



# CABLE MANAGEMENT SYSTEMS



## You stand for our success

New technologies guarantee the improvement and innovation of our products. For you.

KOPOS KOLÍN a.s. is a leading manufacturer of wiring material with over 90 years of tradition.

We currently produce over 5 000 products. The plastic category includes wiring boxes, trunkings, parapet trunkings, pipes, double wall protector conduits KOPOFLEX® and KOPODUR® system, divided cable duct KOPOHALF®. We also include cable management systems such as cable trays, MARS cable trays, JUPITER®, wire trays or a stainless steel program. With the increasing demands on object safety, we have expanded and introduced systems to maintain functionality in the fire. Choose from a variety of carefully tested systems.

The company considers it natural to produce products from halogen-free materials. By replacing lead in plastic mixtures and other environmental activities, we don't want to stand out in the environmental protection.

The products comply with the requirements of the European standards and are tested in the electrotechnical institutes.

The company also owns the production technology used for the production of NEUTROSTOP shieldings. Their use is especially important where it is necessary to protect the environment from neutron radiation.

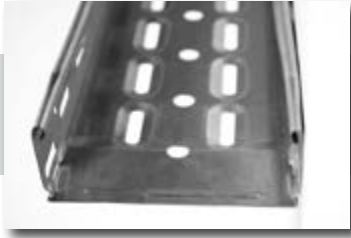
We sell our products around the world through 10 subsidiaries. KOPOS KOLÍN a.s. is a holder of certificates according to ISO 9001 and ISO 14001, Czech Quality and Safety Certificate.





CABLE TRAYS JUPITER

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CABLE TRAYS MARS

2



WIRE CABLE TRAYS

3



CABLE LADDERS

4



CABLE TRAYS MARS, CABLE LADDERS  
AND WIRE CABLE TRAYS - STAINLESS

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FLOOR INSTALLATION

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TECHNICAL INFORMATION

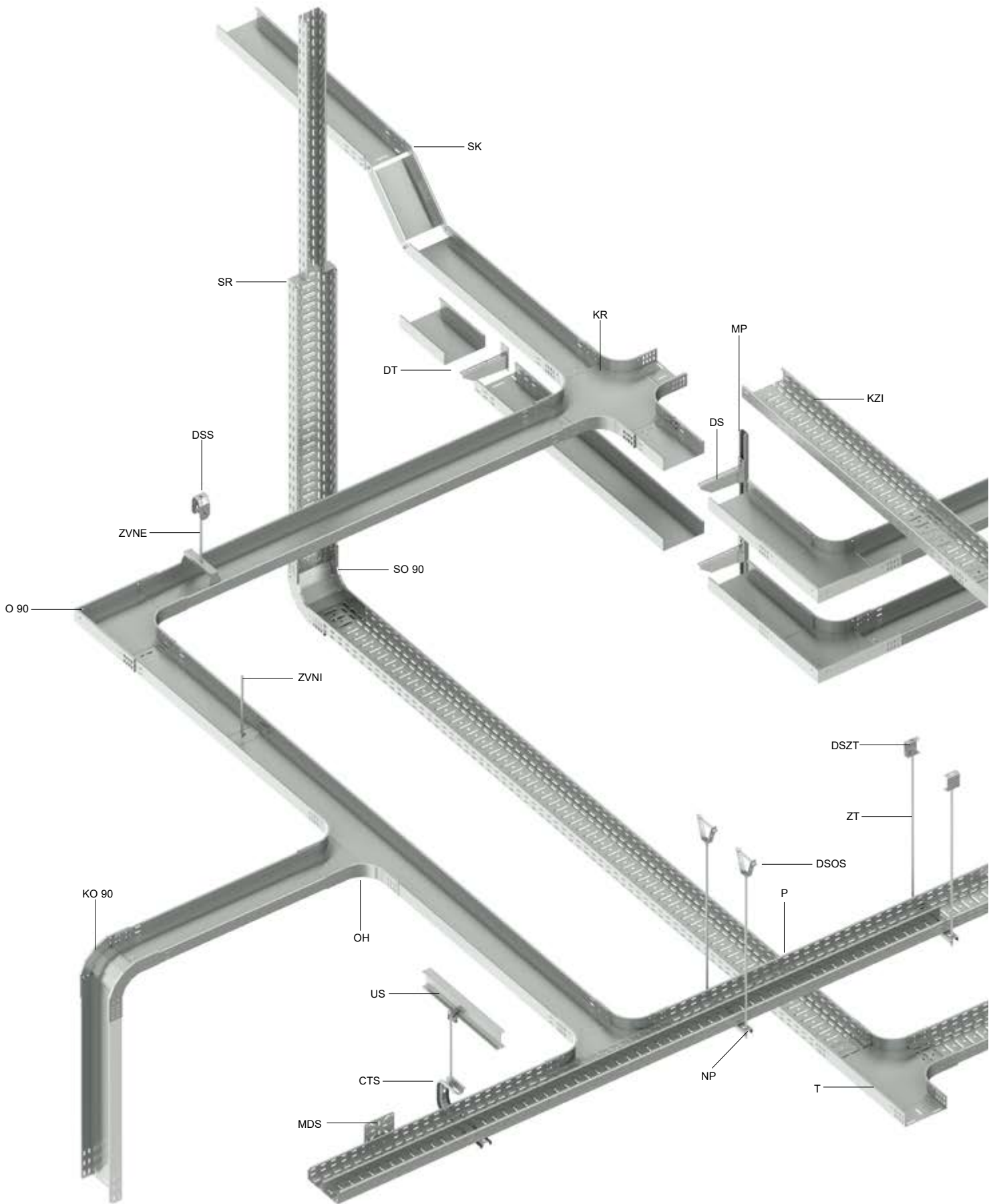
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**1**

**CABLE TRAYS  
JUPITER**



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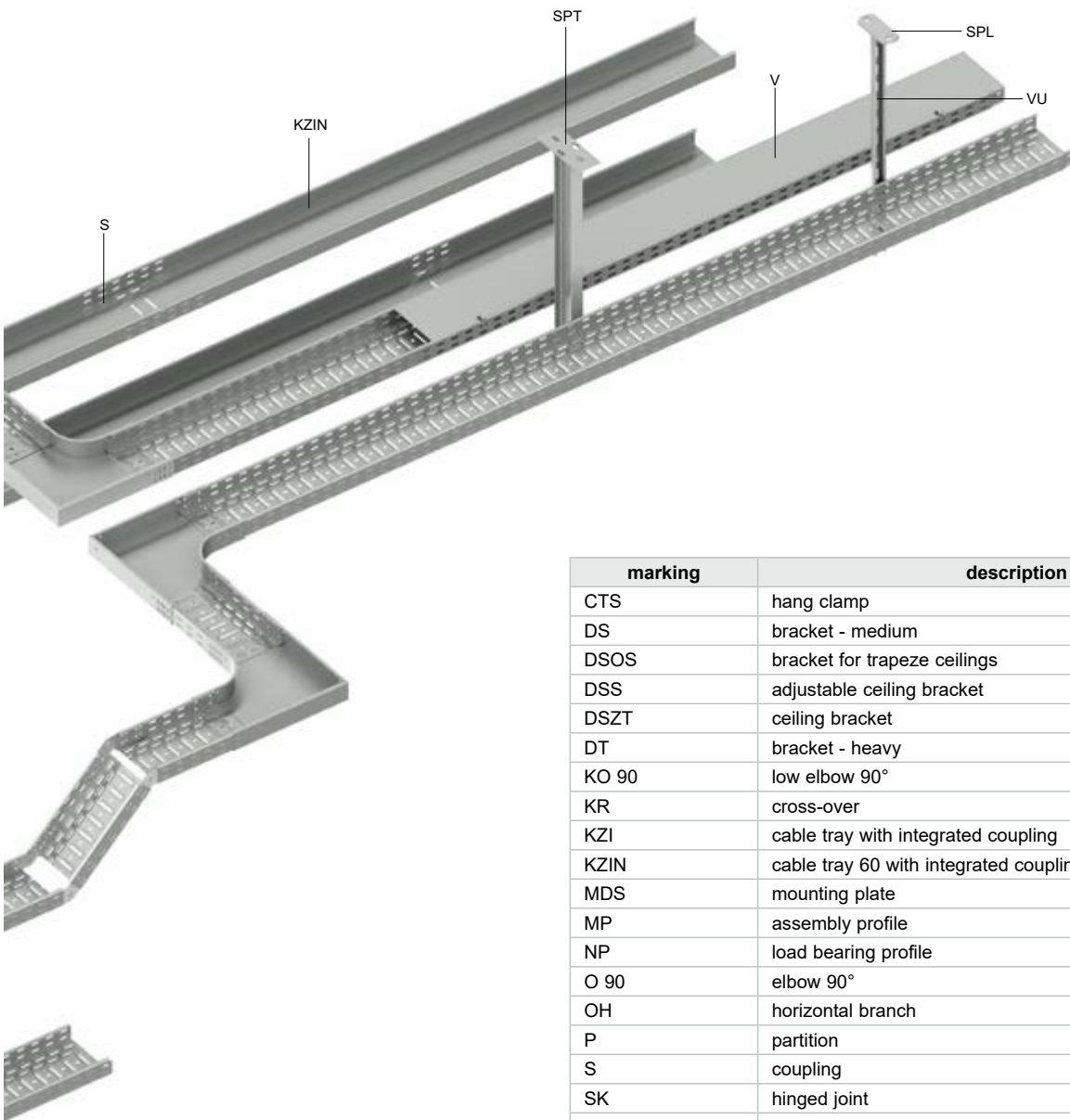
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## OVERVIEW OF SYSTEM ELEMENTS



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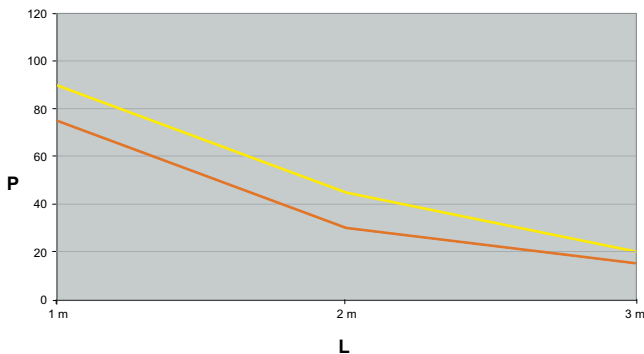
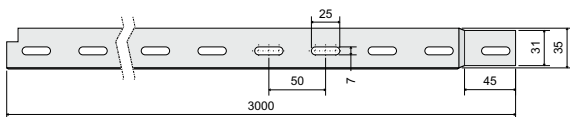
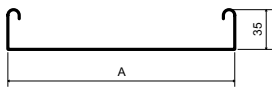
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**35 - cable tray with integrated coupling**


- ▶ The standard length of the cable tray is 3 m.
- ▶ For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (pg. 37) or the bolts NSM 6X10 (pg. 37). Example of assembly is on pg. 37.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	A	↑	‡	‡f	EAN
●	KZI 35X50X0.75_S	50	0,75	0,75	2	<a href="#">8595057692237</a>
●	KZI 35X75X0.75_S	75	0,75	0,79	2	<a href="#">8595057692244</a>
●	KZI 35X100X0.75_S	100	0,75	1,05	2	<a href="#">8595057692251</a>
●	KZI 35X150X0.75_S	150	0,75	1,29	2	<a href="#">8595057692268</a>
●	KZI 35X200X0.75_S	200	0,75	1,67	3	<a href="#">8595057689206</a>
●	KZI 35X300X0.75_S	300	0,75	2,00	3	<a href="#">8595057692275</a>
⊕	KZI 35X400X1.00_S	400	1,0	3,24	4	<a href="#">8595057692282</a>
⊕	KZI 35X500X1.00_S	500	1,0	3,60	4	<a href="#">8595057692299</a>
⊕	KZI 35X600X1.00_S	600	1,0	4,33	4	<a href="#">8595057692305</a>
⊕	KZI 35X50X0.75_F	50	0,75	0,92	2	<a href="#">8595057696518</a>
⊕	KZI 35X75X0.75_F	75	0,75	0,97	2	<a href="#">8595057696549</a>
⊕	KZI 35X100X0.75_F	100	0,75	1,22	2	<a href="#">8595057696419</a>
⊕	KZI 35X150X0.75_F	150	0,75	1,55	2	<a href="#">8595057696433</a>
⊕	KZI 35X200X0.75_F	200	0,75	2,04	3	<a href="#">8595057696457</a>
⊕	KZI 35X300X0.75_F	300	0,75	2,44	3	<a href="#">8595057696471</a>
⊕	KZI 35X400X1.00_F	400	1,0	3,77	4	<a href="#">8595057696495</a>
⊕	KZI 35X500X1.00_F	500	1,0	4,58	4	<a href="#">8595057696501</a>
⊕	KZI 35X600X1.00_F	600	1,0	4,33	4	<a href="#">8595057696532</a>



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

External influences are not taken into account in the permissible load and cannot be burdened by person.

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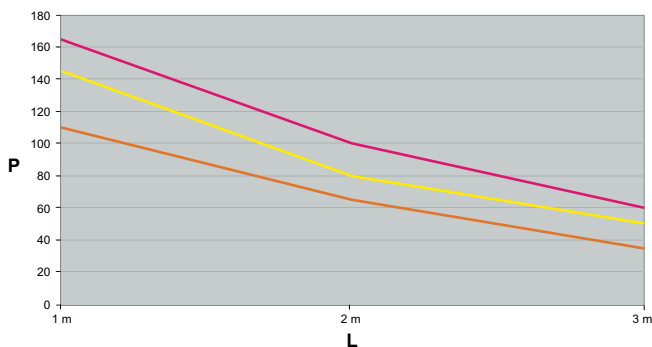
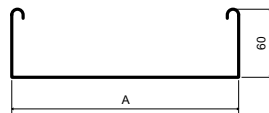
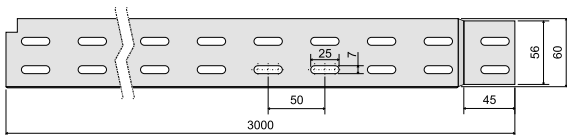
60 - cable tray with integrated coupling



- ▶ The standard length of the cable tray is 3 m.
- ▶ For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (pg. 37) or the bolts NSM 6X10 (pg. 37). Example of assembly is on pg. 37.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	†	‡	§	¶	EAN
● KZI 60X50X0.75_S	50	0,75	0,99	4		8595057692312
● KZI 60X50X1.00_S	50	1,0	1,24	4		8595057692916
● KZI 60X50X1.25_PO	50	1,25	1,62	4		8595057696082
● KZI 60X75X0.75_S	75	0,75	1,18	4		8595057627550
● KZI 60X75X1.00_S	75	1,0	1,27	4		8595057629585
● KZI 60X75X1.25_PO	75	1,25	1,80	4		8595057635661
● KZI 60X100X0.75_S	100	0,75	1,37	4		8595057627567
● KZI 60X100X1.00_S	100	1,0	1,70	4		8595057636118
● KZI 60X100X1.25_PO	100	1,25	2,10	4		8595057633551
● KZI 60X150X0.75_S	150	0,75	1,70	4		8595057627574
● KZI 60X150X1.00_S	150	1,0	2,07	4		8595057635678
● KZI 60X150X1.25_PO	150	1,25	2,49	4		8595057633568
● KZI 60X200X0.75_S	200	0,75	1,86	5		8595057627581
● KZI 60X200X1.00_S	200	1,0	2,27	5		8595057627598
● KZI 60X200X1.25_PO	200	1,25	2,84	5		8595057635685
● KZI 60X300X0.75_S	300	0,75	2,47	5		8595057630857
● KZI 60X300X1.00_S	300	1,0	3,07	5		8595057627604
● KZI 60X300X1.25_PO	300	1,25	3,96	5		8595057634930
● KZI 60X400X1.00_S	400	1,0	3,75	6		8595057627611
● KZI 60X400X1.25_PO	400	1,25	4,60	6		8595057635715
● KZI 60X500X1.00_S	500	1,0	4,54	6		8595057644021
⊕ KZI 60X500X1.25_PO	500	1,25	5,52	6		8595057627628
● KZI 60X600X1.00_S	600	1,0	5,40	6		8595057635722
⊕ KZI 60X600X1.25_PO	600	1,25	6,50	6		8595057627635
● KZI 60X50X0.75_ZM	50	0,75	0,99	4		8595568937711
● KZI 60X100X0.75_ZM	100	0,75	1,37	4		8595568937735
● KZI 60X200X0.75_ZM	200	0,75	1,87	5		8595568937759
● KZI 60X300X0.75_ZM	300	0,75	2,42	5		8595568937773
● KZI 60X400X1.00_ZM	400	1,0	3,89	6		8595568937797
● KZI 60X500X1.00_ZM	500	1,0	4,54	6		8595568937810

item	A	†	‡	§	¶	EAN
● KZI 60X50X0.75_F	50	0,8	1,23	4		8595057696709
⊕ KZI 60X50X1.00_F	50	1,0	1,44	4		8595057696716
⊕ KZI 60X50X1.25_POF	50	1,25	1,85	4		8595057696099
⊕ KZI 60X75X0.75_F	75	0,8	1,44	4		8595057696747
⊕ KZI 60X75X1.00_F	75	1,0	1,48	4		8595057696754
⊕ KZI 60X75X1.25_POF	75	1,25	2,04	4		8595057696761
● KZI 60X100X0.75_F	100	0,8	1,55	4		8595057696556
⊕ KZI 60X100X1.00_F	100	1,0	1,98	4		8595057696327
⊕ KZI 60X100X1.25_POF	100	1,25	2,30	4		8595057696563
● KZI 60X150X0.75_F	150	0,78	2,02	4		8595057696570
⊕ KZI 60X150X1.00_F	150	1,0	2,41	4		8595057696587
⊕ KZI 60X150X1.25_POF	150	1,25	2,80	4		8595057696594
● KZI 60X200X0.75_F	200	0,78	2,28	5		8595057696600
⊕ KZI 60X200X1.00_F	200	1,0	2,64	5		8595057696617
⊕ KZI 60X200X1.25_POF	200	1,25	3,22	5		8595057696624
● KZI 60X300X0.75_F	300	0,78	3,02	5		8595057696631
⊕ KZI 60X300X1.00_F	300	1,0	3,57	5		8595057696648
⊕ KZI 60X300X1.25_POF	300	1,25	4,39	5		8595057696655
● KZI 60X400X1.00_F	400	1,0	4,37	6		8595057696662
⊕ KZI 60X400X1.25_POF	400	1,25	5,20	6		8595057696679
⊕ KZI 60X500X1.00_F	500	1,0	5,30	6		8595057696686
⊕ KZI 60X500X1.25_POF	500	1,25	6,29	6		8595057696693
⊕ KZI 60X600X1.00_F	600	1,0	6,30	6		8595057696723
⊕ KZI 60X600X1.25_POF	600	1,25	7,37	6		8595057696730



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)  
 P = allowed even loading (weight kg/m)

External influences are not taken into account in the permissible load and cannot be burdened by person.

