12-200-R	5.31
300	17W12-300-R	7.78
400	17W12-400-R	10.18
500	17W12-500-R	12.60
600	17W12-600-R	15.00

premounted locking device 17N12-V



fixing clip

Order No. stainl. steel	Weight (kg/pce)
171W12-K	0.02



locking device

Order No. stainl. steel	Weight (kg/pce)
17N12-V	0.02

Stainless steel

Covers for molded components

17 C12-...

cover 17C12-...-A, 17C12-...-AR for bend,
cover 17C12-...-T, 17C12-...-TR for extension tee

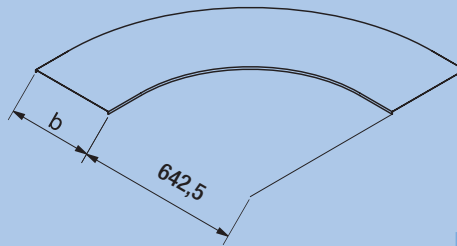
Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- for all ladder widths from 200 mm to 600 mm
Field of application	- protection of cables

Ordering information

Fixing details

→ Fix covers with locking devices 17N12-V or with fixing clips 171W12-K.

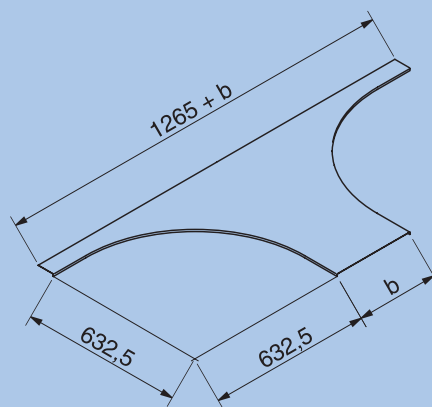
Fixing material	page
fixing clip 171W12-K	283
locking device 17N12-V	283



cover for bend

Width (mm)	without locking device		with locking device (preperforated)	
	Order No. stainl. steel	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
200	17C12-200-A	2.10	17C12-200-AR	2.14
300	17C12-300-A	3.27	17C12-300-AR	3.31
400	17C12-400-A	4.55	17C12-400-AR	4.59
500	17C12-500-A	6.02	17C12-500-AR	6.06
600	17C12-600-A	7.50	17C12-600-AR	7.54

incl. 4 locking devices 17N-12V (are not premounted)



cover for extension tee

Width (mm)	without locking device		with locking device (preperforated)	
	Order No. stainl. steel	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
200	17C12-200-T	2,72	17C12-200-TR	2,76
300	17C12-300-T	3,27	17C12-300-TR	3,31
400	17C12-400-T	3,82	17C12-400-TR	3,86
500	17C12-500-T	4,37	17C12-500-TR	4,41
600	17C12-600-T	4,92	17C12-600-TR	4,96

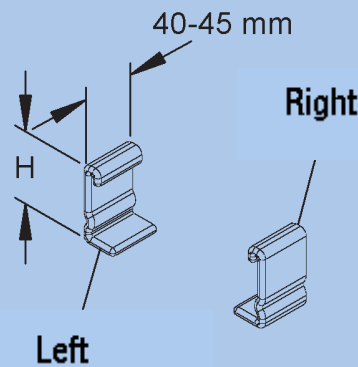
incl. 4 locking devices 17N-12V (are not premounted)

protective end cap for ladder 151J8-C, wall connection corner 17J3-G / 18J3-G / 17J3-L

15 → 1J8-...

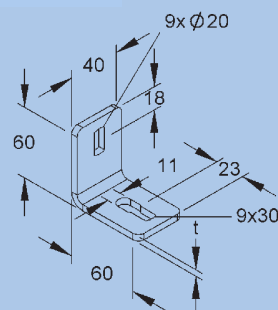
Material	<ul style="list-style-type: none"> - stainless steel, material: 1.4301 (V2A), or 1.4571 (V4A) - protective end cap made of plastic
Field of application	<ul style="list-style-type: none"> - protective end cap for covering the cable ladder ends with 60 mm side height - wall connection corner for installation to floors, ceilings and walls

Ordering information



protective end caps (pair)

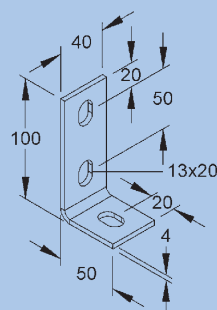
Height (mm)	Order No. plastic	Weight (kg/pce)
60	151J8-C	0.05



wall connection corner symmetric

Mat.-thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
4	17J3-G	0.21
4	18J3-G	0.21

incl. fixing screws



wall connection corner asymmetric

Mat.-thickness t (mm)	Order No. stainl. steel	Weight (kg/pce)
4	17J3-L	0.19

incl. fixing screws

stainless steel



Stainless steel

This chapter contains an overview of the RICO vertical cable ladders in stainless steel for various loads and conditions subdivided into product families.

Table of contents

Page

Vertical cable ladders

vertical cable ladder, ready-made: 171L1-...-63 / 181L1-...-63	288
vertical cable ladder, ready made: 171L1-...-66 / 181L1-...-66	288
vertical cable ladder, ready made: 171L1-...-C63 / 171L1-...-C66	289
vertical cable ladder kit: 171L03-...-C	291

Vertical cable ladders components

U-profile 60x40: 17A7-4500	292
C-rung 40x22: 17L12-...-C	292

Accessory for vertical cable ladders

straight joint: 171E11-A / 181E11-A	290
wall connection corner: 17J3-G / 18J3-G / 17J3-L	290
straight joint: 17J5-F	291
anchor corner: 17J3-D	291

Stainless steel

Vertical cable ladders



1.0
kN/m
max. load



17
18
1L1-...

vertical cable ladder 171L1-...-6.. / 181L1-...-6..

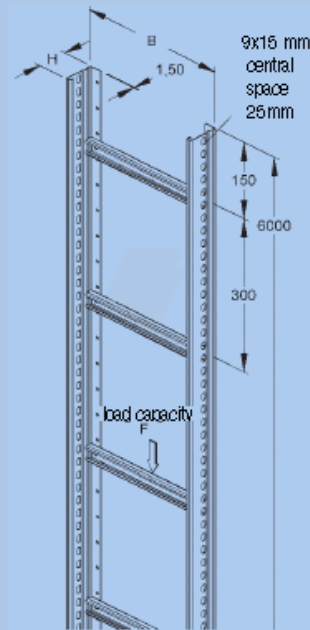
Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Supply length	- 6000 mm
Technical data	- side height H = 60 mm, material thickness 1.5 mm - Standard design, riveted ready to install - rungs made of C-profile 30x15 rung spacing 300 mm and 600 mm
Field of application	- for wall mounting - Covers for vertical cable ladders on request

Ordering information

Fixing details

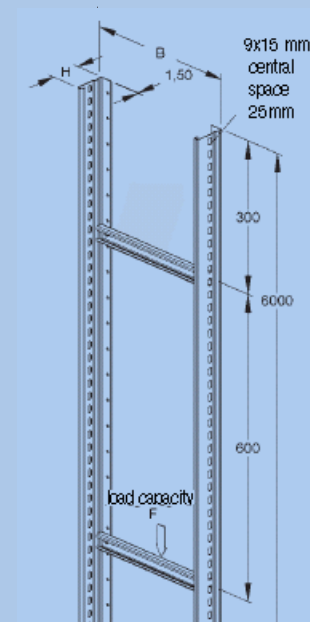
- Connect sides with straight joint 171E11-A / 181E11-A.
- Fix vertical cable ladders to walls with connection angle 17J3-G / 18J3-G / 17J3-L .
- Use steel expansion bolt 18J1-FAZ-0810 for fixing.

Fixing material	page
straight joint 171E11-A / 181E11-A	290
connection angle 17J3-G / 18J3-G, 17J3-L	290
steel expansion bolt 18J1-...	180



vertical cable ladder, assembled with rungs of C-profile 30x15, perforated, rung spacing 300 mm, Supply length 6000 mm

Width (mm)	Order No. stainl. steel A2	Weight (kg/pce)	Order No. stainl. steel A4	Weight (kg/pce)
200	171L1-200-63	16.20	181L1-200-63	16.38
300	171L1-300-63	17.76	181L1-300-63	17.88
400	171L1-400-63	19.26	181L1-400-63	19.50
500	171L1-500-63	20.76	181L1-500-63	21.00
600	171L1-600-63	22.26	181L1-600-63	22.62



vertical cable ladder, assembled with rungs of C-profile 30x15 perforated, rung spacing 600 mm, suppla length 6000 mm

Width (mm)	Order No. stainl. steel A2	Weight (kg/pce)	Order No. stainl. steel A4	Weight (kg/pce)
200	171L1-200-66	14.76	181L1-200-66	15.00
300	171L1-300-66	15.60	181L1-300-66	15.72
400	171L1-400-66	16.26	181L1-400-66	16.50
500	171L1-500-66	17.10	181L1-500-66	17.28
600	171L1-600-66	17.76	181L1-600-66	18.12

vertical cable ladder 171L1-...-C6..

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 6000 mm
Technical data	- side height H = 60 mm, material thickness 2.0 mm - Standard design, riveted ready to install - rungs made of C-profile 40x22 rung spacing 300 mm and 600 mm
Field of application	- for wall mounting - covers for vertical cable ladders on request



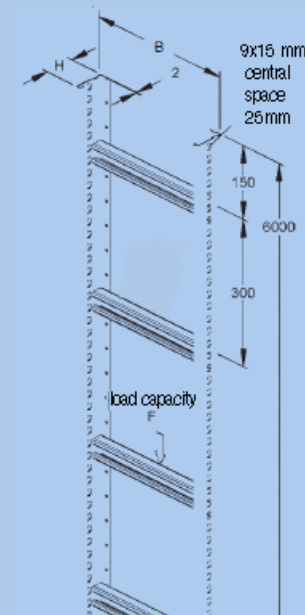
17 1L1-...-C...

Ordering information

Fixing details

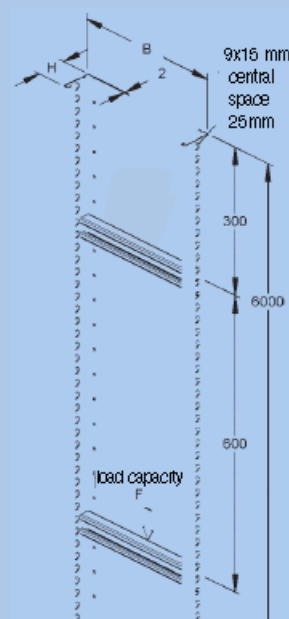
- Connect sides with straight joint 171E11-A .
- Fix vertical cable ladders to walls with connection angle 17J3-G / 17J3-L.
- Use steel expansion bolt 18J1-FAZ-0810 for fixing.

Fixing material	page
straight joint 171E11-A	290
rungs 40x22 17L12-...-C	292
connection angle 17J3-G / 17J3-L	290
steel expansion bolt 18J1-...	180vW



vertical cable ladder, assembled with rungs of C-profile 40x22 perforated, rung spacing 300 mm, supply length 6000 mm

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	171L1-200-C63	23.46
300	171L1-300-C63	26.70
400	171L1-400-C63	28.08
500	171L1-500-C63	33.06
600	171L1-600-C63	36.30



vertical cable ladder, assembled with rungs of C-profile 40x22, perforated, rung spacing 600 mm, supply length 6000 mm

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	171L1-200-C66	20.46
300	171L1-300-C66	22.08
400	171L1-400-C66	23.70
500	171L1-500-C66	25.26
600	171L1-600-C66	26.88

Stainless steel

17
18
1E11-A

17
18
J3-...

straight joint 171E11-A / 181E11-A wall connection corner 17J3-G/18J3-G/17J3-L

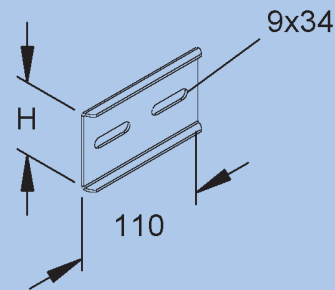
Material	- stainless steel, material: 1.4301 (V2A) or 1.4571 (V4A)
Technical data	- for side height H = 60 mm - delivery incl. fixing screws
Field of application	- straight joint to produce straight vertical cable ladder connections - wall connection corner for installation to floors, ceilings or walls

Ordering information

Fixing details

- Put on or push in straight joint on vertical cable ladder ends.
- Screw the straight joint and the sides of the vertical cable ladder with 2 screws 17J6-P / 18J6-P.

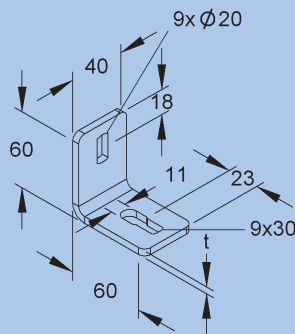
Fixing material	page
screw 17J6-P / 18J6-P	282



straight joint

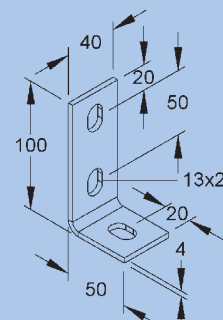
Order No.	Weight	Order No.	Weight
stainl. steel A2	(kg/pce)	stainl. steel A4	(kg/pce)
171E11-A	0.14	181E11-A	0.14

incl. 2 screws 17J6-P (M8x16) / 18J6-P



wall connection corner

Mat.-thickness	Order No.	Weight
t (mm)	stainl. steel	(kg/pce)
4	17J3-G	0.21
4	18J3-G	0.21



wall connection corner

Mat.-thickness	Order No.	Weight
t (mm)	stainl. steel A4	(kg/pce)
4	17J3-L	0.19

vertical cable ladder kit 171L03-...-C, straight joint 17J5-F, anchor corner 17J3-D

1.75
kN/m
max. load

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 4500 mm
Technical data	- heavy design, only as kit available - sides of U-profile 60x40, rungs of C-profile 40x22 - rung spacing 500 mm (other rung spacings possible)
Field of application	- wall mounting - free standing arrangement in spaces up to 4.5 m height - covers for vertical cable ladders on request

17 1L03-...-C

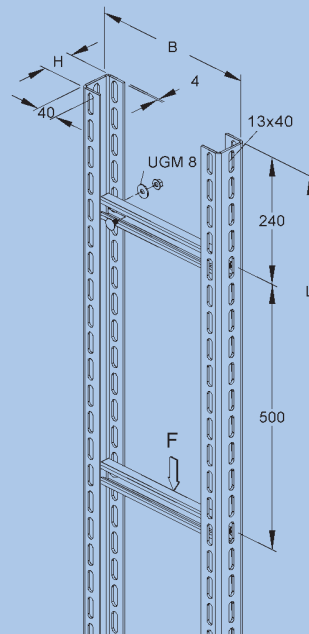
17 J...

Ordering information

Fixing details

- Connect vertical cable ladders with straight joint 17J5-F.
- Add single rungs 17L12-...-C (40x22) in orders for changed rung spacing.
- Fix vertical cable ladders with anchor corner 17J3-D or head plate 17A8-40 to walls, floors or ceilings.
- Use steel expansion bolts 18J1-... for fixing.

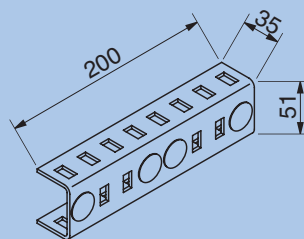
Fixing material	page
rungs 40x22	292
17L12-...-C	
steel expansion bolts 18J1-...	180
screw 17J6-P	282
screw 17J6-1025	236
head plate 17A8-40	231



vertical cable ladder, kit with C-rungs 40x22, perforated

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
215	171L03-200-C	31.77
315	171L03-300-C	33.03
415	171L03-400-C	34.29
515	171L03-500-C	35.64
615	171L03-600-C	36.99
715	171L03-700-C	38.07
815	171L03-800-C	39.60
915	171L03-900-C	41.31
1015	171L03-1000-C	42.03
1115	171L03-1100-C	44.82
1215	171L03-1200-C	45.00

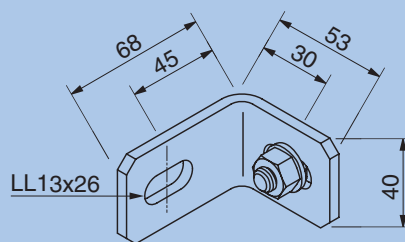
incl. fixing screws 17J6-P



straight joint

Order No. stainl. steel	Weight (kg/pce)
17J5-F	0.42

incl. fixing screw
17J6-1025 (M10x25)



anchor corner

Order No. stainl. steel	Weight (kg/pce)
17J3-D	0.15

incl. 1 screw
17J6-1025 (M10x25)

Stainless steel

Vertical cable ladder components



max. load

17 A7-4500

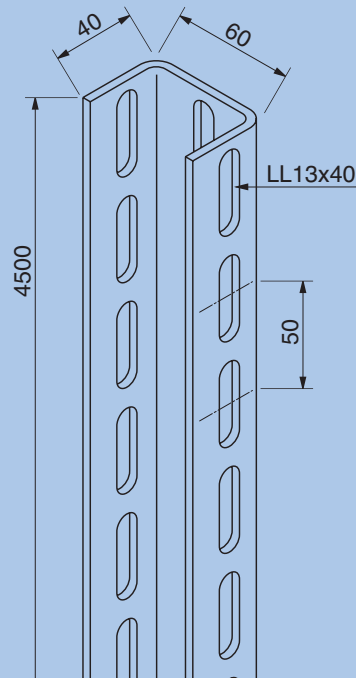
17 L12-...-C

U-profile 17A7-4500, C-rung 17L12-...-C

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- heavy design - sides of U-profile 60x40, rungs of C-profile 40x22 - rungs incl. fixing screws
Field of application	- to produce vertical cable ladders like 171L03-...-C - wall mounting - free standing arrangement in rooms up to 4.5 m height

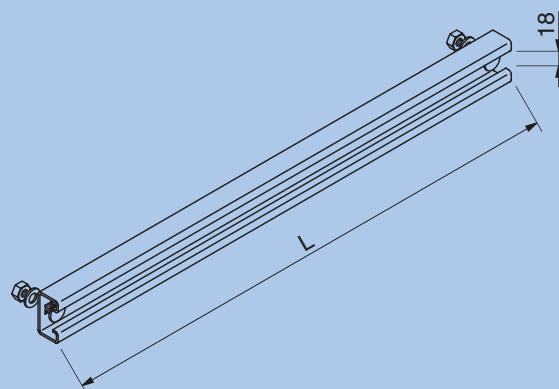
Ordering information

Fixing material	page
straight joint 17J5-F	291
anchor corner 17J3-D	291
screw 17J6-P	282



U-profile 60x40

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
4500	17A7-4500	14.40



C-rung 40x22, perforated

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
200	17L12-200-C	0.30
300	17L12-300-C	0.45
400	17L12-400-C	0.60
500	17L12-500-C	0.75
600	17L12-600-C	0.90
700	17L12-700-C	1.05
800	17L12-800-C	1.20
900	17L12-900-C	1.35
1000	17L12-1000-C	1.50
1100	17L12-1100-C	1.65
1200	17L12-1200-C	1.80

incl. 2 screws 17J6-P (M8x16)



Stainless steel



Stainless steel

This chapter contains an overview of the RICO wide span cable tray system in stainless steel for various loads and applications subdivided into product families.

Table of contents

Page

Wide span cable tray	
Standard design, perforated 105mm side height: 173Y2-...	296
Standard design, perforated 150mm side height: 174Y2-...-N	301
Molded components for wide span cable trays	
bend, 105mm side height: 173Y3-...	299
extension tee, 105mm side height: 173Y15-...	299
corner, 105mm side height: 173W17-BW	300
tee, 105mm side height: 173Y4-...	300
crossing, 105mm side height: 173Y20-...	300
bend, 150mm side height: 174Y3-...	304
extension tee, 150mm side height: 174Y3-...	304
corner, 150mm side height: 174W17-BW	305
tee, 150mm side height: 174Y4-...	305
crossing, 150mm side height: 174Y20-...	305
Jointing piece for wide span cable tray	
straight joint / bendable joint / hinge piece 105mm: 173C9-...	297
joint cover plate: 17W8-...	297 / 306
straight joint / bendable joint / hinge piece 150mm: 174C9-...	302
Accessory for wide span cable tray	
cable protecting plate: 17W11-...	298 / 306
divider strip for side height 105mm: 172W13-A	298
divider strip for side height 105mm: 172W13-V	298
divider strip fixing clamp: 17C13-K	298 / 303
divider strip for side height 150mm: 173W13-A	303
divider strip for side height 150mm: 173W13-V	303
mounting plate: 17Y34-MP1	306
Covers for wide span cable tray	
covers: 17W12-...-RW	320
locking device: 17N13-V	320
fixing clip: 173W12-KW	320

Stainless steel

Wide span cable tray 105

17 → 3Y2-...

wide span cable tray 173Y2-..., perforated

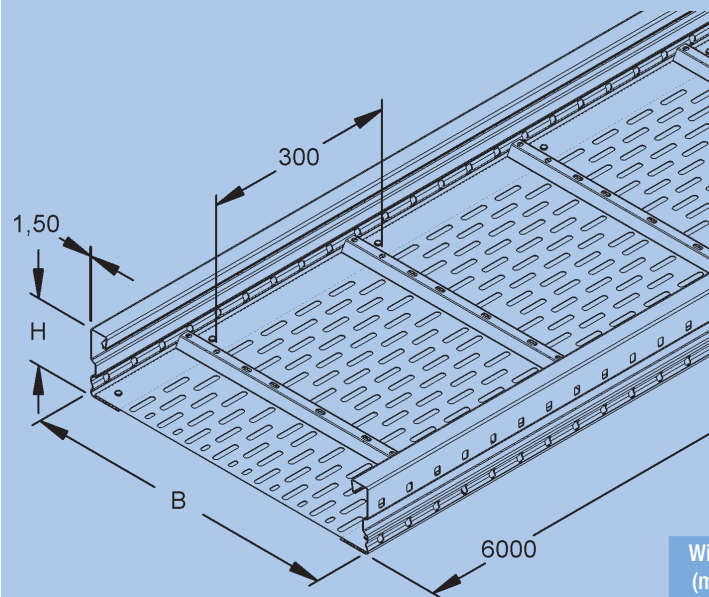
Material	- stainless steel, material: 1.4301 (V2A), perforated
Supply length	- 6000 mm
Technical data	- side height H=105 mm, side thickness 1.5 mm, support width max. 7 m - continuous perforation of the sides for jointing pieces - suitable for high loads under large support spacing - high degree of cross stability
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

- Use screws 17J6-P for fixing to brackets.
- Use bend 173Y3-... to produce curves.
- Use extension tee 173Y15-... tee 173Y4-... to produce junctions.
- Use joint 173C9-... to connect trays.

Fixing material	page
screw 17J6-P	282
protective end cap for crimp 15J8-WSR	194



Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173Y2-200	38.60
300	173Y2-300	42.50
400	173Y2-400	46.40
500	173Y2-500	50.30
600	173Y2-600	54.60

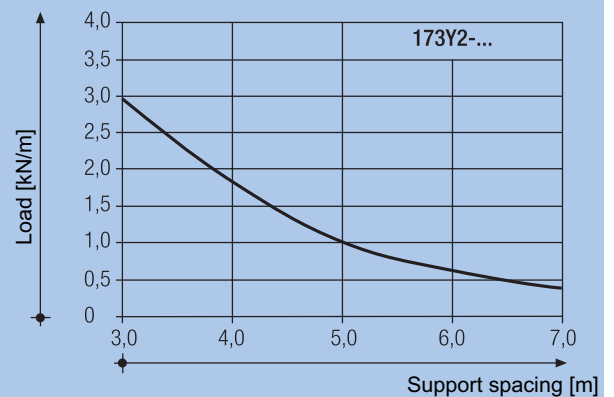
Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements!

Statisches System

4 Felder (L) + 2 verkürzte Endfelder (0,8 x L)



Joining pieces 173C9-..., joint cover plate 17W8-...

17 → 3C9-...

17 → W8-...

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H=105 mm - suitable for all tray widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- to produce straight, bendable, upward or downward trays - joint cover plate for a better stability of wide span cable trays

Ordering information

Fixing details

- Mount joining pieces to or push it into tray ends.
- Fasten joining pieces and tray sides with screws 17J6-P.

straight joint

- Cover cutting edge on straight joint with joint cover plate 17W8-...

bendable joint

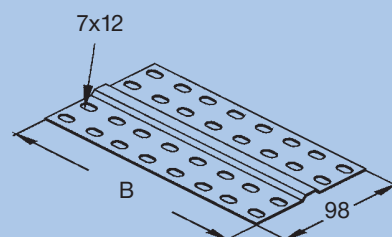
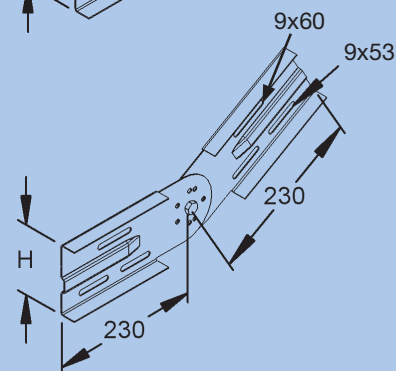
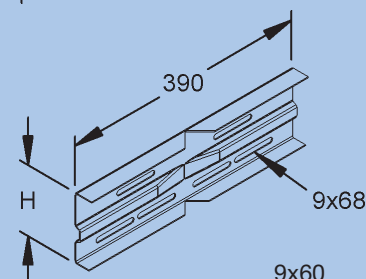
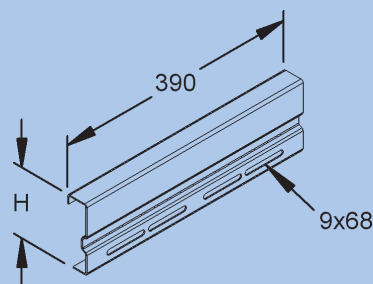
- Make a mitre cut for large changes of direction (max. 90°).

hinge piece

- Insert cable protecting plate 15W11-... / 16W11-... at upper break point.
- Cover cut edge with edge protection 15V13-A.

joint cover plate

- Place joint cover plate 17W8-... on the tray connection and fasten clamping lugs.



Fixing material	page
screw 17J6-P	282
edge protection 15V13-A	90
edge protection 18V13-A	90

straight joint

Order No.	Weight stainl. steel (kg/pce)
173C9-A	0.80

incl. 4 screws
17J6-P (M8x16)

bendable joint

Order No.	Weight stainl. steel (kg/pce)
173C9-B	0.93

incl. 6 screws
17J6-P (M8x16)

hinge piece

Order No.	Weight stainl. steel (kg/pce)
173C9-C	1.00

incl. 6 screws
17J6-P (M8x16)

joint cover plate

Width (mm)	Order No.	Weight stainl. steel (kg/pce)
189	17W8-200	0.13
289	17W8-300	0.20
389	17W8-400	0.27
489	17W8-500	0.34
589	17W8-600	0.41

incl. fixing screws
17J6-D

Stainless steel

Accessory for wide span cable tray 105

17 2W13-...

17 W11-...

17 C13-K

cable protecting plate 17W11-..., divider strip 172W13-A joint for divider strip 172W13-V, divider strip fixing clamp 17C13-K

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- cable protecting plate for protecting cables at upward or downward connection of trays. - divider strip for subdividing the cable trays for different cable types, e.g. high voltage and low voltage

Ordering information

Fixing details

divider strip

→ Continuously perforated fold grants a stepless installation

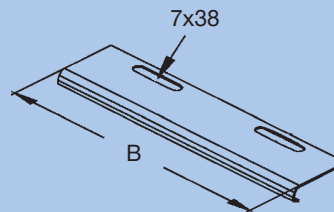
joint for divider strip

→ for the mechanical, electrical and lengthwise connection of the divider strip.

→ The connection of the divider strip effects by clip in of the joints for divider strips at the straight.

divider strip fixing clamp

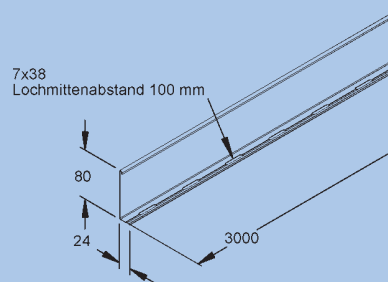
→ for fixing divider strips in trapezoidal crimps of the wide span trays and of wide span ladders with rungs with slots of 16 mm.



cable protecting plate

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
190	17W11-200	0.10
290	17W11-300	0.15
390	17W11-400	0.20
490	17W11-500	0.25
590	17W11-600	0.31

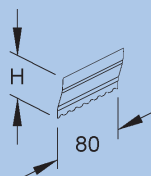
incl. 2 screws 17J6-D (M6x16)



divider strip

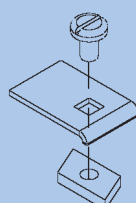
Mat.-thickness t (mm)	Length (mm)	Order No. stainl. steel	Weight (kg/pce)
0.9	3000	172W13-A	2.75

incl. 4 screws 17J6-D (M6x16)



divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
79.5	172W13-V	0.02



divider strip fixing clamp

Order No. stainl. steel	Weight (kg/pce)
17C13-K	0.05

bend 173Y3-..., extension tee 173Y15-...

17 3Y3-...

17 3Y15-...

Material	- stainless steel, material: 1.4301 (V2A), perforated
Technical data	- side height 105 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	- bend to produce horizontal 90° curves - extension tee to produce horizontal 90° junctions

Ordering information

Fixing details

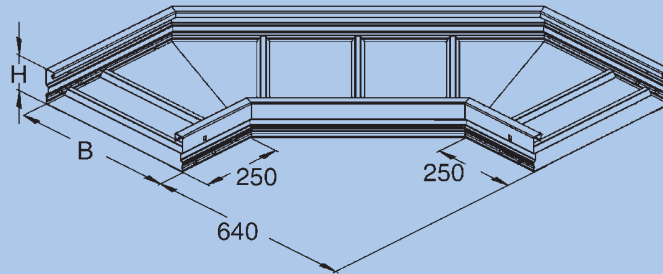
tray bend

- Connect sides of bend and tray with straight joint 173C9-A.
- Fasten sides and jointing pieces with screws 17J6-P.

extension tee

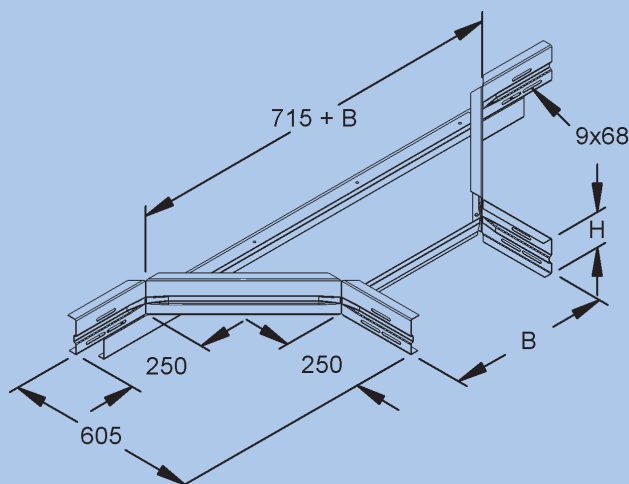
- Draw in width of extension tee + 715 mm), bore out rivet, separate with chisel or similar tool.
- Cut out tray side.
- Insert the extension tee into the cut section.
- Fasten the extension tee with screws 17J6-P on the disengaged side ends.

Fixing material	page
screw 17J6-P	282



bend

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173Y3-200	8.20
300	173Y3-300	9.70
400	173Y3-400	11.50
500	173Y3-500	13.50
600	173Y3-600	15.30



extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
205	173Y15-200	9.70
305	173Y15-300	10.30
405	173Y15-400	10.90
505	173Y15-500	11.50
605	173Y15-600	12.10

incl. 12 screws 17J6-P (M8x16)

Stainless steel

Molded components for wide span cable tray 105

17 → 3W17-BW

17 → 3Y4-...

17 → 3Y20-...

corner 173W17-BW, tee 173Y4-..., crossing 173Y20-...

Material	- stainless steel, material: 1.4301 (V2A), perforated
Technical data	- side height 105 mm geeignet für alle Rinnenbreiten von 200 mm bis 600 mm
Field of application	- tee to produce horizontal 90° curves. - crossings to produce horizontal 90° junctions.

Ordering information

Fixing details

corner

- Cut out tray inner sides (length of cut out = tray width + 355 mm).
- Shorten ground plates, that there are no beads in the area of the overlapping cable tray grounds.
- Deburr cut edges.
- Put on the corner on the overlapping 90° corners tray ends.
- Fasten trays lateral with 2 screws 17J6-P.
- Fasten grounds of the corners and trays with screws 17J6-P.

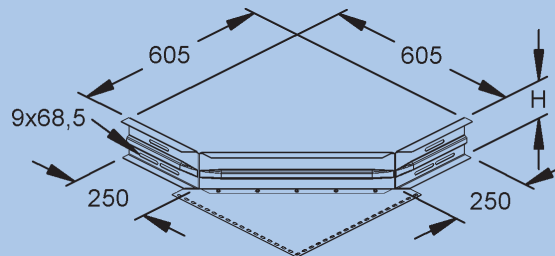
tee

- Connect sides of tee and tray with straight joints 173C9-A.
- Fasten sides and jointing piece with screws 17J6-P.

crossing

- Connect sides of crossing and tray with straight joints 173C9-A.
- Fasten sides and jointing pieces with screws 17J6-P.

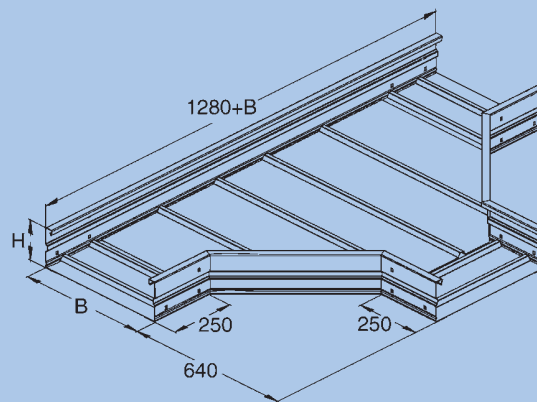
Fixing material	page
screw 17J6-P	282



corner

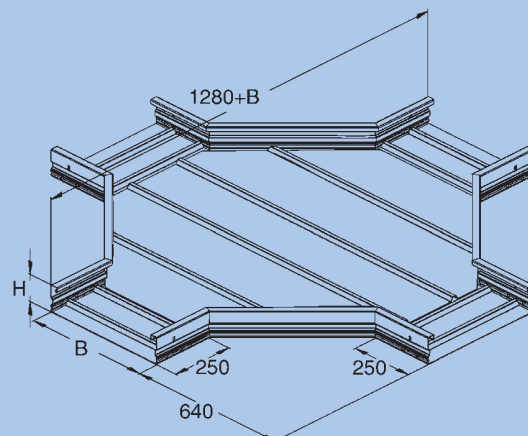
Height (mm)	Order No. stainl. steel	Weight (kg/pce)
106,5	173W17-BW	3.20

incl. 6 screws 17J6-P (M8x16)



tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173Y4-200	15.80
300	173Y4-300	17.90
400	173Y4-400	20.30
500	173Y4-500	22.70
600	173Y4-600	25.40



crossing

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173Y20-200	21.60
300	173Y20-300	24.00
400	173Y20-400	26.50
500	173Y20-500	29.20
600	173Y20-600	32.10

17 4Y2-...-N

wide span cable tray 174Y2-...-N , perforated with sheet thickness 1.5 mm

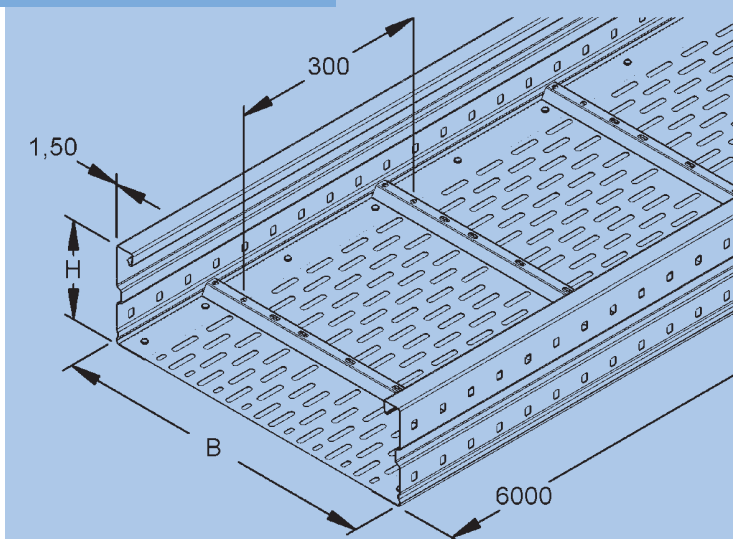
Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 6000 mm
Technical data	- side height H = 150 mm, support width max. 8.0 m - continuous side perforation for connecting parts - suitable for high loads under large support spacings - high degree of cross stability
Field of application	- installation on consoles

Ordering information

Fixing details

- Use accessories 17J6-P when fixing to consoles.
- Use bend 174Y3-... to produce curves.
- Use extension tee 174Y15-... or tee 174Y4-... to produce junctions.
- Use jointing piece 174C9-... to connect trays.

Fixing material	page
accessory 17J6-P	282
protective end cap for crimp 15J8-WSR	194



Width (mm)	Order No. cont. hot galv.	Weight (kg/pce)
200	174Y2-200-N	45.00
300	174Y2-300-N	48.90
400	174Y2-400-N	52.80
500	174Y2-500-N	56.70
600	174Y2-600-N	60.60

Stainless steel

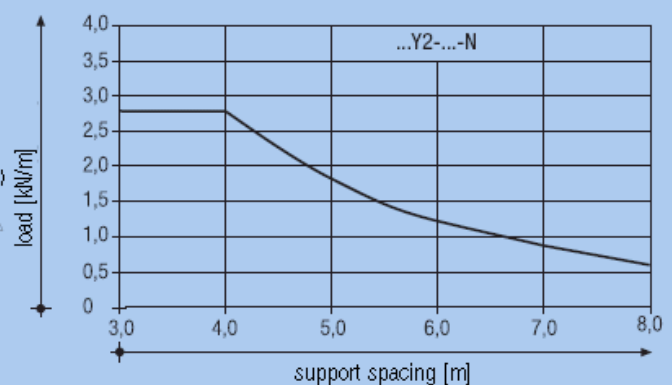
Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements.

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



Stainless steel

Joining pieces for wide span tray 150

17 4C9-...

joining pieces 174C9-...

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H=150 mm - suitable for all tray widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- to produce straight, angular, upward or downwards tray connections

Ordering information

Fixing details

- Mount joining pieces to or push it into tray ends.
- Fasten joining piece and tray with 4 screws 17J6-P.

straight joint

- Cover cut edges on straight with joint cover plate 17W8-...

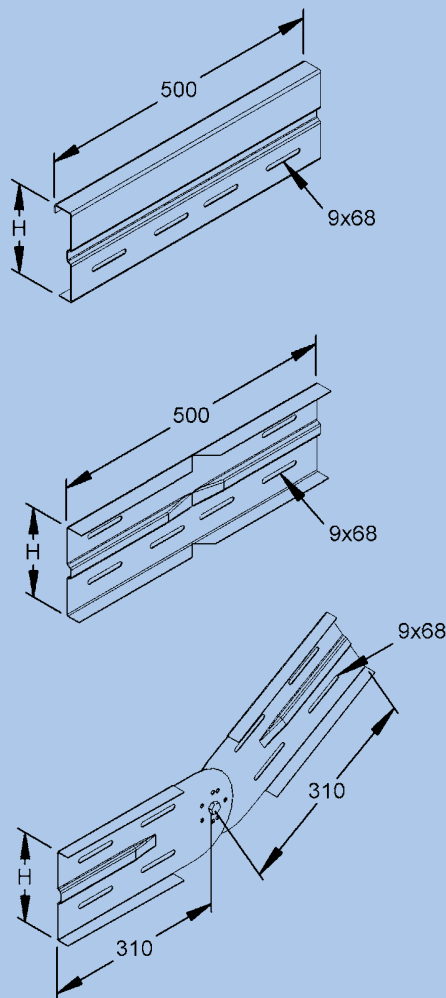
bendable joint

- Make a mitre cut for large changes of direction (max. 90°).

hinge piece

- Insert cable protecting plate 17W11-... at upper break point.
- Cover cut edges with edge protection 15V13-A / 18V13-A.

Fixing material	page
screw 17J6-P	282
edge protection 15V13-A	90
edge protection 18V13-A	90



straight joint

Order No. stainl. steel	Weight (kg/pce)
174C9-A	1.80

incl. 4 screws 17J6-P (M8x16)

bendable joint

Order No. stainl. steel	Weight (kg/pce)
174C9-B	1.80

incl. 4 screws 17J6-P (M8x16)

bendable joint

Order No. stainl. steel	Weight (kg/pce)
174C9-C	1.80

incl. 4 screws 17J6-P (M8x16)

divider strip 173W13-A joint for divider strip 173W13-V divider strip fixing clamp 17C13-K

17 → 3W13-...

17 → C13-K

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- divider strip for subdividing cable trays for different cable types e.g. high voltage and low voltage current

Ordering information

Fixing details

divider strip

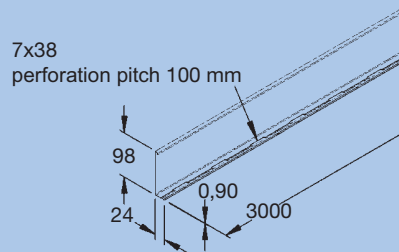
→ Continuous perforated fold grants a stepless installation.

joint for divider strip

- for the mechanical, electrical and at the straight lengthwise connection of the divider strips.
- The connection of the divider strips effects by clip in of the joints for divider strip at the straight.

divider strip fixing clamp

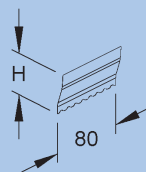
→ for fixing divider strips in trapezoidal crimps of the wide span trays and wide span ladders with rungs with slots of 16 mm .



divider strip

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
3000	173W13-A	2.76

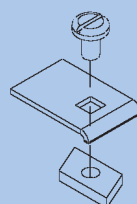
incl. 4 screws 17J6-B (M6x12)



joint for divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/m)
97.5	173W13-V	0.03

Fixing material	page
screw 17J6-B	236



divider strip fixing clamp

Order No. stainl. steel	Weight (kg/pce)
17C13-K	0.05

Stainless steel

Molded components for wide span tray 150

17 4Y3-...

17 4Y15-...

bend 174Y3-..., extension tee 174Y15-...

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H = 150 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	- bend to produce horizontal 90° curves - extension tee to produce horizontal 90° junctions.

Ordering information

Fixing details

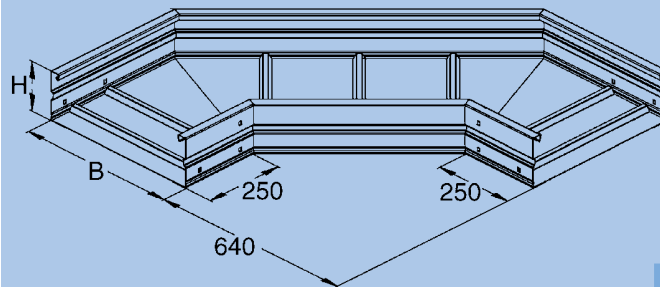
tray bend

- Connect sides of bends and trays with straight joint 174C9-A.
- Fasten sides and joints with screws 17J6-P.

extension tee

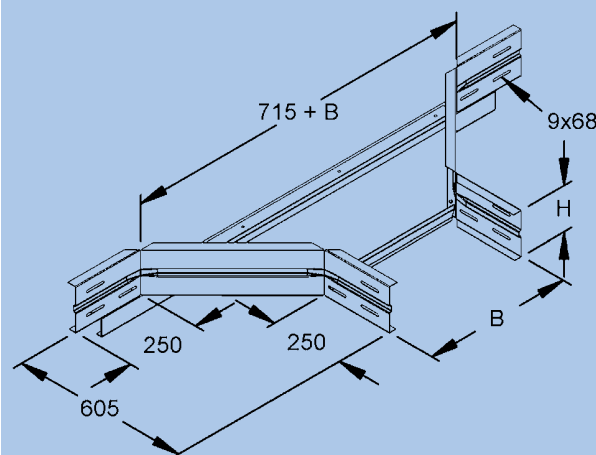
- Draw in the exit (Width of the extension tee + 715 mm), bore out rivets, separate with chisel or similar tool.
- Cut out tray side.
- Insert the extension tee into the cut section.
- Fasten tee to side ends with screws 17J6-P.

Fixing material	page
screw 17J6-P	282



bend

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174Y3-200	9.50
300	174Y3-300	11.20
400	174Y3-400	12.90
500	174Y3-500	15.00
600	174Y3-600	16.90



extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174Y15-200	10.20
300	174Y15-300	10.80
400	174Y15-400	11.40
500	174Y15-500	12.00
600	174Y15-600	12.60

incl. 12 screws 17J6-P (M8x16)

corner 174W17-BW, tee 174Y4-..., crossing 174Y20-...

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height 150 mm - suitable for all tray widths from 200 mm to 600 mm
Field of application	- tee to produce horizontal 90° curves - crossings to produce horizontal 90° junctions

17 4W17-BW

17 4Y4-...

17 4Y20-...

Ordering information

Fixing details

corner

- Cut out tray inner sides (length of cut out = tray width + 355 mm).
- Shorten ground plates, that there are no beads in the area of the overlapping cable tray crimps.
- Deburr cut edges.
- Put on corner on the overlapping 90° corner on tray ends.
- Screw trays lateral with 2 screws 17J6-P.
- Fasten grounds of the corners and trays with screws 17J6-P.

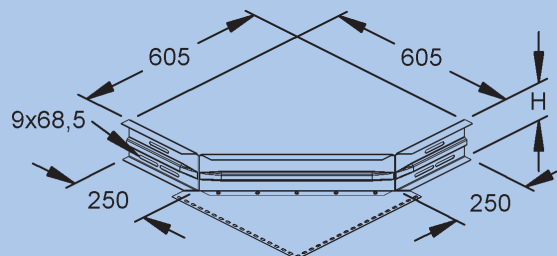
tee

- Connect sides of tee and tray with straight joints 174C9-A.
- Fasten sides and joints with screws 17J6-P.

crossing

- Connect sides of crossings and trays with straight joints 174C9-A.
- Fasten sides and jointing pieces with screws 17J6-P.

Fixing material	page
screw 17J6-P	282

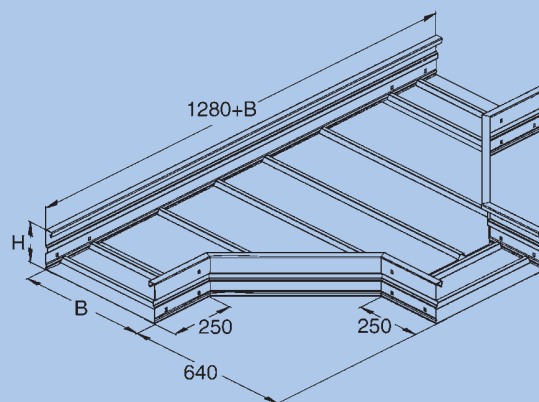


corner

Order No. stainl. steel	Weight (kg/pce)
-------------------------	-----------------

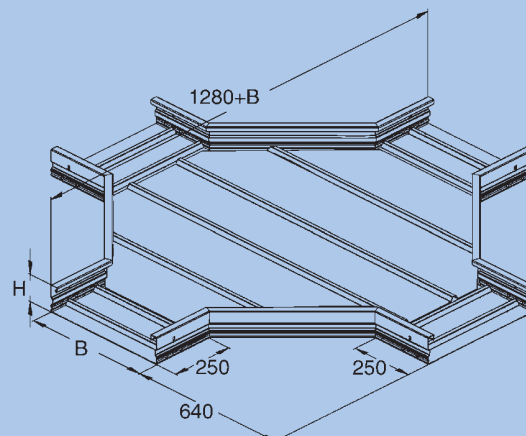
174W17-BW 0.34

incl. 6 screws
17J6-P (M8x16)



tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174Y4-200	17.60
300	174Y4-300	19.90
400	174Y4-400	22.30
500	174Y4-500	24.50
600	174Y4-600	27.50



crossing

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174Y20-200	23.80
300	174Y20-300	26.20
400	174Y20-400	28.70
500	174Y20-500	31.40
600	174Y20-600	34.30

Stainless steel

Accessory for wide span tray 150

17 → W11-...

17 → W8-...

17 → Y34-...

cable protecting plate 17W11-..., joint cover plate 17W8-..., mounting plate 17Y34-MP1

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all tray widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- cable protecting plate for protecting cables with upward or downward tray connections - joint cover plate for floor stability of the wide span trays - mounting plate for installation of distributor boxes or connection boxes

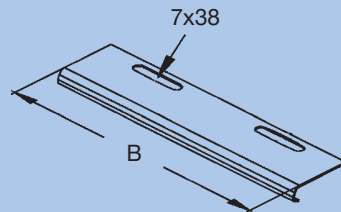
Ordering information

Fixing details

joint cover plate

- Put the joint cover plate 17W8-... on the tray connection and fasten it with screws.

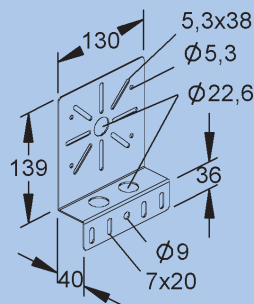
Fixing material	page
screw 17J6-B	236



cable protecting plate

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
190	17W11-200	0.10
290	17W11-300	0.15
390	17W11-400	0.20
490	17W11-500	0.25
590	17W11-600	0.31

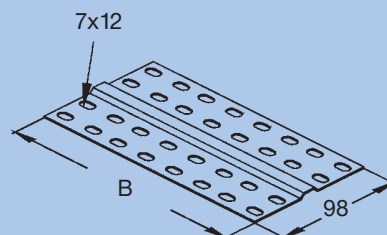
incl. 2 screws 17J6-D (M6x16)



mounting plate

Order No. stainl. steel	Weight (kg/pce)
17Y34-MP1	0.31

incl. 2 screws 17J6-B (M6x12)



joint cover plate

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
189	17W8-200	0.13
289	17W8-300	0.20
389	17W8-400	0.27
489	17W8-500	0.34
589	17W8-600	0.41

incl. fixing screws 17J6-D



Stainless steel



Stainless steel

This chapter contains an overview of the RICO wide span cable ladder system in stainless steel for various loads and applications subdivided in different product families.

Table of contents

Page

Wide span cable ladder

Standard design, 105mm side height: 173C1-...-S	310
Standard design, 150mm side height: 174C1-...-N	315

Molded components for wide span cable ladders

bend, 105mm side height: 173C2-...-S	313
extension tee, 105mm side height: 173C15-...-S	313
corner, 105mm side height: 173W17-BW	314
tee, 105mm side height: 173C4-...-S	314
crossing, 105mm side height: 173C20-...-S	314
bend, 150mm side height: 174C2-...-S	318
extension tee, 150mm side height: 174C15-...-S	318
corner, 150mm side height: 174W17-BW	319
tee, 150mm side height: 174C4-...-S	319
crossing, 150mm side height: 174C20-...-S	319

Joining piece for wide span cable ladder

straight joint / bendable joint / hinge piece 105mm side height: 173C9-...	311
straight joint / bendable joint / hinge piece 150mm side height: 174C9-...	316

Accessory for wide span cable ladder

divider strip for 105mm side height: 172C13-SA	312
joint for divider strip for 105mm side height: 172W13-V	312
divider strip fixing clamp: 17C13-K	312 / 317
divider strip for 150mm side height: 173C13-A	317
joint for divider strip for 150mm side height: 173W13-V	317
exit plate 173C8-..., support corner 17U6-A	321
hold down clamp: 173J6-A, screw 17J6-P	321
mounting plate: 17Y34-MP1	322
wall connection corner: 17J3-G / 17J3-L	322

Cover for wide span cable ladders

cover for wide span cable ladder: 17W12-...-RW	320
locking device: 17N13-V	320
fixing clip: 173W12-KW	320

Stainless steel

Wide span ladder 105

17 3C1-...-S

wide span cable ladder 173C1-...-S

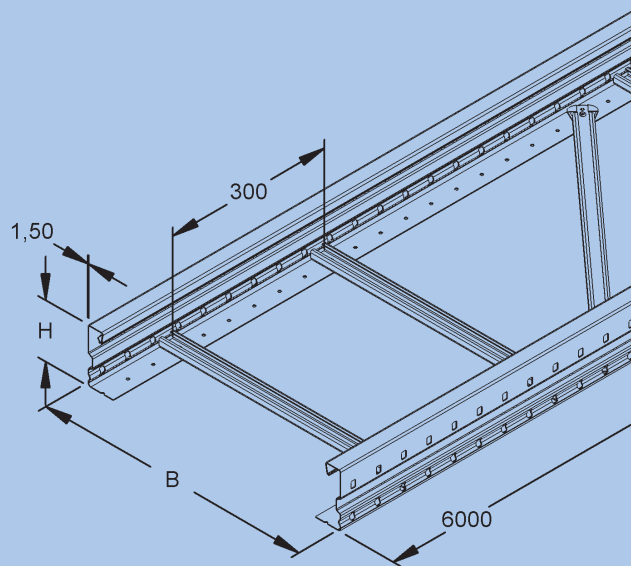
Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 6000 mm
Technical data	- side height 105 mm - support width max. 7.0 m, side height 1.5 mm - continuous side perforation for connecting parts - rungs of C-profile 30x15 perforated with slot 16 mm open to topside
Field of application	- 4 diagonal rungs for higher lateral stability - installation on brackets and consoles

Ordering information

Fixing details

- Use hold down clamps 163J6-A for fixing to brackets.
- Use bend 173C2-...-S to produce curves.
- Use extension tee 173C15-...-S or tee 173C15-...-S to produce junctions.
- Use jointing piece 173C9-... to connect ladders.

Fixing material	page
hold down clamp 173J6-A	321
protective end cap for rung 15J8-S30	194



Width (mm)	Order No. stainl. steel	Weight (kg/Spce)
200	173C1-200-S	32.00
300	173C1-300-S	33.50
400	173C1-400-S	35.00
500	173C1-500-S	36.50
600	173C1-600-S	38.00

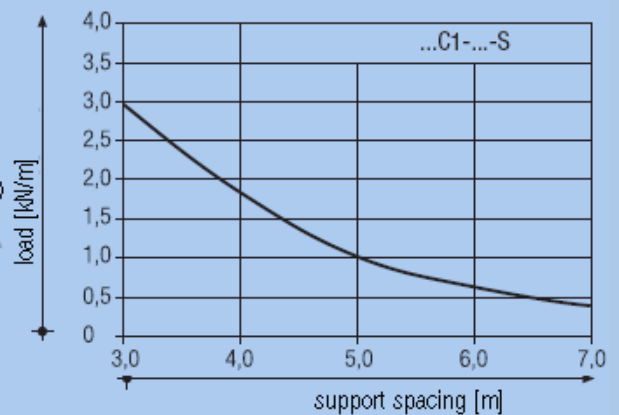
Load diagram



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements.

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



Joining piece 173C9-...,

17 3C9-...

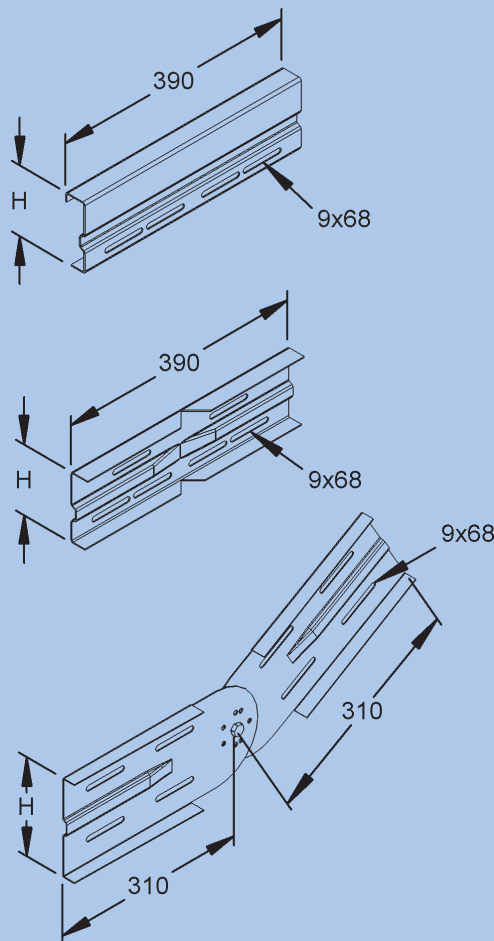
Material	- stainless steel, material: 1.4301 (V2A),
Technical data	- side height H = 105 mm - suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	- to produce straight, angular, upward or downward ladder connections

Ordering information

Fixing details

- Mount joining piece to or push it into ladder ends.
- Fasten joining pieces and ladder sides with screws 17J6-P.

Fixing material	page
screw 17J6-P (M8x16)	321



straight joint

Order No.	Weight stainl. steel (kg/pce)
173C9-A	0.80

incl. 4 screws
17J6-P (M8x16)

bendable joint

Order No.	Weight stainl. steel (kg/pce)
173C9-B	0.80

incl. 6 screws
17J6-P (M8x16)

hinge piece

Order No.	Weight stainl. steel (kg/pce)
173C9-C	1.00

incl. 6 screws
17J6-P (M8x16)

Stainless steel

Accessory for wide span cable ladder 105

17 → 2C13-SA

17 → 2W13-V

17 → C13-K

divider strip 172C13-SA, joint for divider strip 172W13-V, divider strip fixing clamp 17C13-K

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all ladder widths from 200 mm to 600 mm - delivery incl. fixing screws
Field of application	- divider strip for subdividing cable ladders for different cable types, e. g. high voltage or low voltage current

Ordering information

Fixing details

divider strip

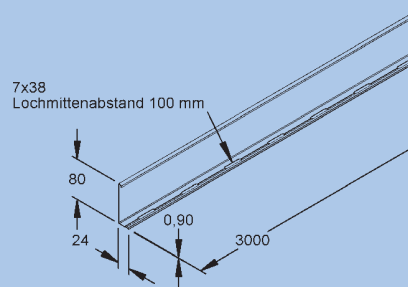
→ Continuous perforated fold effects a stepless installation. Centric hole spacing of the oblong holes 7 x 38 mm is 100 mm.

joint for divider strip

- for the mechanical, electrical and at the straight lengthwise connection of the divider strips.
- The connection of the divider strips effects by clip in the joint for divider strip at the straight.

divider strip fixing clamp

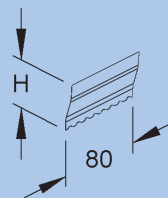
→ for fixing divider strips in trapezoidal crimps of the wide span trays and of wide span ladders with rungs with slots of 16 mm.



divider strip

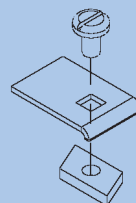
Length (mm)	Order No. stainl. steel	Weight (kg/pce)
3000	172C13-SA	2.76

incl. 4 screws and slide nuts for profile 30x15 (17S13-SZ)



joint for divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
79.5	172W13-V	0.02



divider strip fixing clamp

Order No. stainl. steel	Weight (kg/pce)
17C13-K	0.05

Fixing material	page
screw 17J6-B	236

bend 173C2-...-S, extension tee 173C15-...-S

17 3C2-...-S

17 3C15-...-S

Material	- stainless steel, material: 1.4301 (V2A), perforated
Technical data	- side height 105 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- bend to produce horizontal 90° curves - extension tee to produce horizontal 90° junctions

t

Ordering information

Fixing details

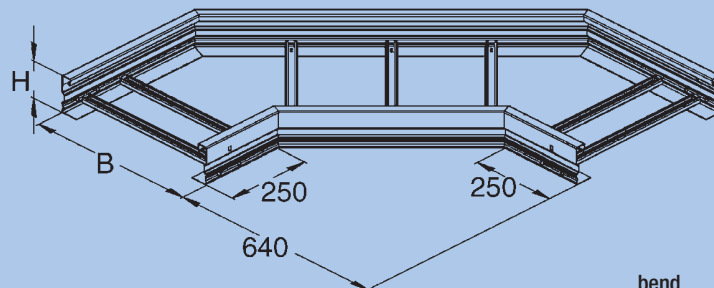
ladder bend

- Connect sides of bend and ladder with straight joint 173C9-A.
- Fasten sides of bend and jointing piece with screws 17J6-P.

extension tee

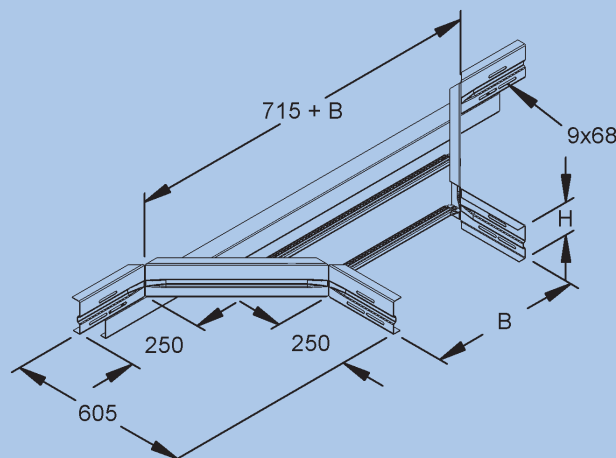
- Cut out ladder side (Width of the extension tee + 715 mm).
- Bore out the aluminium rivets of the rungs and separate with chisel.
- Insert extension tee.
- Fasten the extension tee with screws 17J6-P on the disengaged side ends.

Fixing material	page
screw 17J6-P	321



bend

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173C2-200-S	6.50
300	173C2-300-S	7.40
400	173C2-400-S	8.30
500	173C2-500-S	9.20
600	173C2-600-S	10.00



extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173C15-200-S	9.70
300	173C15-300-S	10.30
400	173C15-400-S	10.90
500	173C15-500-S	11.50
600	173C15-600-S	12.10

incl. 12 screws 17J6-P (M8x16)

Stainless steel

Molded components for wide span ladder 105

17 3W17-BW

17 3C4-...-S

17 3C20-...-S

corner 173W17-BW, tee 173C4-...-S, crossing 173C20-...-S

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H = 105 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- tee to produce horizontal 90° curves - crossing to produce 90° junctions

Ordering information

Fixing details

corner

→ corner to produce 90° bends or tee downwards on site.

tee

→ Connect sides of tee and ladder with straight joints 173C9-A.

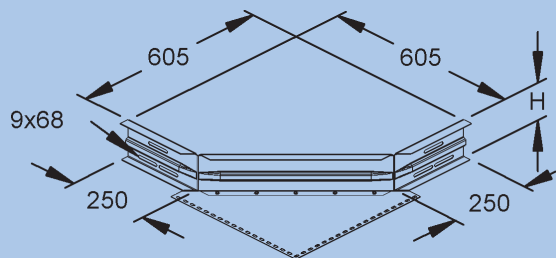
→ Fasten sides and jointing piece with screws 17J6-P.

crossing

→ Connect sides of crossing and ladder with straight joints 173C9-A.

→ Fasten sides and jointing pieces with screws 17J6-P.

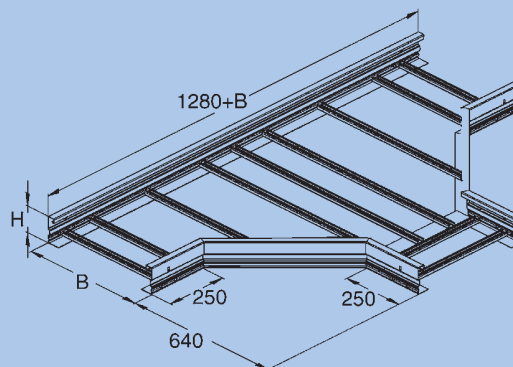
Fixing material	page
screws 17J6-P	321



corner

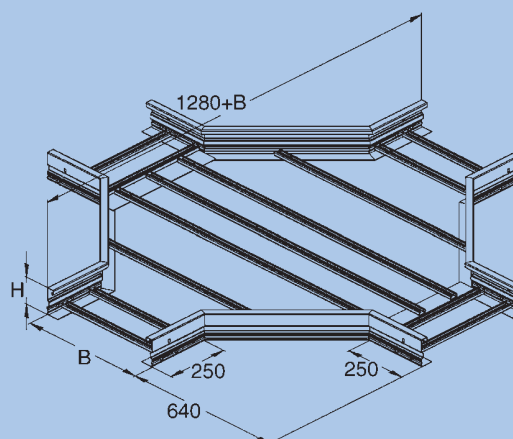
Order No. stainl. steel	Weight (kg/pce)
173W17-BW	3.20

incl. 6 screws
17J6-P (M8x16)



tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173C4-200-S	12.40
300	173C4-300-S	14.00
400	173C4-400-S	15.60
500	173C4-500-S	17.50
600	173C4-600-S	19.40



crossing

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	173C20-200-S	17.30
300	173C20-300-S	19.30
400	173C20-400-S	21.80
500	173C20-500-S	24.90
600	173C20-600-S	26.00

wide span cable ladder 174C1-...-N

17 4C1-...-N

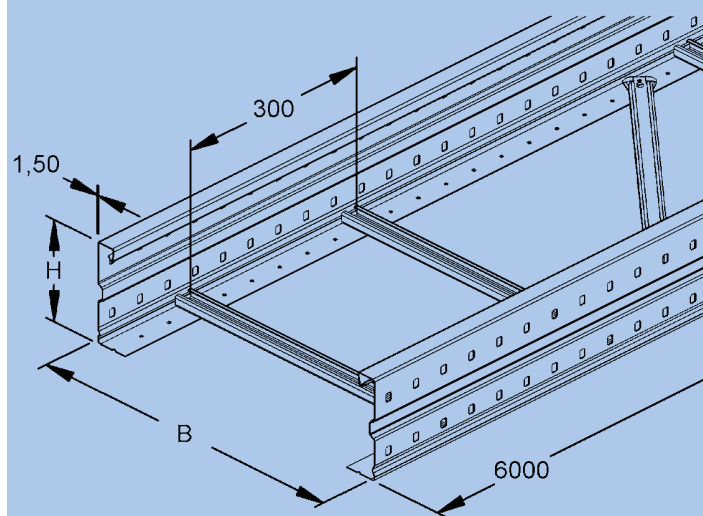
Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 6000 mm
Technical data	- side height H = 150 mm, side thickness 1.5 mm - support width max. 8.0 m - continuous side perforation for connecting parts - rungs of C-profile 30x15 perforated with slot 16 mm open to topside installed - 4 diagonal rungs for increased lateral stability
Field of application	- installation on brackets and consoles

Ordering information

Fixing details

- Use hold down clamp 173J6-A for fixing to consoles.
- Use bend 174C2-...-S to produce curves.
- Use extension tee 174C15-...-S or tee 174C4-...-S to produce junctions.
- Use joining piece 174C9-... to connect ladders.

Fixing material	page
hold down clamp 173J6-A	321
protective end cap for rung 15J8-S30	194



Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174C1-200-N	33.60
300	174C1-300-N	38.20
400	174C1-400-N	39.60
500	174C1-500-N	41.00
600	174C1-600-N	42.40

Stainless steel

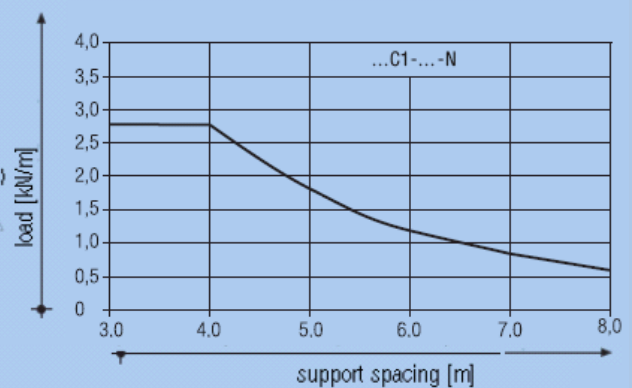
Load



It is important to pay attention to the specified max. loading of supports, brackets and fixing elements.

Statistic system

4 Fields (L) + 2 shorted end fields (0,8 x L)



Stainless steel

Joining pieces for wide span ladder 150

17 → 4C9-...

joining pieces 174C9-...

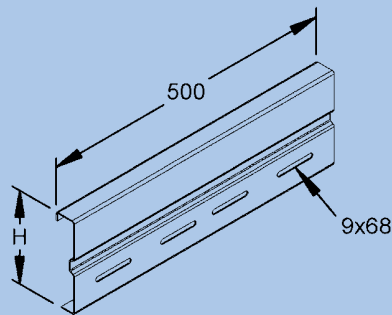
Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H = 150 mm - suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	- to produce straight, angular, upward or downward ladder connections

Ordering information

Fixing details

- Mount joining pieces to or push it into ladder ends.
- Fasten joining pieces and ladder sides with screws 17J6-P.

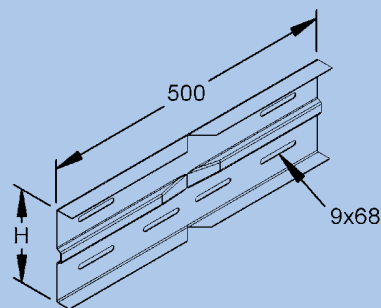
Fixing material	page
screw 17J6-P (M8x16)	321



straight joint

Order No. stainl. steel	Weight (kg/pce)
174C9-A	1.89

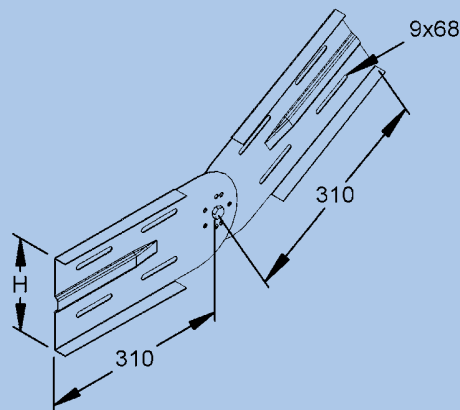
incl. 4 screws
17J6-P (M8x16)



bendable joint

Order No. stainl. steel	Weight (kg/pce)
174C9-B	1.89

incl. 6 screws
17J6-P (M8x16)



hinge piece

Order No. stainl. steel	Weight (kg/pce)
174C9-C	1.89

incl. 6 screws
17J6-P (M8x16)

divider strip 173C13-A, joint for divider strip 173W13-V, divider strip fixing clamp 17C13-K

17 → 3C13-A

17 → 3W13-V

17 → C13-K

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- suitable for all ladder widths from 200 mm to 600 mm - delivery including fixing screws
Field of application	- divider strip for subdividing the cable ladders for different cable types e. g. high voltage or low voltage current

Ordering information

Fixing details

divider strip

→ Continuous perforated fold grants a atepless installation. Centric perforation pitch of the oblong holes 7 x 38 mm is 100 mm.

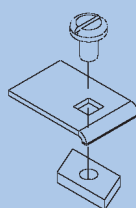
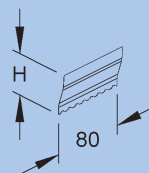
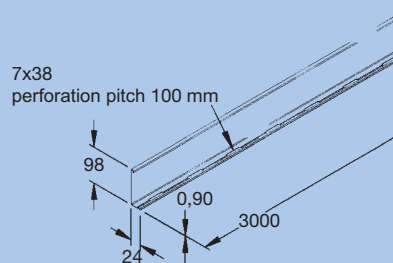
joint for divider strip

→ for mechanical, electrical and lengthwise connetcion of the divider strip at the straight.

→ The connection of the divider strip effects by clip in the joints for divider strips at the straight.

divider strip fixing clamp

→ for fixing the divider strips in trapezoidal crimps of the wide span cable trays and of wide span cable ladders with rungs with slots of 16 mm. Suitable at any place in the profile slot.



divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
98	173C13-A	2.76

incl. 4 screws and slide nuts for profile 30x15 (17C13-SZ)

joint for divider strip

Height (mm)	Order No. stainl. steel	Weight (kg/pce)
97.5	173W13-V	0.03

divider strip fixing clamp

Order No. stainl. steel	Weight (kg/pce)
17C13-K	0.05

Fixing material	page
screw 17J6-B	236

Stainless steel

Molded components for wide span ladder 150

17 → 4C2-...-S

17 → 4C15-...-S

bend 174C2-...-S extension tee 174C15-...-S

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H = 150 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- bend to produce horizontal 90° curves - extension tee to produce 90° junctions

Ordering information

Fixing details

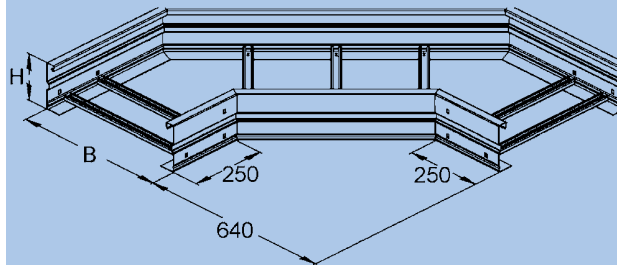
ladder bend

- Connect sides of bend and ladder with straight joint 174C9-A.
- Fasten sides and jointing piece with screws 17J6-P.

extension tee

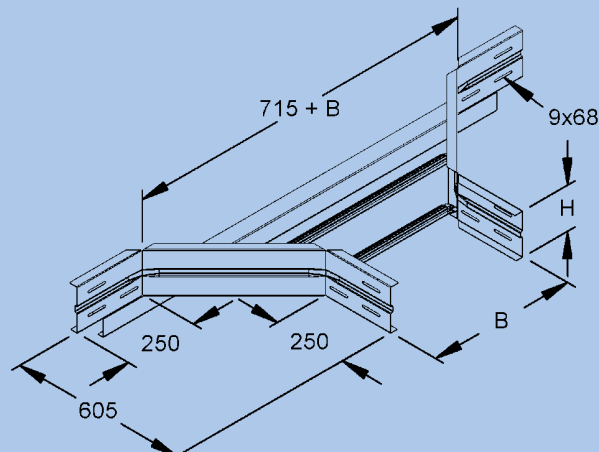
- Cut out ladder side (Width of extension tee + 715 mm).
- Bore out the aluminium rivets of the rungs and separate with chisel.
- Insert extension tee.
- Fasten extension tee with screws 17J6-P to the disengaged side ends.

Fixing material	page
screw 17J6-P	321



bend

Width (mm)	Order No. stainl. steel	Gewicht (kg/St.)
200	174C2-200-S	7,00
300	174C2-300-S	7,80
400	174C2-400-S	8,50
500	174C2-500-S	9,60
600	174C3-600-S	10,50



extension tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174C15-200-S	10.20
300	174C15-300-S	10.80
400	174C15-400-S	11.40
500	174C15-500-S	12.00
600	174C15-600-S	12.60

incl. 12 screws 17J6-P (M8x16)

corner 174W17-BW tee 174C4-...-S, crossing 174C20-...-S

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- side height H = 150 mm - suitable for all ladder widths from 200 mm to 600 mm
Field of application	- tee to produce horizontal 90° curves - crossing to produce 90° junctions

17 4W17-...

17 4C4-...-S

17 4C20-...-S

Ordering information

Fixing details

corner

→ corner to produce 90° bends or tee downwards on site.

tee

→ Connect sides of tee and ladder with straight joint 174C9-A.

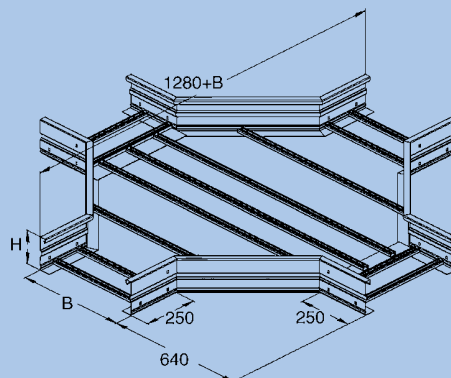
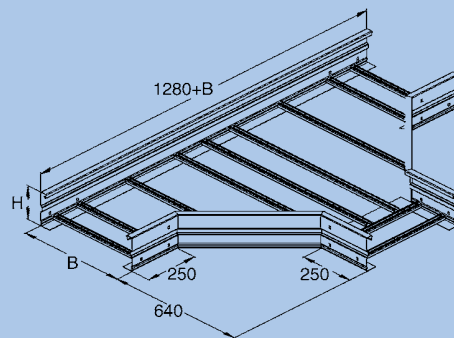
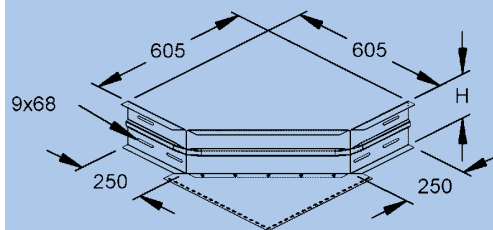
→ Fasten sides and jointing piece with screws 17J6-P.

crossing

→ Connect sides of crossing and ladder with straight joints 174C9-A.

→ Fasten sides and jointing pieces with screws 17J6-P.