† thickness of metal sheet (mm) ● standard  
 § amount of bolts for connection ⊕ to order

‡ weight kg/m

ZM Zn+Mg+Al galvanizing

PO Pre-Galvanized

F Hot Dip Galvanized

S Pre-Galvanized

F Hot Dip Galvanized

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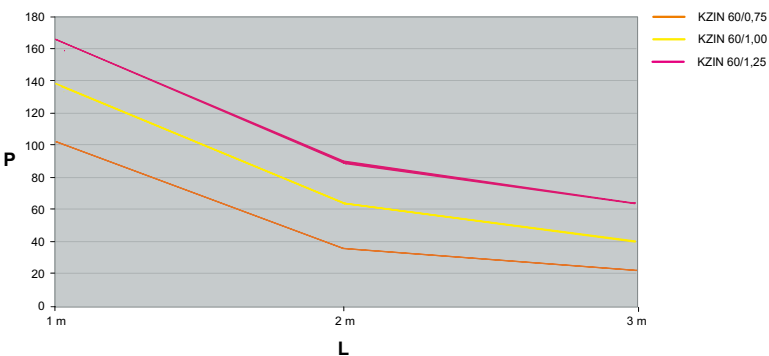
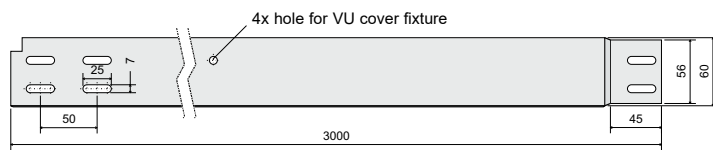
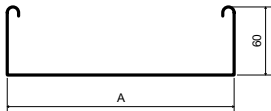
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**60 - cable tray with integrated coupling - non-perforated**


- ▶ The standard length of the cable tray is 3 m.
- ▶ For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (pg. 37) or the bolts NSM 6X10 (pg. 37). Example of assembly is on pg. 37.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	A	t	‡	‡f	EAN
●	KZIN 60X50X0.75_S	50	0,75	1,09	4	<a href="#">8595057692459</a>
●	KZIN 60X75X0.75_S	75	0,75	1,32	4	<a href="#">8595057692466</a>
●	KZIN 60X100X0.75_S	100	0,75	1,40	4	<a href="#">8595057692473</a>
●	KZIN 60X150X0.75_S	150	0,75	1,78	4	<a href="#">8595057692480</a>
●	KZIN 60X200X0.75_S	200	0,75	2,02	5	<a href="#">8595057692497</a>
●	KZIN 60X300X0.75_S	300	0,75	2,62	5	<a href="#">8595568903037</a>
●	KZIN 60X400X1.00_S	400	1,0	4,19	6	<a href="#">8595057692510</a>
⊕	KZIN 60X500X1.25_S	500	1,25	6,30	6	<a href="#">8595057692527</a>
⊕	KZIN 60X600X1.25_S	600	1,25	7,30	6	<a href="#">8595057692534</a>
⊕	KZIN 60X50X0.75_F	50	0,8	1,47	4	<a href="#">8595568902351</a>
⊕	KZIN 60X75X0.75_F	75	0,8	1,58	4	<a href="#">8595568902344</a>
⊕	KZIN 60X100X0.75_F	100	0,8	1,71	4	<a href="#">8595568905659</a>
⊕	KZIN 60X150X0.75_F	150	0,75	2,18	4	<a href="#">8595568905666</a>
⊕	KZIN 60X200X0.75_F	200	0,75	2,50	5	<a href="#">8595568905673</a>
⊕	KZIN 60X300X0.75_F	300	0,75	3,19	5	<a href="#">8595568905680</a>
⊕	KZIN 60X400X1.00_F	400	1,0	4,90	6	<a href="#">8595568905697</a>
⊕	KZIN 60X500X1.25_F	500	1,25	7,55	6	<a href="#">8595568905703</a>
⊕	KZIN 60X600X1.25_F	600	1,25	8,74	6	<a href="#">8595568905710</a>
●	KZIN 60X50X0.75_ZM	50	0,75	1,20	4	<a href="#">8595568937728</a>
●	KZIN 60X100X0.75_ZM	100	0,75	1,50	4	<a href="#">8595568937742</a>
●	KZIN 60X200X0.75_ZM	200	0,75	2,14	5	<a href="#">8595568937766</a>
●	KZIN 60X300X0.75_ZM	300	0,75	2,76	5	<a href="#">8595568937780</a>
●	KZIN 60X400X1.00_ZM	400	1,0	4,20	6	<a href="#">8595568937803</a>
●	KZIN 60X500X1.00_ZM	500	1,0	4,60	6	<a href="#">8595568937827</a>



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

External influences are not taken into account in the permissible load and cannot be burdened by person.

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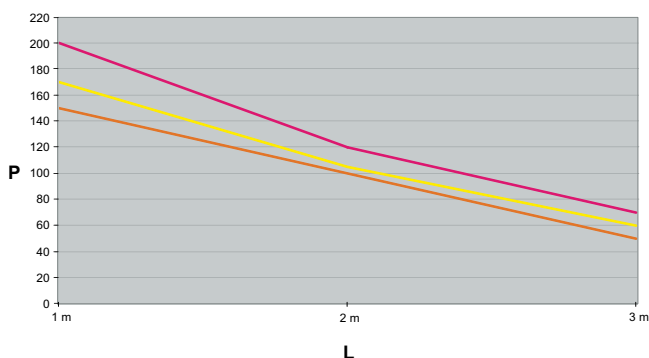
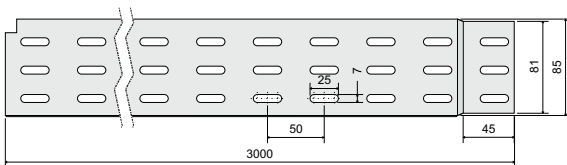


85 - cable tray with integrated coupling



- ▶ The standard length of the cable tray is 3 m.
- ▶ For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (pg. 37) or the bolts NSM 6X10 (pg. 37). Example of assembly is on pg. 37.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	A	†	‡	§	EAN
●	KZI 85X100X0.75_S	100	0,75	1,56	6	<a href="#">8595057692329</a>
●	KZI 85X150X0.75_S	150	0,75	1,81	6	<a href="#">8595057692336</a>
●	KZI 85X200X1.00_S	200	1,0	2,58	7	<a href="#">8595057692343</a>
●	KZI 85X300X1.00_S	300	1,0	3,10	7	<a href="#">8595057692350</a>
●	KZI 85X400X1.00_S	400	1,0	4,15	8	<a href="#">8595057692367</a>
⊕	KZI 85X500X1.25_S	500	1,25	5,70	8	<a href="#">8595057692374</a>
⊕	KZI 85X600X1.25_S	600	1,25	7,73	8	<a href="#">8595057692381</a>
⊕	KZI 85X100X0.75_F	100	0,75	1,90	6	<a href="#">8595057696778</a>
⊕	KZI 85X150X0.75_F	150	0,75	1,94	6	<a href="#">8595057696785</a>
⊕	KZI 85X200X1.00_F	200	1,0	3,01	7	<a href="#">8595057696792</a>
⊕	KZI 85X300X1.00_F	300	1,0	3,61	7	<a href="#">8595057696808</a>
⊕	KZI 85X400X1.00_F	400	1,0	4,83	8	<a href="#">8595057696815</a>
⊕	KZI 85X500X1.25_F	500	1,25	6,79	8	<a href="#">8595057696822</a>
⊕	KZI 85X600X1.25_F	600	1,25	7,78	8	<a href="#">8595057696839</a>



- KZI 85/0,75
- KZI 85/1,00
- KZI 85/1,25

The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

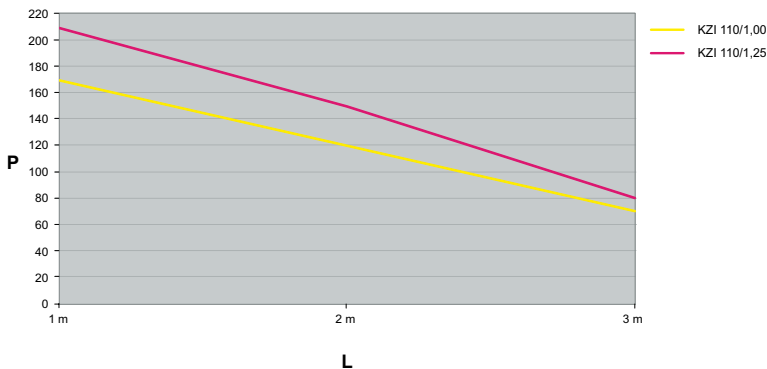
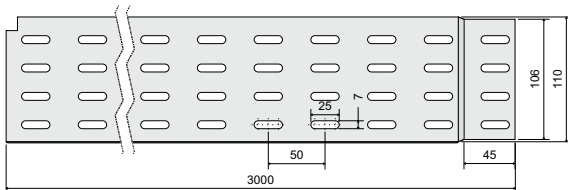
L = distance of supports (m)  
P = allowed even loading (weight kg/m)

External influences are not taken into account in the permissible load and cannot be burdened by person.

**110 - cable tray with integrated coupling**


- ▶ The standard length of the cable tray is 3 m.
- ▶ For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (pg. 37) or the bolts NSM 6X10 (pg. 37). Example of assembly is on pg. 37.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	A	↑	‡	⚭	EAN
●	KZI 110X150X1.00_S	150	1,0	2,61	8	<a href="#">8595057692398</a>
⊕	KZI 110X150X1.25_S	150	1,25	3,51	8	<a href="#">8595057696044</a>
●	KZI 110X200X1.00_S	200	1,0	2,98	9	<a href="#">8595057692404</a>
⊕	KZI 110X200X1.25_S	200	1,25	3,72	9	<a href="#">8595057693708</a>
●	KZI 110X300X1.00_S	300	1,0	3,64	9	<a href="#">8595057692411</a>
⊕	KZI 110X300X1.25_S	300	1,25	4,63	9	<a href="#">8595057696068</a>
●	KZI 110X400X1.00_S	400	1,00	4,62	10	<a href="#">8595568932716</a>
●	KZI 110X400X1.25_S	400	1,25	5,10	10	<a href="#">8595057692428</a>
●	KZI 110X500X1.25_S	500	1,25	6,30	10	<a href="#">8595057692435</a>
●	KZI 110X600X1.25_S	600	1,25	6,85	10	<a href="#">8595057692442</a>
⊕	KZI 110X150X1.00_F	150	1,0	3,04	8	<a href="#">8595057696310</a>
⊕	KZI 110X200X1.00_F	200	1,0	3,47	9	<a href="#">8595057693722</a>
⊕	KZI 110X300X1.00_F	300	1,0	4,24	9	<a href="#">8595057696303</a>
⊕	KZI 110X400X1.00_F	400	1,00	5,32	10	<a href="#">8595568932747</a>
⊕	KZI 110X500X1.25_F	500	1,25	7,09	10	<a href="#">8595057696297</a>
⊕	KZI 110X600X1.25_F	600	1,25	8,06	10	<a href="#">8595568904690</a>



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

External influences are not taken into account in the permissible load and cannot be burdened by person.

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index

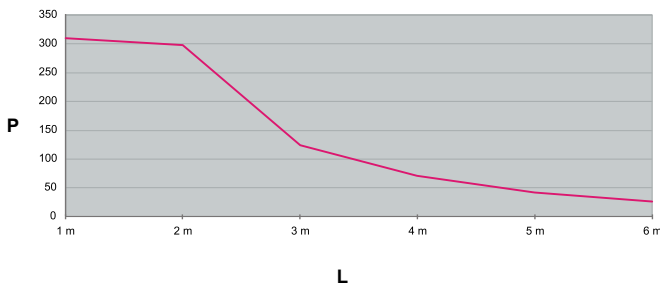
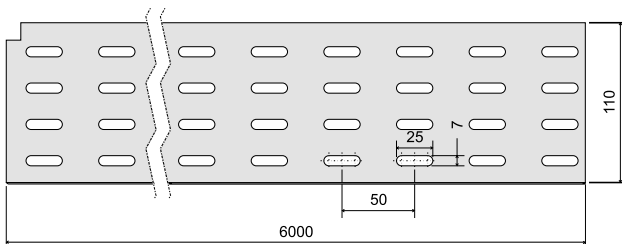
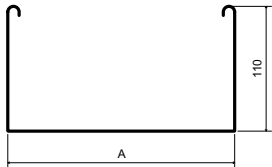


110 - cable tray - length 6 m



- ▶ The standard length of the cable tray is 6 m.
- ▶ The cable tray is suitable for creating a cable route with a support spacing of up to 6 meters.
- ▶ The trays are connected by 2 pcs of KDS jointing plate and 17 pcs of NSM 6X10 bolts (pg. 37). Jointing points can not be placed over the support.

item	A	t	‡	∑	∪	EAN
● KZ 110X200X1.50_S6	200	1,50	4,80	34	12/96	<a href="#">8595057636194</a>
● KZ 110X300X1.50_S6	300	1,50	5,93	34	12/12	<a href="#">8595568932143</a>

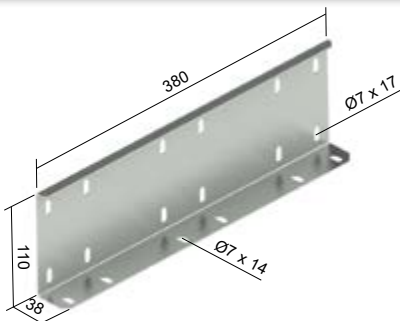


The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

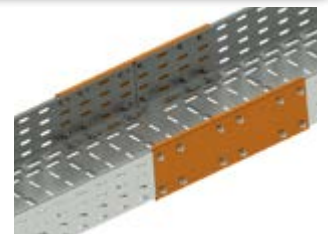
External influences are not taken into account in the permissible load and cannot be burdened by person.

jointing plate



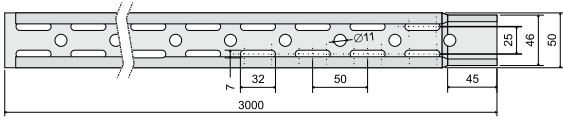
- ▶ The jointing plate is intended for connecting 6 m long cable trays with a side height of 110 mm.
- ▶ The connection is fixed by bolts NSM 6X10. For 1 piece of the jointing plate, use 17 pcs of bolts - 12 pcs for sidewall + 5 pcs for bottom.

item	t	‡	∑	EAN
● KDS_S	1,50	0,69	17	<a href="#">8595568932150</a>

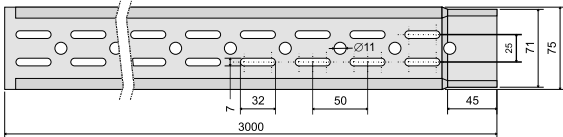


## perforation scheme on the bottom trays KZI

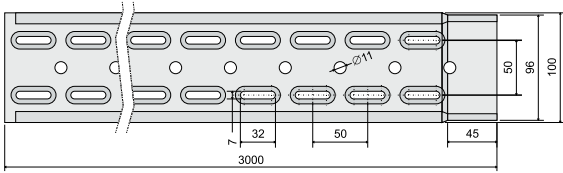
50 mm



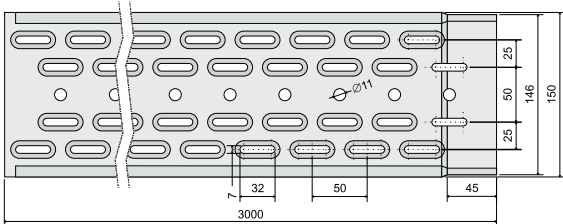
75 mm



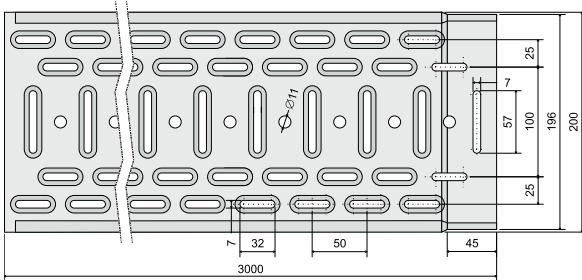
100 mm



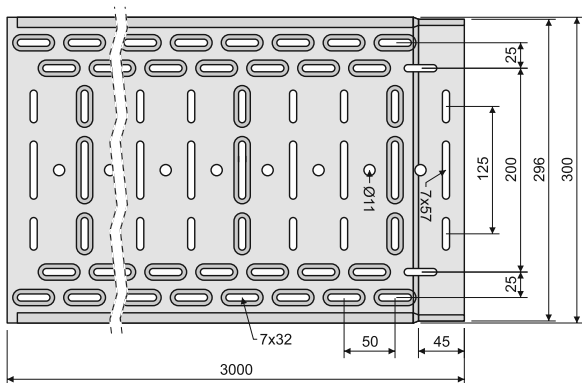
150 mm



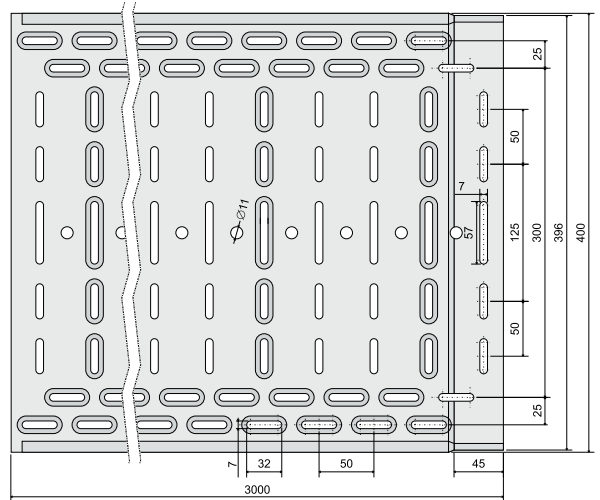
200 mm



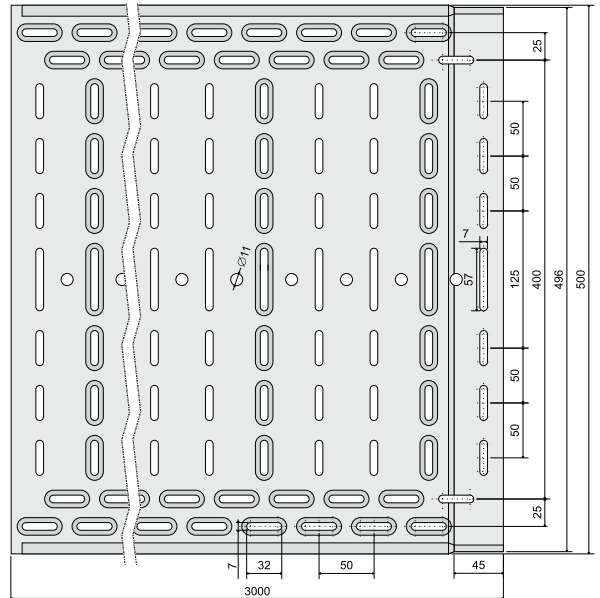
300 mm



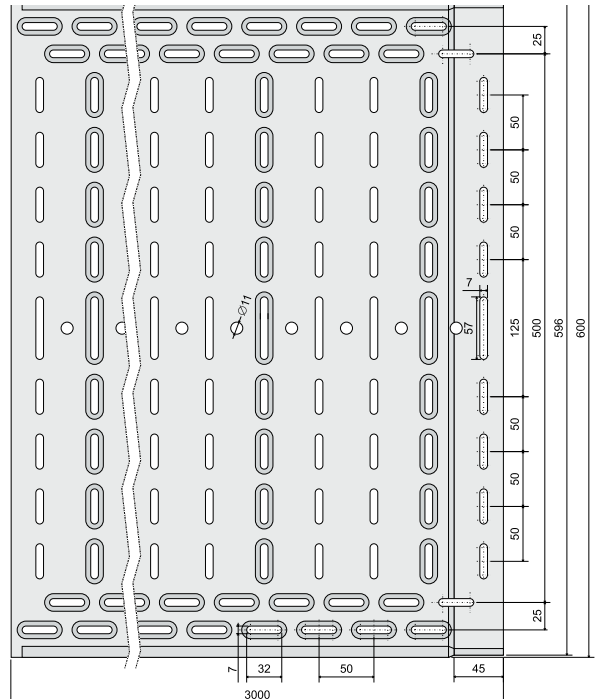
400 mm



500 mm



600 mm



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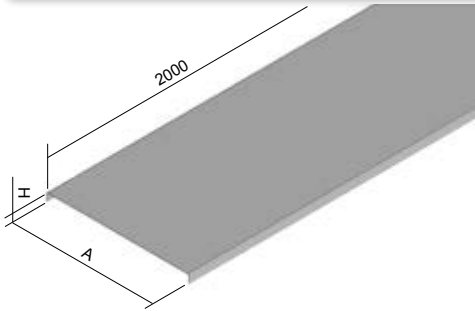
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jupiter



**cable tray cover**



- ▶ The standard length of the cable tray cover is 2 m.
- ▶ Stated sheet metal thickness is delivered as standard. Cover with thicker sheet metal can be delivered without prior notice.
- ▶ The fixing of the cover to the tray is done using the cover fixture VU (2 pcs per meter).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	‡	‡	EAN
● V 50_S	50	11	0,55	0,31	<a href="#">8595057629776</a>
● V 75_S	75	11	0,55	0,43	<a href="#">8595057629578</a>
● V 100_S	100	11	0,55	0,53	<a href="#">8595057629783</a>
● V 150_S	150	11	0,55	0,75	<a href="#">8595057629790</a>
● V 200_S	200	11	0,55	0,98	<a href="#">8595057629424</a>
● V 300_S	300	11	0,8	2,07	<a href="#">8595057629516</a>
● V 400_S	400	14	1,0	3,43	<a href="#">8595057629394</a>
● V 500_S	500	14	1,0	4,22	<a href="#">8595057633162</a>
● V 600_S	600	14	1,2	6,27	<a href="#">8595057636576</a>
● V 50_ZM	50	11	0,75	0,42	8595568937834
● V 100_ZM	100	11	0,75	0,71	8595568937841
● V 200_ZM	200	11	0,75	1,31	8595568937858
● V 300_ZM	300	11	0,75	1,90	8595568937865
● V 400_ZM	400	14	1,0	3,36	8595568937872
● V 500_ZM	500	14	1,0	4,14	8595568937889

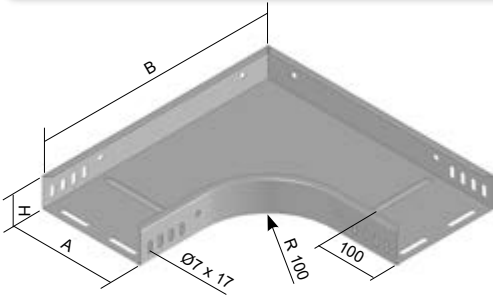
item	A	H	‡	‡	EAN
● V 50_F	50	11	0,8	0,54	<a href="#">8595057656109</a>
⊕ V 75_F	75	11	0,8	0,72	<a href="#">8595057658141</a>
● V 100_F	100	11	0,8	0,91	<a href="#">8595057656215</a>
● V 150_F	150	11	0,8	1,30	<a href="#">8595057657991</a>
● V 200_F	200	11	0,8	1,68	<a href="#">8595057656222</a>
● V 300_F	300	11	1,0	2,73	<a href="#">8595057656239</a>
● V 400_F	400	14	1,0	3,63	<a href="#">8595057656246</a>
● V 500_F	500	14	1,0	4,80	<a href="#">8595057657977</a>
⊕ V 600_F	600	14	1,2	6,70	<a href="#">8595057659278</a>