Fixing material	page
screw 17J6-P	321



corner

Order No. stainl. steel	Weight (kg/pce)
-------------------------	-----------------

174W17-BW 3.40

incl. 6 screws
17J6-P (M8x16)

tee

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174C4-200-S	13.90
300	174C4-300-S	15.10
400	174C4-400-S	16.30
500	174C4-500-S	17.90
600	174C4-600-S	19.80

crossing

Width (mm)	Order No. stainl. steel	Weight (kg/pce)
200	174C20-200-S	19.70
300	174C20-300-S	15.10
400	174C20-400-S	16.30
500	174C20-500-S	17.90
600	174C20-600-S	19.80

Stainless steel

Covers for wide span systems

17 W12-...

17 N13-V

17 3W12-KW

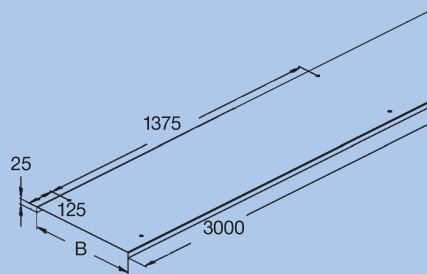
cover 17W12-...-RW for wide span systems,
fixing clip 173W12-KW, locking device 17N13-V

Material	- stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Technical data	- for wide span system - for all widths from 200 mm to 600 mm - with locking device
Field of application	- cable protection

Ordering information

Fixing details

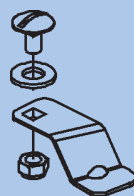
→ Fix covers with locking devices 17N13-V or with fixing clip 173W12-KW.



cover with locking device for wide span system

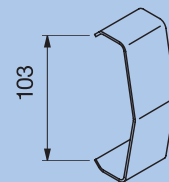
Width (mm)	Order No. stainl. steel	Weight (kg/pce)
204	17W12-200-RW	4.80
304	17W12-300-RW	7.50
404	17W12-400-RW	10.68
504	17W12-500-RW	12.69
604	17W12-600-RW	14.70

pre-mounted locking device 17N13-V



locking device

Order No. stainl. steel	Weight (kg/pce)
17N13-V	0.03



fixing clip

Order No. stainl. steel	Weight (kg/pce)
173W12-KW	0.03

exit plate 173C8-...-B, support corner 17U6-A,
hold down clamp 173J6-A, screw 17J6-P

17 3C8-...

17 U6-A

17 3J6-A

Material

- stainless steel, material: 1.4301 (V2A)

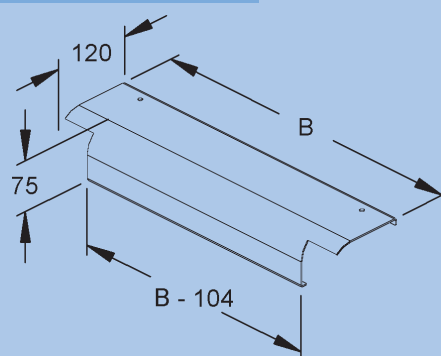
Technical data

- suitable for all ladder widths from 200 mm to 600 mm
- delivery including fixing screws

Field of application

- support corner for fixing ladders to brackets for vertical change of direction
- hold down clamps for fixing brackets or consoles
- exit plate for cable protection at vertical cable curves

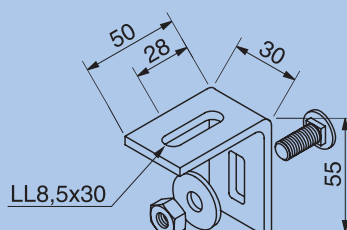
Ordering information



exit plate

Length (mm)	Order No. stainl. steel	Weight (kg/pce)
190	173C8-200-B	0.60
290	173C8-300-B	0.90
390	173C8-400-B	1.20
490	173C8-500-B	1.50
590	173C8-600-B	1.80

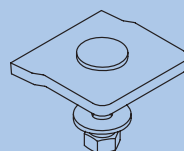
incl. 2 fixing screws



support corner

Order No. stainl. steel	Weight (kg/pce)
17U6-A	0.12

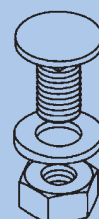
incl. 1 screw
17J6-S (M8x20)



installation on brackets
17B9-...-W

hold down clamp

Order No. stainl. steel	Weight (kg/pce)
173J6-A	0.05



accessory screw M8x16

Order No. stainl. steel	Weight (kg/pce)
17J6-P	0.02

Stainless steel

Accessory for wide span ladders

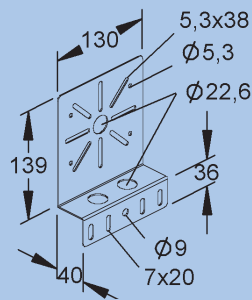
17 Y34-MP1

17 J3-...

mounting plate 17Y34-MP1, wall connection corner 17J3-G wall connection corner 17J3-L

Material	- stainless steel, material: 1.4301 (V2A)
Technical data	- material thickness of the connection corner: 4 mm
Field of application	- mounting plate for installation of distributor boxes or connection boxes - wall connection corner for floor ceiling and wall installation

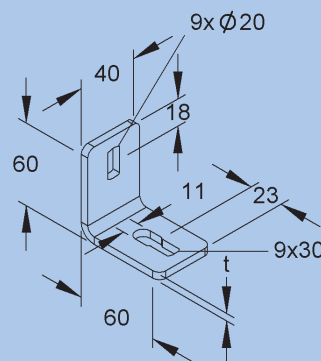
Ordering information



mounting plate

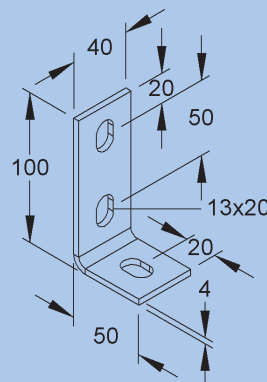
Order No.	Weight stainl. steel (kg/pce)
17Y34-MP1	0.31

incl. 2 fixing screws



wall connection corner

Order No.	Weight stainl. steel (kg/pce)
17J3-G	0.21



wall connection corner

Order No.	Weight stainl. steel (kg/pce)
17J3-L	0.19



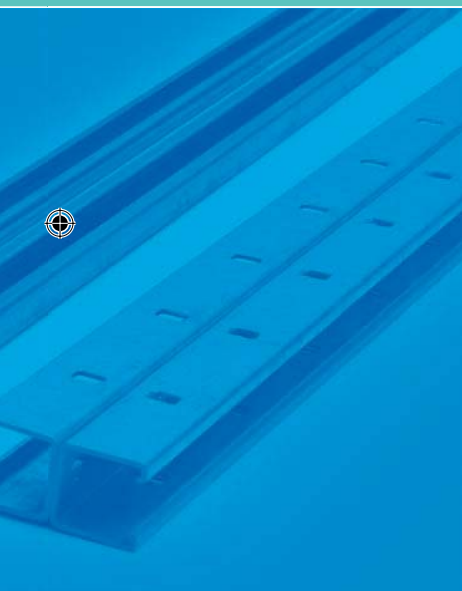
Stainless steel

RICOSTRUT® for individual combination of stands suspenders and cable grate ares are made of profile sections and jointing pieces

RICOSTRUT®-program contains:

see system pictures 15

Table of content **Page**



Profile rails	from 328
Jointing pieces	from 330
Fixing accessory	from 334
Fixing components for busways	from 339

RICOSTRUT®



RICOSTRUT®

see system picture 15

Table of content **Page**

Profile rails	
C-profile rails: 15F2-... / 16F2-... / 17F2-...	328
Double-C profile rails: 15F22-... / 16F22-... / 17F22-...	328
C-profile rails: 16F5-... / 17F5-...	329
Double-C-profile rails: 16F55-...	329
Jointing pieces	
connection plate, corner console, tee, angle section, fixing bracket, straight joint, jointing element, protective end cap, double bracket, butt strap, connection corner, connection strap, anchor corner, connection bracket, bearing bracket, rail plate	330
Fixing accessory	
threaded rod, washer, flange nut, jointing sleeve, serrated lock washer, mushroom-head screw, anchor bolt, slide nut, rail nut, adjusting bolt, internal-thread expansion bolt, headed drill bit, drive-in punch, fixing screws, rail nut, support clamp, trapezoidal sheet suspension, fixing screw, clamping claws, claws	334
Fixing components for busways	
trapezoidal bracket: 15J51-A	339
clamping bracket: 15J51-B, 15J52-A	339
fixing screws: 16J51-..., 16J52-...	339

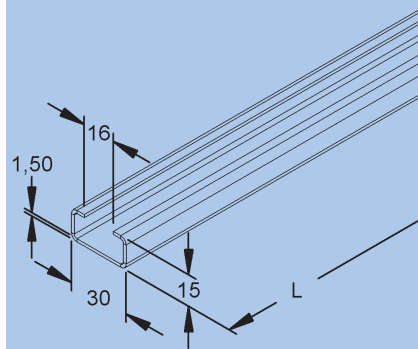
Profile rails

- 15 F2-...
- 16
- 15 F22-...
- 16
- 17 F2-/F22-...

C-profile rails 15F2-... / 16F2-... / 17F2-..., 15F22-... / 16F22-... / 17F22-...

Material	- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461 - stainless steel, material: 1.4301 (V2A)
Supply length	- 3000 mm
Field of application	- installation of stands, suspenders and cable grate areas with jointing pieces and fixing accessories

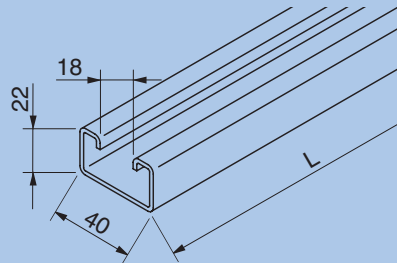
Ordering information



C-rail 30x15, perforated (9x15), perforation pitch 25 mm

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-C	1.98	16F2-3000-C	2.16

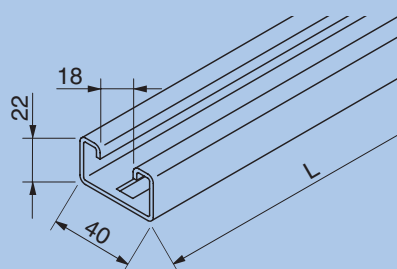
Order No. stainl. steel	Weight (kg/pce)
17F2-3000-C	1.98



C-rail 40x22, unperforated

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-E	4.23	16F2-3000-E	4.50

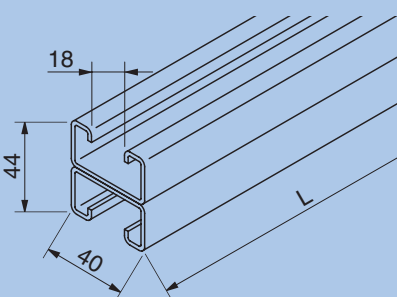
Order No. stainl. steel	Weight (kg/pce)
17F2-3000-E	4.23



C-rail 40x22, perforated (9x16/11), perforation pitch 25 mm

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F2-3000-L	4.02	16F2-3000-L	4.26

Order No. stainl. steel	Weight (kg/pce)
17F2-3000-L	4.02



Double C-rail 40x44, unperforated

Length (mm)	Order No. cont. hot galv.	Weight (kg/pce)	Order No. hot dip galv.	Weight (kg/pce)
3000	15F22-3000-E	8.46	16F22-3000-E	9.00

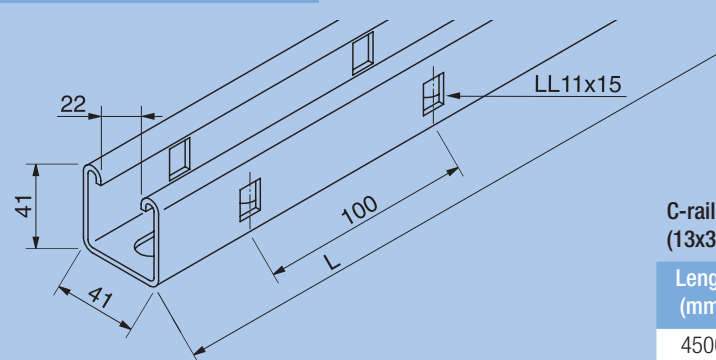
Order No. stainl. steel	Weight (kg/pce)
17F22-3000-E	8.46

C-profile rails 16F5-... / 17F5-..., 16F55-...

Material	- hot dip galvanized according to DIN EN ISO 1461 - stainless steel, material: 1.4301 (V2A)
Supply length	- 4500 mm
Field of application	- installation of stands, suspenders and cable grate areas with jointing pieces and fixing accessories

- 15 F5-...-A
- 16 F5-...-A
- 15 F55-...-A
- 16 F55-...-A
- 17 F5-...-A

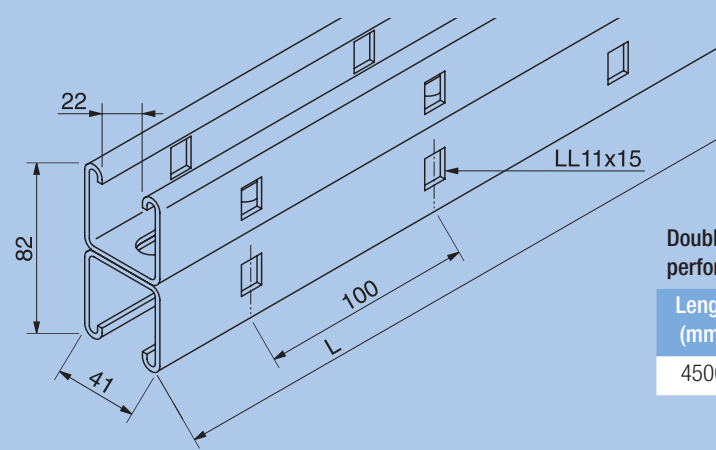
Ordering information



C-rail 41x41x2,5, perforated (13x30), perforation pitch 50 mm

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
4500	16F5-4500-A	11.40

Order No. stainl. steel	Weight (kg/pce)
17F5-4500-A	11.00



Double C-rail 41x82x2,5, perforated (13x30), perforation pitch 50 mm

Length (mm)	Order No. hot dip galv.	Weight (kg/pce)
4500	16F55-4500-A	22.90

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16
17 J...

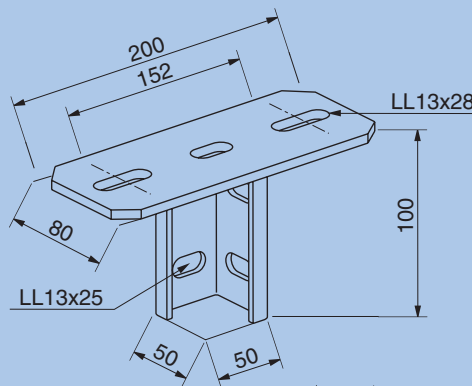
connection plate 16J40 / 17J40, corner console 16J41 / 17J41,
tee 16J42 / 17J42, angle section 16J43 / 17J43,
fixing bracket 16J44 / 17J44

Material	- hot dip galvanized according to DIN EN ISO 1461 - stainless steel, material: 1.4301 (V2A)
Field of application	- connection of profile rails to stands, suspensions and cable grate areas

Ordering information

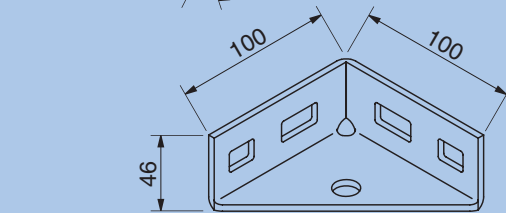
Fixing details

→ Use screws with max. M12.



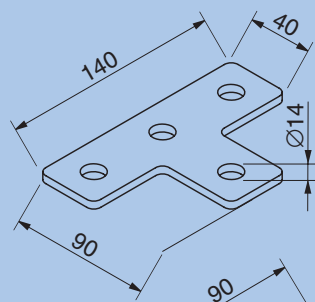
connection plate

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J40	0.98	17J40	0.92



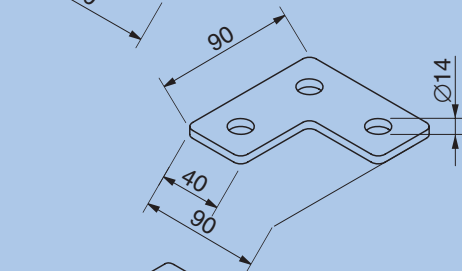
corner console

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J41	0.39	17J41	0.39



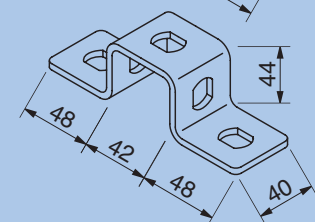
tee

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J42	0.28	17J42	0.28



angle section

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J43	0.20	17J43	0.20



fastening clip

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J44	0.22	17J44	0.22

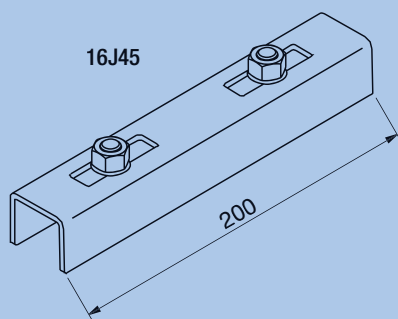
straight joint 16J45, 16J46
 joining element 16J47 with accessories 16B1-Z
 protective end cap 15J8-D, double clip 16J48



Material	- hot dip galvanized according to DIN EN ISO 1461 - protective end caps made of plastic
Field of application	- connection of profile sections to stands and cable grate areas

Ordering information

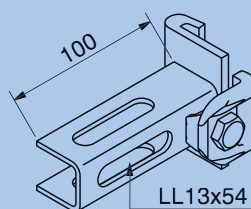
Fixing material	Page
screw 16J12-A	187
screw 16J6-S	187
bracket accessory 16B1-Z	157



straight joint, internal for C-rail
41x41 or 40x22

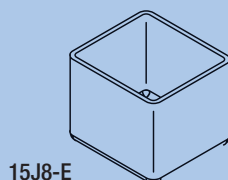
Order No.	Weight (kg/pce)
16J45	0.30
16J46	0.14

including 2 screws
16J12-A (for 16J45)
16J6-S (for 16J46)

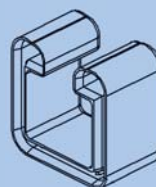


joining element for fixing H-support
16A1-...(I 80) with accessory 16B1-Z

Order No.	Weight (kg/pce)
16J47	0.35
16B1-Z	0.12



15J8-E

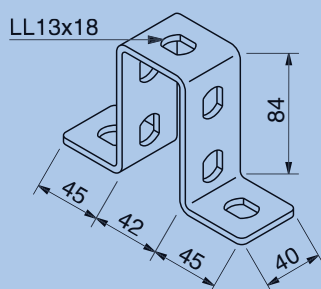


15J8-D

protective end cap for C-profile 40x22

protective end cap for C-profile 41x41, yellow

Order No.	Weight (kg/pce)	Order No.	Weight (kg/pce)
PVC		PVC	
15J8-E	0.02	15J8-D	0.03



double clip for C-profile C-rail 41x82

Order No.	Weight (kg/pce)
16J48	0.31

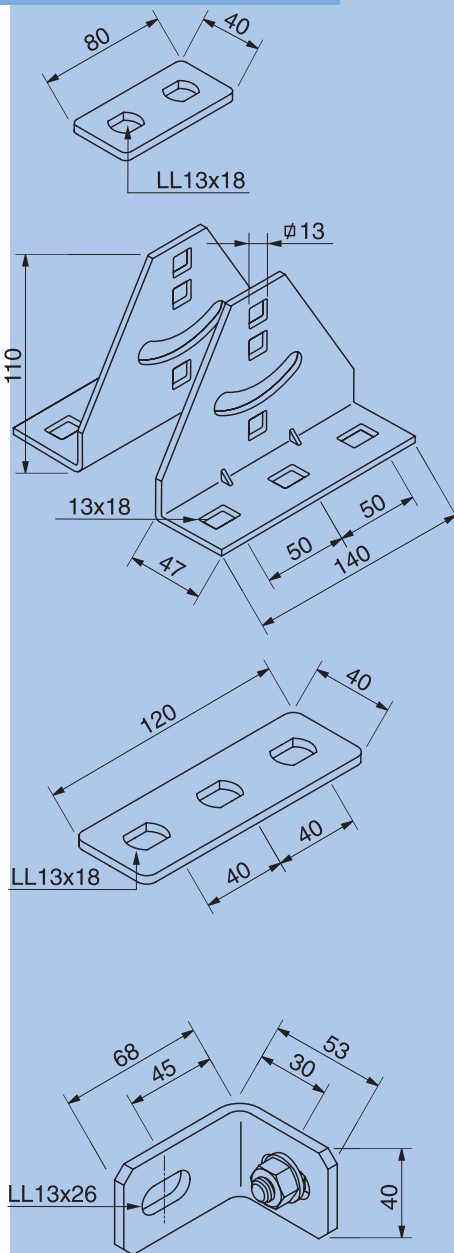
without screws



**butt strap 16J49 / 17J49, connection corner 16J50 / 17J50,
connection strap 16J53 / 17J53, anchor corner 16J3-D / 17J3-D**

Material	- hot dip galvanized according to DIN EN ISO 1461 - stainless steel, material: 1.4301 (V2A)
Field of application	- connection of profile rails to stands, suspensions and cable grate areas

Ordering information



butt strap

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J49	0.08	17J49	0.08

without screws

connection corner, pair adjustable ± 30°, upper and lower drilling Ø 13 for simple realisation of the 90°-position

Order No. hot dip galv.	Weight (kg/Pair)	Order No. stainl. steel	Weight (kg/Pair)
16J50	0.86	17J50	0.86

without screws

connection strap

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J53	0.13	17J53	0.13

without screws

anchor corner

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/pce)
16J3-D	0.22	17J3-D	0.22

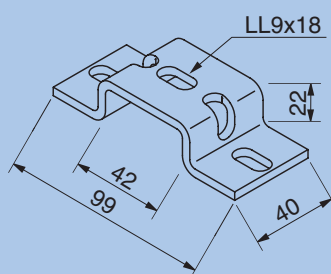
incl. fixing screws 16J6-1025

**connection bracket 16J54, bearing bracket 16J55,
rail plate 16J4-40-12 / 17J4-40-12**



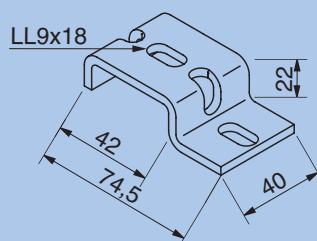
Material	- hot dip galvanized according to DIN EN ISO 1461 - stainless steel, material: 1.4301 (V2A)
Field of application	- connection of profile rails to stands, suspensions and cable grate areas

Ordering information



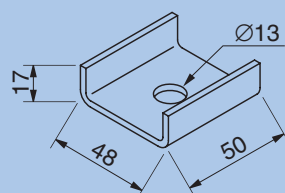
**connection bracket
for C-profile 40x22**

Order No. hot dip galv.	Weight (kg/pce)
16J54	0.14



**bearing bracket
for C-profile 40x22**

Order No. hot dip galv.	Weight (kg/pce)
16J55	0.11



rail plate, cover plate for open profile end

Order No. hot dip galv.	Weight (kg/pce)	Order No. stainl. steel	Weight (kg/Spce)
16J4-40-12	0.08	17J4-40-12	0.08



15

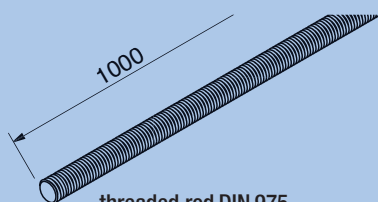
16

J...

threaded rod 15J4-M6-1000, 15J4-M8-1000, 15J4-M10-1000, 15J4-M12-1000, washer 16J4-06-S, 16J4-08-S, 16J4-10-S, 16J4-12-S, washer 16J4-06-SG, 16J4-08-SG, 16J4-10-SG, 16J4-12-SG, flange nut 16J4-06-M, 16J4-08-M, 16J4-10-M, 16J4-12-M, jointing sleeve 15J4-0650, 15J4-0850, 15J4-1050, 15J4-1250, serrated lock washer 16J4-06-F, 16J4-08-F, 16J4-10-F, 16J4-12-F

Material	- electrogalvanized (A3B) - hot dip galvanized according to DIN EN ISO 1461
Field of application	- fixing parts for connecting the constructions of the RICOSTRUT®-program

Ordering information



threaded rod DIN 975

Dimensions	Order No. electrogalv.	Weight (kg/pce)
M6x1000	15J4-M6-1000	0.16
M8x1000	15J4-M8-1000	0.32
M10x1000	15J4-M10-1000	0.48
M12x1000	15J4-M12-1000	0.70



flange nut DIN EN 1661-8

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
M6	16J4-06-M	0.004
M8	16J4-08-M	0.007
M10	16J4-10-M	0.013
M12	16J4-12-M	0.020



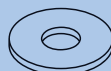
washer DIN 125

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
Ø 6,4x12	16J4-06-S	0.001
Ø 8,4x16	16J4-08-S	0.002
Ø 10,5x20	16J4-10-S	0.004
Ø 13,0x24	16J4-12-S	0.006



fixing sleeve

Dimensions	Order No. electrogalv.	Weight (kg/pce)
M6x50	15J4-0650	0.02
M8x50	15J4-0850	0.04
M10x50	15J4-1050	0.06
M12x50	15J4-1250	0.08



washer DIN 9021

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
Ø 6,4x18	16J4-06-SG	0.003
Ø 8,4x25	16J4-08-SG	0.006
Ø 10,5x30	16J4-10-SG	0.012
Ø 13,0x40	16J4-12-SG	0.027



serrated lock washer DIN 6798

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
A 6,4	16J4-06-F	0.0003
A 8,4	16J4-08-F	0.0005
A 10,5	16J4-10-F	0.0010
A 12,5	16J4-12-F	0.0015

mushroom-head screw 16J6-S, 16J6-1025,
 anchor bolt 16J2-B-0825, 16J2-A-1030, 16J2-A-1235
 slide nut 16J22-M8, 16J22-M10, 16J22-M12,
 rail nut 16J18-M6, 16J18-M8, 16J18-M10, 16J16-M6, 16J16-M8

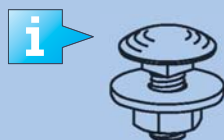
15
 16 J...

Material	- hot dip galvanized according to DIN EN ISO 1461
Field of application	- fixing parts for connecting the constructions of the RICOSTRUT-program

Ordering information

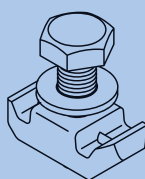
Fixing details

→ Further fixing material can be found in the chapter "fixing technics".



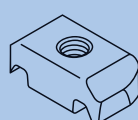
mushroom-head screw

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
M8x20	16J6-S	0.03
M10x25	16J6-1025	0.05



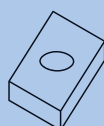
anchor bolt

for C-profiles	Dimensions	Order No. hot dip galv.	Weight (kg/pce)
40x22 and 41x41	M8x25	16J2-B-0825	0.06
40x22 and 41x41	M10x30	16J2-A-1030	0.08
41x41	M12x35	16J2-A-1235	0.10



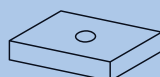
slide nut

for C-profiles	Dimensions	Order No. hot dip galv.	Weight (kg/pce)
40x22 and 41x41	M8	16J22-M8	0.040
40x22 and 41x41	M10	16J22-M10	0.038
41x41	M12	16J22-M12	0.044



rail nut for C-profiles 40x22 and 41x41

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
M6	16J18-M6	0.02
M8	16J18-M8	0.03
M10	16J18-M10	0.03



rail nut for C-profile 30x15

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
M6	16J16-M6	0.006
M8	16J16-M8	0.008

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15
16 J...

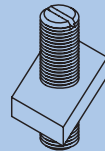
adjusting bolt 15J18-0640, 15J18-0840, 15J18-1040, internal-thread expansion bolt 15J1-FZEA-1240, headed drill bit 15J1-FZUB-1240, drive-in punch 15J1-FZED-12, fixing screw 15J6-K

Material	- galvanized - electrogalvanized (A3B)
Field of application	- fixing parts for connecting of the constructions of the RICOSTRUT®-program

Ordering information

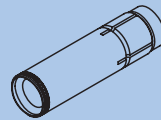
Fixing details

→ Further fixing material can be found in the capter "fixing technics."



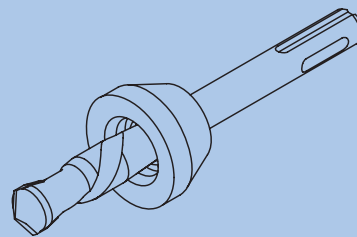
adjusting bolt for C-profiles 40/22, 40/44

Dimensions	Order No. galvanized	Weight (kg/pce)
M6	15J18-0640	0.03
M8	15J18-0840	0.04
M10	15J18-1040	0.05



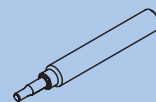
internal-thread expansion bolt M10, approved by the building authorities load clas 1.5 kN

Dimensions	Order No. galvanized	Weight (kg/pce)
M10	15J1-FZEA-1240	0.02



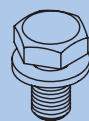
Buheaded drill bit for FZEA

Order No.	Weight (kg/pce)
15J1-FZUB-1240	0.12



drive-in punch for FZEA

Order No.	Weight (kg/pce)
15J1-FZED-12	0.20



fixing screw for 15J1-FZEA-1240

Dimensions	Order No. electrogalv.	Weight (kg/pce)
M10x20	15J6-K	0.03

support clamp 16J21-10, trapezoidal sheet suspension 15J21-D, fixing screw 16N21-110



Material

- continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461

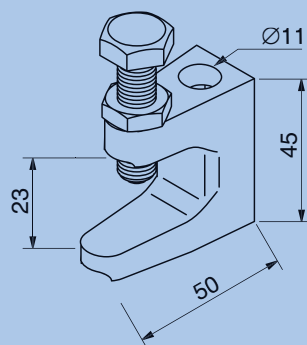
Field of application

- fixing parts for connecting the constructions of the RICOSTRUT®-program

Ordering information

Fixing details

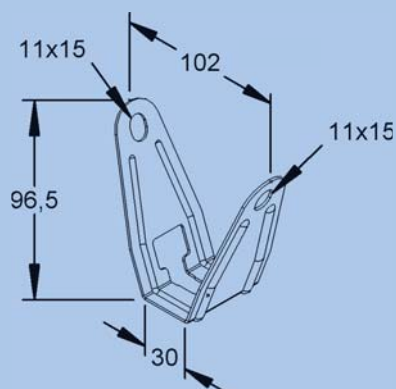
→ Further fixing material can be found in the chapter "fixing technics".



support clamp

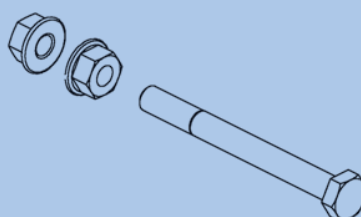
Order No. hot dip galv.	Weight (kg/pce)
16J21-10	0.16

incl. hexagonal screw M10x40 and lock nut M10



trapezoidal sheet suspension

Order No. cont. hot galv.	Weight (kg/pce)
15J21-D	0.09



fixing screw for trapezoidal sheet suspension 15J21-D

Dimensions hot dip galv.	Order No.	Weight (kg/pce)
M8x110	16N21-110	0.06

incl. 2 flange nuts DIN EN 1661-8-SW16

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Fixing accessory

16 ▶ A4-13-...

16 ▶ A4-1-...

clamping claws 16A4-13-D, 16A4-13-DA, claws 16A4-1-D, 16A4-1-DA

Material

- annealed cast iron, steel
- hot dip galvanized according to DIN EN ISO 1461

Field of application

- clamping system for support constructions on steel girders on site
- connection of the profile rails of the RICOSTRUT®-program to suspensions for all kinds of media ladders

Ordering information

Fixing details

clamping claws

Flange width 60 mm - 100 mm

- Use clamping claws 16A4-13-D to fasten support structures directly.

Flange widths > 100 mm

- Use clamping claws 16A4-13-DA together with C-profile section 16F2-...-L or 16A4-...-K to fasten support structures of all types.

claws

Flange widths 60 mm - 100 mm

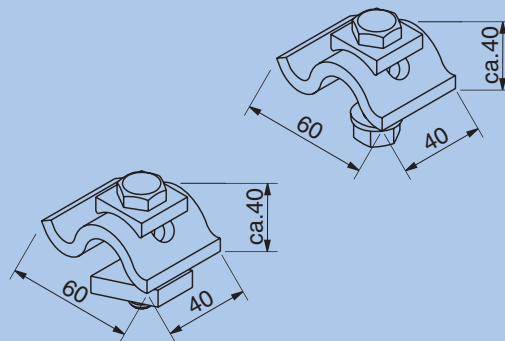
- Use claws 16A4-1-D to fasten support structures directly.

Flange widths > 100 mm

- Use claws 16A4-1-DA together with C-profile rails 16A4-...-K to fasten hanging supports of all types.

Fixing material	Page
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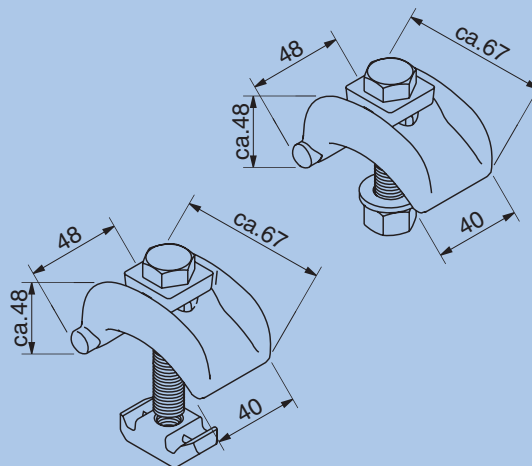
C-rail 16A4-...-K	163
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clamping claws
permissible load 10.0 kN/pair,
tightening torque max. 46 Nm

clamp. range (mm)	Order No. hot dip galv.	Weight (kg/Pair)
0-25	16A4-13-D	0.40
0-25	16A4-13-DA	0.42

in pairs, including screws



claws

clamp. range (mm)	Order No. hot dip galv.	Weight (kg/Pair)
0-30	16A4-1-D	0.80
0-30	16A4-1-DA	0.84

in pairs including screws

(load values see page 159)

**trapezoidal bracket 15J51-A,
clamping bracket 15J51-B, 15J52-A,
fixing screws 16J51-Z, 16J51-Z1, 16J52-Z, 16J52-Z1**

15
16 J51-...

15
16 J52-...

Material	- sheet steel - continuously hot galvanized according to DIN EN 10327 or hot dip galvanized according to DIN EN ISO 1461
Field of application	- for fixing busways and encased busway systems

Ordering information

Detail

Support systems especially for busways from Siemens AG

trapezoidal bracket

Width (mm)	Height (mm)	Order No. cont. hot galv.	Weight (kg/pce)
180	60	15J51-A	0.35

incl. 2 fixing screws 16J6-1025 (M10x25)

clamping bracket

Order No. cont. hot galv.	Weight (kg/pce)
15J51-B	0.06

fixing screws

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
M8x30	16J51-Z	0.025
M8x40	16J51-Z1	0.045

clamping bracket

Order No. cont. hot galv.	Weight (kg/pce)
15J52-A	0.04

fixing screws

Dimensions	Order No. hot dip galv.	Weight (kg/pce)
M6x30	16J52-Z	0.015
M6x40	16J52-Z1	0.025

RICOSTRUT®



Clips

RICO-Bügelchellen für eine Verlegung von bis zu 3 Kabeln mit entsprechender Schelle möglich, bzw. Befestigung der Schelle an einem Flach- oder Winkelstahl.

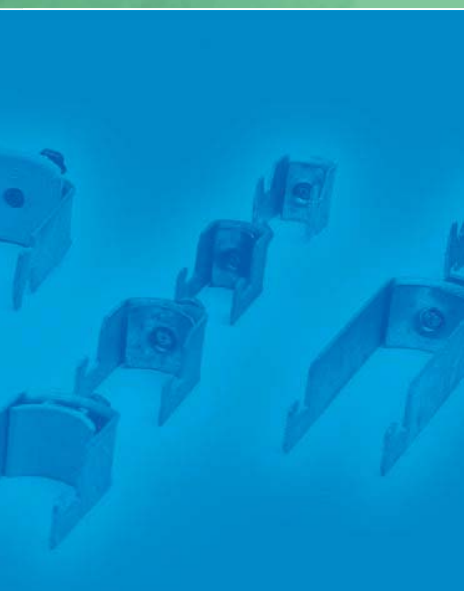
Table of content

Page

Clips

from **344**

Counter troughs/bouble troughs/long troughs

from **363**



Clips

Table of contents

Page

Clips	
yoke clips 16BS30-...	344–345
yoke clips 16BSK30-...	346
yoke clips 16BS23-...	347–348
yoke clips 16BSK23-...	349
universal clip 16BS40-...	350–351
universal clip 16BSK40-...	352–353
clip 16BSF-...	354–355
clip 16BSFK-...	356–357
clip 16BSW-...	358–359
clip 16BSWK-...	360
yoke clip 17BS30-...	361
universal clip 17BS40-...	362
Counter trough/double trough/long trough	
counter trough 20GW30-...	363
counter trough 20GW23-...	364
universal counter trough 20GWU-...	365
double trough 20DW-...	366
counter trough 15GW-...	367

15

16

BS30-...

yoke clip with steel-thrust trough for C-profile 30 x 15

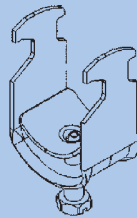
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

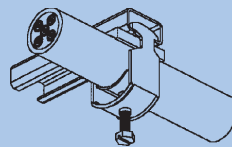
Technical data

- 16BS30-... suitable for profile rails with slot width 16–17 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

Order information



steel-thrust trough



Number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	6–12	16BS30-12	0.020	100
1	10–14	16BS30-14	0.022	100
1	12–16	16BS30-16	0.024	100
1	14–18	16BS30-18	0.025	100
1	18–22	16BS30-22	0.028	100
1	22–26	16BS30-26	0.037	100
1	26–30	16BS30-30	0.045	100
1	30–34	16BS30-34	0.056	100
1	34–38	16BS30-38	0.064	100
1	38–42	16BS30-42	0.085	100
1	42–46	16BS30-46	0.097	100
1	46–50	16BS30-50	0.104	50
1	50–54	16BS30-54	0.110	50
1	54–58	16BS30-58	0.118	50
1	58–64	16BS30-64	0.128	50
1	64–70	16BS30-70	0.170	50
1	70–76	16BS30-76	0.184	50
1	76–82	16BS30-82	0.201	50
1	82–90	16BS30-90	0.224	50
1	90–100	16BS30-100	0.237	50
1	100–110	16BS30-110	0.264	50

yoke clip with steel-thrust trough for C-profile 30 x 15

15
16 BS30-...

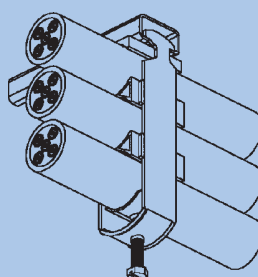
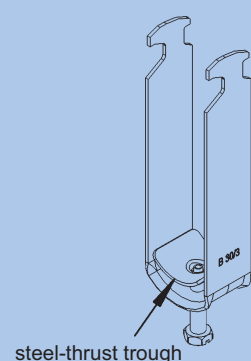
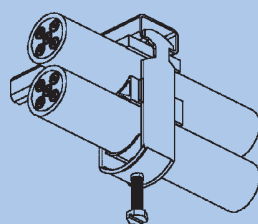
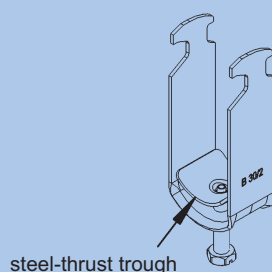
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BS30-... suitable for profile rails with slot width 16–17 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

Order information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	10–12	16BS30-12-2	0.028	100
2	12–14	16BS30-14-2	0.031	100
2	14–16	16BS30-16-2	0.034	100
2	16–18	16BS30-18-2	0.036	100
2	18–22	16BS30-22-2	0.042	100
2	22–26	16BS30-26-2	0.057	100
2	26–30	16BS30-30-2	0.067	100
2	30–34	16BS30-34-2	0.081	100
2	34–38	16BS30-38-2	0.118	50
2	38–42	16BS30-42-2	0.128	50
2	42–46	16BS30-46-2	0.141	50
2	46–50	16BS30-50-2	0.150	50

number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
3	9–12	16BS30-12-3	0.035	100
3	12–14	16BS30-14-3	0.040	100
3	14–16	16BS30-16-3	0.043	100
3	16–18	16BS30-18-3	0.047	100
3	18–20	16BS30-20-3	0.051	100
3	20–22	16BS30-22-3	0.055	100
3	22–24	16BS30-24-3	0.071	100
3	24–26	16BS30-26-3	0.077	100
3	26–28	16BS30-28-3	0.082	100
3	28–30	16BS30-30-3	0.089	100

15

16

BSK30-...

yoke clip with plastic-thrust trough for C-profile 30 x 15

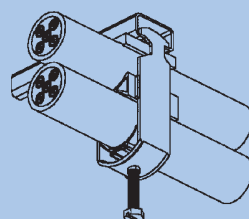
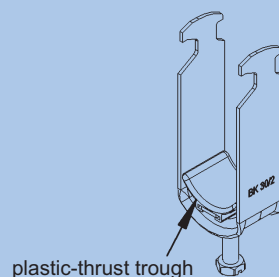
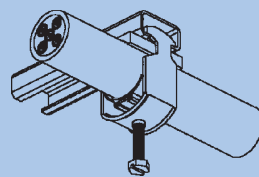
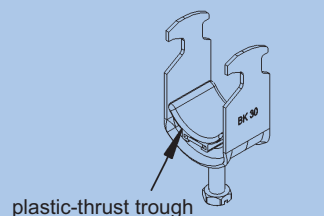
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSK30-... suitable for profile rails with slot width 16–17 mm
- with plastic-thrust trough (free of halogen)
- counter and double trough must be ordered separately

Order information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	8–14	16BSK30-14	0.028	100
1	14–18	16BSK30-18	0.031	100
1	18–22	16BSK30-22	0.033	100
1	22–26	16BSK30-26	0.042	100
1	26–30	16BSK30-30	0.047	100
1	30–34	16BSK30-34	0.048	100
1	34–38	16BSK30-38	0.060	100
1	38–42	16BSK30-42	0.082	100
1	42–46	16BSK30-46	0.093	100
1	46–50	16BSK30-50	0.101	50
1	50–54	16BSK30-54	0.108	50
1	54–58	16BSK30-58	0.116	50
1	58–64	16BSK30-64	0.125	50
1	64–70	16BSK30-70	0.168	50
1	70–76	16BSK30-76	0.179	50
1	76–82	16BSK30-82	0.185	50
1	82–90	16BSK30-90	0.202	25
1	90–100	16BSK30-100	0.226	25
1	100–110	16BSK30-110	0.244	25

number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	12–14	16BSK30-14-2	0.038	100
2	14–18	16BSK30-18-2	0.043	100
2	18–22	16BSK30-22-2	0.058	100
2	22–26	16BSK30-26-2	0.060	100
2	26–30	16BSK30-30-2	0.067	100
2	30–34	16BSK30-34-2	0.077	100
2	34–38	16BSK30-38-2	0.126	50
2	38–42	16BSK30-42-2	0.130	50
2	42–46	16BSK30-46-2	0.139	50
2	46–50	16BSK30-50-2	0.149	50

yoke clip with steel-thrust trough for C-profile 23 x 11

15

16

BS23-...

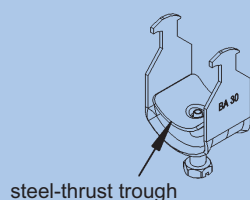
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

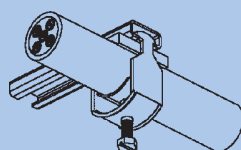
Technische Daten

- 16BS23-... suitable for profile rails with slot width 11–12 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double troughs must be ordered separately.

Ordering information



steel-thrust trough



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	6–12	16BS23-12	0.020	100
1	10–14	16BS23-14	0.022	100
1	12–16	16BS23-16	0.024	100
1	14–18	16BS23-18	0.025	100
1	18–22	16BS23-22	0.028	100
1	22–26	16BS23-26	0.037	100
1	26–30	16BS23-30	0.045	100
1	30–34	16BS23-34	0.056	100
1	34–38	16BS23-38	0.064	100
1	38–42	16BS23-42	0.085	100
1	42–46	16BS23-46	0.097	100
1	46–50	16BS23-50	0.104	50
1	50–54	16BS23-54	0.110	50
1	54–58	16BS23-58	0.118	50
1	58–64	16BS23-64	0.128	50
1	64–70	16BS23-70	0.170	50
1	70–76	16BS23-76	0.184	50
1	76–82	16BS23-82	0.201	50
1	82–90	16BS23-90	0.224	50
1	90–100	16BS23-100	0.237	25
1	100–110	16BS23-110	0.264	25

BS23-...

yoke clip with steel-thrust trough for C-profile 23 x 11

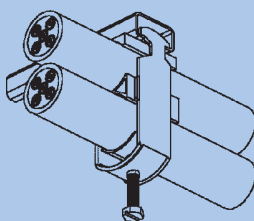
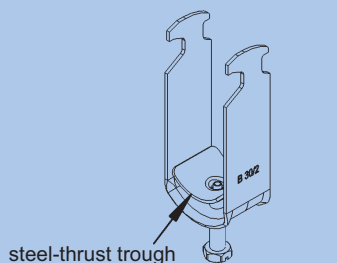
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

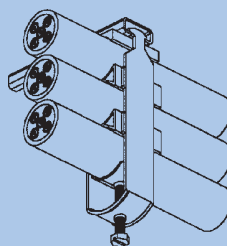
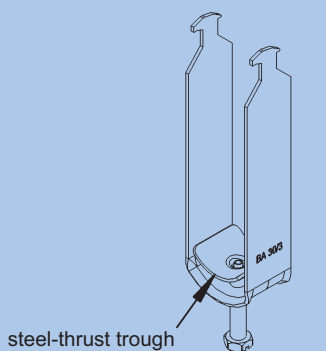
Technical data

- 16BS23-... suitable for profile rails with slot width 11–12 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

Order information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	10–12	16BS23-12-2	0.028	100
2	12–14	16BS23-14-2	0.031	100
2	14–16	16BS23-16-2	0.034	100
2	16–18	16BS23-18-2	0.036	100
2	18–22	16BS23-22-2	0.042	100
2	22–26	16BS23-26-2	0.057	100
2	26–30	16BS23-30-2	0.067	100
2	30–34	16BS23-34-2	0.081	100
2	34–38	16BS23-38-2	0.118	50
2	38–42	16BS23-42-2	0.128	50
2	42–46	16BS23-46-2	0.141	50
2	46–50	16BS23-50-2	0.150	50



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
3	9–12	16BS23-12-3	0.035	100
3	12–14	16BS23-14-3	0.040	100
3	14–16	16BS23-16-3	0.043	100
3	16–18	16BS23-18-3	0.047	100
3	18–20	16BS23-20-3	0.051	100
3	20–22	16BS23-22-3	0.055	100
3	22–24	16BS23-24-3	0.071	100
3	24–26	16BS23-26-3	0.077	100
3	26–28	16BS23-28-3	0.082	100
3	28–30	16BS23-30-3	0.089	100

yoke clip with plastic-thrust trough for C-profile 23 x 11

15
16 BSK23-...

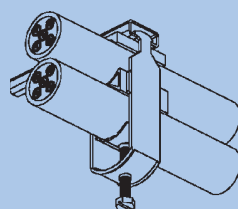
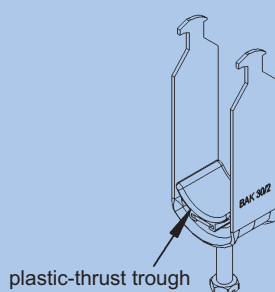
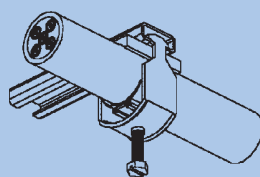
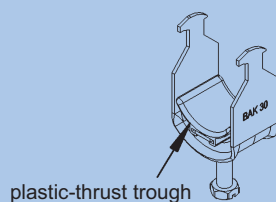
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSK23-... suitable for profile rails with slot width 11–12 mm
- with plastic-thrust trough (free of halogen)
- counter and double trough must be ordered separately

Ordering information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	6–14	16BSK23-14	0.022	100
1	14–18	16BSK23-18	0.025	100
1	18–22	16BSK23-22	0.028	100
1	22–26	16BSK23-26	0.037	100
1	26–30	16BSK23-30	0.045	100
1	30–34	16BSK23-34	0.056	100
1	34–38	16BSK23-38	0.064	100
1	38–42	16BSK23-42	0.085	100
1	42–46	16BSK23-46	0.097	100
1	46–50	16BSK23-50	0.104	50
1	50–54	16BSK23-54	0.110	50
1	54–58	16BSK23-58	0.118	50
1	58–64	16BSK23-64	0.128	50
1	64–70	16BSK23-70	0.170	50
1	70–76	16BSK23-76	0.184	50
1	76–82	16BSK23-82	0.201	50
1	82–90	16BSK23-90	0.224	25
1	90–100	16BSK23-100	0.237	25
1	100–110	16BSK23-110	0.264	25

number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	VPE (St.)
2	10–14	16BSK23-14-2	0,031	100
2	14–18	16BSK23-18-2	0,036	100
2	18–22	16BSK23-22-2	0,042	100
2	22–26	16BSK23-26-2	0,057	100
2	26–30	16BSK23-30-2	0,067	100
2	30–34	16BSK23-34-2	0,081	100
2	34–38	16BSK23-38-2	0,118	50
2	38–42	16BSK23-42-2	0,128	50
2	42–46	16BSK23-46-2	0,141	50
2	46–50	16BSK23-50-2	0,150	50

15

16

BS40-...

Universal clip with steel-thrust trough for C-profile 40 x 22 or 41 x 41

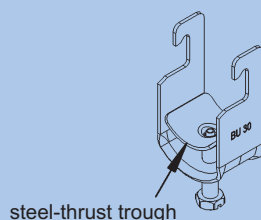
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

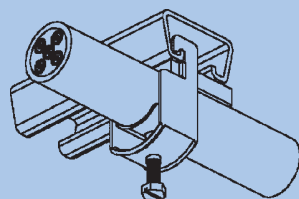
Technical data

- 16BS40-... suitable for profile rails with slot width 18–22 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

Order information



steel-thrust trough



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	6–12	16BS40-12	0.020	100
1	10–14	16BS40-14	0.022	100
1	12–16	16BS40-16	0.024	100
1	14–18	16BS40-18	0.025	100
1	18–22	16BS40-22	0.028	100
1	22–26	16BS40-26	0.037	100
1	26–30	16BS40-30	0.045	100
1	30–34	16BS40-34	0.056	100
1	34–38	16BS40-38	0.064	100
1	38–42	16BS40-42	0.085	100
1	42–46	16BS40-46	0.097	100
1	46–50	16BS40-50	0.104	50
1	50–54	16BS40-54	0.110	50
1	54–58	16BS40-58	0.118	50
1	58–64	16BS40-64	0.128	50
1	64–70	16BS40-70	0.170	50
1	70–76	16BS40-76	0.184	50
1	76–82	16BS40-82	0.201	50
1	82–90	16BS40-90	0.224	50
1	90–100	16BS40-100	0.237	25
1	100–110	16BS40-110	0.264	25

Universal clip with steel-thrust trough for C-profile 40 x 22 or 41 x 41

15
16 BS40-...

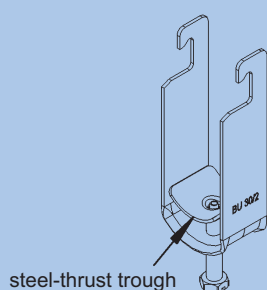
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

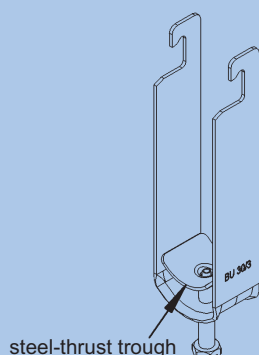
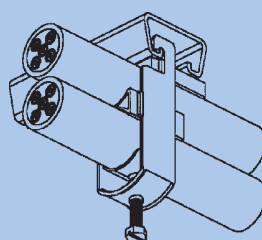
Technical data

- 16BS40-... suitable for profile rails with slot width 18–22 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

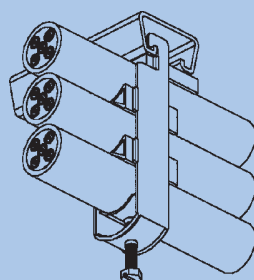
Ordering information



steel-thrust trough



steel-thrust trough



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	10–12	16BS40-12-2	0.033	100
2	12–14	16BS40-14-2	0.036	100
2	14–16	16BS40-16-2	0.038	100
2	16–18	16BS40-18-2	0.040	100
2	18–22	16BS40-22-2	0.046	100
2	22–26	16BS40-26-2	0.061	100
2	26–30	16BS40-30-2	0.068	100
2	30–34	16BS40-34-2	0.082	100
2	34–38	16BS40-38-2	0.121	50
2	38–42	16BS40-42-2	0.129	50
2	42–46	16BS40-46-2	0.140	50
2	46–50	16BS40-50-2	0.149	50

number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
3	10–12	16BS40-12-3	0.040	100
3	12–14	16BS40-14-3	0.045	100
3	14–16	16BS40-16-3	0.048	100
3	16–18	16BS40-18-3	0.051	100
3	18–20	16BS40-20-3	0.055	100
3	20–22	16BS40-22-3	0.058	100
3	22–24	16BS40-24-3	0.075	100
3	24–26	16BS40-26-3	0.078	100
3	26–28	16BS40-28-3	0.083	100
3	28–30	16BS40-30-3	0.088	100

15

16

BSK40-...

Universal clip with plastic-thrust trough for C-profile 40 x 22 or 41 x 41

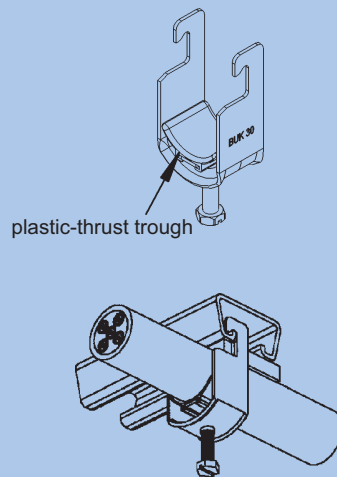
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSK40-... suitable for profile rails with slot width 18–22 mm
- with plastic-thrust trough (free of halogen)
- counter and double trough must be ordered separately

Order information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	8–14	16BSK40-14	0.032	100
1	14–18	16BSK40-18	0.034	100
1	18–22	16BSK40-22	0.037	100
1	22–26	16BSK40-26	0.047	100
1	26–30	16BSK40-30	0.051	100
1	30–34	16BSK40-34	0.054	100
1	34–38	16BSK40-38	0.063	100
1	38–42	16BSK40-42	0.081	100
1	42–46	16BSK40-46	0.093	100
1	46–50	16BSK40-50	0.098	50
1	50–54	16BSK40-54	0.106	50
1	54–58	16BSK40-58	0.112	50
1	58–64	16BSK40-64	0.122	50
1	64–70	16BSK40-70	0.158	50
1	70–76	16BSK40-76	0.171	50
1	76–82	16BSK40-82	0.177	50
1	82–90	16BSK40-90	0.203	25
1	90–100	16BSK40-100	0.227	25
1	100–110	16BSK40-110	0.236	25

Universal clips with plastic-thrust trough for C-profile 40 x 22 or 41 x 41

15

16

BSK40-...

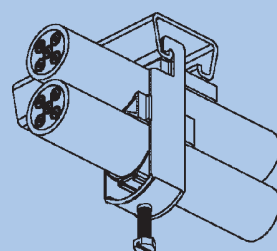
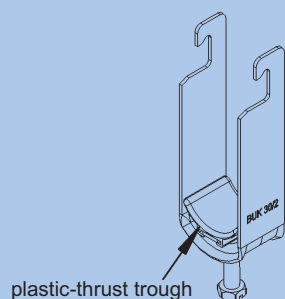
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSK 40-... suitable for profile rails with slot width 18–22 mm
- with plastic-thrust trough (free of halogen)
- counter and double trough must be ordered separately

Ordering information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	12–14	16BSK40-14-2	0.039	100
2	14–18	16BSK40-18-2	0.045	100
2	18–22	16BSK40-22-2	0.049	100
2	22–26	16BSK40-26-2	0.061	100
2	26–30	16BSK40-30-2	0.072	100
2	30–34	16BSK40-34-2	0.076	100
2	34–38	16BSK40-38-2	0.118	50
2	38–42	16BSK40-42-2	0.128	50
2	42–46	16BSK40-46-2	0.140	50
2	46–50	16BSK40-50-2	0.148	50

15

16

BSF-...

clip for flat iron with steel-thrust trough flat iron 4–12 mm

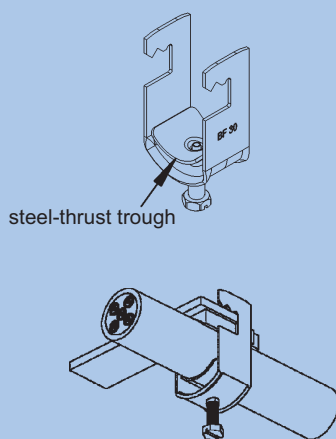
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSK40-... suitable for flat iron with a thickness of 4-12 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

Order information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	6–12mm	16BSF-12	0.027	100
1	10–14mm	16BSF-14	0.028	100
1	12–16mm	16BSF-16	0.030	100
1	14–18mm	16BSF-18	0.031	100
1	18–22mm	16BSF-22	0.035	100
1	22–26mm	16BSF-26	0.045	100
1	26–30mm	16BSF-30	0.049	100
1	30–34mm	16BSF-34	0.064	100
1	34–38mm	16BSF-38	0.071	100
1	38–42mm	16BSF-42	0.091	100
1	42–46mm	16BSF-46	0.101	100
1	46–50mm	16BSF-50	0.108	50
1	50–54mm	16BSF-54	0.110	50
1	54–58mm	16BSF-58	0.118	50
1	58–64mm	16BSF-64	0.128	50
1	64–70mm	16BSF-70	0.170	50
1	70–76mm	16BSF-76	0.184	50
1	76–82mm	16BSF-82	0.201	50
1	82–90mm	16BSF-90	0.224	50
1	90–100mm	16BSF-100	0.237	25
1	100–110mm	16BSF-110	0.264	25

clip for flat iron with steel-thrust trough flat iron 4–12 mm

15
16 BSF-...

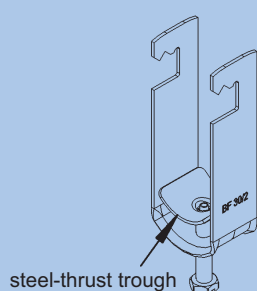
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

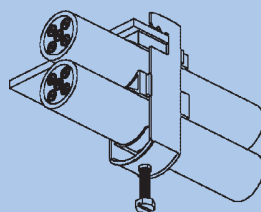
Technical data

- 16BSF-... suitable for flat iron with a thickness of 4–12 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double trough must be ordered separately

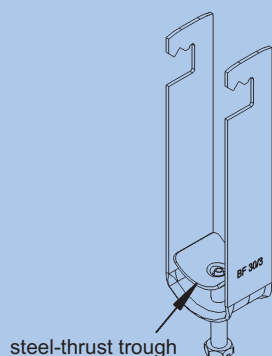
Ordering information



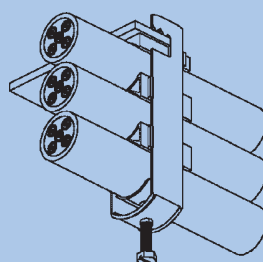
steel-thrust trough



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	10–12	16BSF-12-2	0.034	100
2	12–14	16BSF-14-2	0.037	100
2	14–16	16BSF-16-2	0.039	100
2	16–18	16BSF-18-2	0.041	100
2	18–22	16BSF-22-2	0.047	100
2	22–26	16BSF-26-2	0.063	100
2	26–30	16BSF-30-2	0.070	100
2	30–34	16BSF-34-2	0.085	100
2	34–38	16BSF-38-2	0.122	50
2	38–42	16BSF-42-2	0.131	50
2	42–46	16BSF-46-2	0.141	50
2	46–50	16BSF-50-2	0.151	50



steel-thrust trough



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
3	10–12	16BSF-12-3	0.041	100
3	12–14	16BSF-14-3	0.046	100
3	14–16	16BSF-16-3	0.049	100
3	16–18	16BSF-18-3	0.052	100
3	18–20	16BSF-20-3	0.056	100
3	20–22	16BSF-22-3	0.059	100
3	22–24	16BSF-24-3	0.076	100
3	24–26	16BSF-26-3	0.080	100
3	26–28	16BSF-28-3	0.085	100
3	28–30	16BSF-30-3	0.089	100

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16

BSFK-...

clips for flat iron with plastic-thrust trough flat iron 4–12 mm

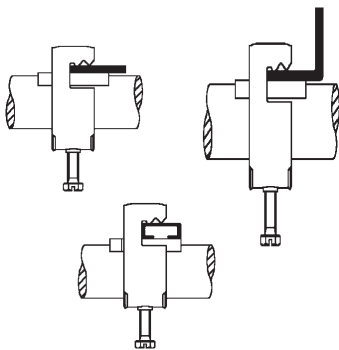
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

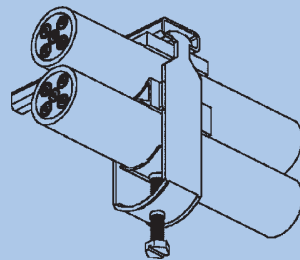
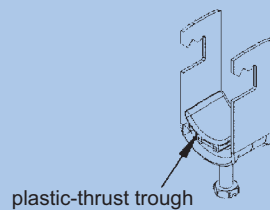
- 16BSFK-... suitable for flat iron with a thickness of 4-12 mm
- with plastic-thrust trough (halogen free)
- counter and double troughs must be ordered separately

Ordering information



Fixing details

- **Clips type BSF...**
can also be mounted to existing steel girders (max. flange width 12mm)
The spoke clamp foot with strengthened bearing edge in the screw axis safeguards - a secure support.
- This clamps can be used on ordinary cable lines as well.



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	8–14	16BSFK-14	0.034	100
1	14–18	16BSFK-18	0.037	100
1	18–22	16BSFK-22	0.038	100
1	22–26	16BSFK-26	0.049	100
1	26–30	16BSFK-30	0.053	100
1	30–34	16BSFK-34	0.056	100
1	34–38	16BSFK-38	0.068	100
1	38–42	16BSFK-42	0.089	100
1	42–46	16BSFK-46	0.099	100
1	46–50	16BSFK-50	0.105	50
1	50–54	16BSFK-54	0.108	50
1	54–58	16BSFK-58	0.112	50
1	58–64	16BSFK-64	0.128	50
1	64–70	16BSFK-70	0.167	50
1	70–76	16BSFK-76	0.182	50
1	76–82	16BSFK-82	0.187	50
1	82–90	16BSFK-90	0.207	25
1	90–100	16BSFK-100	0.224	25
1	100–110	16BSFK-110	0.240	25

clips for flat iron with plastic-thrust trough flat iron 4–12 mm

15

16

BSFK-...

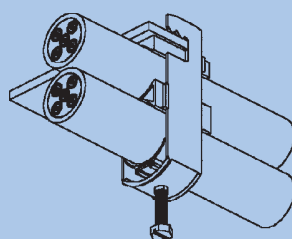
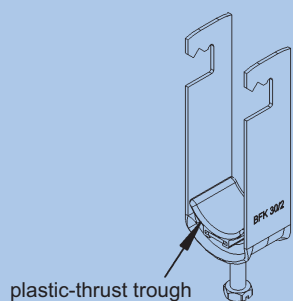
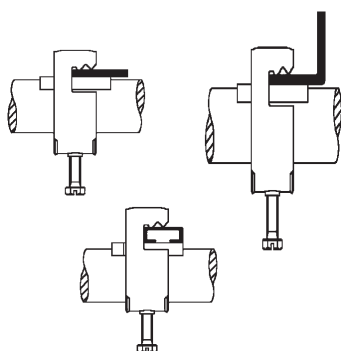
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSFK-... suitable for flat iron with a thickness of 4–12 mm
- with plastic-thrust trough (free of halogen)
- counter and double trough must be ordered separately

Ordering information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	12–14	16BSFK-14-2	0.042	100
2	14–18	16BSFK-18-2	0.047	100
2	18–22	16BSFK-22-2	0.053	100
2	22–26	16BSFK-26-2	0.073	100
2	26–30	16BSFK-30-2	0.075	100
2	30–34	16BSFK-34-2	0.079	100
2	34–38	16BSFK-38-2	0.122	50
2	38–42	16BSFK-42-2	0.133	50
2	42–46	16BSFK-46-2	0.145	50
2	46–50	16BSFK-50-2	0.152	50

Fixing details

→ Clips type BSF...

can also be mounted to existing steel girders (max. flange width 12mm)
The spoke clamp foot with strengthened bearing edge in the screw axis safeguards - a secure support.

→ This clamps can be used on ordinary cable lines as well.

15

16

BSW-...

clips for corner iron with steel-thrust trough corner iron 40 x 40 mm, thickness 4–6 mm

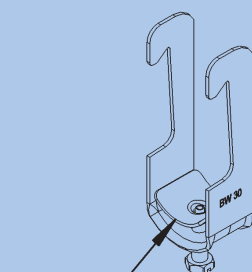
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

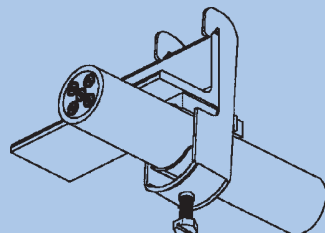
Technical data

- 16BSW-... suitable for corner iron 40 x 40 mm, thickness 4–6 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double troughs must be ordered separately

Ordering information



steel-thrust trough



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	6–12	16BSW-12	0.039	100
1	10–14	16BSW-14	0.041	100
1	12–16	16BSW-16	0.043	100
1	14–18	16BSW-18	0.044	100
1	18–22	16BSW-22	0.048	100
1	22–26	16BSW-26	0.053	100
1	26–30	16BSW-30	0.057	100
1	30–34	16BSW-34	0.069	100
1	34–38	16BSW-38	0.076	100
1	38–42	16BSW-42	0.099	100
1	42–46	16BSW-46	0.113	100
1	46–50	16BSW-50	0.119	50
1	50–54	16BSW-54	0.126	50
1	54–58	16BSW-58	0.132	50
1	58–64	16BSW-64	0.142	50
1	64–70	16BSW-70	0.186	50
1	70–76	16BSW-76	0.199	50
1	76–82	16BSW-82	0.210	50
1	82–90	16BSW-90	0.235	50
1	90–100	16BSW-100	0.248	25
1	100–110	16BSW-110	0.271	25

clips for corner iron with steel-thrust trough corner iron 40 x 40mm, thickness 4–6 mm

15

16

BSW-...

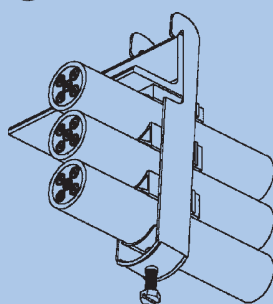
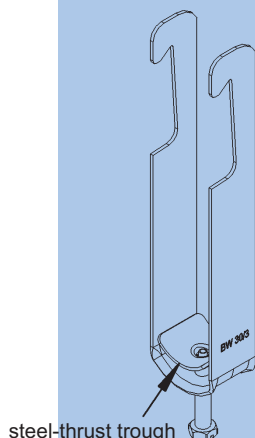
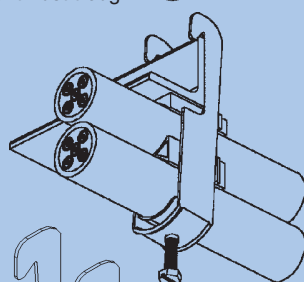
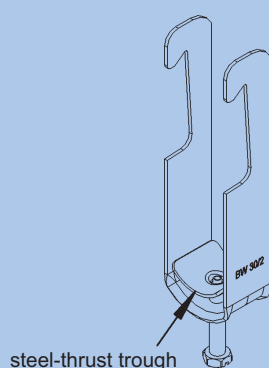
Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

Technical data

- 16BSW-... suitable for corner iron 40 x 40 mm, thickness 4–6 mm
- with steel-thrust trough (sendzimir galvanized)
- counter and double troughs must be ordered separately

Ordering information



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	10–12	16BSW-12-2	0.049	100
2	12–14	16BSW-14-2	0.053	100
2	14–16	16BSW-16-2	0.055	100
2	16–18	16BSW-18-2	0.058	100
2	18–22	16BSW-22-2	0.064	100
2	22–26	16BSW-26-2	0.071	100
2	26–30	16BSW-30-2	0.078	100
2	30–34	16BSW-34-2	0.092	50
2	34–38	16BSW-38-2	0.134	50
2	38–42	16BSW-42-2	0.143	50
2	42–46	16BSW-46-2	0.153	50
2	46–50	16BSW-50-2	0.163	50

number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
3	10–12	16BSW-12-3	0,058	100
3	12–14	16BSW-14-3	0,063	100
3	14–16	16BSW-16-3	0,067	100
3	16–18	16BSW-18-3	0,071	100
3	18–20	16BSW-20-3	0,076	100
3	20–22	16BSW-22-3	0,080	100
3	22–24	16BSW-24-3	0,085	100
3	24–26	16BSW-26-3	0,089	100
3	26–28	16BSW-28-3	0,094	100
3	28–30	16BSW-30-3	0,098	100

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16

BSWK-...

clips for corner iron with plastic-thrust trough corner iron 40 x 40 mm, thickn. 4–6 mm

Material

- sheet steel
- hot dip galvanized according to DIN EN ISO 1461

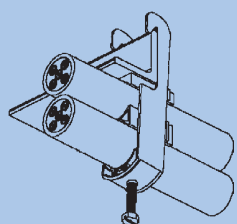
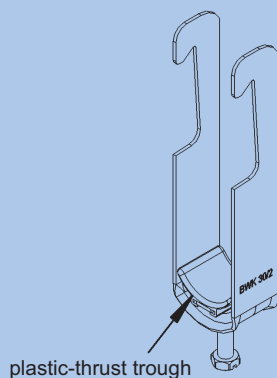
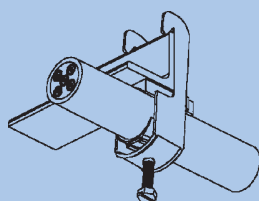
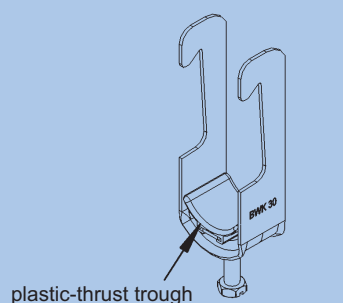
Technical data

- 16BSWK-... suitable for corner iron 40 x 40mm, thickness 4–6 mm
- with plastic thrust trough (free of halogen)
- counter and double troughs must be ordered separately

Ordering information

Fixing details

→ The usage of the **Clip type 16BSW...** is also possible at scalene angle steel as well as U-iron with minimum 40 mm leg length.



number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
1	8–14	16BSWK-14	0.037	100
1	14–18	16BSWK-18	0.040	100
1	18–22	16BSWK-22	0.053	100
1	22–26	16BSWK-26	0.058	100
1	26–30	16BSWK-30	0.062	100
1	30–34	16BSWK-34	0.065	100
1	34–38	16BSWK-38	0.073	100
1	38–42	16BSWK-42	0.096	100
1	42–46	16BSWK-46	0.110	100
1	46–50	16BSWK-50	0.115	50
1	50–54	16BSWK-54	0.124	50
1	54–58	16BSWK-58	0.130	50
1	58–64	16BSWK-64	0.139	50
1	64–70	16BSWK-70	0.184	50
1	70–76	16BSWK-76	0.188	50
1	76–82	16BSWK-82	0.196	50
1	82–90	16BSWK-90	0.216	25
1	90–100	16BSWK-100	0.235	25
1	100–110	16BSWK-110	0.257	25

number of cables	clamp. range (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
2	12–14	16BSWK-14-2	0.055	100
2	14–18	16BSWK-18-2	0.060	100
2	18–22	16BSWK-22-2	0.069	100
2	22–26	16BSWK-26-2	0.075	100
2	26–30	16BSWK-30-2	0.080	100
2	30–34	16BSWK-34-2	0.109	50
2	34–38	16BSWK-38-2	0.126	50
2	38–42	16BSWK-42-2	0.138	50
2	42–46	16BSWK-46-2	0.148	50
2	46–50	16BSWK-50-2	0.155	50

yoke clip completely made of stainless steel for C-profile 30 x 15

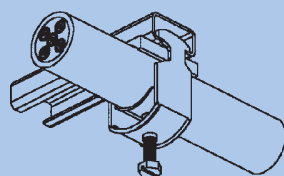
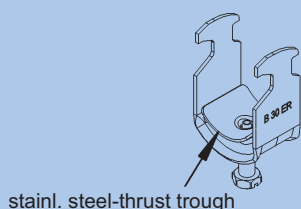
17 BS30-...

Material

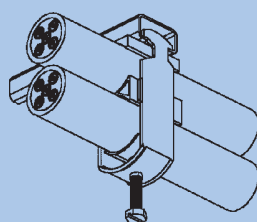
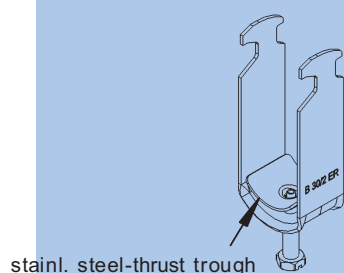
- stainless steel 1.4301 (V2A)

Technical data

- 17BS30-... suitable for profile rails with slot width 16–17 mm
- counter and double troughs must be ordered separately

Ordering information


number of cables	clamp. range (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
1	10–14	17BS30-14	0.022	100
1	14–18	17BS30-18	0.025	100
1	18–22	17BS30-22	0.028	100
1	22–26	17BS30-26	0.037	100
1	26–30	17BS30-30	0.045	100
1	30–34	17BS30-34	0.056	100
1	34–38	17BS30-38	0.064	100
1	38–42	17BS30-42	0.085	100
1	42–46	17BS30-46	0.097	100
1	46–50	17BS30-50	0.104	50
1	50–54	17BS30-54	0.110	50
1	54–58	17BS30-58	0.118	50
1	58–64	17BS30-64	0.128	50
1	64–70	17BS30-70	0.170	50
1	70–76	17BS30-76	0.184	50



number of cables	clamp. range (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
2	12–14	17BS30-14-2	0.038	100
2	16–18	17BS30-18-2	0.043	100
2	20–22	17BS30-22-2	0.058	100
2	24–26	17BS30-26-2	0.060	100
2	28–30	17BS30-30-2	0.067	100
2	32–34	17BS30-34-2	0.077	100
2	36–38	17BS30-38-2	0.126	50
2	40–42	17BS30-42-2	0.130	50
2	44–46	17BS30-46-2	0.139	50
2	48–50	17BS30-50-2	0.149	50

17 BS40-...

Universal clip completely made of stainless steel for C-profile 40 x 22 or 41 x 41

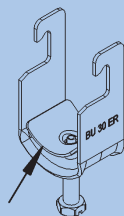
Material

- stainless steel 1.4301 (V2A)

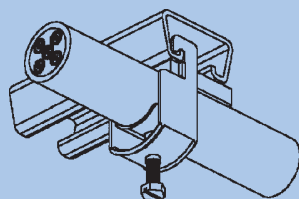
Technical data

- 17BS40-... suitable for profile rails with slot width 8–22 mm
 - counter and double troughs must be ordered separately

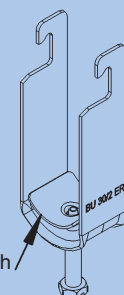
Ordering information



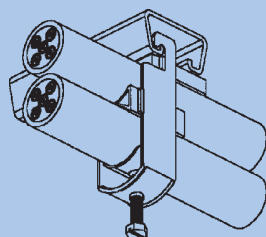
stainl. steel-thrust trough



number of cables	clamp. range (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
1	6–12	17BS40-12	0,024	100
1	10–14	17BS40-14	0,027	100
1	14–18	17BS40-18	0,029	100
1	18–22	17BS40-22	0,033	100
1	22–26	17BS40-26	0,042	100
1	26–30	17BS40-30	0,046	100
1	30–34	17BS40-34	0,056	100
1	34–38	17BS40-38	0,061	100
1	38–42	17BS40-42	0,068	100
1	42–46	17BS40-46	0,094	100
1	46–50	17BS40-50	0,099	50
1	50–54	17BS40-54	0,110	50
1	54–58	17BS40-58	0,121	50



stainl. steel-thrust trough



number of cables	clamp. range (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
2	6–12	17BS40-12-2	0.032	100
2	12–14	17BS40-14-2	0.035	100
2	14–16	17BS40-16-2	0.038	100
2	16–18	17BS40-18-2	0.039	100
2	20–22	17BS40-22-2	0.046	100
2	24–26	17BS40-26-2	0.059	100
2	28–30	17BS40-30-2	0.066	100
2	32–34	17BS40-34-2	0.080	100
2	36–38	17BS40-38-2	0.091	50
2	40–42	17BS40-42-2	0.126	50
2	44–46	17BS40-46-2	0.137	50
2	48–50	17BS40-50-2	0.142	50

counter trough for yoke clip for C-profile 30 x 15

20 GW30-...

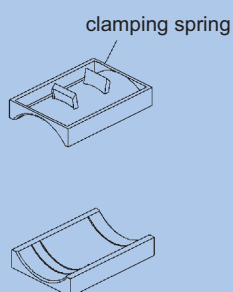
Material

- plastic
- halogen free

Technical data

- self adherent on C-profiles with slot width of 16–17 mm by means of clamping spring

Ordering information



number cables	clamp. range (mm)	Order No. plastic	Weight (kg/pce)	PU (pce)
halogen free	12	20GW30-12	0.001	100
halogen free	14	20GW30-14	0.001	100
halogen free	16	20GW30-16	0.001	100
halogen free	18	20GW30-18	0.001	100
halogen free	22	20GW30-22	0.002	100
halogen free	26	20GW30-26	0.002	100
halogen free	30	20GW30-30	0.003	100
halogen free	34	20GW30-34	0.004	100
halogen free	38	20GW30-38	0.006	50
halogen free	42	20GW30-42	0.006	50
halogen free	46	20GW30-46	0.007	50
halogen free	50	20GW30-50	0.008	50
halogen free	54	20GW30-54	0.012	50
halogen free	58	20GW30-58	0.013	50
halogen free	64	20GW30-64	0.014	50
halogen free	70	20GW30-70	0.015	50
halogen free	76	20GW30-76	0.016	25
halogen free	82	20GW30-82	0.017	25
halogen free	90	20GW30-90	0.019	25
halogen free	100	20GW30-100	0.021	25
halogen free	110	20GW30-110	0.023	25

20 GW23-...

counter trough for yoke clip for C-profile 23 x 11

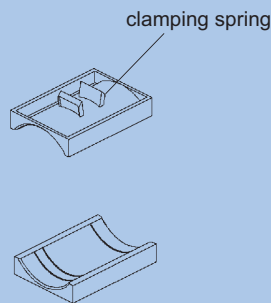
Material

- plastic
- halogen free

Technical data

- self adhesent on C-profiles with slot width by means of clamping spring

Ordering information



number cabel	clamp. range (mm)	Order No. plastic halogen free	Weight (kg/pce)	PU (pce)
halogen free	12	20GW23-12	0.001	100
halogen free	14	20GW23-14	0.001	100
halogen free	16	20GW23-16	0.001	100
halogen free	18	20GW23-18	0.001	100
halogen free	22	20GW23-22	0.002	100
halogen free	26	20GW23-26	0.003	100
halogen free	30	20GW23-30	0.003	100
halogen free	34	20GW23-34	0.004	100
halogen free	38	20GW23-38	0.006	50
halogen free	42	20GW23-42	0.006	50
halogen free	46	20GW23-46	0.007	50
halogen free	50	20GW23-50	0.008	50
halogen free	54	20GW23-54	0.012	50
halogen free	58	20GW23-58	0.013	50
halogen free	64	20GW23-64	0.014	50
halogen free	70	20GW23-70	0.015	50
halogen free	76	20GW23-76	0.016	25
halogen free	82	20GW23-82	0.017	25
halogen free	90	20GW23-90	0.019	25
halogen free	100	20GW23-100	0.021	25
halogen free	110	20GW23-110	0.023	25

Universal counter trough for all kind of clips



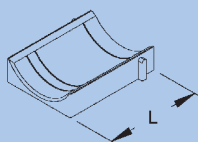
Material

- plastic
- halogen free

Technical data

- for insertion into the clip bracket
- for all C-profiles as well as flat iron and angle iron
- 20 GWU12 – 20GWU50 – L = 40 mm
- 20 GWU54 – 20GWU56 – L = 45 mm

Ordering information



number of cables	clamp. range (mm)	Order No. plastic	Weight (kg/pce)	PU (pce)
halogen free	12	20GWU-12	0.001	100
halogen free	14	20GWU-14	0.001	100
halogen free	16	20GWU-16	0.001	100
halogen free	18	20GWU-18	0.001	100
halogen free	22	20GWU-22	0.003	100
halogen free	26	20GWU-26	0.003	100
halogen free	30	20GWU-30	0.005	100
halogen free	34	20GWU-34	0.005	100
halogen free	38	20GWU-38	0.006	50
halogen free	42	20GWU-42	0.006	50
halogen free	46	20GWU-46	0.007	50
halogen free	50	20GWU-50	0.008	50
halogen free	54	20GWU-54	0.013	50
halogen free	58	20GWU-58	0.015	50
halogen free	64	20GWU-64	0.016	50
halogen free	70	20GWU-70	0.018	50
halogen free	76	20GWU-76	0.020	25
halogen free	82	20GWU-82	0.022	25
halogen free	90	20GWU-90	0.024	25
halogen free	100	20GWU-100	0.028	25
halogen free	110	20GWU-110	0.032	25

20 DW-...

double troughs for all clips for 2 or 3 cables

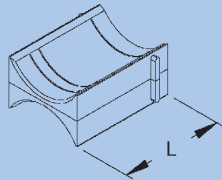
Material

- plastic
- halogen free

Technical data

- for insertion between the cables
- L = 40 mm

Ordering information



number of cables	clamp. range (mm)	Order No. plastic	Weight (kg/pce)	PU (Pce)
2 or 3	12	20DW-12	0.002	100
2 or 3	14	20DW-14	0.003	100
2 or 3	16	20DW-16	0.004	100
2 or 3	18	20DW-18	0.004	100
2 or 3	20	20DW-20	0.004	100
2 or 3	22	20DW-22	0.004	100
2 or 3	26	20DW-26	0.005	100
2 or 3	30	20DW-30	0.006	100
2 or 3	34	20DW-34	0.006	100
2 or 3	38	20DW-38	0.007	50
2 or 3	42	20DW-42	0.013	50
2 or 3	46	20DW-46	0.014	50
2 or 3	50	20DW-50	0.015	50

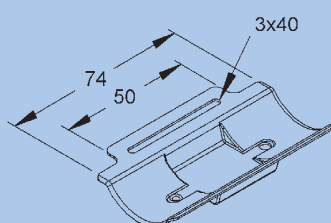
counter trough made of steel

Material

- sheet steel
- continuously hot galvanized according to DIN EN 10327



Ordering information



clamp. range (mm)	Order No. cont. hot galv.	Weight (kg/pce)	PU (pce)
14	15GW-14	0.010	50/500
16	15GW-16	0.011	50/500
18	15GW-18	0.012	50/500
22	15GW-22	0.014	50/500
26	15GW-26	0.015	50/500
30	15GW-30	0.017	50/500
34	15GW-34	0.019	50/500
38	15GW-38	0.022	50/500



Cable protection tubes

RICO cable protection tubes for laying cable in places where the usual cable support constructions cannot be used because of special technical requirements.