**cover fixture**

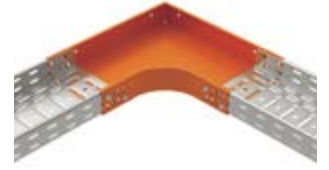


- ▶ Is used for a bolt free attachment of the cover to the tray and to the accessories.
- ▶ The cover fixture is placed to the cover and the sidewall in the place of the opening and it is slightly pressed so that the fixture lock slides into the opening.
- ▶ Used for perforated and non-perforated trays, non-perforated trays have holes specially for fixtures.

item	‡	EAN
● VU_GMT	0,01	<a href="#">8595057629448</a>

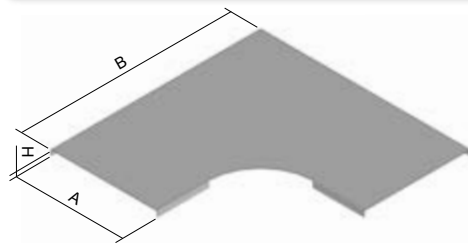
**elbow 90°**


- ▶ To fix the connection use the bolt NSM 6X10 (pg. 37).
- ▶ From the width of 400 mm the outer right angle of the side walls is replaced by skewed cut.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	B	t	‡	ƒ	EAN
● O 90X35X50_S	50	35	253	0,8	0,49	8	8595057627819
● O 90X35X75_S	75	35	278	0,8	0,59	8	8595057636583
● O 90X35X100_S	100	35	303	0,8	0,69	8	8595057627826
● O 90X35X150_S	150	35	353	0,8	0,93	8	8595057627833
● O 90X35X200_S	200	35	403	1,0	1,45	10	8595057627840
● O 90X35X300_S	300	35	503	1,0	2,25	10	8595057627857
⊕ O 90X35X400_S	400	35	603	1,0	2,79	12	8595057636606
⊕ O 90X35X500_S	500	35	703	1,0	3,74	12	8595057636637
⊕ O 90X35X600_S	600	35	803	1,2	5,75	12	8595057636644
● O 90X60X50_S	50	60	253	0,8	0,60	8	8595057627864
● O 90X60X75_S	75	60	278	0,8	0,71	8	8595057627871
● O 90X60X100_S	100	60	303	0,8	0,82	8	8595057627888
● O 90X60X150_S	150	60	353	0,8	1,07	8	8595057627895
● O 90X60X200_S	200	60	403	1,0	1,64	10	8595057627918
● O 90X60X300_S	300	60	503	1,0	2,48	10	8595057627925
● O 90X60X400_S	400	60	603	1,0	3,03	12	8595057627932
● O 90X60X500_S	500	60	703	1,0	4,01	12	8595057627949
● O 90X60X600_S	600	60	803	1,2	6,14	12	8595057627956
⊕ O 90X85X100_S	100	85	303	0,8	1,03	16	8595057631281
⊕ O 90X85X150_S	150	85	353	0,8	1,30	16	8595057632608
⊕ O 90X85X200_S	200	85	403	1,0	1,91	18	8595057632578
⊕ O 90X85X300_S	300	85	503	1,0	2,79	18	8595057630307
⊕ O 90X85X400_S	400	85	603	1,0	3,35	20	8595057636675
⊕ O 90X85X500_S	500	85	703	1,0	4,36	20	8595057636682
⊕ O 90X85X600_S	600	85	803	1,2	6,54	20	8595057636699
⊕ O 90X110X150_S	150	110	353	0,8	1,40	16	8595057633667
● O 90X110X200_S	200	110	403	1,0	2,06	18	8595057636705
● O 90X110X300_S	300	110	503	1,0	2,98	18	8595057633186
● O 90X110X400_S	400	110	603	1,0	3,55	20	8595057636729
● O 90X110X500_S	500	110	703	1,0	4,59	20	8595057633179
⊕ O 90X110X600_S	600	110	803	1,2	6,86	20	8595057636736

item	A	H	B	t	‡	ƒ	EAN
⊕ O 90X35X50_F	50	35	253	0,8	0,56	8	8595057658691
⊕ O 90X35X75_F	75	35	278	0,8	0,68	8	8595057658707
⊕ O 90X35X100_F	100	35	303	0,8	0,80	8	8595057658714
⊕ O 90X35X150_F	150	35	353	0,8	1,08	8	8595057658721
⊕ O 90X35X200_F	200	35	403	1,0	1,68	10	8595057658738
⊕ O 90X35X300_F	300	35	503	1,0	2,60	10	8595057658769
⊕ O 90X35X400_F	400	35	603	1,0	3,24	12	8595057658776
⊕ O 90X35X500_F	500	35	703	1,0	4,33	12	8595057658783
⊕ O 90X35X600_F	600	35	803	1,2	6,67	12	8595057658790
⊕ O 90X60X50_F	50	60	253	0,8	0,70	8	8595057658806
⊕ O 90X60X75_F	75	60	278	0,8	0,82	8	8595057658813
⊕ O 90X60X100_F	100	60	303	0,8	0,95	8	8595057658831
⊕ O 90X60X150_F	150	60	353	0,8	1,24	8	8595057658820
⊕ O 90X60X200_F	200	60	403	1,0	1,90	10	8595057658848
⊕ O 90X60X300_F	300	60	503	1,0	2,87	10	8595057658844
⊕ O 90X60X400_F	400	60	603	1,0	3,52	12	8595057658851
⊕ O 90X60X500_F	500	60	703	1,0	4,65	12	8595057658868
⊕ O 90X60X600_F	600	60	803	1,2	7,09	12	8595057658875
⊕ O 90X85X100_F	100	85	303	0,8	1,19	16	8595057658882
⊕ O 90X85X150_F	150	85	353	0,8	1,50	16	8595057658899
⊕ O 90X85X200_F	200	85	403	1,0	2,21	18	8595057658905
⊕ O 90X85X300_F	300	85	503	1,0	3,23	18	8595057658929
⊕ O 90X85X400_F	400	85	603	1,0	3,88	20	8595057658936
⊕ O 90X85X500_F	500	85	703	1,0	5,05	20	8595057658943
⊕ O 90X85X600_F	600	85	803	1,2	7,59	20	8595057658950
⊕ O 90X110X150_F	150	110	353	0,8	1,64	16	8595057658622
⊕ O 90X110X200_F	200	110	403	1,0	2,41	18	8595057658639
⊕ O 90X110X300_F	300	110	503	1,0	3,48	18	8595057658653
⊕ O 90X110X400_F	400	110	603	1,0	4,13	20	8595057658660
⊕ O 90X110X500_F	500	110	703	1,0	5,34	20	8595057658677
⊕ O 90X110X600_F	600	110	803	1,2	7,98	20	8595057658684
● O 90X60X50_ZM	50	60	253	0,75	0,58	8	8595568938107
● O 90X60X100_ZM	100	60	303	0,75	0,82	8	8595568938114
● O 90X60X200_ZM	200	60	403	1,0	1,41	10	8595568938121
● O 90X60X300_ZM	300	60	503	1,0	2,25	10	8595568938138
● O 90X60X400_ZM	400	60	603	1,0	2,80	12	8595568938145

**elbow cover 90°**


- ▶ To fix the cover use 6 pcs of cover fixtures VU (pg. 11).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	t	‡	EAN
● VO 90X50_S	50	12	254	0,6	0,15	8595057630277
● VO 90X75_S	75	12	279	0,6	0,21	8595057629622
● VO 90X100_S	100	12	304	0,6	0,28	8595057629813
● VO 90X150_S	150	12	354	0,6	0,43	8595057630246
● VO 90X200_S	200	12	404	0,8	0,87	8595057629820
● VO 90X300_S	300	12	504	1,0	1,83	8595057629561
● VO 90X400_S	400	15	604	1,0	2,40	8595057630260
● VO 90X500_S	500	15	704	1,0	3,32	8595057633193
● VO 90X600_S	600	15	804	1,0	4,36	8595057637009

item	A	H	B	t	‡	EAN
⊕ VO 90X50_F	50	12	254	0,8	0,26	8595057659384
⊕ VO 90X75_F	75	12	279	0,8	0,36	8595057659391
⊕ VO 90X100_F	100	12	304	0,8	0,47	8595057659085
⊕ VO 90X150_F	150	12	354	0,8	0,72	8595057659407
⊕ VO 90X200_F	200	12	404	0,8	1,01	8595057659082
⊕ VO 90X300_F	300	12	504	1,0	2,12	8595057659421
⊕ VO 90X400_F	400	15	604	1,0	2,79	8595057659438
⊕ VO 90X500_F	500	15	704	1,0	3,85	8595057659445
⊕ VO 90X600_F	600	15	804	1,0	5,06	8595057659452
● VO 90X50_ZM	50	12	254	0,75	0,22	8595568938152
● VO 90X100_ZM	100	12	304	0,75	0,41	8595568938169
● VO 90X200_ZM	200	12	404	0,75	0,80	8595568938176
● VO 90X300_ZM	300	12	504	1,00	1,80	8595568938183
● VO 90X400_ZM	400	12	604	1,00	2,35	8595568938190

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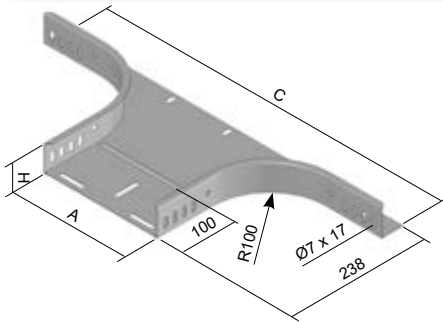
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horizontal branch



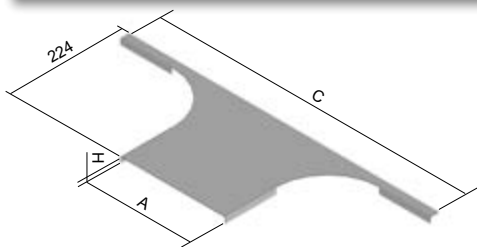
- ▶ To fix the connection use the bolt NSM 6X10 (pg. 37).
- ▶ Horizontal branch is used for additional branching from the line.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	C	t	‡	⚡	EAN
● OH 35X50_S	50	35	453	0,8	0,57	8	<a href="#">8595057628243</a>
● OH 35X75_S	75	35	478	0,8	0,60	8	<a href="#">8595057637580</a>
● OH 35X100_S	100	35	503	0,8	0,64	8	<a href="#">8595057628250</a>
● OH 35X150_S	150	35	553	0,8	0,72	8	<a href="#">8595057628267</a>
● OH 35X200_S	200	35	603	1,0	0,90	9	<a href="#">8595057628274</a>
● OH 35X300_S	300	35	703	1,0	1,09	9	<a href="#">8595057628281</a>
⊕ OH 35X400_S	400	35	803	1,0	1,28	10	<a href="#">8595057637245</a>
⊕ OH 35X500_S	500	35	903	1,0	1,46	10	<a href="#">8595057637252</a>
⊕ OH 35X600_S	600	35	1003	1,2	1,91	10	<a href="#">8595057637269</a>
● OH 60X50_S	50	60	453	0,8	0,71	8	<a href="#">8595057628298</a>
● OH 60X75_S	75	60	478	0,8	0,74	8	<a href="#">8595057628304</a>
● OH 60X100_S	100	60	503	0,8	0,78	8	<a href="#">8595057628311</a>
● OH 60X150_S	150	60	553	0,8	0,86	8	<a href="#">8595057628328</a>
● OH 60X200_S	200	60	603	1,0	1,04	9	<a href="#">8595057628335</a>
● OH 60X300_S	300	60	703	1,0	1,23	9	<a href="#">8595057628342</a>
● OH 60X400_S	400	60	803	1,0	1,42	10	<a href="#">8595057628359</a>
● OH 60X500_S	500	60	903	1,0	1,60	10	<a href="#">8595057628366</a>
● OH 60X600_S	600	60	1003	1,2	2,05	10	<a href="#">8595057628373</a>
⊕ OH 85X100_S	100	85	503	0,8	0,95	16	<a href="#">8595057630161</a>
⊕ OH 85X150_S	150	85	553	0,8	1,02	16	<a href="#">8595057630178</a>
⊕ OH 85X200_S	200	85	603	1,0	1,20	17	<a href="#">8595057630185</a>
⊕ OH 85X300_S	300	85	703	1,0	1,39	17	<a href="#">8595057630208</a>
⊕ OH 85X400_S	400	85	803	1,0	1,58	18	<a href="#">8595057629493</a>
⊕ OH 85X500_S	500	85	903	1,0	1,77	18	<a href="#">8595057637283</a>
⊕ OH 85X600_S	600	85	1003	1,2	2,21	18	<a href="#">8595057637290</a>
⊕ OH 110X150_S	150	110	553	0,8	1,16	16	<a href="#">8595057633698</a>
● OH 110X200_S	200	110	603	1,0	1,34	17	<a href="#">8595057637306</a>
● OH 110X300_S	300	110	703	1,0	1,53	17	<a href="#">8595057633292</a>
● OH 110X400_S	400	110	803	1,0	1,72	18	<a href="#">8595057637320</a>
● OH 110X500_S	500	110	903	1,0	1,90	18	<a href="#">8595057633285</a>
⊕ OH 110X600_S	600	110	1003	1,2	2,35	18	<a href="#">8595057637337</a>

item	A	H	C	t	‡	⚡	EAN
⊕ OH 35X50_F	50	35	453	0,8	0,66	8	<a href="#">8595057658301</a>
⊕ OH 35X75_F	75	35	478	0,8	0,70	8	<a href="#">8595057658318</a>
⊕ OH 35X100_F	100	35	503	0,8	0,74	8	<a href="#">8595057658325</a>
⊕ OH 35X150_F	150	35	553	0,8	0,83	8	<a href="#">8595057658332</a>
⊕ OH 35X200_F	200	35	603	1,0	1,04	9	<a href="#">8595057658349</a>
⊕ OH 35X300_F	300	35	703	1,0	1,26	9	<a href="#">8595057658363</a>
⊕ OH 35X400_F	400	35	803	1,0	1,48	10	<a href="#">8595057658370</a>
⊕ OH 35X500_F	500	35	903	1,0	1,69	10	<a href="#">8595057658387</a>
⊕ OH 35X600_F	600	35	1003	1,2	2,21	10	<a href="#">8595057658394</a>
⊕ OH 60X50_F	50	60	453	0,8	0,74	8	<a href="#">8595057658400</a>
⊕ OH 60X75_F	75	60	478	0,8	0,79	8	<a href="#">8595057658417</a>
⊕ OH 60X100_F	100	60	503	0,8	0,83	8	<a href="#">8595057658424</a>
⊕ OH 60X150_F	150	60	553	0,8	0,92	8	<a href="#">8595057658431</a>
⊕ OH 60X200_F	200	60	603	1,0	1,13	9	<a href="#">8595057658448</a>
⊕ OH 60X300_F	300	60	703	1,0	1,35	9	<a href="#">8595057658462</a>
⊕ OH 60X400_F	400	60	803	1,0	1,57	10	<a href="#">8595057658479</a>
⊕ OH 60X500_F	500	60	903	1,0	1,78	10	<a href="#">8595057658486</a>
⊕ OH 60X600_F	600	60	1003	1,2	2,37	10	<a href="#">8595057658493</a>
⊕ OH 85X100_F	100	85	503	0,8	1,10	16	<a href="#">8595057658509</a>
⊕ OH 85X150_F	150	85	553	0,8	1,18	16	<a href="#">8595057658516</a>
⊕ OH 85X200_F	200	85	603	1,0	1,40	17	<a href="#">8595057658523</a>
⊕ OH 85X300_F	300	85	703	1,0	1,61	17	<a href="#">8595057658547</a>
⊕ OH 85X400_F	400	85	803	1,0	1,84	18	<a href="#">8595057658554</a>
⊕ OH 85X500_F	500	85	903	1,0	2,05	18	<a href="#">8595057658561</a>
⊕ OH 85X600_F	600	85	1003	1,2	2,57	18	<a href="#">8595057658578</a>
⊕ OH 110X150_F	150	110	553	0,8	1,22	16	<a href="#">8595057658233</a>
⊕ OH 110X200_F	200	110	603	1,0	1,43	17	<a href="#">8595057658240</a>
⊕ OH 110X300_F	300	110	703	1,0	1,65	17	<a href="#">8595057658257</a>
⊕ OH 110X400_F	400	110	803	1,0	1,87	18	<a href="#">8595057658271</a>
⊕ OH 110X500_F	500	110	903	1,0	2,08	18	<a href="#">8595057658288</a>
⊕ OH 110X600_F	600	110	1003	1,2	2,60	18	<a href="#">8595057658295</a>

horizontal branch cover



- ▶ To fix the cover use 4 pcs of cover fixtures VU (pg. 11).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	C	t	‡	EAN
● VOH 50_S	50	12	453	0,6	0,13	<a href="#">8595057637948</a>
● VOH 75_S	75	12	478	0,6	0,16	<a href="#">8595057632813</a>
● VOH 100_S	100	12	503	0,6	0,18	<a href="#">8595057629875</a>
● VOH 150_S	150	12	553	0,6	0,23	<a href="#">8595057629882</a>
● VOH 200_S	200	12	603	0,8	0,41	<a href="#">8595057629899</a>
● VOH 300_S	300	12	703	1,0	0,69	<a href="#">8595057629905</a>
● VOH 400_S	400	15	803	1,0	0,88	<a href="#">8595057629509</a>
● VOH 500_S	500	15	903	1,0	1,06	<a href="#">8595057633308</a>
● VOH 600_S	600	15	1003	1,0	1,23	<a href="#">8595057637955</a>

item	A	H	C	t	‡	EAN
⊕ VOH 50_F	50	12	453	0,8	0,22	<a href="#">8595057659285</a>
⊕ VOH 75_F	75	12	478	0,8	0,27	<a href="#">8595057659292</a>
⊕ VOH 100_F	100	12	503	0,8	0,31	<a href="#">8595057659308</a>
⊕ VOH 150_F	150	12	553	0,8	0,35	<a href="#">8595057659315</a>
⊕ VOH 200_F	200	12	603	0,8	0,47	<a href="#">8595057659322</a>
⊕ VOH 300_F	300	12	703	1,0	0,80	<a href="#">8595057659346</a>
⊕ VOH 400_F	400	15	803	1,0	1,01	<a href="#">8595057659353</a>
⊕ VOH 500_F	500	15	903	1,0	1,23	<a href="#">8595057659360</a>
⊕ VOH 600_F	600	15	1003	1,0	1,44	<a href="#">8595057659377</a>
● VOH 50_ZM	50	12	453	0,75	0,19	<a href="#">8595568938367</a>
● VOH 100_ZM	100	12	503	0,75	0,26	<a href="#">8595568938374</a>
● VOH 200_ZM	200	12	603	0,75	0,38	<a href="#">8595568938381</a>
● VOH 300_ZM	300	12	703	1,0	0,67	<a href="#">8595568938398</a>

t thickness of metal sheet (mm) ● standard  
⚡ amount of bolts for connection ⊕ to order

‡ weight kg/pcs

ZM Zn+Mg+Al galvanizing

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

3

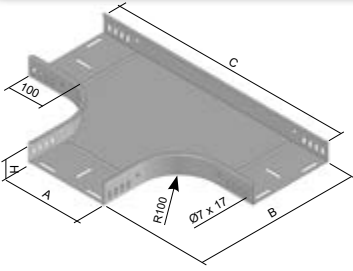
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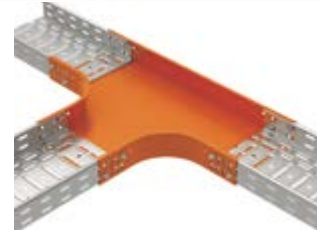
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T-piece



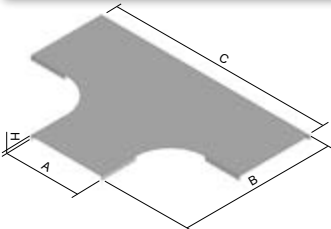
- ▶ To fix the connection use the bolt NSM 6X10 (pg. 37).
- ▶ Use horizontal branch (pg. 13) or reduction piece SU (pg. 19) to make unequal T-piece.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	B	C	t	‡	⌘	EAN
● T 35X50_S	50	35	253	453	0,8	0,74	12	8595057637344
● T 35X75_S	75	35	278	478	0,8	0,86	12	8595057637351
● T 35X100_S	100	35	303	503	0,8	0,99	12	8595057637368
● T 35X150_S	150	35	353	553	0,8	1,27	12	8595057637375
● T 35X200_S	200	35	403	603	1,0	1,89	15	8595057637382
● T 35X300_S	300	35	503	703	1,0	2,81	15	8595057637405
⊕ T 35X400_S	400	35	603	803	1,0	3,09	18	8595057637412
⊕ T 35X500_S	500	35	703	903	1,0	5,12	18	8595057637429
⊕ T 35X600_S	600	35	803	1003	1,2	7,76	18	8595057637436
● T 60X50_S	50	60	253	453	0,8	0,88	12	8595057637443
● T 60X75_S	75	60	278	478	0,8	1,07	12	8595057633339
● T 60X100_S	100	60	303	503	0,8	1,14	12	8595057630338
● T 60X150_S	150	60	353	553	0,8	1,43	12	8595057633575
● T 60X200_S	200	60	403	603	1,0	2,08	15	8595057631717
● T 60X300_S	300	60	503	703	1,0	3,02	15	8595057637467
● T 60X400_S	400	60	603	803	1,0	4,13	18	8595057631700
● T 60X500_S	500	60	703	903	1,0	5,34	18	8595057637474
● T 60X600_S	600	60	803	1003	1,2	8,07	18	8595057637481
⊕ T 85X100_S	100	85	303	503	0,8	1,45	24	8595057633322
⊕ T 85X150_S	150	85	353	553	0,8	1,93	24	8595057635456
⊕ T 85X200_S	200	85	403	603	1,0	2,43	27	8595057633315
⊕ T 85X300_S	300	85	503	703	1,0	3,39	27	8595057630352
⊕ T 85X400_S	400	85	603	803	1,0	4,51	30	8595057637504
⊕ T 85X500_S	500	85	703	903	1,0	5,78	30	8595057637511
⊕ T 85X600_S	600	85	803	1003	1,2	8,37	30	8595057637528
⊕ T 110X150_S	150	110	353	553	0,8	1,86	24	8595057635289
● T 110X200_S	200	110	403	603	1,0	2,57	27	8595057637535
● T 110X300_S	300	110	503	703	1,0	3,55	27	8595057637559
● T 110X400_S	400	110	603	803	1,0	4,60	30	8595057637566
● T 110X500_S	500	110	703	903	1,0	5,98	30	8595057633704
⊕ T 110X600_S	600	110	803	1003	1,2	8,71	30	8595057637573

item	A	H	B	C	t	‡	⌘	EAN
⊕ T 35X50_F	50	35	253	453	0,8	0,85	12	8595057663510
⊕ T 35X75_F	75	35	278	478	0,8	1,00	12	8595057663527
⊕ T 35X100_F	100	35	303	503	0,8	1,15	12	8595057663534
⊕ T 35X150_F	150	35	353	553	0,8	1,48	12	8595057663541
⊕ T 35X200_F	200	35	403	603	1,0	2,20	15	8595057663558
⊕ T 35X300_F	300	35	503	703	1,0	3,26	15	8595057663565
⊕ T 35X400_F	400	35	603	803	1,0	4,52	18	8595057663572
⊕ T 35X500_F	500	35	703	903	1,0	5,90	18	8595057663589
⊕ T 35X600_F	600	35	803	1003	1,2	9,31	18	8595057663596
⊕ T 60X50_F	50	60	253	453	0,8	1,02	12	8595057663602
⊕ T 60X75_F	75	60	278	478	0,8	1,17	12	8595057663619
● T 60X100_F	100	60	303	503	0,8	1,33	12	8595057650879
⊕ T 60X150_F	150	60	353	553	0,8	1,66	12	8595057663626
● T 60X200_F	200	60	403	603	1,0	2,42	15	8595057650909
● T 60X300_F	300	60	503	703	1,0	3,51	15	8595057663640
⊕ T 60X400_F	400	60	603	803	1,0	4,79	18	8595057663657
⊕ T 60X500_F	500	60	703	903	1,0	6,24	18	8595057663664
⊕ T 60X600_F	600	60	803	1003	1,2	9,36	18	8595057663671
⊕ T 85X100_F	100	85	303	503	0,8	1,68	24	8595057663688
⊕ T 85X150_F	150	85	353	553	0,8	2,24	24	8595057663695
⊕ T 85X200_F	200	85	403	603	1,0	2,82	27	8595057663701
⊕ T 85X300_F	300	85	503	703	1,0	3,93	27	8595057663718
⊕ T 85X400_F	400	85	603	803	1,0	5,23	30	8595057663725
⊕ T 85X500_F	500	85	703	903	1,0	6,70	30	8595057663732
⊕ T 85X600_F	600	85	803	1003	1,2	9,70	30	8595057663749
⊕ T 110X150_F	150	110	353	553	0,8	2,15	24	8595057663459
⊕ T 110X200_F	200	110	403	603	1,0	2,98	27	8595057663466
⊕ T 110X300_F	300	110	503	703	1,0	4,12	27	8595057663473
⊕ T 110X400_F	400	110	603	803	1,0	5,34	30	8595057663480
⊕ T 110X500_F	500	110	703	903	1,0	6,94	30	8595057663497
⊕ T 110X600_F	600	110	803	1003	1,2	10,11	30	8595057663503

T-piece cover



- ▶ To fix the cover use 6 pcs of cover fixtures VU (pg. 11).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	C	t	‡	EAN
● VT 50_S	50	12	254	453	0,6	0,22	8595057637962
● VT 75_S	75	12	279	478	0,6	0,30	8595057633353
● VT 100_S	100	12	304	503	0,6	0,39	8595057630345
● VT 150_S	150	12	354	553	0,6	0,57	8595057635326
● VT 200_S	200	12	404	603	0,8	1,14	8595057633346
● VT 300_S	300	12	504	703	1,0	2,32	8595057630369
● VT 400_S	400	15	604	803	1,0	3,40	8595057636620
● VT 500_S	500	15	704	903	1,0	4,62	8595057633711
● VT 600_S	600	15	804	1003	1,0	6,00	8595057637986

item	A	H	B	C	t	‡	EAN
⊕ VT 50_F	50	12	254	453	0,8	0,36	8595057659742
⊕ VT 75_F	75	12	279	478	0,8	0,50	8595057659759
⊕ VT 100_F	100	12	304	503	0,8	0,65	8595057650886
⊕ VT 150_F	150	12	354	553	0,8	0,97	8595057659766
⊕ VT 200_F	200	12	404	603	0,8	1,33	8595057650893
⊕ VT 300_F	300	12	504	703	1,0	2,69	8595057659780
⊕ VT 400_F	400	15	604	803	1,0	3,95	8595057659797
⊕ VT 500_F	500	15	704	903	1,0	5,36	8595057659803
⊕ VT 600_F	600	15	804	1003	1,0	6,96	8595057659810

t thickness of metal sheet (mm)  
⌘ amount of bolts for connection

‡ weight kg/pcs

● standard  
⊕ to order

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

3

4

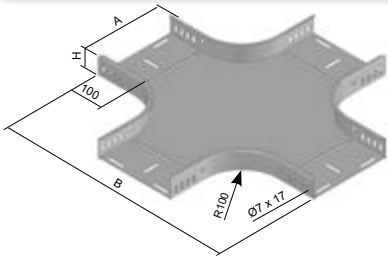
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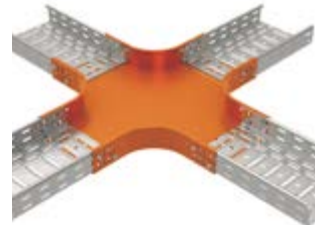
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**CROSS-OVER**



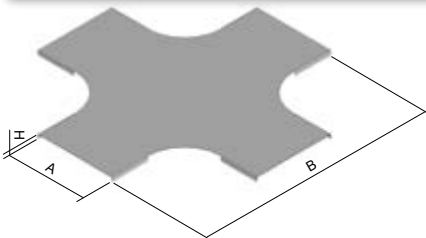
- ▶ To fix the connection use the bolt NSM 6X10 (pg. 37).
- ▶ Use horizontal branch (pg. 13) or reduction piece SU (pg. 19) to make unequal cross.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	B	t	‡	‡f	EAN
⊕ KR 35X50_S	50	35	453	0,8	1,07	16	<a href="#">8595057637597</a>
⊕ KR 35X75_S	75	35	478	0,8	1,22	16	<a href="#">8595057637603</a>
⊕ KR 35X100_S	100	35	503	0,8	1,37	16	<a href="#">8595057637610</a>
⊕ KR 35X150_S	150	35	553	0,8	1,70	16	<a href="#">8595057637627</a>
⊕ KR 35X200_S	200	35	603	1,0	2,39	20	<a href="#">8595057637634</a>
⊕ KR 35X300_S	300	35	703	1,0	3,44	20	<a href="#">8595057637658</a>
⊕ KR 35X400_S	400	35	803	1,0	4,65	24	<a href="#">8595057637665</a>
⊕ KR 35X500_S	500	35	903	1,0	5,99	24	<a href="#">8595057637672</a>
⊕ KR 35X600_S	600	35	1003	1,2	8,87	24	<a href="#">8595057637689</a>
⊕ KR 60X50_S	50	60	453	0,8	1,22	16	<a href="#">8595057637696</a>
⊕ KR 60X75_S	75	60	478	0,8	1,37	16	<a href="#">8595057637702</a>
● KR 60X100_S	100	60	503	0,8	1,53	16	<a href="#">8595057637719</a>
● KR 60X150_S	150	60	553	0,8	1,85	16	<a href="#">8595057637726</a>
● KR 60X200_S	200	60	603	1,0	2,55	20	<a href="#">8595057637733</a>
● KR 60X300_S	300	60	703	1,0	3,59	20	<a href="#">8595057637757</a>
⊕ KR 60X400_S	400	60	803	1,0	4,80	24	<a href="#">8595057637764</a>
⊕ KR 60X500_S	500	60	903	1,0	6,14	24	<a href="#">8595057637771</a>
⊕ KR 60X600_S	600	60	1003	1,2	9,02	24	<a href="#">8595057637788</a>
⊕ KR 85X100_S	100	85	503	0,8	1,99	32	<a href="#">8595057637795</a>
⊕ KR 85X150_S	150	85	553	0,8	2,31	32	<a href="#">8595057637801</a>
⊕ KR 85X200_S	200	85	603	1,0	3,01	36	<a href="#">8595057637818</a>
⊕ KR 85X300_S	300	85	703	1,0	4,05	36	<a href="#">8595057637832</a>
⊕ KR 85X400_S	400	85	803	1,0	5,26	40	<a href="#">8595057637849</a>
⊕ KR 85X500_S	500	85	903	1,0	6,60	40	<a href="#">8595057637856</a>
⊕ KR 85X600_S	600	85	1003	1,2	9,48	40	<a href="#">8595057637863</a>
⊕ KR 110X150_S	150	110	553	0,8	2,37	32	<a href="#">8595057637870</a>
⊕ KR 110X200_S	200	110	603	1,0	3,06	36	<a href="#">8595057637887</a>
⊕ KR 110X300_S	300	110	703	1,0	4,12	36	<a href="#">8595057637900</a>
⊕ KR 110X400_S	400	110	803	1,0	5,31	40	<a href="#">8595057637917</a>
⊕ KR 110X500_S	500	110	903	1,0	6,66	40	<a href="#">8595057637924</a>
⊕ KR 110X600_S	600	110	1003	1,2	9,54	40	<a href="#">8595057637931</a>

item	A	H	B	t	‡	‡f	EAN
⊕ KR 35X50_F	50	35	453	0,8	1,24	16	<a href="#">8595057662704</a>
⊕ KR 35X75_F	75	35	478	0,8	1,41	16	<a href="#">8595057662711</a>
⊕ KR 35X100_F	100	35	503	0,8	1,59	16	<a href="#">8595057662728</a>
⊕ KR 35X150_F	150	35	553	0,8	1,97	16	<a href="#">8595057662735</a>
⊕ KR 35X200_F	200	35	603	1,0	2,78	20	<a href="#">8595057661899</a>
⊕ KR 35X300_F	300	35	703	1,0	3,99	20	<a href="#">8595057661912</a>
⊕ KR 35X400_F	400	35	803	1,0	5,39	24	<a href="#">8595057661929</a>
⊕ KR 35X500_F	500	35	903	1,0	6,95	24	<a href="#">8595057661882</a>
⊕ KR 35X600_F	600	35	1003	1,2	10,29	24	<a href="#">8595057661936</a>
⊕ KR 60X50_F	50	60	453	0,8	1,41	16	<a href="#">8595057661943</a>
⊕ KR 60X75_F	75	60	478	0,8	1,59	16	<a href="#">8595057661950</a>
⊕ KR 60X100_F	100	60	503	0,8	1,77	16	<a href="#">8595057650916</a>
⊕ KR 60X150_F	150	60	553	0,8	2,15	16	<a href="#">8595057661967</a>
⊕ KR 60X200_F	200	60	603	1,0	2,95	20	<a href="#">8595057650923</a>
⊕ KR 60X300_F	300	60	703	1,0	4,17	20	<a href="#">8595057661981</a>
⊕ KR 60X400_F	400	60	803	1,0	5,57	24	<a href="#">8595057661998</a>
⊕ KR 60X500_F	500	60	903	1,0	7,13	24	<a href="#">8595057662001</a>
⊕ KR 60X600_F	600	60	1003	1,2	10,47	24	<a href="#">8595057662018</a>
⊕ KR 85X100_F	100	85	503	0,8	2,30	32	<a href="#">8595057662025</a>
⊕ KR 85X150_F	150	85	553	0,8	2,68	32	<a href="#">8595057662032</a>
⊕ KR 85X200_F	200	85	603	1,0	3,49	36	<a href="#">8595057662049</a>
⊕ KR 85X300_F	300	85	703	1,0	4,70	36	<a href="#">8595057662063</a>
⊕ KR 85X400_F	400	85	803	1,0	6,10	40	<a href="#">8595057662070</a>
⊕ KR 85X500_F	500	85	903	1,0	7,66	40	<a href="#">8595057662087</a>
⊕ KR 85X600_F	600	85	1003	1,2	11,00	40	<a href="#">8595057662094</a>
⊕ KR 110X150_F	150	110	553	0,8	2,75	32	<a href="#">8595057662643</a>
⊕ KR 110X200_F	200	110	603	1,0	3,55	36	<a href="#">8595057662650</a>
⊕ KR 110X300_F	300	110	703	1,0	4,77	36	<a href="#">8595057662667</a>
⊕ KR 110X400_F	400	110	803	1,0	6,61	40	<a href="#">8595057662674</a>
⊕ KR 110X500_F	500	110	903	1,0	7,72	40	<a href="#">8595057662681</a>
⊕ KR 110X600_F	600	110	1003	1,2	11,06	40	<a href="#">8595057662698</a>

**CROSS-OVER COVER**



- ▶ To fix the cover use 8 pcs of cover fixitres VU (pg. 11).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	t	‡	EAN
⊕ VKR 50_S	50	12	453	0,6	0,28	<a href="#">8595057637993</a>
⊕ VKR 75_S	75	12	478	0,6	0,38	<a href="#">8595057638006</a>
⊕ VKR 100_S	100	12	503	0,6	0,49	<a href="#">8595057638013</a>
⊕ VKR 150_S	150	12	553	0,6	0,72	<a href="#">8595057638020</a>
⊕ VKR 200_S	200	12	603	0,8	1,41	<a href="#">8595057638037</a>
⊕ VKR 300_S	300	12	703	1,0	2,81	<a href="#">8595057638051</a>
⊕ VKR 400_S	400	15	803	1,0	4,04	<a href="#">8595057638068</a>
⊕ VKR 500_S	500	15	903	1,0	5,40	<a href="#">8595057638075</a>
⊕ VKR 600_S	600	15	1003	1,0	6,30	<a href="#">8595057638082</a>

item	A	H	B	t	‡	EAN
⊕ VKR 50_F	50	12	453	0,8	0,47	<a href="#">8595057659469</a>
⊕ VKR 75_F	75	12	478	0,8	0,64	<a href="#">8595057659476</a>
⊕ VKR 100_F	100	12	503	0,8	0,82	<a href="#">8595057659030</a>
⊕ VKR 150_F	150	12	553	0,8	1,21	<a href="#">8595057659483</a>
⊕ VKR 200_F	200	12	603	0,8	1,64	<a href="#">8595057659047</a>
⊕ VKR 300_F	300	12	703	1,0	3,27	<a href="#">8595057659506</a>
⊕ VKR 400_F	400	15	803	1,0	4,68	<a href="#">8595057659513</a>
⊕ VKR 500_F	500	15	903	1,0	6,27	<a href="#">8595057659520</a>
⊕ VKR 600_F	600	15	1003	1,0	7,30	<a href="#">8595057659537</a>

t thickness of metal sheet (mm) ● standard ‡ weight kg/pcs  
‡f amount of bolts for connection ⊕ to order

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

3

4

5

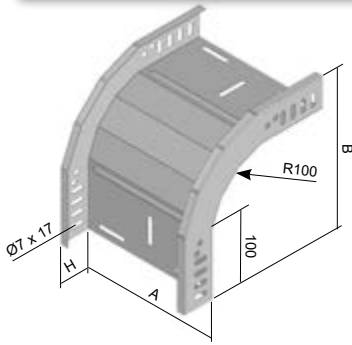
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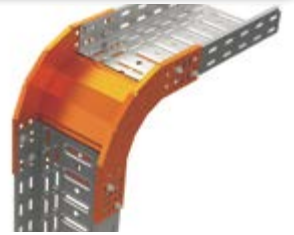




low elbow 90°



- ▶ To fix the connection use the bolt NSM 6X10 (pg. 37).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



	item	A	H	B	t	‡	⌘	EAN
●	KO 90X35X50_S	50	35	220	0,8	0,35	8	<a href="#">8595057627963</a>
●	KO 90X35X75_S	75	35	220	0,8	0,40	8	<a href="#">8595057636873</a>
●	KO 90X35X100_S	100	35	220	0,8	0,45	8	<a href="#">8595057627970</a>
●	KO 90X35X150_S	150	35	220	0,8	0,55	8	<a href="#">8595057627987</a>
●	KO 90X35X200_S	200	35	220	1,0	0,75	10	<a href="#">8595057627994</a>
●	KO 90X35X300_S	300	35	220	1,0	0,88	10	<a href="#">8595057628007</a>
⊕	KO 90X35X400_S	400	35	220	1,0	1,01	12	<a href="#">8595057636897</a>
⊕	KO 90X35X500_S	500	35	220	1,0	1,26	12	<a href="#">8595057636903</a>
⊕	KO 90X35X600_S	600	35	220	1,2	1,51	12	<a href="#">8595057636910</a>
●	KO 90X60X50_S	50	60	245	0,8	0,47	8	<a href="#">8595057628014</a>
●	KO 90X60X75_S	75	60	245	0,8	0,52	8	<a href="#">8595057628021</a>
●	KO 90X60X100_S	100	60	245	0,8	0,57	8	<a href="#">8595057628038</a>
●	KO 90X60X150_S	150	60	245	0,8	0,67	8	<a href="#">8595057628045</a>
●	KO 90X60X200_S	200	60	245	1,0	0,87	10	<a href="#">8595057628052</a>
●	KO 90X60X300_S	300	60	245	1,0	1,13	10	<a href="#">8595057628069</a>
●	KO 90X60X400_S	400	60	245	1,0	1,38	12	<a href="#">8595057628076</a>
●	KO 90X60X500_S	500	60	245	1,0	1,63	12	<a href="#">8595057628083</a>
●	KO 90X60X600_S	600	60	245	1,2	2,19	12	<a href="#">8595057628090</a>
⊕	KO 90X85X100_S	100	85	270	0,8	0,71	16	<a href="#">8595057630062</a>
⊕	KO 90X85X150_S	150	85	270	0,8	0,81	16	<a href="#">8595057630079</a>
⊕	KO 90X85X200_S	200	85	270	1,0	1,01	18	<a href="#">8595057630086</a>
⊕	KO 90X85X300_S	300	85	270	1,0	1,26	18	<a href="#">8595057630109</a>
⊕	KO 90X85X400_S	400	85	270	1,0	1,52	20	<a href="#">8595057629479</a>
⊕	KO 90X85X500_S	500	85	270	1,0	1,77	20	<a href="#">8595057636934</a>
⊕	KO 90X85X600_S	600	85	270	1,2	2,33	20	<a href="#">8595057636941</a>
⊕	KO 90X110X150_S	150	110	295	0,8	0,95	16	<a href="#">8595057633674</a>
●	KO 90X110X200_S	200	110	295	1,0	1,15	18	<a href="#">8595057636958</a>
●	KO 90X110X300_S	300	110	295	1,0	1,28	18	<a href="#">8595057633254</a>
●	KO 90X110X400_S	400	110	295	1,0	1,41	20	<a href="#">8595057636972</a>
●	KO 90X110X500_S	500	110	295	1,0	1,67	20	<a href="#">8595057633247</a>
⊕	KO 90X110X600_S	600	110	295	1,2	1,91	20	<a href="#">8595057636989</a>
●	KO 90X60X50_ZM	50	60	245	0,75	0,42	8	8595568938206
●	KO 90X60X100_ZM	100	60	245	0,75	0,52	8	8595568938213
●	KO 90X60X200_ZM	200	60	245	1,0	0,82	10	8595568938220
●	KO 90X60X300_ZM	300	60	245	1,0	1,07	10	8595568938237