Table of contents **Page**

Cable protection tube Ø 30 mm + accessory **372**

Cable protection tube Ø 60 mm + accessory **377**



Cable protection tubes

The background of the page is a light gray, semi-transparent image showing various cable protection tubes and accessories. A large, curved tube is the central focus, with several straight tubes of different sizes and metal mounting brackets scattered around it. The overall aesthetic is clean and industrial.

Cable protection tubes

RICO cable protection tubes for laying cable in places where the usual cable support constructions cannot be used because of special technical requirements.

Table of contents

Page

Cable protection tube Ø 30 mm

protection tube: 16V3-6000 / 17V3-6000	372
Accessory protection tube	372-376

Cable protection tube Ø 60 mm

protection tube: 161V3-6000 / 171V3-6000-	377
protection tube, slotted: 161V3-6000-L	377
Accessory protection tube	377-384

Cable protection tubes

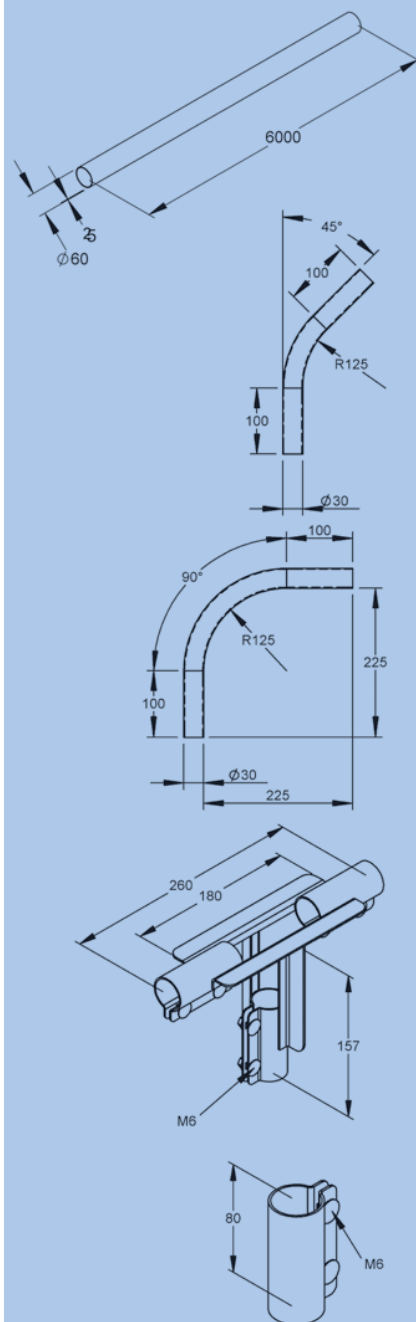
Accessory \varnothing 30 mm

16
17 V-...

protection tube 16V3-6000 / 17V3-6000, protection tube bend 45° 16V5-A / 17V5-A, protection tube bend 90° 16V4-A / 17V4-A, protection tube tee 16V10-A / 17V10-A, protection tube sleeve 16V6-A / 17V6-A

Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 30mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



protection tube

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V3-6000	17V3-6000	6.8	1 x 6 m

protection tube bend 45°

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V5-A	17V5-A	0.35	1

protection tube bend 90°

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V4-A	17V4-A	0.48	1

protection tube tee

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V10-A	17V10-A	0.67	1

protection tube sleeve

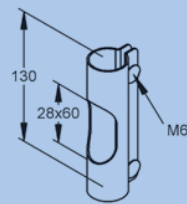
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V6-A	17V6-A	0.12	1

protection tube long hole sleeve 16V6-B / 17V6-B,
 floor support 16V8-A / 17V8-A, floor corner 16V8-B / 17V8-B,
 mounting plate 16V11-A / 17V11-A, 16V11-B / 17V11-B



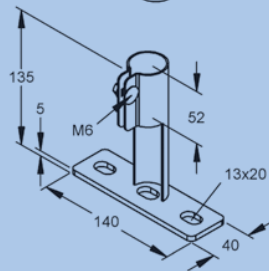
Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 30mm diameter
Field of application	- protected cable deviations to consuming units

Ordering information



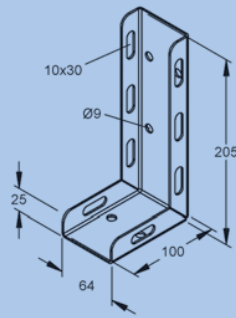
protection tube long hole sleeve

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V6-B	17V6-B	0.17	1



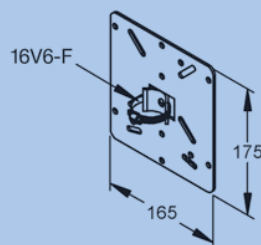
protection tube floor support

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V8-A	17V8-A	0.36	1



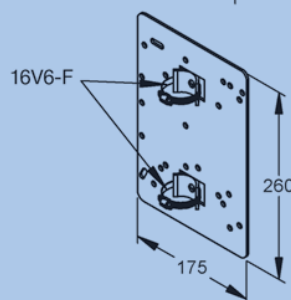
protection tube floor corner

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V4-B	17V8-B	0.48	1



protection tube mounting plate, incl. 1 endless screw clamp

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V11-A	17V11-A	0.69	1



protection tube mounting plate, incl. 2 endless screw clamp

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V11-B	17V11-B	1.13	1

Cable protecting tubes

Cable protection tubes

Accessory \varnothing 30 mm

16

17

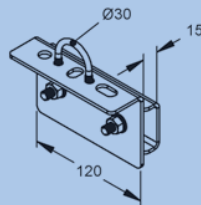
V-...

protection tube support with bracket 16V2-6015-B / 17V2-6015-B, 16V2-6030-B/17V2-6030-B, protection tube support with bracket, 16V2-B / 17V2-B, protection tube with sleeve 16V2-3015-M / 17V2-3015-M, 16V2-3030-M / 17V2-3030-M

Material
Technical data
Field of application

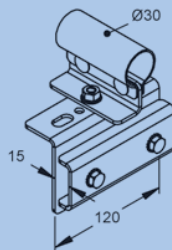
- steel
- hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
- tube system for cable protection with 30mm diameter
- protected cable deviation for consuming units

Ordering information



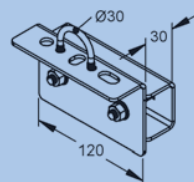
protection tube support with bracket, for fixing to cable tray or ladder

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V2-6015-B	17V3-6015-B	0.55	1



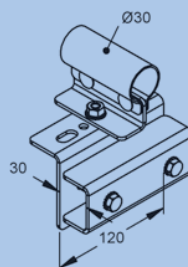
protection tube support with sleeve, for fixing to cable tray or ladder

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V2-3015-M	17V2-3015-M	1.31	1



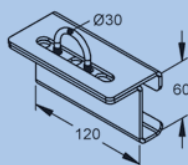
protection tube support with bracket, for fixing to wide span cable tray or ladder

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V2-6030-B	17V2-6030-B	0.64	1



protection tube support with sleeve, for fixing to wide span tray or ladder

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V2-3030-M	17V2-3030-M	1.41	1



protection tube with bracket, for fixing to cable ladders

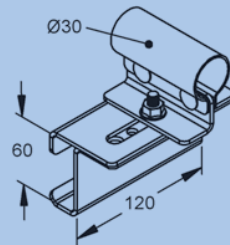
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V2-B	17V2-B	0.88	1

protection tube support with sleeve 16V2-M, protection tube oblong hole sleeve 17V2-M,
 protection tube clip 16V6-C / 17V6-C, tube clamp 16V6-D / 17V6-D,
 protection tube anchor clip 16V6-E / 17V6-E



Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 30mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



protection tube support with bracket, for fixing to cable ladder

Diameter (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
30	16V2-M	0.8	1

protection tube support with oblong hole sleeve for fixing to cable ladders

Diameter (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	17V2-M	0.8	1



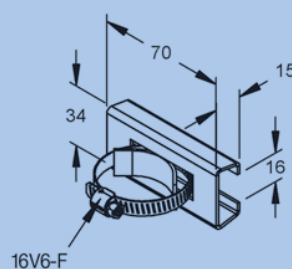
protection tube clip

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V6-C	17V6-C	0.06	1



tube clamp

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V6-D	17V6-D	0.03	1



protection tube anchor clip

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	16V6-E	17V6-E	0.08	1

Cable protection tubes

Accessory \varnothing 30 mm

15
17 V-...

endless screw clamp 17V6-F, protective end cap 15V9-B, protective ring 15V9-A

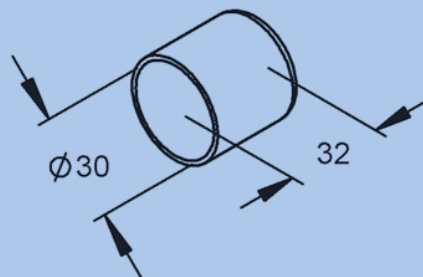
Material	- steel - stainless steel, material 1.4301 (V2A) or flexible plastic, safety colour yellow similar RAL 1021
Technical data	- tube system for cable protection with 30mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



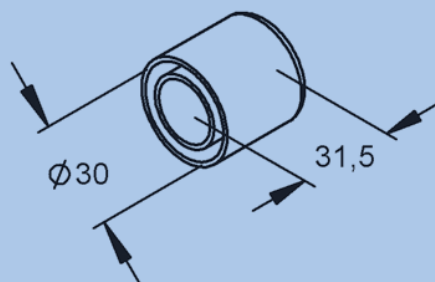
endless screw clamp

Diameter (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
30	17V6-F	0.02	50



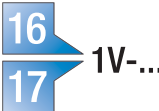
protective end cap, of flexible plastic

Diameter (mm)	Order No. plastic	Weight (kg/pce)	PU (pce)
30	15V9-B	0.01	25



protective rung, of flexible plastic

Diameter (mm)	Order No. plastic	Weight (kg/pce)	PU (pce)
30	15V9-A	0.01	25



protection tube 161V3-6000 / 171V3-6000, 161V3-6000-L,
 protection tube bend 45° 161V5-A / 171V5-A,
 protection tube bend 90° 161V4-A / 171V4-A

Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information

protection tube				
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V3-6000	171V3-6000	18.48	1 x 6 m

protection tube, slotted				
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V3-6000-L		17.76	1 x 6 m

protection tube bend 45°				
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V5-A	171V5-A	0.98	1

protection tube bend 90°				
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V4-A	171V4-A	1.34	1

Cable protection tubes

Cable protection tubes

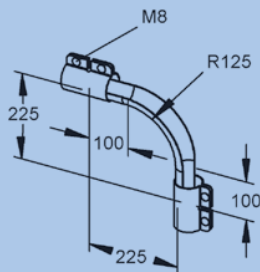
Accessory \varnothing 60 mm

16
17 1V-...

protection tube bend 90° 161V4-B / 171V4-B, 161V4-C,
protection tube tee 161V10-A / 171V10-A,
protection tube sleeve 161V6-A / 171V6-A

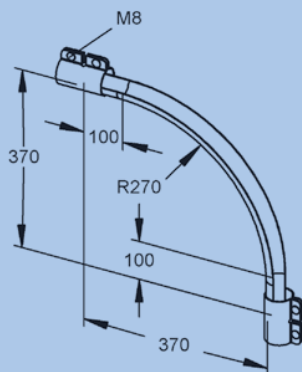
Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviations to consuming units

Ordering information



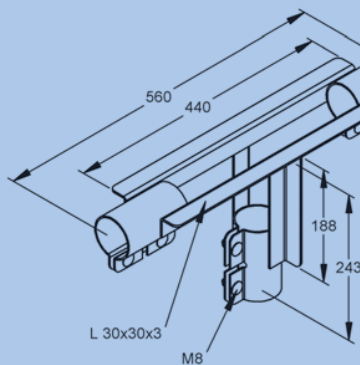
protection tube bend 90° open, small

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V4-B	171V4-B	1.8	1



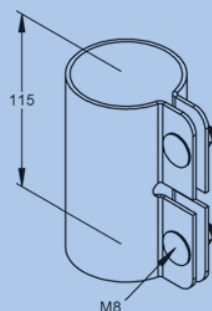
protection tube bend 90° open, big

Diameter (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
60	161V4-C	2.4	1



protection tube tee

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V10-A	171V10-A	3.52	1



protection tube sleeve

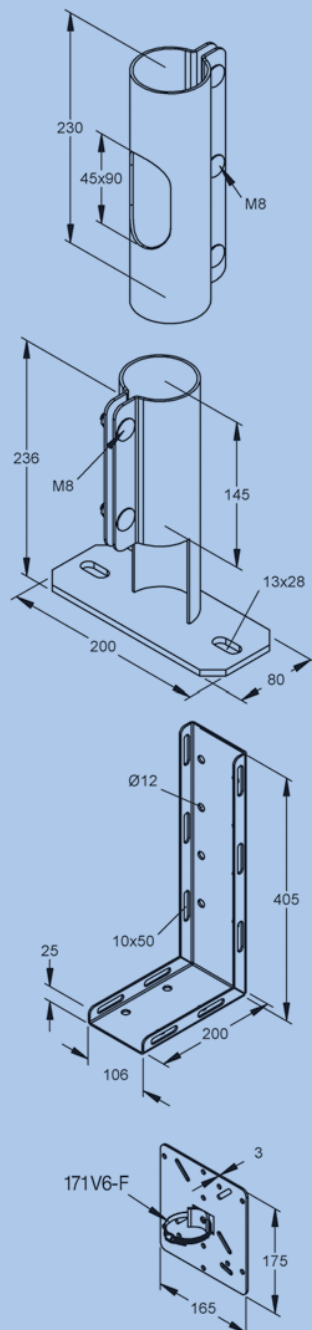
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V6-A	171V6-A	0.56	1



protection tube oblong hole sleeve 161V6-B / 171V6-B,
 protection tube floor support 161V8-A / 171V8-A,
 protection tube floor corner 161V8-B / 171V8-B,
 protection tube mounting plate 161V11-A / 171V11-A

Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



protection tube, oblong hole sleeve

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V6-B	171V6-B	1.07	1

protection tube floor fixing

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V8-A	171V8-A	1.65	1

protection tube floor corner

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V8-B	171V8-B	2.05	1

protection tube mounting plate, incl. 1 endless screw clamp

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V11-A	171V11-A	0.69	1

Cable protection tubes

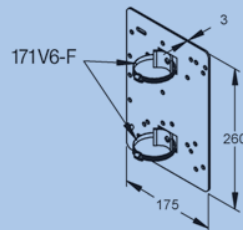
Accessory \varnothing 60 mm

16
17 1V-...

protection tube mounting plate 161V11-B / 171V11-B, 161V11-C / 171V11-C,
mounting support 161V7-... / 171V7-300, 161V7-300-A / 171V7-300-A

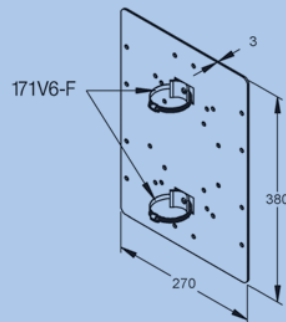
Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



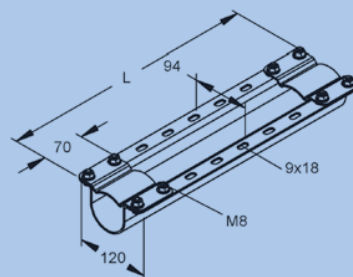
protection tube mounting plate, incl. 2 endless screw clamps

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V11-B	171V11-B	1.13	1



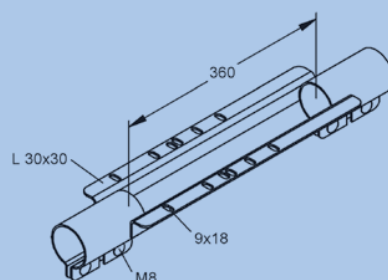
protection tube mounting plate, incl. 2 endless screw clamps

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V11-C	171V11-C	2.57	1



mounting support, closed

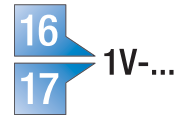
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V7-300	171V7-300	1.81	1
60	161V7-400		2.23	1
60	161V7-500		2.65	1
60	161V7-600		3.06	1



mounting support

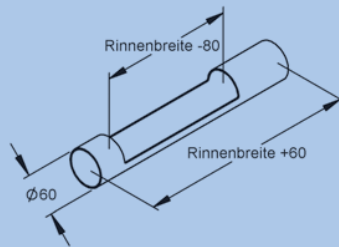
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V7-300-A	171V7-300-A	2.30	1

protection tube downward 161V12-... / 171V12-200, protection tube support with bracket 161V2-6015-B / 171V2-6015-B, 161V2-6030-B / 171V2-6030-B, protection tube support with sleeve 161V2-6015-M / 171V2-6015-M



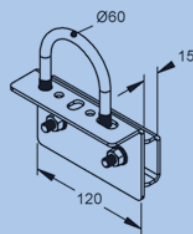
Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



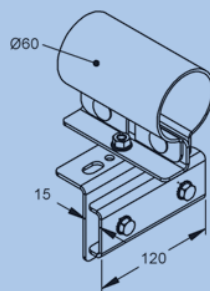
protection tube downward

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V12-200	171V12-200	0.62	1
60	161V12-300		0.77	1
60	161V12-400		0.93	1
60	161V12-500		1.08	1
60	161V12-600		1.23	1



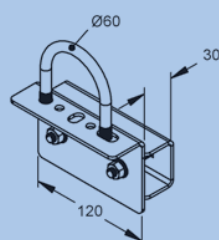
protection tube support with bracket, for fixing to cable trays or ladders

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V2-6015-B	171V2-6015-B	0.64	1



protection tube support with sleeve, for fixing to cable trays or ladders

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V2-6015-M	171V2-6015-M	1.81	1



protection tube support with bracket, for fixing to wide span cable trays or ladders

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V2-6030-B	171V2-6030-B	0.73	1

Cable protection tubes

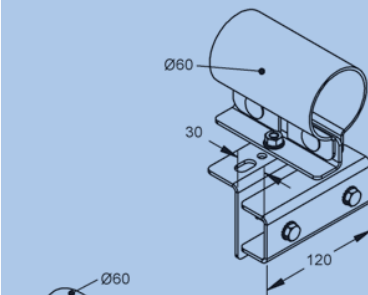
Accessory \varnothing 60 mm

16
17 1V-...

protection tube support with sleeve 161V2-6030-M / 171V2-6030-M,
161V2-M / 171V2-M, protection tube support with bracket 161V2-B / 171V2-B,
protection tube floor standing 161V8-C / 171V8-C,
protection tube clamp 161V6-C / 171V6-C

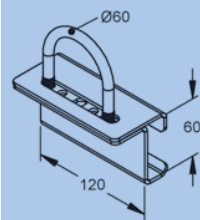
Material	- steel - hot dip galvanized according to DIN EN ISO 1461 or stainless steel, material 1.4301 (V2A)
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



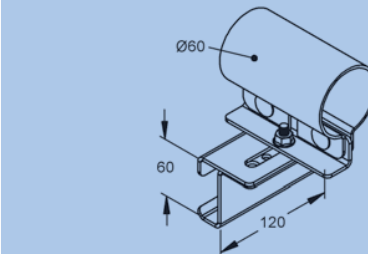
protection tube support with sleeve, for fixing to wide span cable trays or ladders

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V2-6030-M	171V2-6030-M	1.91	1



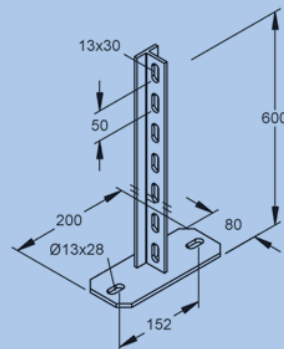
protection tube support with bracket, for fixing to cable ladders

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V2-B	171V2-B	0.97	1



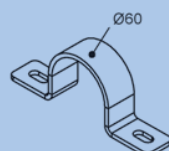
protection tube support with sleeve, for fixing to cable ladders

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V2-M	171V2-M	1.29	1



protection tube floor standing

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V8-C	171V8-C	2.60	1



protection tube clamp

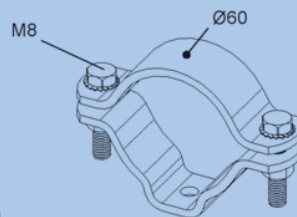
Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V6-C	171V6-C	0.22	1

heavy screwed distance clamp 16ASS-60, tube clamp 161V6-D / 171V6-D, protection tube anchor clip 161V6-E / 171V6-E, endless screw clamp 171V6-F, protective end cap 151V9-B, protective ring 151V9-A

15
16 1V-...
17

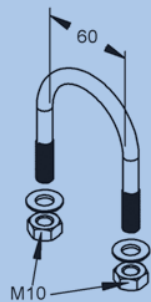
Material	- steel - hot dip galvanized according to DIN EN ISO 1461, stainless steel, material 1.4301 (V2A) or flexible plastic, security colour yellow similar RAL 1021
Technical data	- tube system for cable protection with 60mm diameter
Field of application	- protected cable deviation to consuming units

Ordering information



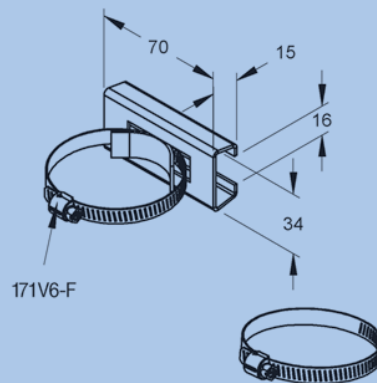
heavy screwed distance clamp

Diameter (mm)	Order No. hot dip galv.	Weight (kg/pce)	PU (pce)
60	16ASS-60	0.31	1



tube clamp

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V6-D	171V6-D	0.11	1

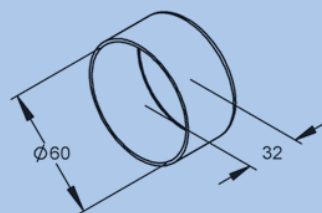


protection tube anchor clip incl. 1 endless screw clamp

Diameter (mm)	Order No. hot dip galv.	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	161V6-E	171V6-E	0.08	1

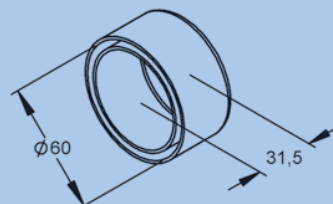
endless screw clamp

Diameter (mm)	Order No. stainl. steel	Weight (kg/pce)	PU (pce)
60	171V6-F	0.02	50



protective end cap of flexible plastic

Diameter (mm)	Order No. plastic	Weight (kg/pce)	PU (pce)
60	151V9-B	0.02	25



protective end cap of flexible plastic

Diameter (mm)	Order No. plastic	Weight (kg/pce)	PU (pce)
60	151V9-A	0.02	25

Cable protection tubes

Accessory \varnothing 60 mm

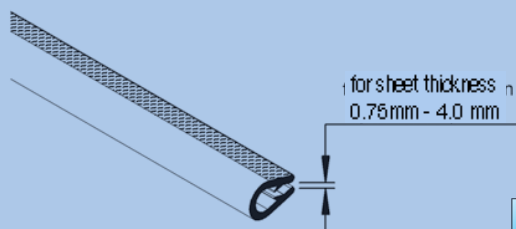
15 V13-A
18

15 J19-A

edge protection 15V13-A / 18V13-A,
warning symbol 17V11-WZ105,
cold galvanizing set 15J19-A

Material	- plastic
Technical data	- temperature range $-40\text{ }^{\circ}\text{C}$ to $+90\text{ }^{\circ}\text{C}$
Field of application	- protected cable deviation to consuming units

Ordering information



edge protection with steel inlay

Order No. plastic	Weight (kg/m)	PU (m)
15V13-A	0.14	10



edge protection with V4A steel inlay

Order No. plastic	Weight (m)	PU (m)
18V13-A	0.14	10



Warning symbol
adhesive label DIN 4844
yellow/red

Order No.	Weight (kg/pce)
17V11-WZ105	-



cold galvanizing set

Order No.	Weight (kg/pce)
15J19-A	0.75



A close-up photograph of marine cable ladder components, showing several parallel metal bars with rectangular slots. The image is overlaid with a semi-transparent blue filter. The background of the entire page is a light orange color with a faint, large-scale pattern of these ladder components.

Marine cable ladders

This chapter contains an overview of the RICO marine cable ladders for various loads and applications subdivided in product families.

Table of content

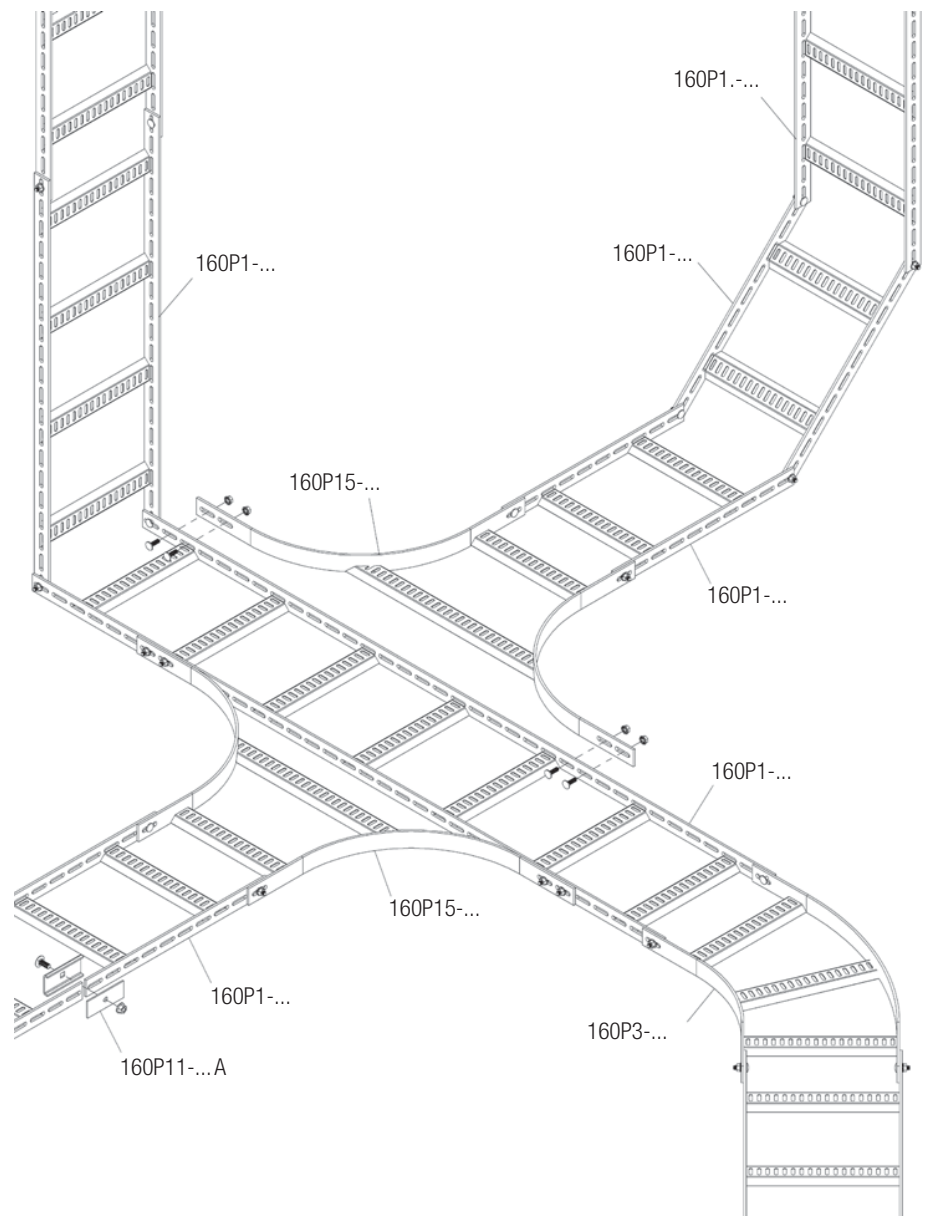
Page



Marine cable ladders
40 mm side height

390

System overview
Marine
cable ladder



Marine cable ladders

This cable ladder was developed especially for the shipbuilding. Furthermore it is applicable in the industry and in tunneling, nuclear power plants and plant construction.

By the slotted rung design the cables can be fixed fast and easily with cable ties.

The new continuous perforation of the sides makes it possible to screw the wall connection pieces steplessly and without drilling. The cable ladder is flexibel in application and can be used for the vertical cable run as well as for the horizontal one.

Table of contents Page

Marine cable ladder	
marine cable ladder 160P1-...	390
Molded components for marine cable ladder	
bend: 45° 160 P3-...	391
extension tee: 160P15-...	391
Rungs for marine cable ladder	
rungs made of trapezoidal profile	392
rungs	392
rungs	392
Accessory for marine cable ladder	
straight joint 160P11-A	393
mushroom head screw	393

Marine cable ladder

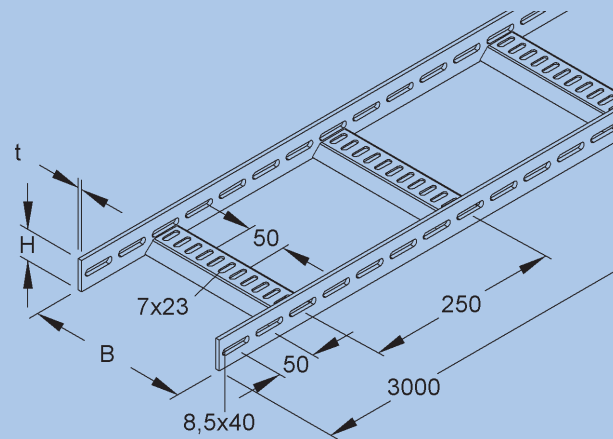
Cable ladder

16 ▶ OP1-...

marine cable ladder 160P1-...

Material	- sheet steel, sides perforated - material thickness 5mm hot dip galvanized according to DIN EN ISO 1461
Supply length	- 3000 mm
Technical data	- side height 40 mm - rungs slotted

Ordering information



Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
110	160P1-100	9.73
210	160P1-200	10.69
310	160P1-300	12.21
410	160P1-400	13.46
510	160P1-500	14.70
610	160P1-600	15.94
710	160P1-700	17.19
810	160P1-800	18.43
910	160P1-900	19.67
1010	160P1-1000	20.91

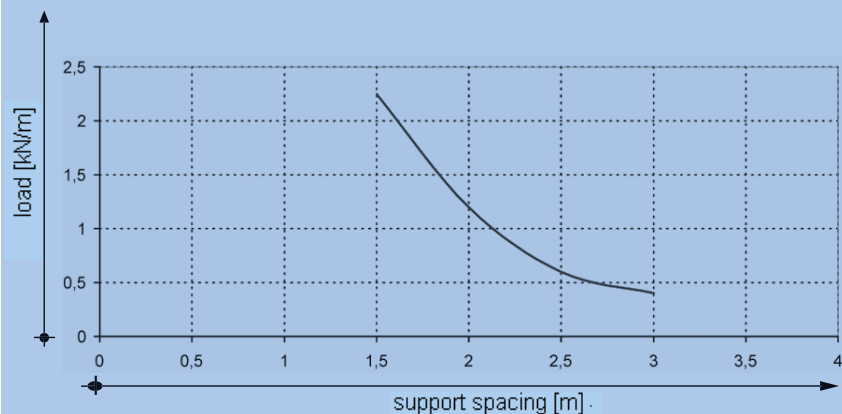
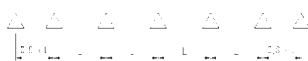


Load diagram



The load values mentioned in the diagram are independent of the position of the joint.

4 Felder (L) + 2 verkürzte Endfelder (0,8 x L)



160P1-...

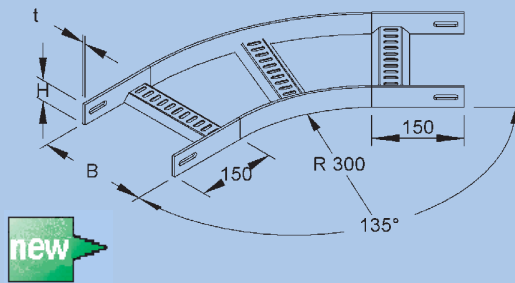
bend 160P3-..., extension tee 160P15-...