	item	A	H	B	t	‡	⌘	EAN
⊕	KO 90X35X50_F	50	35	220	0,8	0,41	8	<a href="#">8595057663855</a>
⊕	KO 90X35X75_F	75	35	220	0,8	0,47	8	<a href="#">8595057663862</a>
⊕	KO 90X35X100_F	100	35	220	0,8	0,53	8	<a href="#">8595057663879</a>
⊕	KO 90X35X150_F	150	35	220	0,8	0,64	8	<a href="#">8595057663886</a>
⊕	KO 90X35X200_F	200	35	220	1,0	0,87	10	<a href="#">8595057663893</a>
⊕	KO 90X35X300_F	300	35	220	1,0	1,02	10	<a href="#">8595057663909</a>
⊕	KO 90X35X400_F	400	35	220	1,0	1,17	12	<a href="#">8595057663916</a>
⊕	KO 90X35X500_F	500	35	220	1,0	1,47	12	<a href="#">8595057663923</a>
⊕	KO 90X35X600_F	600	35	220	1,2	1,75	12	<a href="#">8595057663930</a>
⊕	KO 90X60X50_F	50	60	245	0,8	0,55	8	<a href="#">8595057663947</a>
⊕	KO 90X60X75_F	75	60	245	0,8	0,61	8	<a href="#">8595057663954</a>
⊕	KO 90X60X100_F	100	60	245	0,8	0,66	8	<a href="#">8595057650718</a>
⊕	KO 90X60X150_F	150	60	245	0,8	0,78	8	<a href="#">8595057663961</a>
⊕	KO 90X60X200_F	200	60	245	1,0	1,01	10	<a href="#">85950576650725</a>
⊕	KO 90X60X300_F	300	60	245	1,0	1,31	10	<a href="#">8595057663985</a>
⊕	KO 90X60X400_F	400	60	245	1,0	1,61	12	<a href="#">8595057663992</a>
⊕	KO 90X60X500_F	500	60	245	1,0	1,89	12	<a href="#">8595057664005</a>
⊕	KO 90X60X600_F	600	60	245	1,2	2,55	12	<a href="#">8595057664012</a>
⊕	KO 90X85X100_F	100	85	270	0,8	0,82	16	<a href="#">8595057664029</a>
⊕	KO 90X85X150_F	150	85	270	0,8	0,93	16	<a href="#">8595057664036</a>
⊕	KO 90X85X200_F	200	85	270	1,0	1,17	18	<a href="#">8595057664043</a>
⊕	KO 90X85X300_F	300	85	270	1,0	1,46	18	<a href="#">8595057664050</a>
⊕	KO 90X85X400_F	400	85	270	1,0	1,76	20	<a href="#">8595057664067</a>
⊕	KO 90X85X500_F	500	85	270	1,0	2,05	20	<a href="#">8595057664074</a>
⊕	KO 90X85X600_F	600	85	270	1,2	2,70	20	<a href="#">8595057664081</a>
⊕	KO 90X110X150_F	150	110	295	0,8	1,01	16	<a href="#">8595057663794</a>
⊕	KO 90X110X200_F	200	110	295	1,0	1,34	18	<a href="#">8595057663800</a>
⊕	KO 90X110X300_F	300	110	295	1,0	1,49	18	<a href="#">8595057663817</a>
⊕	KO 90X110X400_F	400	110	295	1,0	1,63	20	<a href="#">8595057663824</a>
⊕	KO 90X110X500_F	500	110	295	1,0	1,93	20	<a href="#">8595057663831</a>
⊕	KO 90X110X600_F	600	110	295	1,2	2,22	20	<a href="#">8595057663848</a>

t thickness of metal sheet (mm) ● standard  
⌘ amount of bolts for connection ⊕ to order

‡ weight kg/pcs

ZM Zn+Mg+Al galvanizing

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

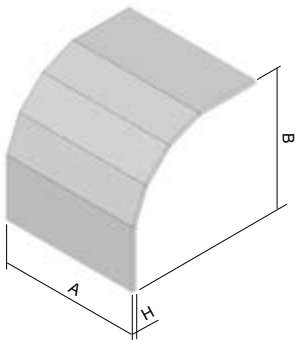
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**low elbow 90° cover**


- ▶ To fix the cover use 4 pcs of cover fixtures VU (pg. 11).
- ▶ All coated covers S and coated covers F with a width of 50 - 200 mm are supplied straight. They are constructed from one piece of sheet metal with cut sides for shaping during assembly.
- ▶ Coated covers F with a width of 300 - 600 mm are supplied already bent in the shape of a rising elbow.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

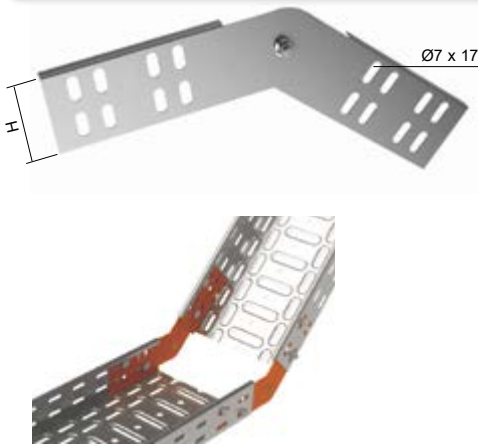


item	A	H	B	‡	‡	EAN
● VKO 90X35X50_S	50	12	220	0,6	0,12	<a href="#">8595057637030</a>
● VKO 90X35X75_S	75	12	220	0,6	0,17	<a href="#">8595057637139</a>
● VKO 90X35X100_S	100	12	220	0,6	0,21	<a href="#">8595057637146</a>
● VKO 90X35X150_S	150	12	220	0,6	0,29	<a href="#">8595057637153</a>
● VKO 90X35X200_S	200	12	220	0,8	0,55	<a href="#">8595057637160</a>
● VKO 90X35X300_S	300	12	220	1,0	0,99	<a href="#">8595057637184</a>
⊕ VKO 90X35X400_S	400	15	220	1,0	1,31	<a href="#">8595057637191</a>
⊕ VKO 90X35X500_S	500	15	220	1,0	1,61	<a href="#">8595057637207</a>
⊕ VKO 90X35X600_S	600	15	220	1,0	1,88	<a href="#">8595057637214</a>
● VKO 90X60X50_S	50	12	245	0,6	0,14	<a href="#">8595057637221</a>
● VKO 90X60X75_S	75	12	245	0,6	0,18	<a href="#">8595057629608</a>
● VKO 90X60X100_S	100	12	245	0,6	0,23	<a href="#">8595057629837</a>
● VKO 90X60X150_S	150	12	245	0,6	0,32	<a href="#">8595057630888</a>
● VKO 90X60X200_S	200	12	245	0,8	0,60	<a href="#">8595057629844</a>
● VKO 90X60X300_S	300	12	245	1,0	0,87	<a href="#">8595057629547</a>
● VKO 90X60X400_S	400	15	245	1,0	1,45	<a href="#">8595057636613</a>
● VKO 90X60X500_S	500	15	245	1,0	1,78	<a href="#">8595057637047</a>
● VKO 90X60X600_S	600	15	245	1,0	2,17	<a href="#">8595057637054</a>
⊕ VKO 90X85X100_S	100	12	270	0,6	0,25	<a href="#">8595057630116</a>
⊕ VKO 90X85X150_S	150	12	270	0,6	0,39	<a href="#">8595057630123</a>
⊕ VKO 90X85X200_S	200	12	270	0,8	0,66	<a href="#">8595057630130</a>
⊕ VKO 90X85X300_S	300	12	270	1,0	1,19	<a href="#">8595057630154</a>
⊕ VKO 90X85X400_S	400	15	270	1,0	1,58	<a href="#">8595057629486</a>
⊕ VKO 90X85X500_S	500	15	270	1,0	1,95	<a href="#">8595057637061</a>
⊕ VKO 90X85X600_S	600	15	270	1,0	2,32	<a href="#">8595057637078</a>
⊕ VKO 90X110X150_S	150	12	295	0,6	0,38	<a href="#">8595057633681</a>
● VKO 90X110X200_S	200	12	295	0,8	0,72	<a href="#">8595057637085</a>
● VKO 90X110X300_S	300	12	295	1,0	1,30	<a href="#">8595057633278</a>
● VKO 90X110X400_S	400	15	295	1,0	1,72	<a href="#">8595057637108</a>
● VKO 90X110X500_S	500	15	295	1,0	2,12	<a href="#">8595057633261</a>
⊕ VKO 90X110X600_S	600	15	295	1,0	2,52	<a href="#">8595057637115</a>
● VKO 90X60X50_ZM	50	12	245	0,75	0,20	8595568938244
● VKO 90X60X100_ZM	100	12	245	0,75	0,31	8595568938251
● VKO 90X60X200_ZM	200	12	245	0,75	0,55	8595568938268
● VKO 90X60X300_ZM	300	12	245	1,0	1,07	8595568938275

item	A	H	B	‡	‡	EAN
⊕ VKO 90X35X50_F	50	12	220	0,8	0,23	<a href="#">8595057659889</a>
⊕ VKO 90X35X75_F	75	12	220	0,8	0,28	<a href="#">8595057659896</a>
⊕ VKO 90X35X100_F	100	12	220	0,8	0,35	<a href="#">8595057659902</a>
⊕ VKO 90X35X150_F	150	12	220	0,8	0,49	<a href="#">8595057659919</a>
⊕ VKO 90X35X200_F	200	12	220	0,8	0,63	<a href="#">8595057659926</a>
⊕ VKO 90X35X300_F	300	12	220	1,0	1,15	<a href="#">8595057659940</a>
⊕ VKO 90X35X400_F	400	15	220	1,0	1,52	<a href="#">8595057659957</a>
⊕ VKO 90X35X500_F	500	15	220	1,0	1,87	<a href="#">8595057659964</a>
⊕ VKO 90X35X600_F	600	15	220	1,0	2,18	<a href="#">8595057660144</a>
⊕ VKO 90X60X50_F	50	12	245	0,8	0,23	<a href="#">8595057659971</a>
⊕ VKO 90X60X75_F	75	12	245	0,8	0,31	<a href="#">8595057659988</a>
⊕ VKO 90X60X100_F	100	12	245	0,8	0,39	<a href="#">8595057650732</a>
⊕ VKO 90X60X150_F	150	12	245	0,8	0,54	<a href="#">8595057659995</a>
⊕ VKO 90X60X200_F	200	12	245	0,8	0,70	<a href="#">8595057650749</a>
⊕ VKO 90X60X300_F	300	12	245	1,0	1,01	<a href="#">8595057660014</a>
⊕ VKO 90X60X400_F	400	15	245	1,0	1,68	<a href="#">8595057660021</a>
⊕ VKO 90X60X500_F	500	15	245	1,0	2,07	<a href="#">8595057660038</a>
⊕ VKO 90X60X600_F	600	15	245	1,0	2,52	<a href="#">8595057660045</a>
⊕ VKO 90X85X100_F	100	12	270	0,8	0,43	<a href="#">8595057660052</a>
⊕ VKO 90X85X150_F	150	12	270	0,8	0,65	<a href="#">8595057660069</a>
⊕ VKO 90X85X200_F	200	12	270	0,8	0,77	<a href="#">8595057660076</a>
⊕ VKO 90X85X300_F	300	12	270	1,0	1,39	<a href="#">8595057660090</a>
⊕ VKO 90X85X400_F	400	15	270	1,0	1,84	<a href="#">8595057660106</a>
⊕ VKO 90X85X500_F	500	15	270	1,0	2,26	<a href="#">8595057660113</a>
⊕ VKO 90X85X600_F	600	15	270	1,0	2,69	<a href="#">8595057660120</a>
⊕ VKO 90X110X150_F	150	12	295	0,8	0,05	<a href="#">8595057659827</a>
⊕ VKO 90X110X200_F	200	12	295	0,8	0,83	<a href="#">8595057659834</a>
⊕ VKO 90X110X300_F	300	12	295	1,0	1,51	<a href="#">8595057659841</a>
⊕ VKO 90X110X400_F	400	15	295	1,0	1,99	<a href="#">8595057659858</a>
⊕ VKO 90X110X500_F	500	15	295	1,0	2,46	<a href="#">8595057659865</a>
⊕ VKO 90X110X600_F	600	15	295	1,0	2,92	<a href="#">8595057659872</a>



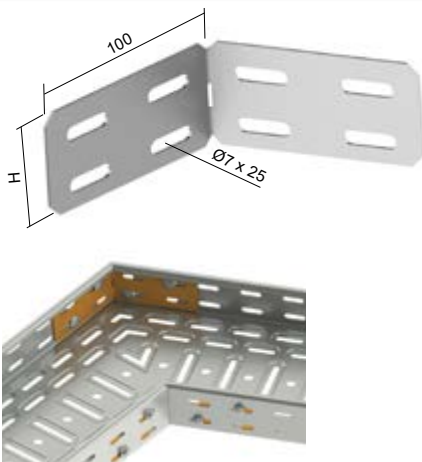
**hinged joint**



- ▶ For the connection of the hinged joint to the tray there are used the bolts NSM 6X10 (pg. 37).
- ▶ The joint is delivered in 1 piece per packing, 2 pcs are needed to make a bend of the line.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	H	†	‡	§	EAN
●	SK 35_S	28	0,8	0,09	4	<a href="#">8595057638136</a>
●	SK 60_S	53	0,8	0,10	4	<a href="#">8595057627772</a>
⊕	SK 85_S	78	1,2	0,24	8	<a href="#">8595057630413</a>
●	SK 110_S	103	1,2	0,35	8	<a href="#">8595057633384</a>
⊕	SK 35_GMT	28	1,0	0,11	4	<a href="#">8595568925992</a>
●	SK 60_GMT	53	1,0	0,13	4	<a href="#">8595568926029</a>
⊕	SK 85_GMT	78	1,2	0,24	8	<a href="#">8595568926036</a>
●	SK 110_GMT	103	1,2	0,35	8	<a href="#">8595568926050</a>
●	SK 60_ZM	53	0,8	0,10	4	8595568938060

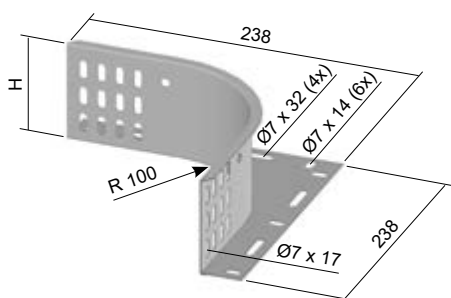
**angle coupling**



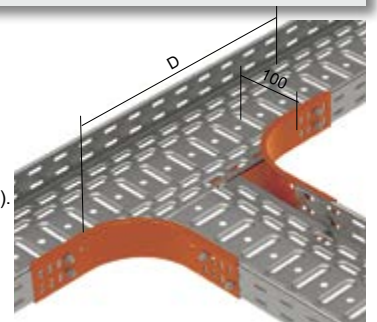
- ▶ Angle couplings are used to create any angle, mainly for connecting in places of a slight bend in the route or for creating arcs of large radii or bypassing columns and pillars.
- ▶ The connection is performed using the bolts NSM 6X10 (pg. 37).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	H	†	‡	§	EAN
⊕	SSU 35_S	25	1,2	0,04	4	<a href="#">8595568936684</a>
●	SSU 60_S	50	1,5	0,11	4	<a href="#">8595568936691</a>
⊕	SSU 85_S	75	1,5	0,16	6	<a href="#">8595568936707</a>
⊕	SSU 110_S	100	1,5	0,23	8	<a href="#">8595568936714</a>
⊕	SSU 35_GMT	25	1,2	0,07	4	<a href="#">8595568936721</a>
⊕	SSU 60_GMT	50	1,5	0,12	4	<a href="#">8595568936738</a>
⊕	SSU 85_GMT	75	1,5	0,18	6	<a href="#">8595568936745</a>
⊕	SSU 110_GMT	100	1,5	0,30	8	<a href="#">8595568936752</a>
●	SSU 60_ZM	50	1,5	0,11	4	8595568938084

**reduction piece**



- ▶ It is used for making an additional branching use an unequal T-piece or cross.
- ▶ Advantage of this using is availability to choose bending tray with any width.
- ▶ The reduction piece is delivered in singles, must be used 2 pieces for installation.
- ▶ The connection is performed using the bolts NSM 6X10 (pg. 37).
- ▶ The cover of a horizontal VOH branch (pg. 13) can be used to cover routes with a reduction piece.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



length of cut out side wall of the tray	
<b>branch to a channel</b>	<b>D</b>
KZI ...X50	250
KZI ...X100	300
KZI ...X150	350
KZI ...X200	400
KZI ...X300	500
KZI ...X400	600
KZI ...X500	700
KZI ...X600	800

	item	H	†	‡	§	EAN
●	SU 35_S	35	1,0	0,23	4	<a href="#">8595057638129</a>
●	SU 60_S	60	1,0	0,30	8	<a href="#">8595057628380</a>
⊕	SU 85_S	85	1,0	0,36	8	<a href="#">8595057630390</a>
●	SU 110_S	110	1,0	0,44	8	<a href="#">8595057633391</a>
⊕	SU 35_F	35	1,0	0,27	4	<a href="#">8595057658585</a>
●	SU 60_F	60	1,0	0,34	8	<a href="#">8595057658592</a>
⊕	SU 85_F	85	1,0	0,42	8	<a href="#">8595057658608</a>
⊕	SU 110_F	110	1,0	0,51	8	<a href="#">8595057658615</a>
●	SU 60_ZM	60	1,0	0,30	4	8595568938091

† thickness of metal sheet (mm) ● standard  
§ amount of bolts for connection ⊕ to order

‡ weight kg/pcs

GMT non electrolytic plating  
ZM Zn+Mg+Al galvanizing

F Hot Dip Galvanized  
S Pre-Galvanized

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2

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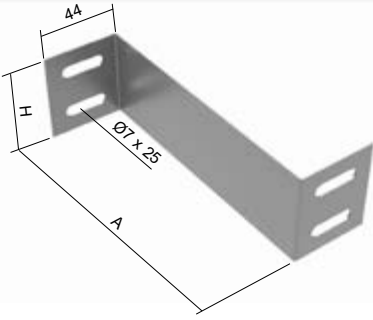
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index

reduction



- ▶ The fastening of the joint is performed with the bolts NSM 6X10 (pg. 37).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	H	A	‡	‡	‡	‡	EAN
● SR 35X25_S	25	25	1,0	0,018	2		<a href="#">8595057638310</a>
● SR 35X50_S	25	50	1,0	0,023	2		<a href="#">8595057638327</a>
● SR 35X75_S	25	75	1,0	0,028	2		<a href="#">8595057638334</a>
● SR 35X100_S	25	100	1,0	0,033	2		<a href="#">8595057638341</a>
● SR 35X125_S	25	125	1,0	0,038	2		<a href="#">8595057638358</a>
● SR 35X150_S	25	150	1,0	0,043	2		<a href="#">8595057638365</a>
● SR 35X200_S	25	200	1,0	0,053	2		<a href="#">8595057638372</a>
● SR 35X250_S	25	250	1,0	0,063	2		<a href="#">8595057638389</a>
● SR 35X300_S	25	300	1,0	0,073	2		<a href="#">8595057638396</a>
● SR 35X350_S	25	350	1,0	0,083	2		<a href="#">8595057638402</a>
● SR 35X400_S	25	400	1,0	0,093	2		<a href="#">8595057638419</a>
● SR 60X25_S	50	25	1,0	0,038	4		<a href="#">8595057638426</a>
● SR 60X50_S	50	50	1,0	0,048	4		<a href="#">8595057633582</a>
● SR 60X75_S	50	75	1,0	0,058	4		<a href="#">8595057638433</a>
● SR 60X100_S	50	100	1,0	0,068	4		<a href="#">8595057631755</a>
● SR 60X125_S	50	125	1,0	0,078	4		<a href="#">8595057638440</a>
● SR 60X150_S	50	150	1,0	0,088	4		<a href="#">8595057638457</a>
● SR 60X200_S	50	200	1,0	0,108	4		<a href="#">8595057638464</a>
● SR 60X250_S	50	250	1,0	0,128	4		<a href="#">8595057638471</a>
● SR 60X300_S	50	300	1,0	0,148	4		<a href="#">8595057638488</a>
● SR 60X350_S	50	350	1,0	0,168	4		<a href="#">8595057638495</a>
● SR 60X400_S	50	400	1,0	0,188	4		<a href="#">8595057638501</a>
⊕ SR 85X25_S	75	25	1,0	0,058	4		<a href="#">8595057638518</a>
⊕ SR 85X50_S	75	50	1,0	0,073	4		<a href="#">8595057633377</a>
⊕ SR 85X75_S	75	75	1,0	0,088	4		<a href="#">8595057638525</a>
⊕ SR 85X100_S	75	100	1,0	0,103	4		<a href="#">8595057630376</a>
⊕ SR 85X125_S	75	125	1,0	0,118	4		<a href="#">8595057638532</a>
⊕ SR 85X150_S	75	150	1,0	0,133	4		<a href="#">8595057638549</a>
⊕ SR 85X200_S	75	200	1,0	0,163	4		<a href="#">8595057638556</a>
⊕ SR 85X250_S	75	250	1,0	0,193	4		<a href="#">8595057638563</a>
⊕ SR 85X300_S	75	300	1,0	0,223	4		<a href="#">8595057638570</a>
⊕ SR 85X350_S	75	350	1,0	0,253	4		<a href="#">8595057638594</a>
⊕ SR 85X400_S	75	400	1,0	0,283	4		<a href="#">8595057638587</a>
● SR 110X25_S	100	25	1,0	0,077	4		<a href="#">8595057638600</a>
● SR 110X50_S	100	50	1,0	0,097	4		<a href="#">8595057632820</a>
● SR 110X75_S	100	75	1,0	0,117	4		<a href="#">8595057638617</a>
● SR 110X100_S	100	100	1,0	0,137	4		<a href="#">8595057633360</a>
● SR 110X125_S	100	125	1,0	0,157	4		<a href="#">8595057638624</a>
● SR 110X150_S	100	150	1,0	0,177	4		<a href="#">8595057633766</a>
● SR 110X200_S	100	200	1,0	0,217	4		<a href="#">8595057633759</a>
● SR 110X250_S	100	250	1,0	0,257	4		<a href="#">8595057638631</a>
● SR 110X300_S	100	300	1,0	0,297	4		<a href="#">8595057638648</a>
● SR 110X350_S	100	350	1,0	0,337	4		<a href="#">8595057638655</a>
● SR 110X400_S	100	400	1,0	0,377	4		<a href="#">8595057638662</a>

item	H	A	‡	‡	‡	‡	EAN
⊕ SR 35X25_F	25	25	1,0	0,021	2		<a href="#">8595057664975</a>
⊕ SR 35X50_F	25	50	1,0	0,027	2		<a href="#">8595057665286</a>
⊕ SR 35X75_F	25	75	1,0	0,033	2		<a href="#">8595057664982</a>
⊕ SR 35X100_F	25	100	1,0	0,038	2		<a href="#">8595057664999</a>
⊕ SR 35X125_F	25	125	1,0	0,044	2		<a href="#">8595057665002</a>
⊕ SR 35X150_F	25	150	1,0	0,044	2		<a href="#">8595057665019</a>
⊕ SR 35X200_F	25	200	1,0	0,062	2		<a href="#">8595057665026</a>
⊕ SR 35X250_F	25	250	1,0	0,073	2		<a href="#">8595057665033</a>
⊕ SR 35X300_F	25	300	1,0	0,085	2		<a href="#">8595057665040</a>
⊕ SR 35X350_F	25	350	1,0	0,096	2		<a href="#">8595057665057</a>
⊕ SR 35X400_F	25	400	1,0	0,108	2		<a href="#">8595057665064</a>
⊕ SR 60X25_F	50	25	1,0	0,044	4		<a href="#">8595057665071</a>
⊕ SR 60X50_F	50	50	1,0	0,056	4		<a href="#">8595057665088</a>
⊕ SR 60X75_F	50	75	1,0	0,067	4		<a href="#">8595057665095</a>
⊕ SR 60X100_F	50	100	1,0	0,079	4		<a href="#">8595057650664</a>
⊕ SR 60X125_F	50	125	1,0	0,091	4		<a href="#">8595057665101</a>
⊕ SR 60X150_F	50	150	1,0	0,102	4		<a href="#">8595057665118</a>
⊕ SR 60X200_F	50	200	1,0	0,125	4		<a href="#">8595057665125</a>
⊕ SR 60X250_F	50	250	1,0	0,149	4		<a href="#">8595057665132</a>
⊕ SR 60X300_F	50	300	1,0	0,172	4		<a href="#">8595057665149</a>
⊕ SR 60X350_F	50	350	1,0	0,195	4		<a href="#">8595057665156</a>
⊕ SR 60X400_F	50	400	1,0	0,218	4		<a href="#">8595057665163</a>
⊕ SR 85X25_F	75	25	1,0	0,067	4		<a href="#">8595057665170</a>
⊕ SR 85X50_F	75	50	1,0	0,085	4		<a href="#">8595057665187</a>
⊕ SR 85X75_F	75	75	1,0	0,102	4		<a href="#">8595057665194</a>
⊕ SR 85X100_F	75	100	1,0	0,120	4		<a href="#">8595057665200</a>
⊕ SR 85X125_F	75	125	1,0	0,137	4		<a href="#">8595057665217</a>
⊕ SR 85X150_F	75	150	1,0	0,154	4		<a href="#">8595057665224</a>
⊕ SR 85X200_F	75	200	1,0	0,189	4		<a href="#">8595057665231</a>
⊕ SR 85X250_F	75	250	1,0	0,224	4		<a href="#">8595057665248</a>
⊕ SR 85X300_F	75	300	1,0	0,258	4		<a href="#">8595057665255</a>
⊕ SR 85X350_F	75	350	1,0	0,294	4		<a href="#">8595057665262</a>
⊕ SR 85X400_F	75	400	1,0	0,328	4		<a href="#">8595057665279</a>
⊕ SR 110X25_F	100	25	1,0	0,089	4		<a href="#">8595057664869</a>
⊕ SR 110X50_F	100	50	1,0	0,113	4		<a href="#">8595057664876</a>
⊕ SR 110X75_F	100	75	1,0	0,138	4		<a href="#">8595057664883</a>
⊕ SR 110X100_F	100	100	1,0	0,159	4		<a href="#">8595057664890</a>
⊕ SR 110X125_S	100	125	1,0	0,182	4		<a href="#">8595057664906</a>
⊕ SR 110X150_F	100	150	1,0	0,205	4		<a href="#">8595057664913</a>
⊕ SR 110X200_F	100	200	1,0	0,252	4		<a href="#">8595057664920</a>
⊕ SR 110X250_F	100	250	1,0	0,298	4		<a href="#">8595057664937</a>
⊕ SR 110X300_F	100	300	1,0	0,345	4		<a href="#">8595057664944</a>
⊕ SR 110X350_F	100	350	1,0	0,391	4		<a href="#">8595057664951</a>
⊕ SR 110X400_F	100	400	1,0	0,440	4		<a href="#">8595057664968</a>

‡ thickness of metal sheet (mm)

‡ weight kg/pcs

● standard

‡ amount of bolts for connection

⊕ to order

F Hot Dip Galvanized

S Pre-Galvanized

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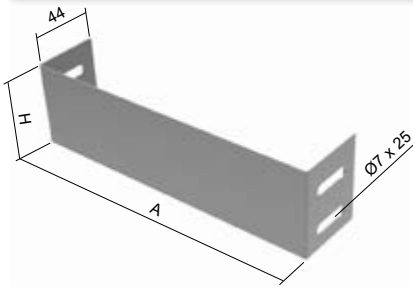
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end-piece



- ▶ The connection is performed using the bolts NSM 6X10 (pg. 37).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



	item	H	A	†	‡	⌘	EAN
●	K 35X50_S	30	50	1,0	0,028	2	<a href="#">8595057633520</a>
●	K 35X75_S	30	75	1,0	0,034	2	<a href="#">8595057638143</a>
●	K 35X100_S	30	100	1,0	0,040	2	<a href="#">8595057638150</a>
●	K 35X150_S	30	150	1,0	0,052	2	<a href="#">8595057638167</a>
●	K 35X200_S	30	200	1,0	0,064	2	<a href="#">8595057638174</a>
●	K 35X300_S	30	300	1,0	0,088	2	<a href="#">8595057638198</a>
⊕	K 35X400_S	30	400	1,0	0,112	2	<a href="#">8595057638204</a>
⊕	K 35X500_S	30	500	1,0	0,136	2	<a href="#">8595057638211</a>
⊕	K 35X600_S	30	600	1,0	0,160	2	<a href="#">8595057638228</a>
●	K 60X50_S	55	50	1,0	0,052	4	<a href="#">8595057638235</a>
●	K 60X75_S	55	75	1,0	0,063	4	<a href="#">8595057635470</a>
●	K 60X100_S	55	100	1,0	0,074	4	<a href="#">8595057629974</a>
●	K 60X150_S	55	150	1,0	0,096	4	<a href="#">8595057629981</a>
●	K 60X200_S	55	200	1,0	0,118	4	<a href="#">8595057629998</a>
●	K 60X300_S	55	300	1,0	0,162	4	<a href="#">8595057629639</a>
●	K 60X400_S	55	400	1,0	0,206	4	<a href="#">8595057630017</a>
●	K 60X500_S	55	500	1,0	0,250	4	<a href="#">8595057636453</a>
●	K 60X600_S	55	600	1,0	0,294	4	<a href="#">8595057638242</a>
⊕	K 85X100_S	80	100	1,0	0,107	4	<a href="#">8595057630383</a>
⊕	K 85X150_S	80	150	1,0	0,139	4	<a href="#">8595057629943</a>
⊕	K 85X200_S	80	200	1,0	0,171	4	<a href="#">8595057629417</a>
⊕	K 85X300_S	80	300	1,0	0,235	4	<a href="#">8595057629967</a>
⊕	K 85X400_S	80	400	1,0	0,299	4	<a href="#">8595057629387</a>
⊕	K 85X500_S	80	500	1,0	0,363	4	<a href="#">8595057638259</a>
⊕	K 85X600_S	80	600	1,0	0,427	4	<a href="#">8595057638266</a>
⊕	K 110X150_S	105	150	1,0	0,183	4	<a href="#">8595057633742</a>
●	K 110X200_S	105	200	1,0	0,225	4	<a href="#">8595057638273</a>
●	K 110X300_S	105	300	1,0	0,309	4	<a href="#">8595057633735</a>
●	K 110X400_S	105	400	1,0	0,393	4	<a href="#">8595057638297</a>
●	K 110X500_S	105	500	1,0	0,477	4	<a href="#">8595057633728</a>
⊕	K 110X600_S	105	600	1,0	0,560	4	<a href="#">8595057638303</a>

	item	H	A	†	‡	⌘	EAN
⊕	K 35X50_F	30	50	1,0	0,033	2	<a href="#">8595057660151</a>
⊕	K 35X75_F	30	75	1,0	0,039	2	<a href="#">8595057660168</a>
⊕	K 35X100_F	30	100	1,0	0,046	2	<a href="#">8595057660175</a>
⊕	K 35X150_F	30	150	1,0	0,060	2	<a href="#">8595057660182</a>
⊕	K 35X200_F	30	200	1,0	0,074	2	<a href="#">8595057660199</a>
⊕	K 35X300_F	30	300	1,0	0,102	2	<a href="#">8595057660212</a>
⊕	K 35X400_F	30	400	1,0	0,130	2	<a href="#">8595057660229</a>
⊕	K 35X500_F	30	500	1,0	0,158	2	<a href="#">8595057660236</a>
⊕	K 35X600_F	30	600	1,0	0,186	2	<a href="#">8595057660243</a>
⊕	K 60X50_F	55	50	1,0	0,060	4	<a href="#">8595057660250</a>
⊕	K 60X75_F	55	75	1,0	0,076	4	<a href="#">8595057660267</a>
⊕	K 60X100_F	55	100	1,0	0,086	4	<a href="#">8595057660274</a>
⊕	K 60X150_F	55	150	1,0	0,110	4	<a href="#">8595057660281</a>
⊕	K 60X200_F	55	200	1,0	0,137	4	<a href="#">8595057660298</a>
⊕	K 60X300_F	55	300	1,0	0,188	4	<a href="#">8595057660311</a>
⊕	K 60X400_F	55	400	1,0	0,239	4	<a href="#">8595057660328</a>
⊕	K 60X500_F	55	500	1,0	0,290	4	<a href="#">8595057660335</a>
⊕	K 60X600_F	55	600	1,0	0,341	4	<a href="#">8595057660342</a>
⊕	K 85X100_F	80	100	1,0	0,124	4	<a href="#">8595057660359</a>
⊕	K 85X150_F	80	150	1,0	0,161	4	<a href="#">8595057660366</a>
⊕	K 85X200_F	80	200	1,0	0,198	4	<a href="#">8595057660373</a>
⊕	K 85X300_F	80	300	1,0	0,272	4	<a href="#">8595057660397</a>
⊕	K 85X400_F	80	400	1,0	0,347	4	<a href="#">8595057660403</a>
⊕	K 85X500_F	80	500	1,0	0,421	4	<a href="#">8595057660410</a>
⊕	K 85X600_F	80	600	1,0	0,495	4	<a href="#">8595057660427</a>
⊕	K 110X150_F	105	150	1,0	0,212	4	<a href="#">8595057660434</a>
⊕	K 110X200_F	105	200	1,0	0,261	4	<a href="#">8595057660441</a>
⊕	K 110X300_F	105	300	1,0	0,358	4	<a href="#">8595057660465</a>
⊕	K 110X400_F	105	400	1,0	0,456	4	<a href="#">8595057660472</a>
⊕	K 110X500_F	105	500	1,0	0,550	4	<a href="#">8595057660489</a>
⊕	K 110X600_F	105	600	1,0	0,651	4	<a href="#">8595057660496</a>

† thickness of metal sheet (mm)    ‡ weight kg/pcs    ● standard  
 ⌘ amount of bolts for connection    ⊕ to order

F Hot Dip Galvanized  
 S Pre-Galvanized

1

2

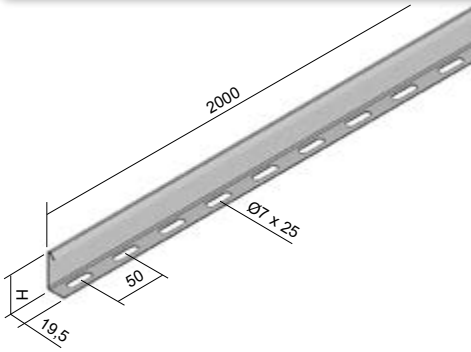
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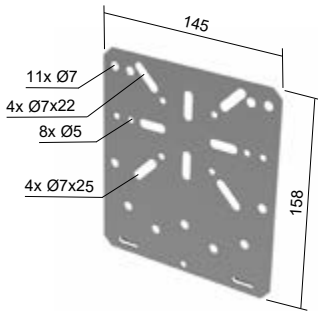
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**partition**


- ▶ The standard length of the partition is 2 m.
- ▶ The connection is performed using the bolts NSM 6X10 (pg. 37), 2 pcs per 1 meter.
- ▶ The partition is used to separate cables in cable trays.
- ▶ In term of electrical compatibility, it is also used for dividing several types of lines. It is recommended to use covers for this type of installation and make the covered and shielded room.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	H	‡	‡	EAN
● P 35_S	29	0,8	0,34	<a href="#">8595057639515</a>
● P 60_S	54	0,8	0,50	<a href="#">8595057627734</a>
● P 85_S	79	0,8	0,66	<a href="#">8595057633414</a>
● P 110_S	104	0,8	0,81	<a href="#">8595057633407</a>
☺ P 35_F	29	1,0	0,48	<a href="#">8595057663428</a>
● P 60_F	54	1,0	0,72	<a href="#">8595057663435</a>
☺ P 85_F	79	1,0	0,95	<a href="#">8595057663442</a>
☺ P 110_F	104	1,0	1,18	<a href="#">8595057663411</a>

**mounting plate**


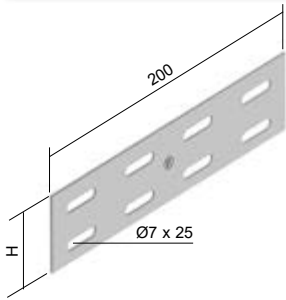
- ▶ For mounting distribution boxes to the cable trays up to a sidewall height of 60 mm.
- ▶ It is pushed on to the side of cable trays and it is fixed by screws NSM 6X10 (pg. 37).
- ▶ Recommended for boxes KSK 80, KSK 100, KSK 125, KSK 175; 8101; 8102; 8106; 8107; 8110; 8111; 8112; 8130; 8135; 003.CS.K; 005.CS.K (see catalogue of Wiring materials).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	‡	‡	EAN
● MDS_S	1,0	0,165	<a href="#">8595057631762</a>
☺ MDS_GMT	1,0	0,170	<a href="#">8595568927422</a>





**coupling**

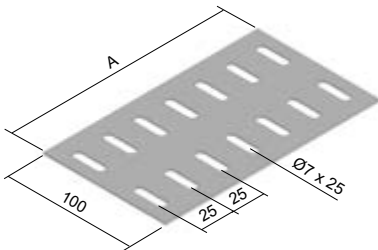


- ▶ Used to connect trays with no built-in connector or if the connector has been removed. Connectors can be bent to create an angled branch.
- ▶ Attached using NSM 6X10 screws (pg. 37), that meet the requirement for conductive bonding.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



	item	H	t	‡	⌘	EAN
●	S 35X200_S	25	1,2	0,04	4	<a href="#">8595057630444</a>
●	S 60X200_S	50	1,5	0,11	4	<a href="#">8595057627796</a>
⊕	S 85X200_S	75	1,5	0,16	6	<a href="#">8595057629769</a>
●	S 110X200_S	100	1,5	0,23	8	<a href="#">8595057629752</a>
⊕	S 35X200_GMT	25	1,2	0,07	4	<a href="#">8595568926067</a>
●	S 60X200_GMT	50	1,5	0,12	4	<a href="#">8595568926081</a>
⊕	S 85X200_GMT	75	1,5	0,18	6	<a href="#">8595568926098</a>
⊕	S 110X200_GMT	100	1,5	0,30	8	<a href="#">8595568926104</a>
●	S 60X200_ZM	50	1,5	0,11	4	<a href="#">8595568938046</a>

**reinforcement plate**



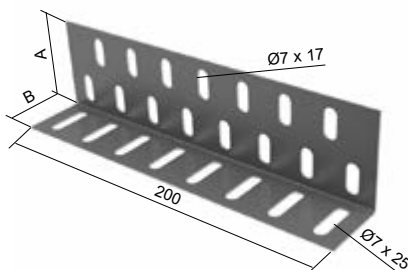
- ▶ Is used for reinforcing the tray connections without integrated coupling.
- ▶ It is fastened by the bolts NSM 6X10 (pg. 37) to the tray bottom.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



	item	A	t	‡	⌘	EAN
●	DV 75_S	68	1,5	0,07	4	<a href="#">8595057638686</a>
●	DV 100_S	75	1,5	0,08	4	<a href="#">8595057638693</a>
●	DV 150_S	125	1,5	0,13	4	<a href="#">8595057633780</a>
●	DV 200_S	175	1,5	0,18	6	<a href="#">8595057638709</a>
●	DV 300_S	275	1,5	0,29	6	<a href="#">8595057633773</a>
●	DV 400_S	375	1,5	0,39	8	<a href="#">8595057638723</a>
⊕	DV 500_S	475	1,5	0,49	8	<a href="#">8595057638846</a>
⊕	DV 600_S	575	1,5	0,60	8	<a href="#">8595057638853</a>

	item	A	t	‡	⌘	EAN
⊕	DV 75_GMT	68	1,5	0,08	4	<a href="#">8595568926128</a>
⊕	DV 100_GMT	75	1,5	0,09	4	<a href="#">8595568926135</a>
⊕	DV 150_GMT	125	1,5	0,15	4	<a href="#">8595568926142</a>
⊕	DV 200_GMT	175	1,5	0,21	6	<a href="#">8595568926159</a>
⊕	DV 300_GMT	275	1,5	0,33	6	<a href="#">8595568926166</a>
⊕	DV 400_GMT	375	1,5	0,46	8	<a href="#">8595568926173</a>
⊕	DV 500_GMT	475	1,5	0,59	8	<a href="#">8595568926180</a>
⊕	DV 600_GMT	575	1,5	0,70	8	<a href="#">8595568926197</a>

**supporting corner**



- ▶ Designated for the increase of the stability of the cable tray.
- ▶ It is fastened by the bolt NSM 6X10 (pg. 37).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



	item	A	B	t	‡	⌘	EAN
●	UP 35X42_S	36	28	1,2	0,10	4	<a href="#">8595057638099</a>
●	UP 60X85_S	36	53	1,2	0,14	6	<a href="#">8595057638105</a>
⊕	UP 110_S	36	78	1,2	0,18	8	<a href="#">8595057638112</a>
⊕	UP 35X42_F	36	28	1,2	0,12	4	<a href="#">8595057662391</a>
⊕	UP 60X85_F	36	53	1,2	0,16	6	<a href="#">8595057650954</a>
⊕	UP 110_F	36	78	1,2	0,21	8	<a href="#">8595057662384</a>

t thickness of metal sheet (mm) ‡ weight kg/pcs  
‡ weight kg/pcs | weight kg/m

● standard  
⊕ to order

GMT non electrolytic plating  
ZM Zn+Mg+Al galvanizing

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

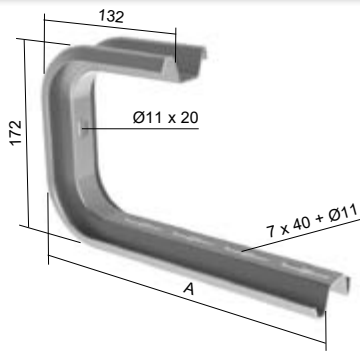
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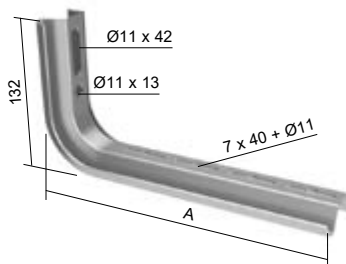
index

**hang clamp**


- ▶ Designated for direct mounting to the ceiling or with a threaded rod ZT 8 or ZT 10.
- ▶ The cable tray is fixed by using the bolts NSM 6X10.
- ▶ To eliminate deformation during assembly the STS reinforcement is designated.
- ▶ The installation is done by the anchors KPO 10X95 or KKZ 10, bolts S 10X40 and washers PD 10.