16 OP3-...

16 OP15-...

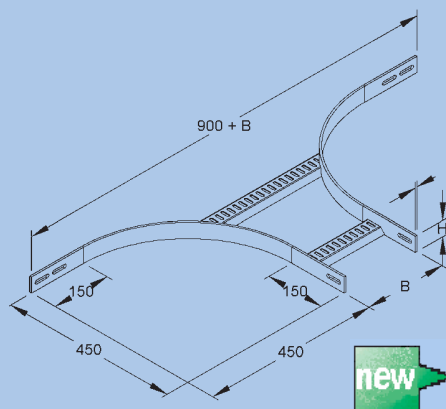
Material	<ul style="list-style-type: none"> - sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - side height 40 mm - material thickness 5mm
Field of application	<ul style="list-style-type: none"> - suitable for marine cable ladder

Ordering information



bend 45°

Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
100	160P3-100	2.20
200	160P3-200	2.43
300	160P3-300	3.09
400	160P3-400	3.53
500	160P3-500	3.98
600	160P3-600	4.42
700	160P3-700	4.86
800	160P3-800	5.31
900	160P3-900	5.75
1000	160P3-1000	6.19



extension tee

Width (mm)	Order No. hot dip galv.	Weight (kg/pce)
100	160P15-100	2.90
200	160P15-200	3.11
300	160P15-300	3.31
400	160P15-400	3.52
500	160P15-500	3.73
600	160P15-600	3.94
700	160P15-700	4.14
800	160P15-800	4.35
900	160P15-900	4.56
1000	160P15-1000	4.76

Marine cable ladder

Rungs for marine cable ladder

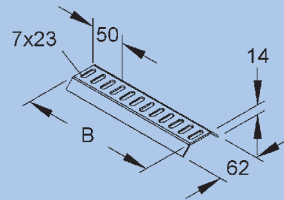
16 P4-...

rungs made of trapezoidal profile 16P4-...-A,
rungs 16P4-...-B / 16P4-...-C

Material	<ul style="list-style-type: none"> - sheet steel - blank - hot dip galvanized according to DIN EN ISO 1461
Field of application	<ul style="list-style-type: none"> - suitable for all ladder widths of 100mm to 1000 mm - for welding in the marine cable ladder as additionally or afterwards

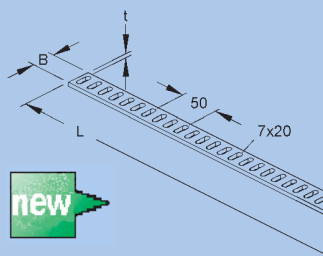
Ordering information

new



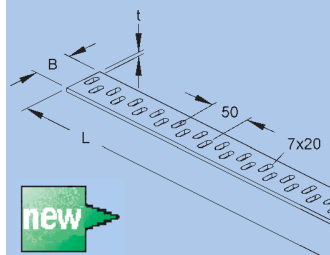
rungs made of trapezoidal profile

Width (mm)	Order No. blank	Weight (kg/pce)
100	16P4-100-A	0.01
200	16P4-200-A	0.02
300	16P4-300-A	0.03
400	16P4-400-A	0.04
500	16P4-500-A	0.05
600	16P4-600-A	0.06
700	16P4-700-A	0.08
800	16P4-800-A	0.09
900	16P4-900-A	0.10
1000	16P4-1000-A	0.11



rungs, Length = 3000 mm

Galvanisation	Width (mm)	Order No.	Weight (kg/pce)	material thickness (mm)
blank	30	16P4-3000-B	0.83	5.0
hot dip galv.	30	16P4-3000-BF	0.88	5.0



rungs, Length = 3000 mm

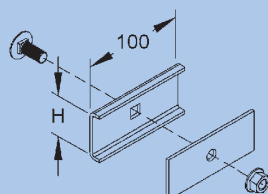
Galvanization	Width (mm)	Order No.	Weight (kg/pce)	Material thickness (mm)
blank	50	16P4-3000-C	1.62	5.0
hot dip galv.	50	16P4-3000-CF	1.73	5.0

straight joint 160P11-A, mushroom head screw 16J6-0825

16 OP11-A

Material	<ul style="list-style-type: none"> - sheet steel - hot dip galvanized according to DIN EN ISO 1461
Technical data	<ul style="list-style-type: none"> - straight joint for a form fitting lengthwise aligned connection - demand, 2 pieces per joint place - potential equalisation by screwing the sides
Field of application	<ul style="list-style-type: none"> - suitable for marine cable ladders

Ordering information



straight joint

Height (mm)	Order No. hot dip galv.	Weight (kg/pce)
41	160P11-A	0.27

incl. 2 screws 16J6-P (M8x16)



mushroom head screw with flange nut

Order No. hot dip galv.	Weight (kg/pce)
16J6-0825	0.03



Index





A Supports and profiles, RICO clamping technology

15A10-S	protective end cap for double U-profile 50x22, colour yellow	193
15A11-	suspension bracket, width 100mm to 300mm	146
15A15-.../16A15-...	U-profile 50x22, without head plate, length 200 mm to 3000 mm	134, 139
15A16-A	adapter piece	136
15A16-S	protective end cap for U-profile 50x22, colour yellow	193
15A20-.../16A20-...	bracket for wall mounting, length 100 mm to 400 mm	169
16A1-	H-support I80, without head plate, length 200 mm to 6000 mm	152, 209
16A10-	hanging support with welded-on head plate, length 200 mm to 1500 mm	140
16A13-	U-profile 50x50, without head plate, length 200 mm to 6000 mm	141
16A14-	hanging support U50x50, with screwed-on head plate, length 200 to 2000 mm.	142
16A14-K	head plate for U-profile 50x50	141
16A16-	hanging support U50x22, with screwed-on head plate	135
16A16-K	head plate for U-profile 50x22	134
16A3-	hanging support I80, with welded-on head plate, length 200 mm to 2000 mm	155
16A4-...-K	C-profile rail 41x41, perforated, length 200 mm to 3000 mm	163
16A4-O	head plate adapter for high loads	156
16A4-1	claw	160
16A4-1-D	claw	159, 338
16A4-1-DA	claw	159, 338
16A4-13	clamping claw	162
16A4-13-D	clamping claw	161, 338
16A4-13-DA	clamping claw	161, 338
16A4-13-Z1	screw M10x50 for clamping claw 16A4-13-DA	162
16A4-13-Z2	screw M10x50 for clamping claw 16A4-13-D	162
16A4-A	head plate for H-support I80, for horizontal ceilings	153
16A4-AQ	head plate for H-support I80, for horizontal ceilings	153
16A4-B	head plate for H-support I80, for slanted ceilings	154
16A4-BQ	head plate for H-support I80, for slanted ceilings	154
16A4-D	screwed head plate vertical for U-profile 15A15-.../16A15-...	139
16A4-E	screwed head plate for U-profile 15A15-.../16A15-...	139
16A4-Z1	screw M12x65 for claw 16A4-1-DA	160
16A4-Z2	screw M12x75 for claw 16A4-1-D	160
16A7-	U-profile 60x40, without head plate, length 200 mm to 4500 mm	143, 207
16A8-40	head plate for U-profile 60x40	144
16A8-50	connecting angle for U-profile 60x40	144
16A9-	hanging support U60x40, with welded-on head plate, length 200 mm to 2000 mm	145
17A10-	hanging support with welded-on head plate, stainless steel, length 200 mm to 1000 mm	224
17A14-W	profile clamp, stainless steel, 5-39mm flange width	233
17A15-	U-profile 50x22, stainless steel, without head plate, length 3000 mm or 6000 mm	225
17A15-V	splice plate, stainless steel	226
17A16-	hanging support with welded-on head plate, stainless steel, length 200 mm to 1200 mm	222
17A16-K	head plate, stainless steel, for U-profile 50x22	226
17A30-3000	U-profile 100x22 stainless steel	227
17A30-V	splice plate, stainless steel	227
17A4-...-K	C-profile rail 41x41, perforated, stainless steel, length 200 mm to 3000 mm	232
17A4-C	head plate, stainless steel	226
17A4-D	head plate, stainless steel, U-profile 15A15-.../16A15-...	226
17A4-E	head plate, stainless steel, U-profile 15A15-.../16A15-...	226
17A5-E	head plate, stainless steel	227
17A5-K	head plate, stainless steel	228
17A5-P	head plate, stainless steel	228
17A7-	U-profile 60x40, stainless steel, without head plate, length 200 mm to 4500 mm	193, 230, 292
17A8-40	head plate for U-profile 60x40, stainless steel	231
17A9-	hanging support U60x40, stainless steel, with welded-on head plate, length 200 mm to 2000 mm	229
18A10-	hanging support with welded-on head plate, stainless steel, length 200 mm to 600 mm	224
18A15-	U-profile 50x22, stainless steel, without head plate, length 3000 mm	225
18A15-V	splice plate, stainless steel	226
18A16-	hanging support with welded-on head plate, stainless steel, length 200 mm to 500 mm	222
18A16-K	head plate, stainless steel, for U-profile 50x22	226
18A4-D	head plate, stainless steel	226
19A4-1-D	claw, plastic-coated	239
19A4-1-DA	claw, plastic-coated	239

B Brackets and consoles

06B2-.....	bracket for support and wall mounting, length 100 mm to 300 mm.	147
07B2-.....	bracket for support and wall mounting, stainless steel, length 100 mm to 300 mm	218
15B18-... / 16B18-.....	support console, width 100 mm to 300 mm.	170
15B18-D	distance piece for support console for installation on walls and ceilings	170
15B3-... / 16B3-	bracket, support and wall mounting, length 100 mm to 600 mm.	148, 172
15B5-.....	bracket for hanging support, length 100 mm to 400 mm	136
15B6-.....	bracket for hanging support, length 100 mm to 400 mm	137
16B1-.....	bracket for H-support I80, length 100 mm to 600 mm	157
16B1-Z.....	accessory for bracket	157, 331
16B13-.....	bracket, adjustable for slopes, wall mounting, length 350 mm to 700 mm.	171
16B17-.....	central suspension, width 100 mm to 400 mm	168
16B2-.....	bracket, support and wall mounting, length 100 mm to 700 mm.	149, 173
16B21-.....	console, wall mounting, length 200 mm to 1000 mm, especially for wide span systems.	175
16B22-.....	wall bracket, length 200 mm to 1000 mm.	175
16B27	tube bracket adapter 3/4"	176
16B34	tube bracket adapter 1"	176
16B43	tube bracket adapter 1 1/4"	176
16B49	tube bracket adapter 1 1/2"	176
16B7-.....	bracket for hanging support, length, length 100 mm to 600 mm	138
16B8-...-W	bracket for hanging support I80, length 250 mm to 1000 mm.	158
16B9-...-W	bracket, wall mounting, length 250 mm bis 1000 mm, especially for wide span systems	174
17B2-.....	bracket, stainless steel, support or wall mounting, length 100 mm to 1000 mm.	220
17B3-.....	bracket, stainless steel, support and wall mounting, length 100 mm to 300 mm.	219
17B6-.....	bracket, stainless steel, support mounting, length 100 mm to 400 mm	223
17B7-.....	bracket, stainless steel, support mounting, length 100 mm to 600 mm	225
17B9-...-W	bracket, stainless steel, support and wall mounting, length 200 mm to 1000 mm.	221
18B2-.....	bracket, stainless steel, support and wall mounting, length 100 mm to 600 mm	220
18B3-.....	bracket, V4A-stainless steel, support and wall mounting, length 100 mm to 400 mm.	219
18B6-.....	bracket, support mounting, length 100 mm to 400 mm	223
18B7-.....	bracket, stainless steel, support mounting, length 100 mm to 400 mm	225

BS Cable clips

16BS23-.....	yoke clip with steel-thrust trough for C-profile 23x11	347, 348
16BS30-.....	yoke clip with steel-thrust trough for C-profile 30x15.	344, 345
16BS40-.....	Universal clip with steel-thrust trough for C-profile 40x22 or 41x41.	350, 351
16BSF-.....	clip for flat iron 4 - 12 mm, with steel-thrust trough	354, 355
16BSFK-.....	clip for flat iron 4 - 12 mm, with plastic-thrust trough	356, 357
16BSK23-.....	yoke clip with plastic-thrust trough for C-profile 23x11.	349
16BSK30-.....	yoke clip with plastic-thrust trough for C-profile 30x15.	346
16BSK40-.....	Universal clip with plastic-thrust trough for C-profile 40x22 or 41x41	352, 353
16BSW-.....	clip for corner iron 40x40, with steel-thrust trough.	358, 359
16BSWK-.....	clip for corner iron 40x40, with plastic-thrust trough.	360
17BS30-.....	yoke clip of stainless steel for C-profile 30x15.	361
17BS40-.....	Universal clip of stainless steel for C-profile 40x22 or 41x41	233, 362

C Cable ladders

15C12-...-A / 16C12-...-A	cover for bend, without locking device	70, 80
15C12-...-AR / 16C12-...-AR	cover for bend, with locking device	70, 80
15C12-...-T / 16C12-...-T	cover for extension tee, without locking device	70, 80
15C12-...-TR / 16C12-...-TR	cover for extension tee, with locking device	70, 80
150C13-A / 160C13-A	divider strip for cable ladder, side height 60 mm	68
151C1-...-L63 / 161C1-...-L63	cable ladder, side height 60 mm, standard support width 1.5 m, mat-thickness 1.5 mm	64
151C1-...-S63 / 161C1-...-S63	cable ladder, side height 60 mm, standard support width 1.5 m, mat-thickness 2.0 mm	64
151C15-... / 161C15-.....	extension tee for cable ladder, side height 60 mm.	65
151C2-...-A / 161C2-...-A	bend for cable ladder, side height 60 mm	65
151C20-... / 161C20-.....	crossing for cable ladder, side height 60 mm	66
152C13-A / 162C13-A	divider strip for cable ladder, side height 100 mm.	78
152C13-SA / 162C13-SA / 142C13-SA	divider strip for wide span ladder, side height 105 mm	110
153C1-...-L63 / 163C1-...-L63	cable ladder, side height 100 mm, standard support width 3.0 m.	74
153C1-...-S / 163C1-...-S	wide span ladder, side height 105 mm, support width max. 7,0 m	106
153C13-B / 163C13-B	divider strip for wide span ladder, side height 150 mm	119
153C15-...-L / 163C15-...-L	extension tee for cable ladder, side height 100 mm	75
153C15-...-S / 163C15-...-S	extension tee for wide span ladder, side height 105 mm	108
153C2-...-LA / 163C2-...-LA	bend for cable ladder, side height 100 mm	75

C Cable ladders (continuation)

153C2-...-S / 163C2-...-S	bend for wide span ladder, side height 105 mm	108
153C20-... / 163C20-...	crossing for cable ladder, side height 100 mm	76
153C20-...-S / 163C20-...-S	crossing for wide span ladder, side height 105 mm	109
153C4-...-S / 163C4-...-S	tee for wide span ladder, side height 105 mm	109
153C9-A / 163C9-A	straight joint for wide span trays or ladders, side height 105 mm	87, 107
153C9-B / 163C9-B	bendable joint for wide span trays or ladders, side height 105 mm	87, 107
153C9-C / 163C9-C	hinge piece for wide span trays or ladders, side height 105 mm	87, 107
154C1-...-N / 164C1-...-N	wide span ladder, side height 150 mm, support width max. 8.0 m, material thickness 1.5 mm	114
154C1-...-S / 164C1-...-S	wide span ladder, side height 150 mm, support width max. 8.0 m, material thickness 2.0 mm	115
154C15-...-S / 164C15-...-S	extension tee for wide span ladder, side height 150 mm	117
154C2-...-S / 164C2-...-S	bend for wide span ladder, side height 150 mm	117
154C20-...-S / 164C20-...-S	crossing for wide span ladder, side height 150 mm	118
154C4-...-S / 164C4-...-S	tee for wide span ladder, side height 150 mm	118
154C9-A / 164C9-A	straight joint for wide span trays or ladders, side height 150 mm	98, 116
154C9-B / 164C9-B	bendable joint for wide span trays or ladders, side height 150 mm	98, 116
154C9-C / 164C9-C	hinge piece for wide span trays or ladders, side height 150 mm	98, 116
16C7-400-A	flat corner for cable ladder	68, 78
16C8-...-B	exit plate for cable ladder	66, 76
16C8-Z	fixing screw M6x20	68, 78
163C13-A	divider strip for wide span ladder, side height 200 mm	128
163C8-...-B	exit plate for wide span ladder	107, 116
165C1-...	wide span ladder, side height 200 mm, support width max. 10.0 m	124
165C1-Z	accessory screw	128
165C12-...	cover for wide span ladder, side height 200 mm	129
165C12-...-A	cover for horizontal bend (only for side height 200 mm)	129
165C12-...-T	cover for T-downward (only for side height 200 mm)	129
165C14	jointing piece for wide span ladder, side height 200 mm	127
165C2-...	bend for wide span ladder, side height 200 mm	125
165C3-...	T-downward for wide span ladder, side height 200 mm	126
165C5-...	crossing for wide span ladder, side height 200 mm	126
165C8-...-A	vertical bend for wide span ladder, side height 200 mm, downward	125
165C8-...-B	vertical bend for wide span ladder, side height 200 mm, upward	125
165C9-A	bendable joint, outside for wide span ladder, side height 200 mm	127
165C9-B	bendable joint, inside for wide span ladder, side height 200 mm	127
165C9-C	hinge piece for wide span ladder, side height 200 mm	127
17C12-...-A	cover for bend for cable ladder, side height 60 mm	284
17C12-...-AR	cover for bend for cable ladder, side height 60 mm	284
17C12-...-T	cover for extension tee for cable ladder, side height 60 mm	284
17C12-...-TR	cover for extension tee for cable ladder, side height 60 mm	284
17C13-A	divider strip for cable ladder, stainless steel	217
17C13-K	divider strip fixing clamp, stainless steel	298, 303, 312, 317
17C13-M	divider strip fixing clamp, stainless steel	279
17C7-400-A	flat corner	279
17C8-...-B	exit plate	281
17C8-Z	fixing screw M6x20	279
170C13-A	divider strip for cable ladder side height 60mm, stainless steel	279
171C1-...-L63 / 181C1-...-L63	cable ladder, side height 60mm, support width max. 1.5 m	278
171C15-...	extension tee for cable ladder, side height 60 mm	280
171C2-...-A	bend for cable ladder, side height 60 mm	280
171C20-...	crossing for cable ladder, side height 60 mm	281
172C13-A	divider strip for wide span ladder	312
173C1-...-S	wide span ladder, side height 105 mm, support width max. 7.0 m	3 10
173C13-A	divider strip for wide span ladder Height 98 mm, stainless steel	317
173C15-...-S	extension tee for wide span ladder, side height 105 mm, stainless steel	313
173C2-...-S	bend for wide span ladder, side height 105 mm	313
173C20-...-S	crossing for wide span ladder, side height 105 mm	314
173C4-...-S	tee for wide span ladder, side height 105 mm	314
173C8-...-B	exit plate	321
173C9-...	jointing piece for wide span systems side height 105mm	297, 311
174C1-...-N	wide span ladder, side height 150mm	315
174C15-...-S	extension tee for wide span ladder, side height 150mm	3 18
174C2-...-S	bend for wide span ladder, side height 150mm	318
174C20-...-S	crossing for wide span ladder, side height 150mm	319
174C4-...-S	tee for wide span ladder, side height 150mm	319
174C9-...	jointing piece for wide span systems side height 150mm	302, 316
181C20-...-A	corner for cable ladder side height 60mm, stainless steel	281

Index

Index of order numbers

D Double trough

20DW-.....	double trough for all clips for 2 or 3 Kabel	366
------------	--	-----

E Jointing piece

15E11-A/ 16E11-A	Universal joint for luminaire support tray, side height 50 mm	41
151E11-A/ 161E11-A	straight joint for cable ladder and for vertical cable ladder, side height 60 mm	67, 204
151E11-B/ 161E11-B	bendable joint for cable ladder, side height 60 mm	67
151E11-C/ 161E11-C	hinge piece for cable ladder, side height 60 mm	67
151E12-A/ 161E12-A	straight joint for cable tray, side height 60 mm	11
151E12-B/ 161E12-B	bendable joint for cable tray, side height 60 mm	11
151E12-C/ 161E12-C	hinge piece for cable tray, side height 60 mm	11
151E14-A/161E14-AF	straight joint screwless, side height 110 mm	7
153E11-A/ 163E11-A	straight joint for cable ladder, side height 100 mm	77
153E11-B/ 163E11-B	bendable joint for cable ladder, side height 100 mm	77
153E11-C/ 163E11-C	hinge piece for cable ladder, side height 100 mm	77
153E12-A/ 163E12-A	straight joint for cable tray, side height 105 mm	22
153E12-B/ 163E12-B	bendable joint for cable tray, side height 105 mm	22
153E12-C/ 163E12-C	hinge piece for cable tray, side height 105 mm	22
17E11-A/ 18E11-A	Universal joint, stainless steel	255, 260
171E11-A/ 181E11-A	straight joint for cable ladder and for vertical cable ladder, side height 60 mm, stainless steel	282, 290
171E11-B/ 181E11-B	bendable joint for cable ladder, side height 60 mm, stainless steel	285
171E11-C/ 181E11-C	hinge piece for cable ladder, side height 60 mm, stainless steel	282
171E12-A	straight joint for cable tray, side height 60 mm, stainless steel	261
171E12-B	bendable joint for cable tray, side height 60 mm, stainless steel	261
171E12-C	hinge piece for cable tray, side height 60 mm, stainless steel	261
173E12-A	straight joint for cable tray side height 110mm, stainless steel	269
173E13-A-...	U-form straight joint, Height 99mm stainless steel	269
173E13-C	hinge piece for cable tray side height 110mm, stainless steel	271

F Profile rail

15F2-...-B/ 16F2-...-B	C-profile rail 23x11, unperforated	211
15F2-...-C/ 16F2-...-C	C-profile rail 30x15, perforated	165, 211, 328
15F2-...-E/ 16F2-...-E	C-profile rail 40x22, unperforated	211, 328
15F2-...-L/ 16F2-...-L	C-profile rail 40x22, perforated	212, 328
15F22-...-E/ 16F22-...-E	Double C-rail 40x44, unperforated	212, 328
16F4-...-A	mounting angle L40x50, perforated	213
16F5-...-A	C-profile rail 41x41x2,5, perforated	212, 329
16F55-...-A	Double C-rail 41x82x2,5, perforated	164, 213, 329
16F6-...-A	mounting angle U70x50, perforated	213
17F2-...-C	C-profile rail 30x15, perforated, stainless steel	231, 234, 328
17F2-...-E	C-profile rail 40x22, unperforated, stainless steel	328
17F2-...-L/ 18F2-...-L	C-profile rail 40x22, perforated, stainless steel	231, 328
17F22-...-E	Double C-rail 40x44, unperforated, stainless steel	328
17F5-...-A	C-profile rail 41x41x2,5, perforated, stainless steel	233, 329

G Counter troughs

15GW-.....	counter troughs made of steel	367
20GW23-.....	counter troughs for yoke clips for C-profile 23x11	364
20GW30-.....	counter troughs for yoke clips for C-profile 30x15	363
20GWU-.....	Universal counter trough for all clips	365

J Fixing technics

15J1-EA-M6	internal-thread expansion bolt M6, load class 0.5 kN	189
15J1-EAW-H6	setting tool for internal-thread expansion bolt 15J1-EA-M6	189
15J1-EWP-1010	setting tool for foam mortar expansion bolt 15J1-PBD-1010	182
15J1-FAZ-0810	steel expansion bolt M8, load class 2.4 kN, clamping thickness 10 mm	180
15J1-FAZ-0830	steel expansion bolt M8, load class 2.4 kN, clamping thickness 30 mm	180
15J1-FAZ-1010	steel expansion bolt M10, load class 4.3 kN, clamping thickness 10 mm	180
15J1-FAZ-1210	steel expansion bolt M12, load class 7.6 kN, clamping thickness 10 mm	180
15J1-FAZ-1625	steel expansion bolt M16, load class 13.4 kN, clamping thickness 25 mm	180
15J1-FBS-1015S	concrete screw M10	180
15J1-FH-15B	steel expansion bolt M10, load class 5.2 kN, clamping thickness 10 mm	180
15J1-FH-1880B	steel expansion bolt M12, load class 8.2 kN, clamping thickness 10 mm	180
15J1-FIS-AM	press gun	182

J fixing technics (continuation)

15J1-FIS-A10110M	grouting threaded rod M10	181
15J1-FIS-H16130K	grouting net anchor	182
15J1-FIS-V360S	grouting mortar	182
15J1-FNA6	nail anchor type FNA	180
15J1-FZEA-1240	internal-thread expansion bolt M10, load class 1.5 kN	181, 336
15J1-FZEA-1440	internal-thread expansion bolt M12, load class 1.5 kN	181
15J1-FZED-12	drive-in punch for internal-thread expansion bolt 15J1-FZEA-1240	181, 336
15J1-FZED-14	drive-in punch for internal-thread expansion bolt 15J1-FZEA-1440	181
15J1-FZUB-1240	headed drill bit for internal-thread expansion bolt 15J1-FZEA-1240	181, 336
15J1-FZUB-1440	headed drill bit for internal-thread expansion bolt 15J1-FZEA-1440	181
15J1-PBD-1010	foam mortar expansion bolt M10, load class 1.5 kN	182
15J18-0640	adjusting bolt M6 for profile 30/15, 40/22, 40/44	336
15J18-0840	adjusting bolt M8 for profile 30/15, 40/22, 40/44	336
15J18-1040	adjusting bolt M10 for profile 30/15, 40/22, 40/44	336
15J19-A	cold galvanizing set	194, 384
15J19-B	zinc spray 400 ml	194
15J21-D	trapezoidal sheet suspension	190, 191, 337
15J4-.....	jointing sleeve	186, 334
15J4-M6-1000	threaded rod M6x1000	185, 334
15J4-M8-1000	threaded rod M8x1000	185, 334
15J4-M10-1000	threaded rod M10x1000	185, 334
15J4-M12-1000	threaded rod M12x1000	185, 334
15J51-A	trapezoidal bracket	339
15J51-B	clamping bracket	339
15J52-A	clamping bracket	339
15J6-... / 16J6-.....	compensating plate	188
15J6-1050	fixing screw M10x50	187
15J6-K	fixing screw M10x20 for internal-thread expansion bolt 15J1-FZEA-1240	336
15J8-A	protective end cap for H-support, colour yellow	193
15J8-B	protective end cap for U-support 50x50, colour yellow	193
15J8-D	protective end cap for C-profile 41x41, colour yellow	193, 331
15J8-E	protective end cap for C-profile, 40x22, colour yellow	193, 331
15J8-S	protective end cap for rungs for ladders	194
15J8-WSR	protective end cap for crimp for wide span ladder	194
15J8-U50	protective end cap for U-support 50x34, colour yellow	193
15J8-U60	protective end cap for U-support 60x40, colour yellow	193
15J8-U70	protective end cap for U-support 70x50, colour yellow	193
151J8-C	protective end cap for cable ladders, side height 60 mm, colour yellow	194, 285
153J8-C	protective end cap for cable ladders, side height 100 mm, colour yellow	194
16J10	corner support for bracket 16B9-...-W	176
16J12-A	fixing screw M12x25	187
16J14-55	stiffening profile U 50x50	144
16J14-64	stiffening profile U 60x40	144
16J16-M6	rail nut for C-profile 30x15	335
16J16-M8	rail nut for C-profile 30x15	335
16J18-M6	rail nut M6 for C-profile 40x22 and 41x41	335
16J18-M8	rail nut M8 for C-profile 40x22 and 41x41	335
16J18-M10	rail nut M10 for C-profile 40x22 and 41x41	335
16J2-A	anchor bolt M12x40, clamping thickness max. 12 mm	183
16J2-A-.....	anchor bolt, clamping thickness max. 12 mm	183, 335
16J2-B-.....	anchor bolt, clamping thickness max. 10 mm	183, 335
16J2-C-.....	anchor bolt, clamping thickness max. 6 mm	183
16J2-D-.....	anchor bolt, clamping thickness max. 5 mm	183
16J2-K	anchor bolt M10x30, clamping thickness max. 8 mm	183
16J21-10	support clamp for light electrical installations	188, 337
16J22-M8	slide nut M8 for C-profile 41x41	335
16J22-M10	slide nut M10 for C-profile 41x41	335
16J22-M12	slide nut M12 for C-profile 41x41	335
16J23-A	counter plate	188
16J3-B	anchor block	184, 210
16J3-C	anchor block	184
16J3-D / 17J3-D	anchor corner	184, 206, 332
16J3-D1	anchor corner	184, 210
16J4-1070	fixing screw	185

J fixing technics (continuation)

16J4-40-12 / 17J4-40-12	rail plate	333
16J4-...-F	serrated lock washer DIN 6798	186, 334
16J4-...-M	hexagonal nut DIN 934-8	185, 334
16J4-...-S	washer DIN 125	185, 334
16J4-1060-S	thrust washer	185
16J4-1260-S	thrust washer	185
16J4-1280-S	thrust washer	185
16J4-...-SG	washer DIN 9021	185, 334
16J40 / 17J40	connection plate	330
16J41 / 17J41	corner console	330
16J42 / 17J42	tee	330
16J43 / 17J43	angle section	330
16J44 / 17J44	fixing bracket	330
16J45	straight joint for C-rail 41x41	331
16J46	straight joint for C-rail 41x41	331
16J47	jointing element for H-support 16A1, 16A3	331
16J48	double clip for double C-rail 16F55-...-A	331
16J49 / 17J49	butt strap	332
16J5-B	jointing piece for H-support 16A1-..., 16A3-... and vertical cable ladders 16L3-...-C, 16L3-...-L	186, 210
16J5-F	straight joint for U-support 16A7-..., 16A9-... and vertical cable ladder 16L103-...-C	186, 206
16J5-Z	fixing screw M10x25	186
16J50 / 17J50	connection corner pair, adjustable	332
16J51-Z	fixing screw, M8x30	339
16J51-Z1	fixing screw, M8x40	339
16J52-Z	fixing screw, M6x40	339
16J52-Z1	fixing screw, M6x30	339
16J53 / 17J53	butt strap	332
16J54	connection bracket for C-profile 40x22	333
16J55	bearing bracket for C-profile 40x22	333
16J6-0825	fixing screw M8x25	393
16J6-1020	fixing screw M10x20	187
16J6-1025	fixing screw M10x25	187, 335
16J6-1235	fixing screw M12x35	187
16J6-A	hold down clamp with screw M6x12	67, 77, 187
16J6-B	fixing screw M6x12	12, 187
16J6-C	connection angle	187, 210
16J6-D	fixing screw M6x16	187
16J6-F	fixing screw M6x20	187
16J6-P	fixing screw M8x16	67, 77, 91, 101, 110, 119, 187
16J6-Q	fixing screw M8x16	187
16J6-R	fixing screw M8x20	187
16J6-S	fixing screw M8x20	46, 187, 335
16J7-A	support bracket with screws M12x30	188
16J7-AZ	accessory screw for support bracket 16J7-A	188
16J9-...	jointing profile, length 200 mm to 400 mm	176
163J6-A	hold down clamp with screw M6x20	110, 119, 187
165J6-A	pipe clamp for wide span ladder	128, 187
17J14-64	stiffening profile, stainless steel	229
17J15-D	ceiling bracket, stainless steel	237
17J2-A-...	anchor bolt, clamping thickness max. 12 mm	240
17J2-C-...	anchor bolt, clamping thickness max. 6 mm	236, 240
17J2-D-...	anchor bolt, clamping thickness max. 5 mm	240
17J21-D	trapezoidal sheet suspension, stainless steel	237
17J3-D	anchor corner, stainless steel	234, 291
17J3-G / 18J3-G	wall connection corner, stainless steel	285, 290, 322
17J3-L	wall connection corner, stainless steel	234, 285, 290, 322
17J4-... / 18J4-...	fixing screw, stainless steel	236
17J4-...-M	hexagonal nut, stainless steel, thread: M10 or M12	235
17J4-...-SG	underlay washer, stainless steel	236
17J4-M-...-1000	threaded rod, stainless steel, M10 or M12, length 1000 mm	235
17J41	corner console, stainless steel	234
17J5-F	straight joint for vertical cable ladder, stainless steel	230, 291
17J50	connection corner, stainless steel	234
17J6-... / 18J6-1025	mushroom head screw, stainless steel	236

J fixing technics (continuation)

17J6-A / 18J6-A	hold down clamp with screw, M 8x16	282
17J6-B / 18J6-B	fixing screw M6-12, stainless steel	236, 263
17J6-F	accessory screw for installation on brackets	275
17J6-P / 18J6-P	accessory screw M8x16, stainless steel	275, 282, 321
17J7-...	support corner, stainless steel, length 100-600 mm	238
173J6-A	hold down clamp with screw, M 10x20	321
18J1-FAZ-1010	steel expansion bolt M10, load class 4.3 kN, stainless steel	180
18J1-FAZ-1210	steel expansion bolt M12, load class 7.6 kN, stainless steel	180
18J1-FAZ-0810	steel expansion bolt M8, load class 2.4 kN, stainless steel	180
18J1-FAZ-0830	steel expansion bolt M8, load class 2.4 kN, stainless steel	180
18J2-E-...	hook head screw, stainless steel	231

L vertical cable ladder

05L12-... / 06L12-...	C-rungs 30x15 for vertical cable ladders	204
151L1-...-... / 161L1-...-...	vertical cable ladders for wall mounting, ready-made, load class 1.0 kN/m, length 3000 mm	200
151L1-...-... / 161L1-...-...	vertical cable ladders for wall mounting, ready-made, load class 1.0 kN/m, length 6000 mm	201
151L1-...-C... / 161L1-...-C...	vertical cable ladders for wall mounting, rungs of C-profile 40x22, ready made, load class 1.0 kN/m.	202, 203
15L12-...-C / 16L12-...-C	C-Sprossen 40x22 for vertical cable ladders like 16L3-...-C	205
16L12-...-C	C-Sprossen 40x22 for vertical cable ladders like 16L3-...-C	207
16L13-...-C	C-Sprossen 40x22 for vertical cable ladders like 16L3-...-C	209
16L13-...-L	L-Sprossen 40x50 for vertical cable ladders like 16L3-...-L	209
16L3-...-C	vertical cable ladders for wall mounting and free standing arrangements in rooms up to 6.0m height, kit with C-rungs 40x22, load class 2.0 kN/m	208
16L3-...-L	vertical cable ladders for wall mounting and free standing arrangements in rooms up to 6.0m height, kit with L-rungs 40x40, load class 2.0 kN/m	208
16L4-C	support corner for vertical cable ladders 16L3-...-C	210
161L03-...-C	vertical cable ladders for wall mounting and free standing arrang. in rooms up to 4.5m height, kit, load cl. 2.0 kN/m	206
17L12-...-C	C-rungs 40x22 for vertical cable ladders like 171L03-...-C	292
171L03-...-C	kit for vertical cable ladders with rungs of C-profile 40x22	291
171L1-...-63 / 181L1-...-63	vertical cable ladders for wall mounting, rungs of C-profile 30x15, stainless steel	288
171L1-...-66 / 181L1-...-66	vertical cable ladders for wall mounting, rungs of C-profile 30x15, stainless steel	288
171L1-...-C63	vertical cable ladders for wall mounting, rungs of C-profile 40x22, stainless steel	289
171L1-...-C66	vertical cable ladders for wall mounting, rungs of C-profile 40x22, stainless steel	289

M plastic trays

17M5-E	fixing screw for plastic cable trays M6x16	58
171M5-B	bendable joint for plastic cable trays	58
30M6-...	cover for plastic cable trays	59
30M9-...	cover for bend for plastic cable trays	59
30M10-...	cover for extension tee for plastic cable trays	59
301M1-...	plastic cable trays, unperforated, side height 60 mm	56
301M15-...	extension tee for plastic cable trays, side height 60 mm	57
301M2-...	plastic cable trays, perforated, side height 60 mm	56
301M3-...	bend for plastic cable trays, side height 60 mm	57
301M5-A	straight joint for plastic cable trays, side height 60 mm	58
301M5-C	hinge piece for plastic cable trays, side height 60 mm	58
301M8-A	divider strip for plastic cable trays, side height 60 mm	58

N Insta trays

15N...-A45-06	outer edge 45° with cover for INSTA-tray	34
15N...-A90-06	outer edge 90° with cover for INSTA-tray	35
15N...-ED-06	Endabschlussdeckel für INSTA-Rinne	36
15N...-I45-06	inner edge 45° with cover for INSTA-tray	34
15N...-I90-06	inner edge 90° with cover for INSTA-tray	35
15N...-V45-06	vertical edge 45° with cover for INSTA-tray	34
15N...-V90-06	vertical edge 90° with cover for INSTA-tray	35
15N1-... / 16N1-...	luminaire support tray, side height 50 mm	40
15N12-...	cover for INSTA tray	32
15N13-...	divider strip fixing plate	33
15N13-T	divider strip for Insta tray	33
15N20-20	cable protection for luminaire support tray	32, 41, 255
15N20-30	cable protection for luminaire support tray and INSTA tray	32, 41, 255
15N21-...	eye bolt M6 with slide nut	190, 192

N Insta trays (continuation)

15N21-06	eye bolt with nut M6x60	189
15N22	ceiling hook M6x60 for INSTA tray, with plastic expansion bolt	192
15N23	ceiling hook M6x60	189, 192
15N24	threaded sleeve M6	189
15N28-01	replacement chain link for knodded chain 15N28-30	189, 191
15N28-30	knodded chain	189, 191
15N30-50 / 15N30-100	suspension bracket for luminaire support tray	189
15N30-60 / 15N30-100	suspension bracket for INSTA tray	191
151N1-...	INSTA tray, side height 60 mm	31
151N2-...	INSTA tray, unperforated, side height 60 mm	30
151N6-A	Universal joint for INSTA tray	32
16N12-V	locking device for cover cable tray or ladder	14, 25, 69, 79
16N13-V	locking device for cover wide span systems	92, 102, 111, 120
16N14-V	locking device for cover molded components of cable trays	14, 25
16N21-110	fixing screw M8x110 for trapezoidal sheet suspension 15J21-D	190, 191, 337
17N...-K-06	cable fixing clip for INSTA tray	36
17N1-...-K	luminaire support tray, stainless steel	254
17N12-...-LR	cover for luminaire support tray, stainless steel	255
17N12-V	locking device for cover cable tray and ladder, stainless steel	273, 283
17N13-V	locking device for cover wide span systems, stainless steel	320
17N14-V	locking device for cover molded components cable trays, stainless steel	273
17N29	S-hook, stainless steel, 35x4 mm	235
17N29-...	link chain, stainless steel	235
17N30-...	suspension bracket, stainless steel	237

P Marine cable ladder

16P4-...-A	rungs of trapezoidal profile	392
16P4-...-B / 16P4-...-BF	rungs, width 30mm	392
16P4-...-C / 16P4-...-CF	rungs, width 50mm	392
160P1-...	marine cable ladder, side height 40mm, width 110mm to 1010mm	390
160P11-A	straight joint for marine cable ladder	393
160P15-...	extension tee for marine cable ladder, side height 40mm, width 100mm to 1000mm	391
160P3-...	bend for marine cable ladder, side height 40mm, width 100mm to 1000mm	391

PK Profile clamp

16PK6-20	profile clamp	165
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R Cable trays (heavy design)

151R02-...-N / 161R02-...-N	cable tray, perforated, side height 60mm, sheet thickness 1.5 mm	8
151R02-...-S / 161R02-...-S	cable tray, perforated, side height 60mm, sheet thickness 2.0 mm	9
153R02-...-N / 163R02-...-N	cable tray, perforated, side height 110mm, sheet thickness 1.5 mm	19

S Trellis trays

131S1-... / 161S1-...	trellis tray, side height 60 mm	44
15S13-A / 16S13-A / 17S13-A	divider strip for trellis tray 131S1 / 161S1 / 171S1	46, 51, 248
15S14-A / 16S14-A / 17S14-A	Universal joint for trellis tray	46, 51, 249
15S14-E / 17S14-E	Screwless straight joint for trellis tray	47
15S16-A / 16S16-A	threaded rods fixing for trellis tray	47
15S17-A / 17S17-A	mounting bracket for trellis tray	47, 250
15S17-B	trellis tray connection plate	47
15S17-D / 17S17-D	trellis tray fixing clip	47, 249
16S1-...-C	C-trellis tray, side height 68 mm	50
16S11-C	hinge piece for C-trellis tray	52
16S11-C45	hinge piece for C-trellis tray	52
16S11-C90	hinge piece for C-trellis tray	52
16S11-C190	hinge piece for C-trellis tray	52
16S13-B	Haltebügel, einfach for trellis tray	46
16S14-B / 17S14-B	hook screw for trellis tray	45, 50, 250
17S1-...-CD	C-trellis tray, heavy design, stainless steel	247
17S12-...	cover for trellis tray, stainless steel	251
17S13-E / 17S14-E	straight joint screwless, stainless steel	248
17S14-D	divider strip fixing clamp for trellis tray, stainless steel	249

S Trellis trays (continuation)

17S16-C	wall and floor fixing plate for trellis tray, stainless steel	250
17OS1-40 / 17IS1-50	trellis tray, U-form, stainless steel	244
171S1-...	trellis tray, heavy design, side height 60 mm, stainless steel	245
171S1-...-L	trellis tray, side height 60 mm, stainless steel	245

U Fixing for trellis trays

16U1-3000	horizontal support bar for trellis tray	45
16U12-...	hanging support for trellis tray	45
16U2-200	standard hanger rod for trellis tray	45
16U6-A	support corner	13, 24, 46, 68, 78, 91, 110, 210
17U6-A	support corner	275, 279, 321

V Cable protection

15V13-A / 18V13-A	edge protection for cable trays, wide span systems, protection tube	13, 24, 90, 101, 193, 384
15V9-A	protective ring of flexible plastic, 30 mm diameter	376
15V9-B	protective end cap of flexible plastic, 30 mm diameter	376
151V9-A	protective ring of flexible plastic, 60 mm diameter	383
151V9-B	protective end cap of flexible plastic, 60 mm diameter	383
16ASS-60	heavy screw distance clamp, 60 mm diameter	383
16V10-A	protection tube tee, 30 mm diameter	372
16V11-A	protection tube mounting plate, incl. 1 endless screw clamp, 30 mm diameter	373
16V11-B	protection tube mounting plate, incl. 2 endless screw clamp, 30 mm diameter	373
16V2-3015-M	protection tube support with sleeve, for fixing to cable tray or ladder, 30 mm diameter	374
16V2-3030-M	protection tube support with sleeve, for fixing to wide span tray or ladder, 30 mm diameter	374
16V2-6015-B	protection tube support with bracket, for fixing to cable tray or ladder, 30 mm diameter	374
16V2-6030-B	protection tube support with bracket, for fixing to wide span tray or ladder, 30 mm diameter	374
16V2-B	protection tube support with bracket, for fixing to cable ladder, 30 mm diameter	374
16V2-M	protection tube support with sleeve, for fixing to cable ladder, 30 mm diameter	375
16V3-6000	protection tube 30 mm diameter	372
16V4-A	protection tube bend 90°, 30 mm diameter	372
16V5-A	protection tube bend 45°, 30 mm diameter	372
16V6-A	protection tube sleeve, 30 mm diameter	372
16V6-B	protection tube oblong hole sleeve, 30 mm diameter	373
16V6-C	protection tube clip, 30 mm diameter	375
16V6-D	tube clamp, 30 mm diameter	375
16V6-E	protection tube anchor clip, 30 mm diameter	375
16V8-A	protection tube floor support, 30 mm diameter	373
16V8-B	protection tube floor corner, 30 mm diameter	373
161V10-A	protection tube tee, 60 mm diameter	378
161V11-A	protection tube mounting plate, incl. 1 endless screw clamp, 60 mm diameter	379
161V11-B	protection tube mounting plate, incl. 2 endless screw clamp, 60 mm diameter	380
161V11-C	protection tube mounting plate, incl. 2 endless screw clamp, 60 mm diameter	380
161V12-...	protection tube downward, 60 mm diameter	381
161V2-6015-B	protection tube support with bracket, for fixing to cable tray or ladder, 60 mm diameter	381
161V2-6015-M	protection tube support with sleeve, for fixing to cable tray or ladder, 60 mm diameter	381
161V2-6030-B	protection tube support with bracket, for fixing to wide span tray or ladder, 60 mm diameter	381
161V2-6030-M	protection tube support with sleeve, for fixing to wide span tray or ladder, 60 mm diameter	382
161V2-B	protection tube support with bracket, for fixing to cable ladder, 60 mm diameter	382
161V2-M	protection tube support with sleeve, for fixing to cable ladder, 60 mm diameter	382
161V3-6000	protection tube 60 mm diameter	377
161V3-6000-L	protection tube slotted, 60 mm diameter	377
161V4-A	protection tube bend 90°, 60 mm diameter	377
161V4-B	protection tube bend 90° open, small, 60 mm diameter	378
161V4-C	protection tube bend 90° open, big, 60 mm diameter	378
161V5-A	protection tube bend 45°, 60 mm diameter	377
161V6-A	protection tube sleeve, 60 mm diameter	378
161V6-B	protection tube oblong hole sleeve, 60 mm diameter	379
161V6-C	protection tube clip, 60 mm diameter	382
161V6-D	tube clamp, 60 mm diameter	383
161V6-E	protection tube anchor clip, 60 mm diameter	383
161V7-...	mounting support, closed, 60 mm diameter	380
161V7-300-A	mounting support, open, 60 mm diameter	380
161V8-A	protection tube floor fixing, 60 mm diameter	379
161V8-B	protection tube floor corner, 60 mm diameter	379

V Cable protection (continuation)

161V8-C	protection tube floor support, 60mm diameter	382
17V10-A	protection tube tee, 30 mm diameter, stainless steel	372
17V11-A	protection tube mounting plate, incl. 1 endless screw clamp, 30 mm diameter, stainless steel	373
17V11-B	protection tube mounting plate, incl. 2 endless screw clamps, 30 mm diameter, stainless steel	373
17V11-WZ105	warning symbol, adhesive label DIN 4844 yellow/red	384
17V2-3015-M	protection tube support with sleeve, for fixing to cable tray or ladder, 30 mm diameter, stainless steel	374
17V2-3030-M	protection tube support with sleeve, for fixing to wide span trays or ladders, 30 mm diameter, stainless steel	374
17V2-6015-B	protection tube support with bracket, for fixing to cable tray or ladder, 30 mm diameter, stainless steel	374
17V2-6030-B	protection tube support with bracket, for fixing to wide span trays or ladders, 30 mm diameter, stainless steel	374
17V2-B	protection tube support with bracket, for fixing to cable ladder, 30 mm diameter, stainless steel	374
17V2-M	protection tube support with sleeve, for fixing to cable ladder, 30 mm diameter, stainless steel	375
17V3-6000	protection tube 30 mm diameter, stainless steel	372
17V4-A	protection tube bend 90°, 30 mm diameter, stainless steel	372
17V5-A	protection tube bend 45°, 30 mm diameter, stainless steel	372
17V6-A	protection tube sleeve, 30 mm diameter, stainless steel	372
17V6-B	protection tube oblong hole sleeve, 30 mm diameter, stainless steel	373
17V6-C	protection tube clip, 30 mm diameter, stainless steel	375
17V6-D	tube clamp, 30 mm diameter, stainless steel	375
17V6-E	protection tube anchor clip, 30 mm diameter, stainless steel	375
17V6-F	endless screwed clamp, 30 mm diameter, stainless steel	375
17V8-A	protection tube floor fixing, 30 mm diameter, stainless steel	373
17V8-B	protection tube floor corner, 30 mm diameter, stainless steel	373
171V10-A	protection tube tee, 60 mm diameter, stainless steel	378
171V11-A	protection tube mounting plate, incl. 1 endless screw clamp, 60 mm diameter, stainless steel	379
171V11-B	protection tube mounting plate, incl. 2 endless screw clamps, 60 mm diameter, stainless steel	380
171V11-C	protection tube mounting plate, incl. 2 endless screw clamps, 60 mm diameter, stainless steel	380
171V12-200	protection tube downward, 60 mm diameter, stainless steel	381
171V2-6015-B	protection tube support with bracket, for fixing to cable tray or ladder, 60 mm diameter, stainless steel	381
171V2-6015-M	protection tube support with sleeve, for fixing to cable tray or ladder, 60 mm diameter, stainless steel	381
171V2-6030-B	protection tube support with bracket, for fixing to wide span trays or ladders, 60 mm diameter, stainless steel	381
171V2-6030-M	protection tube support with sleeve, for fixing to wide span trays or ladders, 60 mm diameter, stainless steel	382
171V2-B	protection tube support with bracket, for fixing to cable ladder, 60 mm diameter, stainless steel	382
171V2-M	protection tube support with sleeve, for fixing to cable ladder, 60 mm diameter, stainless steel	382
171V3-6000	protection tube 60 mm diameter, stainless steel	377
171V4-A	protection tube bend 90°, 60 mm diameter, stainless steel	377
171V4-B	protection tube bend 90° open, small, 60 mm diameter, stainless steel	378
171V5-A	protection tube bend 45°, 60 mm diameter, stainless steel	377
171V6-A	protection tube sleeve, 60 mm diameter	378
171V6-B	protection tube oblong sleeve, 60 mm diameter, stainless steel	379
171V6-C	protection tube clip, 60 mm diameter, stainless steel	382
171V6-D	tube clamp, 60 mm diameter, stainless steel	383
171V6-E	protection tube anchor clip, 60 mm diameter, stainless steel	383
171V6-F	endless screw clamp, 60 mm diameter, stainless steel	383
171V7-300	mounting support closed, 60 mm diameter, stainless steel	380
171V7-300-A	mounting support, open, 60 mm diameter, stainless steel	380
171V8-A	protection tube floor fixing, 60 mm diameter, stainless steel	379
171V8-B	protection tube floor corner, 60 mm diameter, stainless steel	379
171V8-C	protection tube floor standing, 60 mm diameter, stainless steel	382

W Cable trays

15W11-.../16W11-...	cable protection plate for cable trays	13, 22, 90, 101
15W12-.../16W12-...	cover for cable trays or ladders, ohne Verriegelung	14, 25, 69, 79, 92, 102, 111, 120
15W12-...-B/16W12-...-B	cover for bend, ohne Verriegelung	15, 26
15W12-...-BR/16W12-...-BR	cover for bend, mit Verriegelung	15, 26
15W12-...-R/16W12-...-R	cover for cable trays or ladders, mit Verriegelung	14, 25, 69, 79, 92, 102, 111, 120
15W12-...-T/16W12-...-T	cover for extension tee, without locking device	15, 26
15W12-...-TR/16W12-...-TR	cover for extension tee, with locking device	15, 26
15W7-.../16W7-...	joint cover plate for cable trays	13, 22
15W8-.../16W8-...	joint cover plate for wide span trays	87, 98
15W9-.../16W9-...	joint cover plate for cable trays	7
151W01-...-L/161W01-...-L	cable tray, unperforated, side height 60 mm, standard support spacing 1.5 m	6
151W02-...-L/161W02-...-L	cable tray, perforated, side height 60 mm, standard support spacing 1.5 m	6
151W1-...	cable tray, unperforated, side height 60 mm, standard support spacing 1.5 m	4
151W13-A/161W13-A/141W13-A	divider strip for cable trays, side height 60mm	11, 33

W Cable trays (continuation)

151W15-...-B / 161W15-...-B	extension tee for cable tray, side height 60 mm	10
151W17-...-B / 161W17-...-B	corner for cable tray, side height 60 mm	10
151W2-... / 161W2-...	cable tray, perforated, side height 60 mm, standard support spacing 1.5 m	5
151W22-...	cable tray, perforated, side height 60 mm, standard support spacing 1.5 m	5
151W3-...-B / 161W3-...-B	bend for cable tray, side height 60 mm	10
152W13-A / 162W13-A / 142W13-A	divider strip for wide span tray, side height 105 mm	90
153W13-A / 163W13-A / 143W13-A	divider strip for cable tray, side height 110 mm and wide span tray, side height 150 mm	24, 101
153W15-...-B / 163W15-...-B	extension tee for cable tray, side height 110 mm	21
153W17-B / 163W17-B	corner for cable tray, side height 110 mm	21
153W17-BW / 163W17-BW	corner for wide span trays and ladders, side height 105 mm	89, 109
153W2-... / 163W2-...	cable tray, perforated, side height 110 mm, support width max. 2.5 m	18
153W3-...-B / 163W3-...-B	bend for cable tray, side height 110 mm	20
154W17-BW / 164W17-BW	corner for wide span trays or ladders, side height 150 mm	100, 118
161W18-...	reducing joint for cable tray, side height 60 mm	12
163W18-...	reducing joint for cable tray, side height 110 mm	23
17W11-...	cable protection plate for cable tray, stainless steel	264, 272, 298, 306
17W12-...	cover for cable ladders, without locking device, stainless steel	273, 283
17W12-...-B	cover for bend, without locking device, stainless steel	274
17W12-...-BR	cover for bend, with locking device, stainless steel	274
17W12-...-R / 18W12-...-R	cover for cable tray, with locking device, stainless steel	273, 283
17W12-...-RW	cover for wide span trays and ladders, stainless steel	320
17W12-...-T	cover for extension tee, without locking device, stainless steel	274
17W12-...-TR	cover for extension tee, with locking device, stainless steel	274
17W12-K	fixing spring for cover cable tray	14, 25, 273
17W13-A	divider strip for cable tray, height 47mm, stainless steel	260
17W13-V	joint for divider strip for divider strip 47 mm height, stainless steel	248, 260
17W7-...	joint cover plate for cable tray, stainless steel	261
17W8-...	joint cover plate for wide span trays, stainless steel	297, 306
171W1-...	cable tray, stainless steel, unperforated, side height 60 mm	259
171W12-K	fixing clip for cover, side height 60 mm	14, 59, 69, 273, 283
171W13-A / 181W13-A	divider strip for cable tray, side height 60 mm, stainless steel	260
171W15-...-B	extension tee for cable tray, stainless steel, side height 60 mm	262
171W17-B / 181W17-B	corner for cable tray, stainless steel, side height 60 mm	262
171W18-...	reducing joint for cable tray, side height 60 mm	263
171W2-...	cable tray, stainless steel, perforated, side height 60 mm	258
171W23-... / 181W23-...	cable tray, stainless steel, perforated, side height 60 mm	258
171W3-...-B	bend for cable tray, stainless steel, side height 60 mm	262
172W13-A	divider strip for cable tray, stainless steel, height 80mm	298
172W13-V	joint for divider strip for divider strip height 80mm, stainless steel	298, 312
173W1-...	cable tray side height 110mm, unperforated, stainless steel	268
173W12-K	fixing clip for cover for cable ladder, side height 100mm	79
173W12-K110	fixing clip for cover for cable tray, side height 110 mm	25, 212, 273
173W12-KW	fixing clip for cover for wide span trays	92, 111, 320
173W13-A	divider strip for cable tray side height 110 mm, stainless steel	269, 303
173W13-V	joint for divider strip for divider strip 98 mm height, stainless steel	269, 303, 317
173W15-...-B	extension tee for cable tray side height 110mm, stainless steel	270
173W17-B	corner for cable tray side height 110mm, stainless steel	270
173W17-BW	corner for cable tray/ladders, side height 105 mm	300, 314
173W18-...	reducing joint for cable tray side height 110mm, stainless steel	271
173W2-...	cable tray side height 110mm, perforated, stainless steel	268
174W17-BW	corner for wide span trays/ladders side height 150 mm	305, 319

Y Wide span cable trays

15Y34-MP1 / 16Y34-MP1	mounting plate	12, 23
153Y15-... / 163Y15-...	extension tee for wide span tray, side height 105mm	88
153Y2-... / 163Y2-...	wide span tray, perforated, side height 105 mm, support width max. 7.0 m	86
153Y20-... / 163Y20-...	crossing for wide span tray, side height 105 mm	89
153Y3-... / 163Y3-...	bend for wide span tray, side height 105 mm	88
153Y4-... / 163Y4-...	tee for wide span tray, side height 105 mm	89
154Y15-... / 164Y15-...	extension tee for wide span tray, side height 150 mm	99
154Y2-...-N / 164Y2-...-N	wide span tray, side height 150 mm, sheet thickness 1.5 mm, support width max. 8.0 m	96
154Y2-...-S / 164Y2-...-S	wide span tray, side height 150 mm, sheet thickness 2.0 mm, support width max. 8.0 m	97
154Y20-... / 164Y20-...	crossing for wide span tray, side height 150 mm	100
154Y3-... / 164Y3-...	bend for wide span tray, side height 150 mm	99

Y Wide span cable trays (continuation)

154Y4-... / 164Y4-.....	tee for wide span tray, side height 150 mm	100
17Y34-MP1	mounting plate, stainless steel	264, 272, 306, 322
173Y15-.....	extension tee for wide span tray, side height 105 mm	299
173Y2-.....	wide span tray, perforated, side height 105 mm, support width max. 7.0 m.	296
173Y20-.....	crossing for wide span tray, side height 105 mm	300
173Y3-.....	bend for wide span tray, side height 105 mm, stainless steel	299
173Y4-.....	tee for wide span tray, side height 105 mm	300
174Y15-.....	extension tee for wide span tray, side height 150 mm, stainless steel	304
174Y2-...-N	wide span trays, perforated, side height 150 mm, sheet thickness 1.5 mm, stainless steel.	301
174Y20-.....	crossing for wide span tray, stainless steel, side height 150 mm	305
174Y3-.....	bend for wide span trays, side height 150 mm	304
174Y4-.....	tee for wide span tray, stainless steel, side height 150 mm	305

Accessory parts

accessory screw for installation on brackets.....	17J6-F.....	275
accessory screw for butt strap 16J7-AZ.....	16J7-AZ.....	188
accessory screw M8x16, stainless steel.....	17J6-P.....	275, 282, 321
accessory screw.....	165C1-Z.....	128

Adapter piece

adapter piece.....	15A16-A.....	136
--------------------	--------------	-----

Adjusting bolt

adjusting bolt M10 for profile 30/15, 40/22, 40/44.....	15J18-1040.....	336
adjusting bolt M6 for profile 30/15, 40/22, 40/44.....	15J18-0640.....	336
adjusting bolt M8 for profile 30/15, 40/22, 40/44.....	15J18-0840.....	336

Anchor bolt

anchor bolt M10x30, clamping thickness max. 8 mm.....	16J2-K.....	183
anchor bolt M12x40, clamping thickness max. 12 mm.....	16J2-A.....	183
anchor bolt, clamping thickness max. 10 mm.....	16J2-B.....	183, 335
anchor bolt, clamping thickness max. 12 mm.....	16J2-A.....	183, 335
anchor bolt, clamping thickness max. 12 mm.....	17J2-A.....	240
anchor bolt, clamping thickness max. 5 mm.....	16J2-D.....	183
anchor bolt, clamping thickness max. 5 mm.....	17J2-D.....	240
anchor bolt, clamping thickness max. 6 mm.....	16J2-C.....	183
anchor bolt, clamping thickness max. 6 mm.....	17J2-C.....	236, 240

Anchor corner

anchor corner.....	16J3-D.....	184, 206, 332
anchor corner.....	16J3-D1.....	184, 210
anchor corner, stainless steel.....	17J3-D.....	234, 291

Anchor block

anchor block.....	16J3-B.....	184, 210
anchor block.....	16J3-C.....	184

Angle section

angle section.....	16J43 / 17J43.....	330
--------------------	--------------------	-----

Bearing bracket

bearing bracket for C-profile 40x22.....	16J55.....	333
--	------------	-----

Bendable joint

bendable joint for cable ladder, side height 60mm.....	151E11-B / 161E11-B.....	67
bendable joint for cable ladder, side height 60mm, stainless steel.....	171E11-B.....	285
bendable joint for cable ladder, side height 100mm.....	153E11-B / 163E11-B.....	77
bendable joint for plastic tray.....	171M5-B.....	58
bendable joint for cable tray, side height 60mm.....	151E12-B / 161E12-B.....	11
bendable joint for cable tray, side height 60mm, stainless steel.....	171E12-B.....	216
bendable joint for cable tray, side height 105mm.....	153E12-B / 163E12-B.....	22
bendable joint for wide span tray or ladder, side height 105mm.....	153C9-B / 163C9-B.....	87, 107
bendable joint for wide span tray or ladder, side height 150mm.....	154C9-B / 164C9-B.....	98, 116
bendable joint, outside, for wide span ladder, side height 200mm.....	165C9-A.....	127
bendable joint, inside, for wide span ladder, side height 200mm.....	165C9-B.....	127

Bends

bends for cable ladders, side height 100 mm.....	153C2-...-LA / 163C2-...-LA.....	75
bends for cable ladders, side height 60 mm.....	151C2-...-A / 151C2-...-A.....	65
bends for cable ladders, side height 60 mm.....	171C2-...-A.....	280
bends for cable trays, side height 60 mm, stainless steel.....	171W3-...-B.....	262
bends for cable trays, , side height 110 mm.....	153W3-...-B / 163W3-...-B.....	20
bends for cable trays, side height 60 mm.....	151W3-...-B / 161W3-...-B.....	10
bends for plastic trays, side height 60 mm.....	301M3-.....	57
bends for marine cable ladders, side height 40 mm.....	160P3-.....	391
bends for wide span ladders, side height 150 mm, stainless steel.....	174C2-...-S.....	318
bends for wide span ladders, side height 105 mm.....	153C2-...-S / 163C2-...-S.....	108

Bends (continuation)

bends for wide span ladders, side height 105 mm	173C2-...-S.....	313
bends for wide span ladders, side height 200 mm	165C2-.....	125
bends for wide span ladders, side height 150 mm	154C2-...-S / 164C2-...-S.....	117
bends for wide span trays, side height 105 mm, stainless steel	173Y3-.....	299
bends for wide span trays, side height 150 mm, stainless steel	174Y3-.....	304
bends for wide span trays, side height 105 mm	153Y3-... / 163Y3-.....	88
bends for wide span trays, side height 150 mm	154Y3-... / 164Y3-.....	99

Bracket

bracket for hanging support l80, length 250mm to 1000mm.....	16B8-...-W.....	158
bracket for hanging support , length 100mm to 400mm.....	15B5-.....	136
bracket for hanging support , length 100mm to 400mm.....	15B6-.....	137
bracket for hanging support , length 100mm to 600mm.....	16B7-.....	138
bracket for H-support , length 100mm to 600mm	16B1-.....	157
bracket for wall mounting, length 100mm to 400mm.....	15A20-... / 16A20-.....	169
bracket for support and wall mounting, length 100mm to 300mm.....	06B2-.....	147
bracket for support and wall mounting, stainless steel, length 100mm to 300mm.....	07B2-.....	218
bracket for support and wall mounting, stainless steel, length 100mm to 300mm.....	17B3-.....	219
bracket for support and wall mounting, stainless steel, length 100mm to 1000mm.....	17B2-.....	220
bracket for support and wall mounting, stainless steel, length 100mm to 600mm.....	18B2-.....	220
bracket for support and wall mounting, stainless steel, length 200mm to 1000mm.....	17B9-...-W.....	221
bracket for support mounting, stainless steel, length 100mm to 400mm	17B6-.....	223
bracket for support mounting, stainless steel, length 100mm to 400mm	18B7-.....	225
bracket for support mounting, stainless steel, length 100mm to 600mm	17B7-.....	225
bracket for support and wall mounting, length 100mm to 600mm.....	15B3-... / 16B3-.....	148, 172
bracket for support and wall mounting, length 100mm to 700mm.....	16B2-.....	149, 173
bracket for support mounting, length 100mm to 400mm.....	18B6-.....	223
bracket V4A stainless steel, support and wall mounting, length 100mm to 400mm.....	18B3-.....	219
bracket adjustable for slopes, wall mounting, length 350mm to 700mm.....	16B13-.....	171
bracket, wall mounting, length 250mm to 1000mm, especially for wide span systems....	16B9-...-W.....	174
wall brackets, length 200mm to 1000 mm	16B22-.....	175

Butt strap

butt strap.....	16J49 / 17J49	332
-----------------	---------------------	-----

C-trellis tray

C-trellis tray, heavy design, stainless steel	17S1-...-CD	247
C-trellis tray, side height 68 mm	16S1-...-C.....	50

C-profile rail + C-rungs

C-profile rail 23x11, unperforated	15F2-...-B / 16F2-...-B.....	211
C-profile rail 30x15, perforated	15F2-...-C / 16F2-...-C.....	165, 211, 328
C-profile rail 30x15, perforated, stainless steel	17F2-...-C.....	231, 234, 328
C-profile rail 40x22, perforated	15F2-...-L / 16F2-...-L	212, 328
C-profile rail 40x22, perforated, stainless steel	17F2-...-L / 18F2-...-L	212, 328
C-profile rail 40x22, unperforated	15F2-...-E / 16F2-...-E	212, 328
C-profile rail 40x22, unperforated, stainless steel.....	17F2-...-E	328
C-profile rail 41x41, perforated, stainless steel	17A4-...-K.....	232
C-profile rail 41x41, perforated	16A4-...-K.....	163
C-profile rail 41x41x2,5, perforated.....	16F5-...-A.....	212, 329
C-profile rail 41x41x2,5, perforated, stainless steel.....	17F5-...-A.....	233, 329
C-rungs 30x15 for vertical cable ladders.....	05L12-... / 06L12-...	204
C-rungs 40x22 for vertical cable ladders like 16L3-...-C	15L12-...-C / 15L12-...-C.....	205
C-rungs 40x22 for vertical cable ladders like 16L3-...-C	16L12-...-C.....	207
C-rungs 40x22 for vertical cable ladders like 16L3-...-C	16L13-...-C.....	209
C-rungs 40x22 for vertical cable ladders like 171L33-...-C	17L12-...-C.....	292

Cable ladder

cable ladder, side height 100mm, standard support width 3.0 m	153C1-...-L63 / 163C1-...-L63.....	74
cable ladder, side height 60mm, standard support width 1.5 m, side thickness 1.5mm... ..	151C1-...-L63 / 161C1-...-L63.....	64
cable ladder, side height 60mm, standard support width 1.5 m, side thickness 2.0mm... ..	151C1-...-S63 / 161C1-...-S63	64
cable ladder, side height 60mm, standard support width 1.5 m	171C1-...-L63 / 181C1-...-L63.....	278

Cable protection

cable protection for luminaire support tray and INSTA tray	15N20-20	32, 41, 255
cable protection for luminaire support tray and INSTA tray	15N20-30	32, 41, 255
cable protection plate for cable tray	15W11-... / 16W11-...	13, 22, 90, 101
cable protection plate for cable tray, stainless steel	17W11-...	264, 272, 298, 306

Cable protection tube accessory

tube clamp, 30 mm diameter	16V6-D	375
tube clamp, 30 mm diameter, stainless steel	17V6-D	375
tube clamp, 60 mm diameter	161V6-D	383
tube clamp, 60 mm diameter, stainless steel	171V6-D	383
mounting support, 60mm diameter, closed	161V7-...	380
mounting support, 60mm diameter, closed, stainless steel	171V7-300	380
mounting support, 60mm diameter, open	161V7-300-A	380
mounting support, 60mm diameter, open, stainless steel	171V7-300-A	380
endless screw clamp, 30 mm diameter, stainless steel	17V6-F	375
endless screw clamp, 60 mm diameter, stainless steel	171V6-F	383
protective end cap of flexible plastic, 30 mm diameter	15V9-B	376
protective end cap of flexible plastic, 60 mm diameter	151V9-B	383
protection tube downward, 60 mm diameter	161V12-...	381
protection tube downward, 60 mm diameter, stainless steel	171V12-200	381
protection tube anchor clip, 30 mm diameter	16V6-E	375
protection tube anchor clip, 30 mm diameter, stainless steel	17V6-E	375
protection tube anchor clip, 60 mm diameter	161V6-E	383
protection tube anchor clip, 60 mm diameter, stainless steel	171V6-E	383
protection tube floor fixing, 30 mm diameter	16V8-A	373
protection tube floor fixing, 30 mm diameter, stainless steel	17V8-A	373
protection tube floor fixing, 60 mm diameter	161V8-A	379
protection tube floor fixing, 60 mm diameter, stainless steel	171V8-A	379
protection tube floor support, 60 mm diameter	161V8-C	382
protection tube floor support, 60 mm diameter, stainless steel	171V8-C	382
protection tube floor corner, 30 mm diameter	16V8-B	373
protection tube floor corner, 30 mm diameter, stainless steel	17V8-B	373
protection tube floor corner, 60 mm diameter	161V8-B	379
protection tube floor corner, 60 mm diameter, stainless steel	171V8-B	379
protection tube oblong hole sleeve, 30 mm diameter	16V6-B	373
protection tube oblong hole sleeve, 30 mm diameter, stainless steel	17V6-B	373
protection tube oblong hole sleeve, 60 mm diameter	161V6-B	379
protection tube oblong hole sleeve, 60 mm diameter, stainless steel	171V6-B	379
protection tube mounting plate incl. 1 endless screw clamp, 30 mm diameter	16V11-A	373
protection tube mounting plate incl. 1 endless screw clamp, 30 mm d., stainl. steel	17V11-A	373
protection tube mounting plate incl. 1 endless screw clamp, 30 mm diameter	161V11-A	379
protection tube mounting plate incl. 1 endless screw clamp, 30 mm d., stainless steel	171V11-A	379
protection tube mounting plate incl. 2 endless screw clamps, 30 mm diameter	16V11-B	373
protection tube mounting plate incl. 2 endless screw clamps, 30 mm d., stainless steel	17V11-B	373
protection tube mounting plate incl. 2 endless screw clamps, 60 mm diameter	161V11-B	380
protection tube mounting plate incl. 2 endless screw clamps, 60 mm diameter	161V11-C	380
protection tube mounting plate incl. 2 endless screw clamps, 60 mm d., stainless steel	171V11-B	380
protection tube mounting plate incl. 2 endless screw clamps, 60 mm d., stainless steel	171V11-C	380
protection tube tee, 30 mm diameter	16V10-A	372
protection tube tee, 30 mm diameter, stainless steel	17V10-A	372
protection tube tee, 60 mm diameter	161V10-A	378
protection tube tee, 60 mm diameter, stainless steel	171V10-A	378
protection tube bend 45°, 30 mm diameter	16V5-A	372
protection tube bend 45°, 30 mm diameter, stainless steel	17V5-A	372
protection tube bend 45°, 60 mm diameter	161V5-A	377
protection tube bend 45°, 60 mm diameter, stainless steel	171V5-A	377
protection tube bend 90°, 60 mm diameter, open, big	161V4-C	378
protection tube bend 90°, 60 mm diameter, open, small	161V4-B	378
protection tube bend 90°, 60 mm diameter, stainless steel, open, small	171V4-B	378
protection tube bend 90°, 30 mm diameter	16V4-A	378
protection tube bend 90°, 30 mm diameter, stainless steel	17V4-A	372
protection tube bend 90°, 60 mm diameter	161V4-A	377
protection tube bend 90°, 60 mm diameter, stainless steel	171V4-A	377
protection tube support with bracket, 30 mm diameter, for cable ladder	16V2-B	374
protection tube support with bracket, 30 mm diameter, stainless steel, for cable ladder	17V2-B	374

Cable protection tube accessory (continuation)

protection tube support with bracket, 60 mm diameter, for cable ladder	161V2-B	382
protection tube support with bracket, 60 mm diameter, stainless steel, for cable ladder ..	171V2-B	382
protection tube support with bracket, 30 mm diameter, for tray or ladder	16V2-6015-B	374
protection tube support with bracket, 30 mm diameter, stainless steel, for tray or ladder ..	17V2-6015-B	374
protection tube support with bracket, 60 mm diameter, for tray or ladder	161V2-6015-B	381
protection tube support with bracket, 60 mm diameter, stainless steel, for tray or ladder ..	171V2-6015-B	381
protection tube support with bracket, 30 mm diameter, for wide span system	16V2-6030-B	374
protection tube support with bracket, 30 mm diameter, stainless steel, for wide span	17V2-6030-B	374
protection tube support with bracket, 60 mm diameter, for wide span system	161V2-6030-B	381
protection tube support with bracket, 60 mm diameter, stainless steel, for wide span	171V2-6030-B	381
protection tube support with sleeve, 30 mm diameter, for cable ladder	16V2-M	375
protection tube support with sleeve, 30 mm diameter, stainless steel, for cable ladder	17V2-M	375
protection tube support with sleeve, 60 mm diameter, for cable ladder	161V2-M	382
protection tube support with sleeve, 60 mm diameter, stainless steel, for cable ladder	171V2-M	382
protection tube support with sleeve, 30 mm diameter, for tray or ladder	16V2-3015-M	374
protection tube support with sleeve, 30 mm diameter, stainless steel, for tray or ladder ..	17V2-3015-M	374
protection tube support with sleeve, 60 mm diameter, for tray or ladder	161V2-6015-M	381
protection tube support with sleeve, 60 mm diameter, stainless steel, for tray or ladder ..	171V2-6015-M	381
protection tube support with sleeve, 30 mm diameter, for wide span systems	16V2-3030-M	374
protection tube support with sleeve, 30 mm diameter, stainless steel, for wide span	17V2-3030-M	374
protection tube support with sleeve, 60 mm diameter, for wide span systems	161V2-6030-M	382
protection tube support with sleeve, 60 mm diameter, stainless steel, for wide span	171V2-6030-M	382
protection tube sleeve, 30 mm diameter	16V6-A	372
protection tube sleeve, 30 mm diameter, stainless steel	17V6-A	372
protection tube sleeve, 60 mm diameter	161V6-A	378
protection tube sleeve, 60 mm diameter	171V6-A	378
protection tube clip, 30 mm diameter	16V6-C	375
protection tube clip, 30 mm diameter, stainless steel	17V6-C	375
protection tube clip, 60 mm diameter	161V6-C	382
protection tube clip, 60 mm diameter, stainless steel	171V6-C	382
heavy screw distance clamp, 60 mm diameter	16ASS-60	383

Cable protection tubes

cable protection tube 30 mm diameter	16V3-6000	372
cable protection tube 30 mm diameter, stainless steel	17V3-6000	372
cable protection tube 60 mm diameter	161V3-6000	377
cable protection tube 60 mm diameter, stainless steel	171V3-6000	377
cable protection tube 60 mm diameter, slotted	161V3-6000-L	377

Cable tray

cable tray, side height 110mm, perforated, stainless steel	173W2-... ..	268
cable tray, side height 110mm, unperforated, stainless steel	173W1-... ..	268
cable tray, stainless steel, perforated, side height 60 mm	171W2-... ..	258
cable tray, stainless steel, perforated, side height 60 mm	171W12-... / 181W12-... ..	258
cable tray, stainless steel, unperforated, side height 60 mm	171W1-... ..	259
cable tray, perforated, side height 110 mm, sheet thickness 1.5mm	153R02-...-N / 163R02-...-N	19
cable tray, perforated, side height 110 mm, standard support spacing 2.5m	153W2-... / 163W2-... ..	18
cable tray, perforated, side height 60 mm, sheet thickness 1.5mm	151R02-...-N / 161R02-...-N	8
cable tray, perforated, side height 60 mm, sheet thickness 1.5mm	151R02-...-S / 161R02-...-S	9
cable tray, perforated, side height 60 mm, standard support spacing 1.5m	151W2-... / 161W2-... ..	5
cable tray, perforated, side height 60 mm, standard support spacing 1.5m	151W22-... ..	5
cable tray, perforated, side height 60 mm, standard support spacing 1.5m	151W02-...-L / 161W02-...-L	6
cable tray, unperforated, side height 60 mm, standard support spacing 1.5m	151W01-...-L / 161W01-...-L	6
cable tray, unperforated, side height 60 mm, standard support spacing 1.5m	151W1-... ..	4

Central suspension

central suspension, width 100mm to 400mm	16B17-... ..	168
--	--------------	-----

Clamping technology

clamping bracket	15J6-B	339
clamping bracket	15J6-A	339
clamping piece with screw M6x12	16J6-A	67, 77, 187
clamping piece with screw M6x20	163J6-A	110, 119, 187
clamping piece with screw M8x16	17J6-A	321
clamping piece with screw M10x20	173J6-A	282

Clamping technology (continuation)

clamping claws	16A4-13	162
clamping claws	16A4-13-D	161; 338
clamping claws	16A4-13-DA	161; 338
claws	16A4-1	160
claws	16A4-1-D	159; 338
claws	16A4-1-DA	159; 338
claws, plastic-coated	19A4-1-D	239
claws, plastic-coated	19A4-1-DA	239

Clips

clip for flat iron 4-12mm, with plastic thrust trough	16BSFK-...	356, 357
clip for flat iron 4-12mm, with steel thrust trough	16BSF-...	354, 355
clip for corner iron 40x40, with plastic thrust trough	16BSWK-...	360
clip for corner iron 40x40, with steel thrust trough	16BSW-...	358, 359

Cold galvanizing set

cold galvanizing set	15J19-A	194, 384
----------------------------	---------------	----------

Compensating plate

compensating plate	15J6-... / 16J6-...	188
--------------------------	---------------------------	-----

Console

console, wall fixing, length 200 mm to 1000 mm, especially for wide span system	16B21-...	175
---	-----------------	-----

Corner

corner for cable trays, side height 110mm, stainless steel	173W17-...-B	270
corner for cable trays, side height 60mm, stainless steel	171W17-B / 181W17-B	262
corner for cable trays, side height 60mm	151W17-...-B / 161W17-...-B	10
corner for cable trays, side height 110mm	153W17-B / 163W17-B	21
corner for wide span trays and ladders, side height 105 mm	173W17-BW	300, 314
corner for wide span trays and ladders, side height 150 mm	174W17-BW	305, 319
corner for wide span trays and ladders, side height 105 mm	153W17-BW / 163W17-BW	89, 109
corner for wide span trays and ladders, side height 150 mm	154W17-BW / 164W17-BW	100, 118
corner for cable ladder, side height 60mm, stainless steel	181C20-...-A	281

Corner console

corner console	16J43	330
corner console, stainless steel	17J43	234

Corner support

corner support for bracket 16B9-...-W	16J10	176
---	-------------	-----

Counter plate

counter plate	16J23-A	188
---------------------	---------------	-----

Counter trough

counter trough of steel	15GW-...	367
counter trough for yoke clip for C-profile 23x11	20GW23-...	364
counter trough for yoke clip for C-profile 30x15	20GW30-...	363

Covers

cover for extension tee for cable ladder, side height 60 mm	17C12-...-T	284
cover for extension tee for cable ladder, side height 60 mm	17C12-...-TR	284
cover for extension tee for plastic tray	30M10-...	59
cover for extension tee, with locking device	15C12-...-TR / 16C12-...-TR	70, 80
cover for extension tee, with locking device	15W12-...-TR / 16W12-...-TR	15, 26
cover for extension tee, with locking device, stainless steel	17W12-...-TR	274
cover for extension tee, without locking device	15C12-...-T / 16C12-...-T	70, 80
cover for extension tee, without locking device	15W12-...-T / 16W12-...-T	15, 26
cover for extension tee, without locking device, stainless steel	17W12-...-T	274
cover for bend for cable ladder, side height 60mm	17C12-...-A	284
cover for bend for cable ladder, side height 60 mm	17C12-...-AR	284
cover for bend for plastic trays	30M9-...	59

Covers (continuation)

cover for bend, with locking device.....	15C12-...-AR / 16C12-...-AR.....	70, 80
cover for bend, with locking device.....	15W12-...-BR / 16W15-...-BR.....	15, 26
cover for bend, with locking device, stainless steel.....	17W12-...-BR.....	274
cover for bend, without locking device.....	15C12-...-A / 16C12-...-A.....	70, 80
cover for bend, without locking device.....	15W12-...-B / 16W12-...-B.....	15, 26
cover for bend, without locking device, stainless steel.....	17W12-...-B.....	274
cover for trellis tray, stainless steel.....	17S12-.....	251
cover for horizontal bend (only for side height 200mm).....	165C12-...-A.....	129
cover for INSTA-tray.....	15N12-.....	32
cover for luminaire support tray, stainless steel.....	17N12-...-LR.....	255
cover for cable ladder, without locking device, stainless steel.....	17W12-.....	273, 283
cover for cable tray and ladder, with locking device.....	15W12-...-R / 16W12-...-R.....	14, 25, 69, 79, 92, 102, 111, 120
cover for cable tray and ladder, without locking device.....	15W12-... / 16W12-........	14, 25, 69, 79, 92, 102, 111, 120
cover for cable tray, with locking device, stainless steel.....	17W12-...-R / 18W12-...-R.....	273, 283
cover for plastic tray.....	30M6-.....	59
cover for tee downward (only for side height 200mm).....	165C12-...-T.....	129
cover for wide span ladder, side height 200 mm.....	165C12-.....	129
cover for wide span tray and ladder, stainless steel.....	17W12-...-RW.....	320