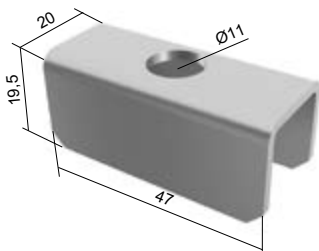
	item	A	±	± with a threaded rod	‡	EAN
●	CTS 100_S	161	95	200	0,51	<a href="#">8595057629592</a>
●	CTS 200_S	261	70	170	0,64	<a href="#">8595057630222</a>
●	CTS 300_S	361	50	110	0,76	<a href="#">8595057630239</a>

**bracket**


- ▶ The cable tray is fixed by using the bolts NSM 6X10.
- ▶ LTS 100 - LTS 400 holders are used on the wall or on the ceiling profile.
- ▶ LTS 500 - LTS 600 holders are used as ceiling profiles.
- ▶ To eliminate deformation during assembly the STS reinforcement is designated.
- ▶ The installation is done by the anchors KPO 10X95 or KKZ 10, bolts S 10X40 and washers PD 10.



	item	A	±	‡	EAN
●	LTS 100_S	163	150	0,34	<a href="#">8595057639690</a>
●	LTS 150_S	213	120	0,40	<a href="#">8595057639706</a>
●	LTS 200_S	263	110	0,46	<a href="#">8595057639713</a>
●	LTS 300_S	363	75	0,59	<a href="#">8595057630840</a>
●	LTS 400_S	463	50	0,75	<a href="#">8595057634091</a>
⌚	LTS 500_S	563	-	0,82	<a href="#">8595057639737</a>
⌚	LTS 600_S	663	-	0,94	<a href="#">8595057639744</a>

**reinforcement piece for LTS and CTS profile**


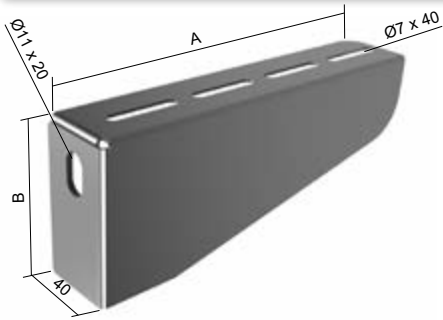
- ▶ For assembly onto a wall 1 piece, for double assembly 2 pieces back to back.

	item	‡	EAN
●	STS_S	0,04	<a href="#">8595057639751</a>





**bracket - light**

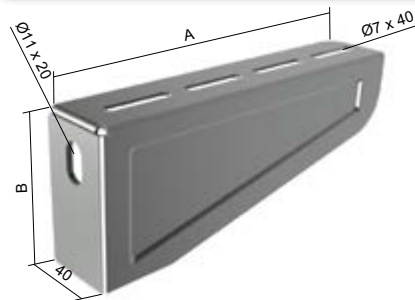


- ▶ The holder is intended for fixing on the wall or on the ceiling profile.
- ▶ For mounting on the ceiling profile SPL, the sliding nuts PM 41 M 10 (pg. 41) will be used together with bolt S 10X20.
- ▶ Fix to the ceiling profile SPLN, SPSN or SPU using bolts S 10X20, nuts M 10 and washer PD 10.
- ▶ Cable tray will be attached to the holder using the bolts NSM 6X10 (pg. 37).

item	A	B	±	‡	EAN
● DLN 100_S	110	60	60	0,16	<a href="#">8595568916662</a>
● DLN 150_S	160	60	60	0,22	<a href="#">8595568916679</a>
● DLN 200_S	210	80	60	0,30	<a href="#">8595568916686</a>
● DLN 300_S	310	85	60	0,43	<a href="#">8595568916693</a>



**bracket - medium**

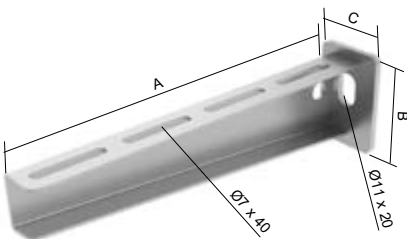


- ▶ The holder is intended for fixing on the wall or on the ceiling profile.
- ▶ For mounting on the ceiling profile SPL, the sliding nuts PM 41 M 10 (pg. 41) will be used together with bolt S 10X20.
- ▶ Fix to the ceiling profile SPLN, SPSN or SPU using bolts S 10X20, nuts M 10 and washer PD 10.
- ▶ Cable tray will be attached to the holder using the bolts NSM 6X10 (pg. 37).

item	A	B	±	‡	EAN
● DSN 100_S	110	60	120	0,16	<a href="#">8595568916709</a>
● DSN 200_S	210	80	120	0,30	<a href="#">8595568916716</a>
● DSN 300_S	320	82	150	0,44	<a href="#">8595568916723</a>
● DSN 400_S	420	82	150	0,50	<a href="#">8595568916730</a>
● DSN 500_S	510	115	120	1,06	<a href="#">8595568916747</a>
● DSN 600_S	610	115	120	1,46	<a href="#">8595568916754</a>
● DSN 100_F	110	60	120	0,18	<a href="#">8595568916761</a>
● DSN 200_F	210	80	120	0,33	<a href="#">8595568916778</a>
● DSN 300_F	320	82	150	0,48	<a href="#">8595568916785</a>
● DSN 400_F	420	82	150	0,55	<a href="#">8595568916792</a>

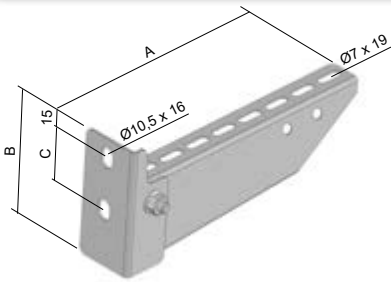


**bracket - heavy**



- ▶ The holder is designated to be mounted on wall or ceiling profile.
- ▶ Fix to the ceiling profile SPLN, SPSN or SPU using bolt S 10X20, nuts M 10 and washer PD 10.
- ▶ Fix to the ceiling profile SPL or SPS using sliding nut PM 41 M 10 together with the bolt S 10X20.
- ▶ Cable tray attaching to the bracket is carried out by bolts NSM 6X10.

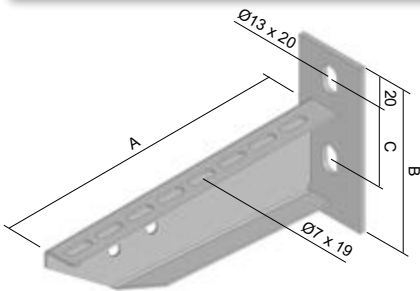
item	A	B	C	±	‡	EAN
⊕ DTN 100_F	110	45	40	250	0,14	<a href="#">8595568916808</a>
⊕ DTN 150_F	160	45	40	250	0,17	<a href="#">8595568916815</a>
⊕ DTN 200_F	210	55	40	250	0,25	<a href="#">8595568916822</a>
⊕ DTN 250_F	260	55	40	250	0,30	<a href="#">8595568916839</a>
⊕ DTN 300_F	310	65	50	250	0,56	<a href="#">8595568916846</a>
⊕ DTN 400_F	410	75	50	250	0,75	<a href="#">8595568916853</a>
⊕ DTN 500_F	510	90	50	250	1,07	<a href="#">8595568916860</a>
⊕ DTN 600_F	610	90	50	250	1,23	<a href="#">8595568916877</a>

**bracket - medium**


- ▶ The holder is designed to be mounted on a wall or a ceiling profile.
- ▶ Fix to the wall using 2 Ø 8 mm anchors.
- ▶ For assembly to the ceiling profile SPL and SPS there are used the sliding nuts PM 41 M 10 (pg. 41) together with the bolts S 10X20 (2 pcs).
- ▶ Fix to the ceiling profile SPLN, SPSN or SPU using bolts S 10X20, nuts M 10 and washer PD 10.
- ▶ Cable tray attaching to the bracket DS is carried out by bolts NSM 6X10 (pg. 37).



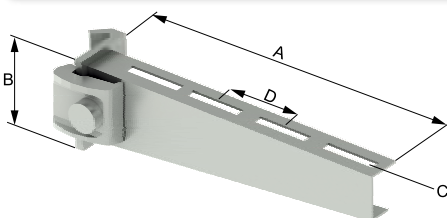
	item	A	B	C	⊥	‡	EAN
●	DS 100_S	118	94	60	180	0,24	<a href="#">8595057632080</a>
●	DS 150_S	168	94	60	160	0,33	<a href="#">8595057633834</a>
●	DS 200_S	218	104	60	150	0,38	<a href="#">8595057632585</a>
●	DS 300_S	318	120	60	160	0,63	<a href="#">8595057628434</a>
●	DS 400_S	418	120	60	160	0,76	<a href="#">8595057628441</a>
●	DS 500_S	518	140	90	160	1,00	<a href="#">8595057628458</a>
●	DS 600_S	618	140	90	150	1,23	<a href="#">8595057636439</a>

**bracket - heavy**


- ▶ The holder is designed to be mounted on a wall or a ceiling profile.
- ▶ Fix to the wall using 2 Ø 10 mm anchors.
- ▶ For assembly to the ceiling profile SPL and SPS there are used the sliding nuts PM 41 M 10 (pg. 41) together with the bolts S 10X20 (2 pcs).
- ▶ Fix to the ceiling profile SPLN, SPSN or SPU using bolts S 10X20, nuts M 10 and washer PD 10.
- ▶ Cable tray attaching to the bracket DT is carried out by bolts NSM 6X10 (pg. 37).



	item	A	B	C	⊥	‡	EAN
●	DT 100_F	120	120	60	250	0,30	<a href="#">8595057631786</a>
●	DT 150_F	170	120	60	250	0,36	<a href="#">8595057632592</a>
●	DT 200_F	220	120	60	250	0,43	<a href="#">8595057631779</a>
●	DT 250_F	270	120	60	250	0,53	<a href="#">8595057636996</a>
●	DT 300_F	320	135	60	325	0,73	<a href="#">8595057628519</a>
●	DT 400_F	420	135	60	325	0,88	<a href="#">8595057628526</a>
●	DT 500_F	520	155	90	350	1,30	<a href="#">8595057628533</a>
●	DT 600_F	620	155	90	350	1,60	<a href="#">8595057628540</a>
⊕	DT 800_F	820	155	90	250	1,90	<a href="#">8595057639904</a>
⊕	DT 1000_F	1020	155	90	180	2,40	<a href="#">8595057639911</a>

**clamp bracket - heavy**


- ▶ Set up for installation on the ceiling profile SPT and on Iprofile 80 mm.
- ▶ Tripping steel square, nut and crew are included.
- ▶ Cable tray attaching to the bracket is carried out by bolts NSM 6X10 (pg. 37).



	item	A	B	C	D	⊥	‡	EAN
⊕	DRT 100_F	115	90	7x20	25	300	0,30	<a href="#">8595057635296</a>
⊕	DRT 150_F	160	55	7x15	25	250	0,40	<a href="#">8595057635302</a>
⊕	DRT 200_F	210	55	7x40	50	250	0,47	<a href="#">8595057639928</a>
⊕	DRT 300_F	310	75	7x40	50	250	0,77	<a href="#">8595057639942</a>
⊕	DRT 400_F	415	117	7x20	25	310	0,85	<a href="#">8595057639959</a>
⊕	DRT 500_F	510	95	7x38	50	250	1,24	<a href="#">8595057639966</a>
⊕	DRT 600_F	610	95	7x38	50	250	1,41	<a href="#">8595057639973</a>

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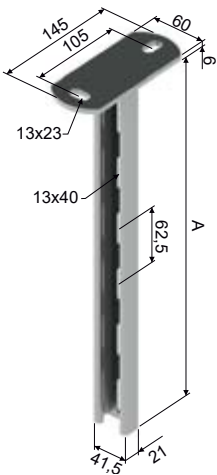
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**ceiling profile - light**

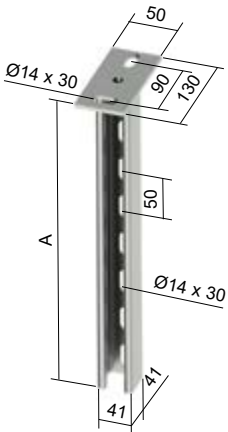


- ▶ Designated for one sided fastening of the brackets DLN, DSN, DS, DT and DTN with the use of sliding nuts PM 41 M 10 and the bolts with a hexagonal head S 10X20 (10X25, 10X30).
- ▶ OKSPL - end seal from PE.

item	A	‡	EAN
● SPL 200_F	214	0,76	<a href="#">8595057628557</a>
● SPL 300_F	304	0,92	<a href="#">8595057632097</a>
● SPL 400_F	424	1,11	<a href="#">8595057628564</a>
● SPL 500_F	514	1,32	<a href="#">8595057635067</a>
● SPL 600_F	604	1,51	<a href="#">8595057628571</a>
● SPL 800_F	814	1,87	<a href="#">8595057634978</a>
● SPL 1000_F	1024	2,26	<a href="#">8595057640061</a>
● SPL 1200_F	1204	2,63	<a href="#">8595057640078</a>
● OKSPL_DB	-	0,01	<a href="#">8595057640870</a>



**ceiling profile - medium**

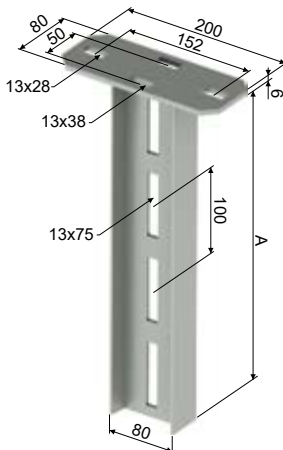


- ▶ Designated for one sided fastening of the brackets DLN, DSN, DS, DT and DTN with the use of sliding nuts PM 41 M 10 and the bolts with a hexagonal head S 10X20 (10X25, 10X30).
- ▶ For double-sided mounting, the brackets are fastened with S 10X70 bolts, M 10 nuts and PD 10 washers.
- ▶ Special surface treatment with higher corrosion resistance than hot-dip galvanizing - smooth, shiny appearance.
- ▶ OKSPS - end seal from PE.

item	A	‡	EAN
● SPS 200_F	207	1,03	<a href="#">8595057640139</a>
● SPS 300_F	307	1,33	<a href="#">8595057633452</a>
● SPS 400_F	407	1,60	<a href="#">8595057628618</a>
● SPS 500_F	507	1,90	<a href="#">8595057640146</a>
● SPS 600_F	607	2,15	<a href="#">8595057628625</a>
● SPS 800_F	757	2,70	<a href="#">8595057628632</a>
● SPS 1000_F	1007	3,25	<a href="#">8595057628649</a>
⊕ SPS 1200_F	1207	3,80	<a href="#">8595057640153</a>
● OKSPS_DB	-	0,01	<a href="#">8595057633841</a>



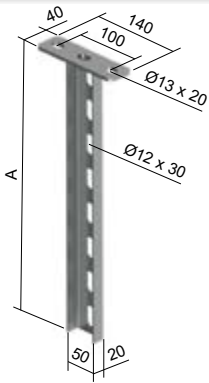
**ceiling profile - heavy**



- ▶ Designated for one sided and double sided fastening of the clamp brackets DRT.
- ▶ Used as a bracket for the ceiling or the floor.
- ▶ OKSPT - end seal from PVC.

item	A	‡	EAN
⊕ SPT 200_F	208	1,80	<a href="#">8595057640221</a>
⊕ SPT 400_F	408	3,05	<a href="#">8595057640238</a>
⊕ SPT 500_F	508	3,60	<a href="#">8595057640245</a>
⊕ SPT 600_F	608	4,20	<a href="#">8595057640252</a>
⊕ SPT 800_F	808	5,50	<a href="#">8595057640269</a>
⊕ SPT 1000_F	1008	6,70	<a href="#">8595057640276</a>
⊕ SPT 1200_F	1208	8,00	<a href="#">8595057640283</a>
⊕ SPT 1500_F	1508	9,90	<a href="#">8595057640290</a>
⊕ SPT 1800_F	1808	12,00	<a href="#">8595057640306</a>
⊕ SPT 2000_F	2008	13,30	<a href="#">8595057640313</a>
⊕ OKSPT_EB	-	0,02	<a href="#">8595057650022</a>

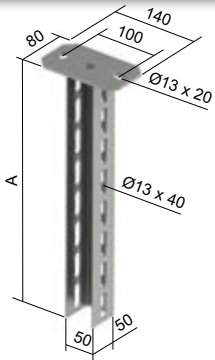


**ceiling profile - light**


- ▶ Designated for hanging at the ceiling or fixing to the floor.
- ▶ Using bolts S 10X20, nuts M 10 and washers PD 10 fixing bracket DLN, DSN, DS, DT and DTN.
- ▶ OKSPLN – protective cover made from PVC.

	item	A	‡	EAN
⊕	<b>SPLN 200_F</b>	201	0,48	<a href="#">8595568920256</a>
⊕	<b>SPLN 250_F</b>	255	0,54	<a href="#">8595568920263</a>
⊕	<b>SPLN 300_F</b>	301	0,61	<a href="#">8595568920270</a>
⊕	<b>SPLN 400_F</b>	401	0,75	<a href="#">8595568920287</a>
⊕	<b>SPLN 500_F</b>	501	0,88	<a href="#">8595568920294</a>
⊕	<b>SPLN 600_F</b>	601	1,02	<a href="#">8595568920300</a>
⊕	<b>SPLN 700_F</b>	705	1,18	<a href="#">8595568920317</a>
⊕	<b>SPLN 800_F</b>	805	1,32	<a href="#">8595568920324</a>
⊕	<b>SPLN 900_F</b>	905	1,45	<a href="#">8595568920331</a>
⊕	<b>SPLN 1000_F</b>	1005	1,59	<a href="#">8595568920348</a>
⊕	<b>SPLN 1100_F</b>	1105	1,73	<a href="#">8595568920355</a>
⊕	<b>SPLN 1200_F</b>	1205	1,87	<a href="#">8595568920362</a>

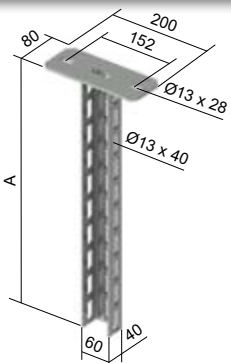
	item	A	‡	EAN
⊖	<b>OKSPLN_EB</b>	-	0,01	<a href="#">8595568918499</a>

**ceiling profile - medium**


- ▶ Designated for hanging at the ceiling or fixing to the floor.
- ▶ Using bolts S 10X20, nuts M 10 and washers PD 10 fixing bracket DLN, DSN, DS, DT and DTN.
- ▶ For double sided fastening of the bracket is recommended use reinforcement piece VSPSN (10x80 screw, washers and nut are included).
- ▶ OKSPSN – protective cover made from PVC.

	item	A	‡	EAN
⊕	<b>SPSN 200_F</b>	205	0,93	<a href="#">8595568917041</a>
⊕	<b>SPSN 250_F</b>	255	1,05	<a href="#">8595568917058</a>
⊕	<b>SPSN 300_F</b>	305	1,17	<a href="#">8595568917065</a>
⊕	<b>SPSN 400_F</b>	405	1,42	<a href="#">8595568917072</a>
⊕	<b>SPSN 500_F</b>	505	1,66	<a href="#">8595568917089</a>
⊕	<b>SPSN 600_F</b>	605	1,90	<a href="#">8595568917096</a>
⊕	<b>SPSN 700_F</b>	705	2,15	<a href="#">8595568917102</a>
⊕	<b>SPSN 800_F</b>	805	2,39	<a href="#">8595568917119</a>
⊕	<b>SPSN 900_F</b>	905	2,63	<a href="#">8595568917126</a>
⊕	<b>SPSN 1000_F</b>	1005	2,87	<a href="#">8595568917133</a>
⊕	<b>SPSN 1100_F</b>	1105	3,12	<a href="#">8595568917140</a>
⊕	<b>SPSN 1200_F</b>	1205	3,36	<a href="#">8595568917157</a>
⊕	<b>SPSN 1500_F</b>	1505	4,09	<a href="#">8595568917164</a>
⊕	<b>SPSN 2000_F</b>	2005	5,30	<a href="#">8595568917171</a>
⊕	<b>VSPSN_F</b>	-	0,17	<a href="#">8595568917027</a>

	item	A	‡	EAN
⊖	<b>OKSPSN_EB</b>	-	0,01	<a href="#">8595568921963</a>

**ceiling profile - heavy**


- ▶ Designated for hanging at the ceiling or fixing to the floor.
- ▶ Using bolts S 10X20, nuts M 10 and washers PD 10 fixing bracket DLN, DSN, DS, DT and DTN.
- ▶ For double sided fastening of the bracket is recommended use reinforcement piece VSPU (10x90 screw, washers and nut are included).
- ▶ OKSPU – protective cover made from PVC.