Crossings

crossing for cable ladder, side height 60 mm, stainless steel.....	171C20-.....	281
crossing for cable ladder, side height 60 mm.....	151C20-... / 161C20-.....	66
crossing for cable ladder, side height 100 mm.....	153C20-... / 163C20-.....	76
crossing for wide span ladder, side height 105 mm.....	153C20-...-S / 163C20-...-S.....	109
crossing for wide span ladder, side height 105 mm, stainless steel.....	173C20-...-S.....	314
crossing for wide span ladder, side height 150 mm, stainless steel.....	174C20-...-S.....	319
crossing for wide span ladder, side height 150 mm.....	154C20-...-S / 164C20-...-S.....	118
crossing for wide span ladder, side height 200 mm.....	165C5-.....	126
crossing for wide span tray, side height 105 mm.....	153Y20-... / 164Y20-.....	89
crossing for wide span tray, side height 105 mm, stainless steel.....	173Y20-.....	300
crossing for wide span tray, side height 150 mm.....	154Y20-... / 164Y20-.....	100
crossing for wide span tray, side height 150 mm, stainless steel.....	174Y20-.....	305

Distance piece

distance piece for support console for fixing to walls and ceilings.....	15B18-D.....	170
--	--------------	-----

Divider strip

divider strip for INSTA tray.....	15N13-T.....	33
divider strip for trellis tray 131S1 / 151S1.....	15S13-A / 16S13-A / 17S13-A.....	46, 51, 248
divider strip for cable ladder, stainless steel.....	170C13-A.....	279
divider strip for cable ladder, side height 100mm.....	152C13-A / 162C13-A.....	78
divider strip for cable ladder, side height 60mm.....	150C13-A / 160C13-A.....	68
divider strip for cable ladder, stainless steel.....	17C13-A.....	217
divider strip for cable tray, height 47mm, stainless steel.....	17W13-A.....	260
divider strip for cable tray, side height 60mm, stainless steel.....	171W13-A.....	260
divider strip for cable tray, stainless steel, height 80mm.....	172W13-A.....	298
divider strip for cable tray, stainless steel, for side height 110mm.....	173W13-A.....	269, 303
divider strip for cable tray, side height 110mm and wide span tray side height 150mm... ..	153W13-A / 163W13-A / 143W13-A.....	24, 101
divider strip for cable tray, side height 60mm.....	151W13-A / 161W13-A / 141W13-A.....	11, 33
divider strip for plastic tray, side height 60mm.....	301M8-A.....	50
divider strip for wide span ladder.....	172C13-SA.....	312
divider strip for wide span ladder, height 98mm, stainless steel.....	173C13-A.....	317
divider strip for wide span ladder, side height 105mm.....	152C13-SA / 162C13-SA / 142C13-SA.....	110
divider strip for wide span ladder, side height 200mm.....	163C13-A.....	128
divider strip for wide span ladder, side height 150mm.....	153C13-B / 163C13-B.....	119
divider strip for wide span tray, side height 105mm.....	152W13-A / 162W13-A / 142W13-A.....	90

Divider strip accessory

divider strip fixing clamp for trellis tray, stainless steel.....	17S14-D.....	249
divider strip fixing clamp, stainless steel.....	17C13-K.....	298, 303, 312, 317
divider strip fixing clamp, stainless steel.....	17C13-M.....	279
divider strip fixing plate.....	15N13-.....	33
joint for dividers strip 47mm height, stainless steel.....	17W13-V.....	248, 260
joint for dividers strip 98mm height, stainless steel.....	173W13-V.....	369, 303, 317
joint for dividers strip 80mm height, stainless steel.....	172W13-V.....	298, 312

Double C-rail

double bracket for double C-rail 16F55-...-A	16J48.....	331
double C-rail 40x44, unperforated.....	15F22-...-E / 16F22-...-E	212, 328
double C-rail 40x44, unperforated, stainless steel	17F22-...-E	328
double C-rail 41x82x2,5, perforated.....	16F55-...-A.....	164, 213, 329

Double trough

double troughs for all clips for 2 or 3 cables.....	20DW-.....	366
---	------------	-----

Drill bits

drill bit for internal-thread expansion bolt 15J1-FZEA-1240	15J1-FZUB-1240	181, 336
drill bit for internal-thread expansion bolt 15J1-FZEA-1440	15J1-FZUB-1440	181

Drive-in punch

drive-in punch for internal-thread exp. bolt 15J1-FZEA-1240	15J1-FZED-1240	181, 336
drive-in punch for internal-thread exp. bolt 15J1-FZEA-1440	15J1-FZED-1440	181

Edge protection

edge protection for cable trays, wide span systems, cable protection tubes	15V13-A / 18V13-A.....	13, 24, 90, 101, 193, 384
--	------------------------	---------------------------

End cover

end cover for INSTA-tray.....	15N...-ED-06	36
-------------------------------	--------------------	----

Exit plate

exit plate for cable ladder.....	16C8-...-B	66, 76
exit plate for wide span ladder.....	163C8-...-B	107, 116
exit plate.....	17C8-...-B	281
exit plate.....	173C8-...-B	321

Extension tee

extension tee for cable ladder, side height 100mm.....	153C15-...-L / 163C15-...-L.....	75
extension tee for cable ladder, side height 60 mm.....	151C15-... / 161C15-...	65
extension tee for cable ladder, side height 60 mm.....	171C15-...	280
extension tee for cable tray, side height 60mm, stainless steel.....	171W15-...-B.....	262
extension tee for cable tray, side height 110mm, stainless steel.....	173W15-...-B.....	270
extension tee for cable tray, side height 110 mm	153W15-...-B / 163W15-...-B	21
extension tee for cable tray, side height 60 mm	151W15-...-B / 161W15-...-B	10
extension tee for plastic tray, side height 60 mm.....	301M15-...	57
extension tee for marine cable ladder, side height 40 mm, width 100mm to 1000 mm	160P15-...	391
extension tee for wide span cable ladder, side height 150 mm, stainless steel.....	174C15-...-S.....	318
extension tee for wide span cable ladder, side height 105 mm.....	153C15-...-S / 163C15-...-S	108
extension tee for wide span cable ladder, side height 105 mm, stainless steel.....	173C15-...-S.....	313
extension tee for wide span cable ladder, side height 150 mm.....	154C15-...-S / 164C15-...-S	117
extension tee for wide span cable tray, side height 150 mm, stainless steel.....	174Y15-...-S.....	304
extension tee for wide span cable tray, side height 105 mm	153Y15-... / 163Y15-...	88
extension tee for wide span cable tray, side height 105 mm	173Y15-...	299
extension tee for wide span cable tray, side height 150 mm	154Y15-... / 164Y15-...	99

Eye bolt

eye bolt with nut M6x60	15N21-06.....	189
eye bolt slide with nut M6x60	15N21-...	190, 192

Fixing for ceilings

ceiling bracket, stainless steel.....	17J15-D	237
ceiling hook, M6x60	15N23	189, 192
ceiling hook, M6x60 for INSTA tray, with plastic expansion bolt.....	15N22	192

Fixing spring and fixing clip

fixing spring for cover cable tray.....	17W12-K	14, 25, 273
fixing clip for covers side height 100mm.....	173W12-K	79
fixing clip for covers side height 110mm.....	173W12-K110	25, 212, 273
fixing clip for covers wide span trays	173W12-KW	92, 111, 320
fixing clip for covers side height 60mm.....	171W12-K	14, 59, 69, 273, 283
cable fixing clip for INSTA tray.....	17N...-K-06	36

Fixing parts

fixing bracket	16J44 7 17J44	330
fixing screws	16J4-1070	185
fixing screws for plastic trays M6x16	17M5-E	58
fixing screws M10x20	16J6-1020	187
fixing screws M10x20 for internal-thread expansion bolt	15J6-K	336
fixing screws M10x25	16J5-Z	186
fixing screws M10x25	16J6-1025	187, 241
fixing screws M10x50	15J6-1050	187
fixing screws M12x25	16J12-A	187
fixing screws M12x35	16J6-1235	187
fixing screws M6x12	16J6-B	12, 187
fixing screws M6x12, stainless steel	17J6-B / 18J6-B	236, 263
fixing screws M6x16	16J6-D	187
fixing screws M6x20	16C8-Z	68, 78
fixing screws M6x20	17C8-Z	279
fixing screws M6x20	16J6-F	187
fixing screws M8x110 for trapezoidal sheet suspension	16N21-110	190, 191, 337
fixing screws M8x16	16J6-P	68, 77, 91, 101, 110, 119, 187
fixing screws M8x16	16J6-Q	187
fixing screws M8x20	16J6-R	187
fixing screws M8x20	16J6-S	46, 187, 335
fixing screws, stainless steel	17J4-... / 18J4-...	236
fixing screws M6x30	16J52-Z1	339
fixing screws M6x40	16J52-Z	339
fixing screws M8x30	16J51-Z	339
fixing screws M8x40	16J51-Z1	339
support corner	16U6-A	13, 24, 46, 68, 79, 91, 110, 210
support corner	17U6-A	275, 279, 321
concrete screw 10	15J1-FBS-1015S	180

Flat corner

flat corner for cable ladders	16C7-400-A	68, 78
flat corner	17C7-400-A	279

Grouting articles

grouting net anchor	15J1-FIS-H16130K	182
grouting threaded rod	15J1-FIS-A10110M	181
grouting mortar	15J1-FIS-V360S	182

H-support

H-support I80, without head plate, length 200 mm to 6000 mm	16A1-...	152, 209
---	----------------	----------

Hanging supports

hanging support for trellis tray	16U12-...	45
hanging support I80, with welded on head plate, length 200mm to 2000mm	16A3-...	155
hanging support with welded-on head plate, stainless steel, length 200mm to 1500mm	17A10-...	224
hanging support with welded-on head plate	17A16-...	222
hanging support with welded-on head plate	18A16-...	222
hanging support with welded-on head plate, length 200mm to 1500mm	18A10-...	224
hanging support with welded-on head plate, length 200mm to 1500mm	16A10-...	140
hanging support U50x22 with screwed-on head plate	16A16-...	135
hanging support U50x50 with screwed-on head plate, length 200mm to 2000mm	16A14-...	142
hanging support U60x40 with welded-on head plate, stainless steel	17A9-...	229
hanging support U60x40 with welded-on head plate, length 200mm to 2000mm	16A9-...	145

Head plate

head plate, stainless steel	17A5-K	228
head plate, stainless steel	17A5-P	228
head plate for H-support I80, for sloped ceilings	16A4-B	154
head plate for H-support I80, for sloped ceilings	16A4-BQ	154
head plate for H-support I80, for horizontal ceilings	16A4-A	153
head plate for H-support I80, for horizontal ceilings	16A4-AQ	153
head plate for U-profile 50x22	16A16-K	134
head plate for U-profile 50x50	16A14-K	141
head plate for U-profile 60x40	16A8-40	144

Head plate (continuation)

head plate for U-profile 60x40, stainless steel.....	17A8-40.....	231
head plate vertical for U-profile 15A15-... / 16A15-... ..	16A4-D.....	139
head plate for U-profile 15A15-... / 16A15-... ..	16A4-E.....	139
head plate, stainless steel.....	18A4-D.....	226
head plate, stainless steel, for U-profile 50x22.....	17A16-K.....	226
head plate, stainless steel.....	17A4-C.....	226
head plate, stainless steel, U-profile 15A15-... / 16A15-... ..	17A4-D.....	226
head plate, stainless steel, U-profile 15A15-... / 16A15-... ..	17A4-E.....	226
head plate, stainless steel.....	17A5-E.....	227
head plate, stainless steel, for U-profile 50x22.....	18A16-K.....	226

Head plate adapter

head plate adapter for high loads.....	16A4-0.....	156
--	-------------	-----

Hexagonal nut

hexagonal nut DIN-934-8.....	16J4-...-M.....	185, 334
hexagonal nut, stainless steel, thread M10 or M12.....	17J4-...-M.....	235

Hinge piece

hinge piece for C-trellis tray.....	16S11-C.....	52
hinge piece for C-trellis tray.....	16S11-C45.....	52
hinge piece for C-trellis tray.....	16S11-C90.....	52
hinge piece for C-trellis tray.....	16S11-C190.....	52
hinge piece for cable ladder, side height 100 mm.....	153E11-C / 163E11-C.....	77
hinge piece for cable ladder, side height 60 mm.....	151E11-C / 161E11-C.....	67
hinge piece for cable ladder, side height 60 mm, stainless steel.....	171E11-C / 181E11-C.....	282
hinge piece for cable trays, side height 110 mm, stainless steel.....	179E13-C.....	271
hinge piece for cable trays, side height 105 mm.....	153E12-C / 163E12-C.....	22
hinge piece for cable trays, side height 60 mm.....	151E12-C / 161E12-C.....	11
hinge piece for cable trays, side height 60 mm, stainless steel.....	171E12-C.....	261
hinge piece for plastic trays, side height 60 mm.....	301M5-C.....	58
hinge piece for wide span ladders, side height 200 mm.....	165C9-C.....	127
hinge piece for wide span trays or ladders, side height 105 mm.....	153C9-C / 163C9-C.....	87, 107
hinge piece for wide span trays or ladders, side height 150 mm.....	154C9-C / 164C9-C.....	98, 116

Hook screw

hook screw for trellis tray.....	16S14-B.....	45, 50, 250
hook screw, stainless steel.....	18J2-E.....	231

Inner edge

inner edge 45° with cover for INSTA-tray.....	15N...-I45-06.....	34
inner edge 90° with cover for INSTA-tray.....	15N...-I90-06.....	35

INSTA-tray

INSTA tray, side height 60mm.....	151N1-.....	31
INSTA tray, unperforated, side height 60 mm.....	151N2-.....	30

Internal-thread expansion bolt

internal-thread expansion bolt M10, load class 1.5 kN.....	15J1-FZEA-1240.....	181, 336
internal-thread expansion bolt M12, load class 1.5 kN.....	15J1-FZEA-1440.....	181
internal-thread expansion bolt M6, load class 0.5 kN.....	15J1-EA-M6.....	189

Joint cover plate

joint cover plate for cable tray.....	15W9-... / 16W9-... ..	7
joint cover plate for cable tray.....	15W7-... / 16W7-... ..	13, 22
joint cover plate for cable tray, stainless steel.....	17W7-... ..	261
joint cover plate for wide span tray.....	15W8-... / 16W8-... ..	87, 98
joint cover plate for wide span tray, stainless steel.....	17W8-... ..	297, 306

Joining pieces

joining element for H-support 16A1, 16A3.....	16J47.....	331
connection plate.....	16J40 / 17J40.....	330
joining profile, length 200mm to 600mm.....	16J9-... ..	176

Joining pieces (continuation)

connection angle.....	16J6-C	187, 210
connection angle for U-profile 60x40	16A8-50	144
connection angle pair, adjustable	16J50 7 17J50	332
connection angle, stainless steel	17J50	234
joining piece for wide span ladder, side height 200 mm	165C14	127
joining piece for wide span system, side height 150mm	174C9-	302, 316
joining piece for wide span system, side height 105mm	173C9-	297, 311
connection bracket for C-profile 40x22	16J54	333
bearing bracket.....	16J53 / 17J53	332
fixing sleeve.....	15J4-	186, 334
joining piece for H-support 16A1-..., 16A3-... and vertical cable ladders 16L3-...-L	16J5-B	186, 210

Kit

kit for vertical cable ladder with C-rungs 40x22	171L03-...-C.....	291
--	-------------------	-----

Knodded chain

knodded chain	15N28-30	189, 191
---------------------	----------------	----------

L-rung

L-rung 40x50 for vertical cable ladder like 16L3-...-L.....	16L13-...-L	209
---	-------------------	-----

Link chain

link chain , stainless steel	17N29-	235
------------------------------------	--------------	-----

Locking device

locking device for cover cable tray or ladder.....	16N12-V	14, 25, 69, 79
locking device for cover cable tray or ladder, stainless steel	17N12-V	273, 283
locking device for cover wide span systems	16N13-V	92, 102, 111, 120
locking device for cover wide span systems, stainless steel	17N13-V	320
locking device for cover molded components cable trays	16N14-V	14, 25
locking device for cover molded components cable trays stainless steel.....	17N14-V	273

Luminaire support tray

luminaire support tray, side height 50 mm	15N1-... / 16N1-	40
luminaire support tray, side height 50 mm, stainless steel	17N1-...-K	254

Marine cable ladder

marine cable ladder, side height 40 mm	160P1-	390
--	--------------	-----

Mounting accessory

mounting bracket for trellis tray	15S17-A	47, 250
mounting plate	15Y34-MP1 / 16Y34-MP1	12, 23
mounting plate	17Y34-MP1	264, 272, 306, 322
mounting rail U70x50, perforated.....	16F6-...-A	213
mounting angle L40x50, perforated.....	16F4-...-A	213
mounting accessory for clamping bracket	16B1-Z	157, 331

Nail anchor

nail anchor type FNA	15J1-FNA6	180
----------------------------	-----------------	-----

Outer edge

outer edge 45° with cover for INSTA tray	15N...-A45-06	34
outer edge 90° with cover for INSTA tray	15N...-A90-06	35

Plastic trays

plastic trays, perforated, side height 60 mm	301M2-	56
plastic trays, unperforated, side height 60 mm.....	301M1-	56

Press gun

press gun	15J1-FIS-AM.....	182
-----------------	------------------	-----

Profile clamp

profile clamp	16PK6-20	165
profile clamp, stainless steel, 5-39mm flange width	17A14-W-	233

Protective end caps

protective end cap for C-profile, 41x41, colour yellow	15J8-D	193, 331
protective end cap for C-profile, 40x22, colour yellow	15J8-E	193, 331
protective end cap for double C-profile 50x22	15A10-S	193
protective end cap for H-support, colour yellow	15J8-A	193
protective end cap for cable ladders, side height 100 mm, colour yellow	153J8-C	194
protective end cap for cable ladders, side height 60 mm, colour yellow	151J8-C	194, 285
protective end cap for for crimp wide span ladder	15J8-WSR	194
protective end cap for rungs for ladders	15J8-S	194
protective end cap for U-profile 50x22, colour yellow	15A16-S	193
protective end cap for U-supports 50x34, colour yellow	15J8-U50	193
protective end cap for U-supports 50x50, colour yellow	15J8-B	193
protective end cap for U-supports 60x40, colour yellow	15J8-U60	193
protective end cap for U-supports 70x50, colour yellow	15J8-U70	193

Protective ring

protective ring for cable protection tube, colour yellow, 30 mm diameter	15V9-A	376
protective ring for cable protection tube, colour yellow, 60 mm diameter	151V9-A	383

Rail plates

rail plates	16J4-40-12 / 17J4-40-12	333
-------------------	-------------------------------	-----

Rail nut

rail nuts for C-profile 30x15	16J18-M6	335
rail nuts for C-profile 30x15	16J18-M8	335
rail nuts M6 for C-profile 40x22 and 41x41	16J18-M6	335
rail nuts M8 for C-profile 40x22 and 41x41	16J18-M8	335
rail nuts M10 for C-profile 40x22 and 41x41	16J18-M10	335

Reducing joint

reducing joint for cable trays, side height 110 mm, stainless steel	173W18-	271
reducing joint for cable trays, side height 60 mm	161W18-	12
reducing joint for cable trays, side height 60 mm	171W18-	263
reducing joint for cable trays, side height 110 mm	163W18-	23

Replacement chain link

replacement chain link for knodded-chain 15N28-30	15N28-01	189, 191
---	----------------	----------

Rungs for marine cable ladder

rungs of trapezoidal profile	16P4-...-A	392
rungs, width 30mm	16P4-...-B / 16P4-...-BF	392
rungs, width 50mm	16P4-...-C / 16P4-...-CF	392

S-hook

S-hook, stainless steel, 35x4mm	17N29	235
---------------------------------------	-------------	-----

Screws

mushroom-head screw M10x25, stainless steel	17J6-1025	236
screw M10x50 for clamping claw 16A4-13-D	16A4-13-Z2	162
screw M10x50 for clamping claw 16A4-13-DA	16A4-13-Z1	162
screw M12x65 for clamping claw 16A4-1-D	16A4-Z1	160
screw M12x75 for clamping claw 16A4-1-D	16A4-Z2	160

Setting tool

setting tool for internal-thread expansion bolt 15J1-EA-M6	15J1-EAW-H6	189
setting tool for foam mortar expamsion bolt 15J1-PBD-1010	15J1-EWP-1010	182

Slide nut

slide nut M8 for C-profile 41x41	16J22-M8	335
--	----------------	-----

Slide nut (continuation)

slide nut M10 for C-profile 41x41	16J22-M10.....	335
slide nut M812for C-profile 41x41	16J22-M12.....	335

Splice plate

splice plate, stainless steel	17A15-V	226
splice plate, stainless steel	17A30-V	227
splice plate, stainless steel	18A15-V	226

Standard support

standard support for trellis tray.....	16U2-200	45
--	----------------	----

Steel expansion bolt and foam mortar expansion bolt

foam mortar expansion bolt M10, load class 1.5 kN	15J1-PBD-1010	182
steel expansion bolt M8, load class 2.4 kN, stainless steel.....	18J1-FAZ-0810	180
steel expansion bolt M8, load class 2.4 kN, clamping range 10mm	15J1-FAZ-0810	180
steel expansion bolt M8, load class 2.4 kN, clamping range 30mm	15J1-FAZ-0830	180
steel expansion bolt M8, load class 2.4 kN, stainless steel.....	18J1-FAZ-0830	180
steel expansion bolt M10, load class 4.3 kN, clamping range 10mm.....	15J1-FAZ-1010	180
steel expansion bolt M10, load class 4.3 kN, stainless steel.....	18J1-FAZ-1010	180
steel expansion bolt M10, load class 5.2 kN, clamping range 10mm.....	15J1-FH-15B	180
steel expansion bolt M12, load class 7.6 kN	15J1-FAZ-1210	180
steel expansion bolt M12, load class 7.6 kN, stainless steel.....	18J1-FAZ-1210	180
steel expansion bolt M12, load class 8.2 kN, clamping range 10mm.....	15J1-FH-1880B	180
steel expansion bolt M16, load class 13.4 kN, clamping range 25mm.....	15J1-FAZ-1625	180

Stiffening profile

stiffening profile U50x50.....	16J14-55.....	144
stiffening profile U60x40.....	16J14-64.....	144
stiffening profile, stainless steel.....	17J14-64.....	229

Straight joint

straight joint for marine cable ladder.....	160P11-A	393
straight joint screwless for trellis tray	15S14-E	47
straight joint screwless for trellis tray, stainless steel	17S13-E / 17S14-E	348
straight joint screwless, for side height 110 mm	151E14-A / 161E14-A.....	7
straight joint for C-rail 41x41	16J45.....	331
straight joint for C-rail 41x41	16J46.....	331
straight joint for cable ladder and vertical cable ladder, side height 60 mm	151E11-A / 161E11-A.....	67, 204
straight joint for cable ladder and vertical cable ladder, side height 60 mm, stainl. steel ..	171E11-A / 181E11-A.....	282, 290
straight joint for cable ladder, side height 100 mm	153E11-A / 163E11-A.....	77
straight joint for cable tray, side height 60 mm.....	151E12-A / 161E12-A.....	11
straight joint for cable tray, side height 60 mm, stainless steel.....	171E12-A	261
straight joint for cable tray, side height 105 mm.....	153E12-A / 163E12-A	22
straight joint for cable tray, side height 110 mm, stainless steel.....	173E12-A	261
straight joint for plastic tray, side height 60 mm	301M5-A	58
straight joint for vertical cable ladder, stainless steel	17J5-F.....	230, 291
straight joint for U-support 16A7-... , 16A9-... and vertical cable ladder	16J5-F.....	186, 206
straight joint for wide span systems, side height 105 mm	153C9-A / 163C9-A	87, 116
straight joint for wide span systems, side height 150 mm	154C9-A / 163C9-A	98, 116
straight joint U-form, height 99 mm, stainless steel.....	173E13.A-	269

Support element

support clamp for light electrical installations	16J21-10.....	188, 337
support bracket, simple for trellis tray	16S13-B	46
support bracket with screws M12x30	16J7-A	188
support console, width 100mm to 300mm	15B18-... / 16B18-...	170
support corner for vertical cable ladder 16L3-...-C	16L4-C	210
horizontal support bar for trellis tray.....	16U1-3000	45
support corner, stainless steel, length 100mm to 600mm	17J7-...	238
trapezoidal sheet suspension	15J21-D	190, 191, 337
trapezoidal sheet suspension, stainless steel.....	17J21-D	237
trapezoidal bracket.....	15J51-A	339

Suspension bracket

suspension bracket for INSTA tray	15N30-60 / 15N30-100	191
suspension bracket for luminaire support tray	15N30-50 / 15N30-100	189
suspension bracket	15A11-	146
suspension bracket, stainless steel	17N30-	237

T-downward

tee downward for wide span ladder, side height 200 mm	165C5-	126
---	--------------	-----

Tee

tee	16J42 / 17J42	330
tee for wide span ladder, side height 105mm	153C4-...-S / 163C4-...-S	109
tee for wide span ladder, side height 105mm, stainless steel	173C4-...-S	314
tee for wide span ladder, side height 150mm	154C4-...-S / 164C4-...-S	118
tee for wide span ladder, side height 150mm, stainless steel	174C4-...-S	319
tee for wide span tray, side height 105mm	153Y4-... / 163Y4-...	89
tee for wide span tray, side height 105mm, stainless steel	173Y4-...	300
tee for wide span tray, side height 150mm	154Y4-... / 164Y4-...	100
tee for wide span tray, side height 150mm, stainless steel	174Y4-...	305

Threaded rod

threaded rod, stainless steel, M10 or M12	17J4-M...-1000	235
threaded rod M6x1000	15J4-M6-1000	185, 334
threaded rod M8x1000	15J4-M8-1000	185, 334
threaded rod M10x1000	15J4-M10-1000	185, 334
threaded rod M6121000	15J4-M12-1000	185, 334
fixing for threaded rod for trellis trays	15S16-A / 16S16-A	47

Threaded sleeve

threaded sleeve M6	15N24	189
--------------------------	-------------	-----

Trellis tray

trellis tray, side height 60mm, stainless steel	171S1-...-L	245
trellis tray, side height 60mm	131S1-... / 161S1-...	44
trellis tray, U-form, stainless steel	170S1-...40 / 171S1-50	245

Trellis tray accessory

trellis tray fixing clamp	15S17-D / 17S17-D	47, 249
trellis tray fixing plate	15S17-B	47
wall and floor fixing plate for trellis tray, stainless steel	17S16-C	250

Tube bracket adapter

tube bracket adapter ¾"	16B27	176
tube bracket adapter 1"	16B34	176
tube bracket adapter 1 ½"	16B49	176
tube bracket adapter 1 ¼"	16B43	176

Tube clamp

tube clamp for wide span ladders	165J6-A	128, 187
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U-profile

U-profile 100x22, stainless steel	17A30-3000	227
U-profile 50x22, stainless steel, without head plate, length 3000mm	18A15-	225
U-profile 50x22, stainless steel, without head plate, length 3000mm	17A15-	225
U-profile 50x22, without head plate, length 200mm to 3000mm	15A15-... / 16A15-...	134, 139
U-profile 50x50, without head plate, length 200mm to 6000mm	16A13-	141
U-profile 60x40, stainless steel, without head plate, length 200mm to 4500mm	17A7-...	193, 230, 292
U-profile 60x40, without head plate, length 200mm to 4500mm	16A7-...	143, 207

Universal clip

universal clip of stainless steel for C-profile 40x22 or 41x41	17BS40-...	233, 362
universal clip with plastic thrust trough for C-profile 40x22 or 41x41	16BSK40-...	352, 353
universal clip with steel thrust trough for C-profile 40x22 or 41x41	16BS40-...	350, 351

Universal counter trough

universal counter trough for all clips	20GWU-.....	365
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Universal joint

universal joint for trellis tray	15S14-A / 16S14-A / 17S14-A.....	46, 51, 249
universal joint for INSTA tray	151N6-A.....	32
universal joint for luminaire support tray.....	15E11-A / 16E11-A.....	41
universal joint stainless steel.....	17E11-A.....	255, 260

Vertical bend

vertical bend for wide span ladder, side height 200mm, upward	165C8-...-A.....	125
vertical bend for wide span ladder, side height 200mm, downward	165C8-...-B.....	125

Vertical cable ladder

vertical cable ladder, kit, load class 2.0 kN/m	161L03-...-C.....	206
vertical cable ladder, kit with C-rungs 40x22, load class 2.0 kN/m.....	16L3-...-C.....	208
vertical cable ladder, kit with L-rungs 40x40, load class 2.0 kN/m	16L3-...-L.....	208
vertical cable ladder, ready made, load class 1.0 kN/m, L=3000mm	151L1-...-... / 161L1-...-...	200
vertical cable ladder, ready made, load class 1.0 kN/m, L=6000mm	151L1-...-... / 161L1-...-...	201
vertical cable ladder, rungs of C-profile 30x15, stainless steel	171L1-...-63 / 181L1-...-63.....	288
vertical cable ladder, rungs of C-profile 30x15, stainless steel	171L1-...-66 / 181L1-...-66.....	288
vertical cable ladder, rungs of C-profile 40x22, stainless steel	171L1-...-C63 / 181L1-...-C63.....	289
vertical cable ladder, rungs of C-profile 40x22, stainless steel	171L1-...-C66 / 181L1-...-C66.....	289
vertical cable ladder, rungs of C-profile 40x22, ready made, load class 1.0 kN/m.....	151L1-...-C... / 161L1-...-C...	202, 203

Vertical edges

vertical edge 45° with cover for INSTA tray	15N...-V45-06.....	34
vertical edge 90° with cover for INSTA tray	15N...-V90-06.....	35

Wall connection corner

wall connection corner, stainless steel.....	17J3-G / 18J3-G.....	285, 290, 322
wall connection corner, stainless steel.....	17J3-L.....	234, 285, 290, 322

Warning symbol

warning symbol, adhesive label DIN 4844, yellow/red.....	17V11-WZ105	384
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Washer

thrust washer.....	16J4-1060-S.....	185
thrust washer.....	16J4-1260-S.....	185
thrust washer.....	16J4-1280-S.....	185
serrated lock washer DIN 6798.....	16J4-...-F.....	186, 334
washer Din 125	16J4-...-S.....	185, 334
washer DIN 9021	16J4-...-SG.....	185, 334
washer, stainless steel	17J4-...-SG.....	236

Wide span ladder

wide span ladder, side height 105mm, support width max. 7.0m.....	153C1-...-S / 163C1-...-S.....	106
wide span ladder, side height 105mm, support width max. 7.0m.....	173C1-...-S.....	310
wide span ladder, side height 150mm, support width max. 8.0m, side thick. 1.5mm	154C1-...-N / 164C1-...-N.....	114
wide span ladder, side height 150mm, support width max. 8.0m, side thick. 2.0mm	154C1-...-S / 164C1-...-S.....	115
wide span ladder, side height 150mm, stainless steel	174C1-...-N.....	315
wide span ladder, side height 200mm, support width max. 10.0m.....	165C1-...	124

Wide span tray

wide span tray, perforated, side height 105mm, support width max. 7.0m	153Y2-... / 163Y2-...	86
wide span tray, perforated, side height 105mm, support width max. 7.0m	173Y2-...	296
wide span tray, side height 150mm, support width max. 7.0m, sheet thickness 1.5mm..	154Y2-...-N / 164Y2-...-N	96
wide span tray, side height 150mm, support width max. 7.0m, sheet thickness 2.0mm..	154Y2-...-S / 164Y2-...-S.....	97
wide span tray, side height 150mm, stainless steel.....	174Y2-...-N.....	301

Yoke clip

yoke clip stainless steel for C-profile 30x15	17BS30-...	361
yoke clip with plastic thrust trough for C-profile 23x11	16BSK23-...	349

Yoke clip (continuation)

yoke clip with plastic thrust trough for C-profile 30x15	16BSK30-.....	349
yoke clip with steel thrust trough for C-profile 23x11	16BS23-.....	347, 348
yoke clip with steel thrust trough for C-profile 30x15.....	16Bs30-.....	344, 345

Zinc spray

zinc spray 400ml.....	15J19-B	194
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§1 General

- (1) The following conditions are valid for all quotations and orders. These conditions are accepted as binding by the purchaser when ordering. Alterations and verbal agreements must be confirmed in writing. Orders can only be considered as accepted upon receipt for our confirmation.
- (2) If our Conditions of Sale and Delivery do not agree with those of our business partners, the latter will be binding for us if they are accepted by us in writing on concluding of the contract.
- (3) Any confirmation by the purchaser with a corresponding reference to the purchaser's conditions are herewith rejected expressly. In as far as the conditions contradict each other, the statutory regulations shall apply.

§3 Quotations

- (1) Prices are quoted without obligation. Illustrations, dimensions and weights are approximate. Rights of alteration reserved. Quotations and technical data are subject to copyright.

§3 Delivery

- (1) Delivery is to be understood carriage forward ex works. The delivery dates are specified in the confirmation of order. Partial delivery is permitted. Appointed dates of delivery extend the period at a time, in which we are prevented from the supply by circumstances, which are to be represented not directly from us to.
- (2) In as far as circumstances not lying within our responsibility impede, delay or make impossible the execution of the orders accepted by us, we are entitled to postpone the contractual obligation/remaining obligation by the period of duration of the circumstances, or to withdraw from the contract partially or completely. These circumstances not lying within our responsibility include in particular official measures, obstructions of traffic, strikes, shortage of raw materials and shortage of fuels and operating materials, breakdowns and interruptions at our suppliers, etc. If a binding delivery date is exceeded by more than two weeks, the purchaser is entitled to withdraw from the contract after expiry of an extension of a week. This extension for delivery must be set in writing.
- (3) On dispatch of an order from the factory or stockist all risks become the purchaser's responsibility. The purchaser is also responsible for the correct acceptance, onloading and storage at the point of delivery.
- (4) Packing, transit period and also means transport are left for lack of special agreements of our choice. They are computed in each case at the cost price. We take crates back during freight-free return, if such are intact, to 2/3 of the computed amount. The one-way or poolpalettes used for transport are to be exchanged or sent back with assumption. Storage-like led and smallest packing units proven in the list can not be started for rationalization reasons. With order of deviation numbers of items the nearest packing unit is supplied.

§4 Assembly and installation

- (1) Our special terms for assembly and installation apply additionally for assembly and installation orders.

§5 Prices

- (1) Prices are to be understood ex works. If differently goes not agree, the prices and conditions of the price list valid with contract conclusion apply.
- (2) Later than 4 weeks after conclusion of a contract if deliveries or other outside capital east, which are contained in the agreed upon price, change or develop them again, we are entitled to the appropriate extent to a price adjustment.
- (3) Partial deliveries are to be paid within the deadlines specified in the terms of payment.
- (4) Value-added tax is specified separately in the invoices and is to be borne by the purchaser.

§6 Payment

- (1) Invoices are payable within 14 days after the date of invoice with 2 % cash discount, or 30 days net after issue. Assembly and installation outputs and/or all reward works are to be paid without discount deduction within 14 days.
- (2) The calculations are to be paid interest on starting from maturity and entrance of the calculation with 8 % over the respective basis interest rate. The asserting of a further interest damage remains available.

§7 Warranty of Defects

- (1) Is there any defect, which already exists at the time of the Transfer of perils or whose cause is in the product, RICO is entitled to the choice between rectification of defects and compensation delivery. Both variants of supplementary performance are for the buyer free of charge.
- (2) Requirements for material defect fall under the statute of limitations in 12 months. This does not apply, so far the law in accordance with §§ 438 exp. 1 No. 2 (buildings and things to buildings), for 479 exp. 1 (requirement for resort) and 634a exp. 1 No. 2 (lack of building) or according to the Product Liability Act a longer period of time are in force or the lack was maliciously kept secret.
- (3) The orderer has to reprimand material defects opposite the supplier immediately in writing.

§8 Liability

- (1) Except for damages at lives, body, health and damages due to the violation of essential contract duties (Duties whose fulfillment may facilitate the proper realization of the contract anyway and trusts and may trust in their regular compliance) compensation obligations of the sales assistant are restricted to such damages, which base onto guile, intention or coarse negligence. Damages arising from the injury of essential contract duties are only liability-activating, if they are united with the contract in typical manner.
- (2) Claims for compensation of the orderer become invalid by prescription with course of the limitation period being valid for material defect claims according to §7 Abs. 2 provided that they are not based on intention. The limitation period of the §7 Abs. 2 is valid also for measures of the damage defense, in particular product recall, as far as urgently is not been liable. (Comp. paragraph 1)
- (3) With claims for compensation according to the liability law the legal limitation rules are valid.

§9 Export contracts

- (1) German law will apply under all circumstances. The application of the international purchase laws is impossible.

§10 Reservation of proprietary rights

- (1) The following securities shall be granted to us until all the claims to our benefit (including all claims on balances from a current account) arising from any legal justification against the purchaser now or in future have been satisfied. If demanded by the purchaser, these may be released on our discretion in as far as their value exceeds the value of the claims by more than 20 % in the longer term.
- (2) The goods supplied shall remain our property. Any processing treatment or transformation is always carried out for us as the manufacturer, however without any obligation on our part. If our (co-) property expires through connection, agreement is reached with this document that the (co-)property of the purchaser in the uniform object shall pass to us in proportion to the value (invoice value). The purchaser keeps our (co-)property safe free of charge. Goods of which we have (co-)property are designated as goods under reservation below.
- (3) The purchaser is entitled to process and dispose the goods under reservation in proper business, as long as the purchaser is not in arrears. Mortgaging, pawning or transference as security are not allowed. The purchaser herewith cedes to us to the full extent any claims on the goods under reservation (including all claims on balances from a current account) resulting from their further sale or from any other legal justification (insurance, unauthorised or forbidden actions) resulting from our business relations with the purchaser until these claims have been fulfilled.
- (4) We herewith revocably authorise the purchaser to include the claims ceded to us on ist account in ist own name. This direkt debit allowance can only be with-drawn by us if the purchaser does not fulfil ist obligations to pay properly.
- (5) In the case of third parties seizing the goods under reservation, in particular in the case of seizures, the purchaser will point out our property rights and inform us without any delay so that we can assert our property rights. In as far as the third party is not able to reimburse us for any judicial or non-judicial costs arising from this matter, the purchaser shall bear the responsibility.
- (6) If the purchaser infringes the contract – in particular through default in payment – we are entitled to take back the goods under reservation or, if appropriate, to demand that the purchaser cede to us his rights to surrender against third parties. Neither our taking back the goods under reservation nor their seizure by us constitutes a rescission of contract on our part.

§11 Place of performance and jurisdiction

- (1) The place of performance and jurisdiction is Kirchheim/Teck, Germany, if the customer has a merchant character.