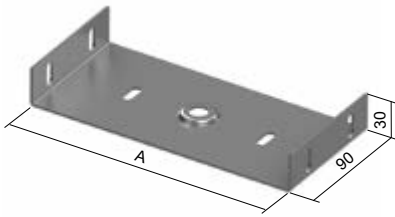
	item	A	‡	EAN
⊕	<b>SPU 200_F</b>	206	1,43	<a href="#">8595568916884</a>
⊕	<b>SPU 250_F</b>	256	1,60	<a href="#">8595568916891</a>
⊕	<b>SPU 300_F</b>	306	1,77	<a href="#">8595568916907</a>
⊕	<b>SPU 400_F</b>	406	2,11	<a href="#">8595568916914</a>
⊕	<b>SPU 500_F</b>	506	2,45	<a href="#">8595568916921</a>
⊕	<b>SPU 600_F</b>	606	2,79	<a href="#">8595568916938</a>
⊕	<b>SPU 700_F</b>	706	3,13	<a href="#">8595568916945</a>
⊕	<b>SPU 800_F</b>	806	3,46	<a href="#">8595568916952</a>
⊕	<b>SPU 900_F</b>	906	3,80	<a href="#">8595568916969</a>
⊕	<b>SPU 1000_F</b>	1006	4,14	<a href="#">8595568916976</a>
⊕	<b>SPU 1100_F</b>	1106	4,48	<a href="#">8595568916983</a>
⊕	<b>SPU 1200_F</b>	1206	4,82	<a href="#">8595568916990</a>
⊕	<b>SPU 1500_F</b>	1506	5,84	<a href="#">8595568917003</a>
⊕	<b>SPU 2000_F</b>	2006	7,53	<a href="#">8595568917010</a>
⊕	<b>VSPU_F</b>	-	0,19	<a href="#">8595568917034</a>

	item	A	‡	EAN
⊖	<b>OKSPU_EB</b>	-	0,01	<a href="#">8595568918482</a>

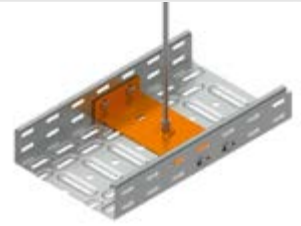




inner hanger



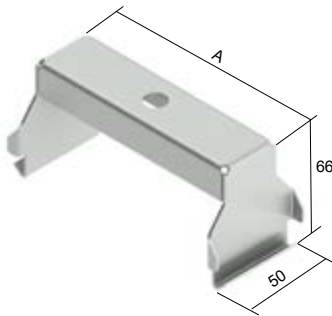
- ▶ The maximum load is 90 kg.
- ▶ It is mounted using the threaded rod ZT 8 or ZT 10 and nuts.
- ▶ **The MN nut is not part of the hangings.**
- ▶ The dimension of the nut is selected according to the diameter of threading bar.
- ▶ The inner hanger is inserted into the tray before connecting it to another tray.



item	A	‡	‡f	EAN
● ZVNI 75_S	71	0,16	4	<a href="#">8595568925305</a>
● ZVNI 100_S	96	0,20	4	<a href="#">8595568925329</a>
● ZVNI 150_S	146	0,27	4	<a href="#">8595568925343</a>
● ZVNI 200_S	196	0,34	4 - 6	<a href="#">8595568925367</a>
● ZVNI 300_S	296	0,42	4 - 8	<a href="#">8595568925381</a>
⊕ ZVNI 400_S	396	0,62	4 - 8	<a href="#">8595568925404</a>
⊕ ZVNI 75_F	71	0,19	4	<a href="#">8595568925312</a>
⊕ ZVNI 100_F	96	0,24	4	<a href="#">8595568925336</a>
⊕ ZVNI 150_F	146	0,31	4	<a href="#">8595568925350</a>
⊕ ZVNI 200_F	196	0,39	4 - 6	<a href="#">8595568925374</a>
⊕ ZVNI 300_F	296	0,56	4 - 8	<a href="#">8595568925398</a>
⊕ ZVNI 400_F	396	0,72	4 - 8	<a href="#">8595568925411</a>
● MN 8_ZNCR	-	0,01	-	<a href="#">8595568903594</a>
● MN 10_ZNCR	-	0,01	-	<a href="#">8595568903600</a>



outer hanger

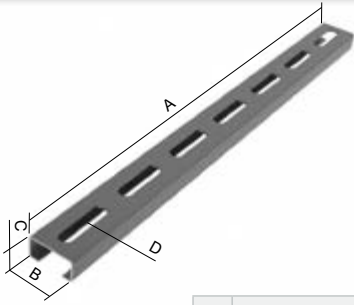


- ▶ The maximum load is 90 kg.
- ▶ It is mounted using the threaded rod ZT 8 or ZT 10 and nuts.
- ▶ **The MN nut is not part of the hangings.**
- ▶ The dimension of the nut is selected according to the diameter of threading bar.
- ▶ The hanging is suitable for hang-up the trays with partition.



item	A	‡	EAN
● ZVNE 50_S	30	0,10	<a href="#">8595057628786</a>
● ZVNE 75_S	55	0,12	<a href="#">8595057628793</a>
● ZVNE 100_S	80	0,14	<a href="#">8595057628809</a>
● ZVNE 150_S	130	0,18	<a href="#">8595057628816</a>
● ZVNE 200_S	180	0,22	<a href="#">8595057628823</a>
● ZVNE 300_S	280	0,31	<a href="#">8595057639553</a>
● ZVNE 400_S	380	0,39	<a href="#">8595057639560</a>
⊕ ZVNE 50_F	30	0,16	<a href="#">8595057662421</a>
⊕ ZVNE 75_F	55	0,14	<a href="#">8595057662438</a>
⊕ ZVNE 100_F	80	0,16	<a href="#">8595057662445</a>
⊕ ZVNE 150_F	130	0,21	<a href="#">8595057662452</a>
⊕ ZVNE 200_F	180	0,24	<a href="#">8595057662469</a>
⊕ ZVNE 300_F	280	0,34	<a href="#">8595057662483</a>
⊕ ZVNE 400_F	380	0,43	<a href="#">8595057662490</a>
● MN 8_ZNCR	-	0,01	<a href="#">8595568903594</a>
● MN 10_ZNCR	-	0,01	<a href="#">8595568903600</a>



**load bearing profile**


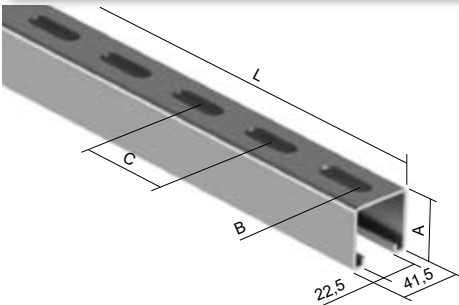
- ▶ The load bearing profile NP 100 to NP 350 is fixed by using two threaded rods ZT 8 + nut M 8 + washer PD 8.
- ▶ The load bearing profile NP 450 to NP 650 is fixed by using two threaded rods ZT 10 + nut M 10 + washer PD 10.
- ▶ **The size of the load bearing profile is determined according to the width of the cable tray + 50 mm**, for example for a cable tray that is 100 mm wide, order NP 150.


 NP 100  
 NP 150  
 NP 200  
 NP 250  
 NP 350


	item	A	B	C	D (inner)	D (outer)	‡	⊥	‡	for KZI	EAN
●	NP 100_S	100	30	15	-	Ø9 x 35	1,2	100	0,06	KZI ..X50	<a href="#">8595057639768</a>
●	NP 150_S	150	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,08	KZI ..X75, X100	<a href="#">8595057639775</a>
●	NP 200_S	200	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,11	KZI ..X150	<a href="#">8595057639782</a>
●	NP 250_S	250	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,14	KZI ..X200	<a href="#">8595057639799</a>
●	NP 350_S	350	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,20	KZI ..X300	<a href="#">8595057630864</a>
●	NP 450_S	450	41,5	21	Ø7 x 32	Ø11 x 35	1,5	150	0,50	KZI ..X400	<a href="#">8595057639812</a>
●	NP 550_S	550	41,5	21	Ø7 x 32	Ø11 x 35	1,5	150	0,62	KZI ..X500	<a href="#">8595057639829</a>
●	NP 650_S	650	41,5	21	Ø7 x 32	Ø11 x 35	1,5	150	0,73	KZI ..X600	<a href="#">8595057639836</a>

 NP 450  
 NP 550  
 NP 650


⊕	NP 100_F	100	30	15	-	Ø9 x 35	1,2	100	0,07	KZI ..X50	<a href="#">8595057659544</a>
⊕	NP 150_F	150	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,10	KZI ..X75, X100	<a href="#">8595057659551</a>
⊕	NP 200_F	200	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,13	KZI ..X150	<a href="#">8595057659568</a>
⊕	NP 250_F	250	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,17	KZI ..X200	<a href="#">8595057659575</a>
⊕	NP 350_F	350	30	15	Ø7 x 32	Ø9 x 35	1,2	100	0,23	KZI ..X300	<a href="#">8595057659599</a>
⊕	NP 450_F	450	41,5	21	Ø7 x 32	Ø11 x 35	1,5	150	0,58	KZI ..X400	<a href="#">8595057659605</a>
⊕	NP 550_F	550	41,5	21	Ø7 x 32	Ø11 x 35	1,5	150	0,71	KZI ..X500	<a href="#">8595057659612</a>
⊕	NP 650_F	650	41,5	21	Ø7 x 32	Ø11 x 35	1,5	150	0,84	KZI ..X600	<a href="#">8595057659629</a>

**assembly profile**


- ▶ The standard length of the assembly profile is 3 m.
- ▶ Suitable for creating of beam for cable traces to be carried on thread bars or for creating of supporting structure by help of assembling accessory, see pg. 32.
- ▶ Assembly profile MP 41X21\_S and MP 41X21\_F can be terminated with OKSPL protective cover (pg. 27).
- ▶ Assembly profile MP 41X41\_S and MP 41X41\_F can be terminated with OKSPS protective cover (pg. 27).

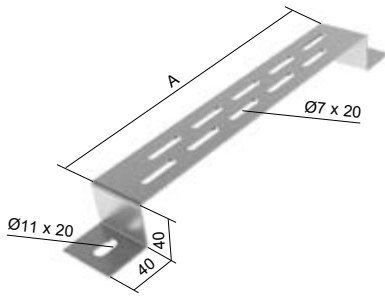


	item	A	B*	C*	L	‡	EAN
●	MP 41X21_S	21	13 x 30	50	3000	2,5	<a href="#">8595057699557</a>
●	MP 41X21X1.50_S	21	13 x 30	50	3000	1,5	<a href="#">8595057628939</a>
●	MP 41X21X1.50X2000_S	21	14 x 30	50	2000	1,5	<a href="#">8595568919571</a>
●	MP 41X41_S	41	13 x 30	50	3000	2,5	<a href="#">8595057699564</a>
●	MP 41X21_F	21	13 x 30	50	3000	2,5	<a href="#">8595057633469</a>
●	MP 41X41_F	41	13 x 30	50	3000	2,5	<a href="#">8595057632103</a>

\* dimensions are for information only, changes reserved



**floor bracket**

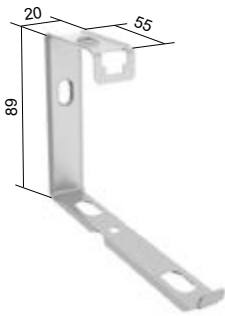


- ▶ It is used to attach a cable tray to the floor or wall.
- ▶ Attachment to the wall is carried using the Ø 10 mm wall clamps.
- ▶ Cable tray is installed to VMB using the bolts NSM 6X10 (pg. 37).



item	A	‡	EAN	item	A	‡	EAN
● VMB 100_S	100	0,15	<a href="#">8595057644281</a>	⊕ VMB 100_F	100	0,15	<a href="#">8595057664777</a>
● VMB 150_S	150	0,17	<a href="#">8595057644298</a>	⊕ VMB 150_F	150	0,17	<a href="#">8595057664784</a>
● VMB 200_S	200	0,20	<a href="#">8595057644304</a>	⊕ VMB 200_F	200	0,20	<a href="#">8595057664791</a>
● VMB 300_S	300	0,32	<a href="#">8595057644311</a>	⊕ VMB 300_F	300	0,32	<a href="#">8595057664807</a>
● VMB 400_S	400	0,39	<a href="#">8595057644328</a>	⊕ VMB 400_F	400	0,39	<a href="#">8595057664814</a>
● VMB 500_S	500	0,46	<a href="#">8595057644335</a>	⊕ VMB 500_F	500	0,46	<a href="#">8595057664821</a>
● VMB 600_S	600	0,53	<a href="#">8595057644342</a>	⊕ VMB 600_F	600	0,53	<a href="#">8595057664838</a>

**grouped cable holder**



- ▶ Used to create cable routes for multiple cables.
- ▶ Grouped holders can also be used to create a standardised route with maintained functionality In Fire.
- ▶ For details, see the catalogue Systems with Maintained Functionality In Fire.



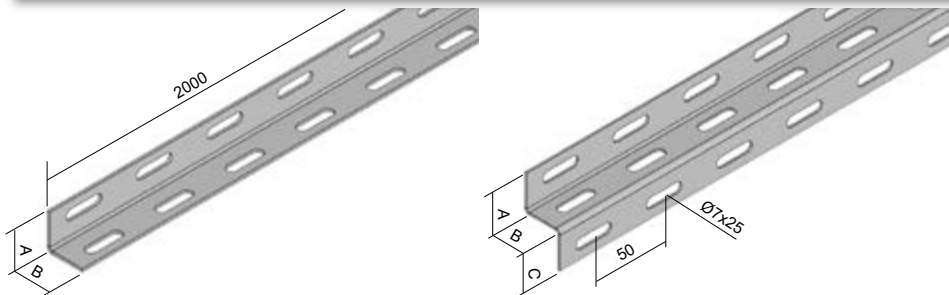
item	‡	EAN
● SD 2_S	0,03	<a href="#">8595568912435</a>

	maximum number of cables inserted						
	2x2x0,5 mm <sup>2</sup>	3x1,5 mm <sup>2</sup>	3x2,5 mm <sup>2</sup>	5x4 mm <sup>2</sup>	5x6 mm <sup>2</sup>	4 x10 mm <sup>2</sup>	4x16 mm <sup>2</sup>
cable diameter in mm	5	9	10	14	15	16	19
amount of cables	75	29	21	13	10	7	5

Cable diameters are approximate and may vary depending on the cable manufacturer.

If holders are installed in systems with maintained functionality during fire, the maximum number of cables inserted depends on their weight per metre of length.

**L-profil and Z-profil**



item	A	B	C	‡	‡	EAN
● L 25X1.25_S	25	25	-	1,25	0,83	<a href="#">8595057631564</a>
● L 25X50X1.25_S	25	50	-	1,25	1,29	<a href="#">8595057640405</a>
● L 50X50X1.25_S	50	50	-	1,25	1,71	<a href="#">8595057631571</a>
⊕ L 50X50X1.50_S	50	50	-	1,50	2,05	<a href="#">8595057690301</a>
● Z 25X1.50_S	25	25	25	1,50	1,48	<a href="#">8595057631557</a>
● Z 50X1.50_S	50	50	50	1,50	3,01	<a href="#">8595057631540</a>

item	A	B	C	‡	‡	EAN
⊕ L 25X1.25_F	25	25	-	1,25	0,97	<a href="#">8595057662100</a>
⊕ L 25X50X1.25_F	25	50	-	1,25	1,49	<a href="#">8595057662124</a>
⊕ L 50X50X1.25_F	50	50	-	1,25	1,98	<a href="#">8595057662148</a>
⊕ Z 25X1.50_F	25	25	25	1,50	1,48	<a href="#">8595057665293</a>
⊕ Z 50X1.50_F	50	50	50	1,50	3,01	<a href="#">8595057665309</a>

‡ thickness of metal sheet (mm) ● standard  
‡ weight kg/m ⊕ to order

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

3

4

5

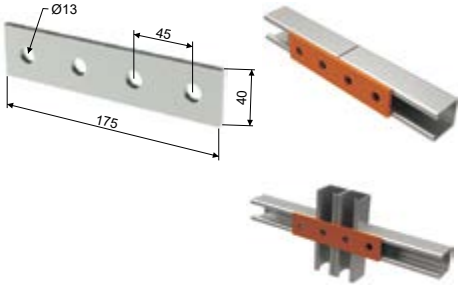
6

index

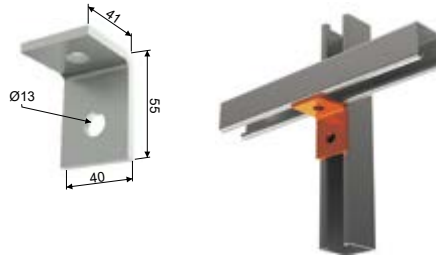
**assembly accessories**

- ▶ Designed for use with mounting profiles MP 41X21 and MP 41X41, or with ceiling profiles SPL or SPS.
- ▶ Fastening is done with bolts S 10X20, S 10X25, S 10X30, S 12X25 or S 12X30 and sliding nuts PM 41M M10 or PM 41 M 12.
- ▶ HMP 41 head: the MP 41X41 mounting profile is fastened to the head using S 10X70 bolts, M10 nuts and PD10 washers.
- ▶ The MP 41X21 mounting profile is fastened to the head using S 10X50 bolts, M10 nuts and PD10 washers.

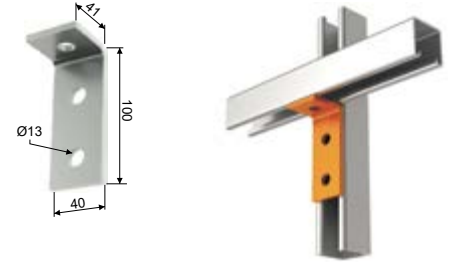
item	↑	‡	EAN
● VS 41X03_F	5	0,26	<a href="#">8595057640436</a>



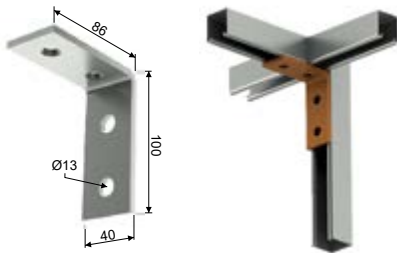
item	↑	‡	EAN
● VS 41X05_F	5	0,13	<a href="#">8595057640436</a>



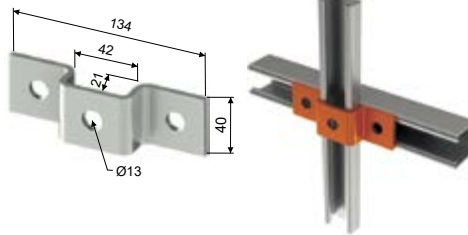
item	↑	‡	EAN
● VS 41X06_F	5	0,19	<a href="#">8595057640467</a>



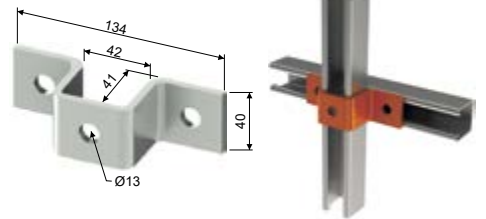
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● VS 41X08_F	5	0,26	<a href="#">8595057640481</a>



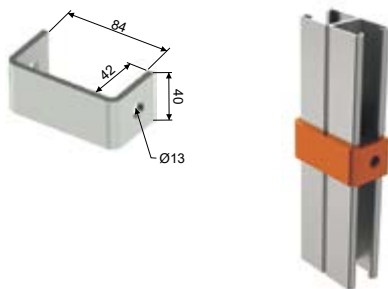
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● VS 41X12_F	4	0,26	<a href="#">8595057640528</a>



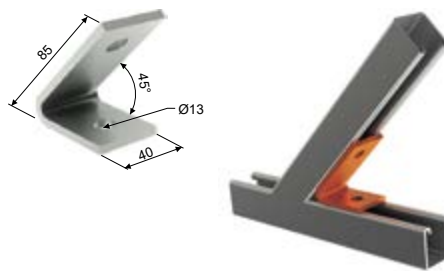
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● VS 41X13_F	5	0,32	<a href="#">8595057640535</a>



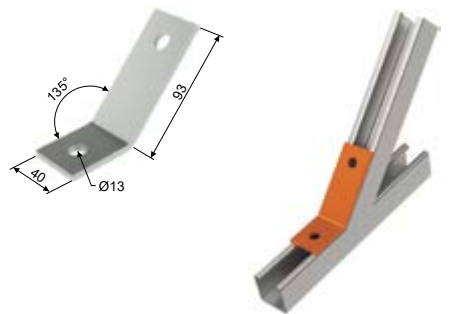
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● VS 41X16_F	5	0,27	<a href="#">8595057634985</a>



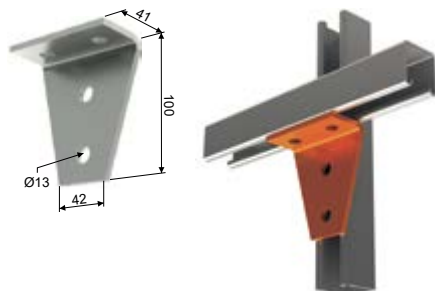
item	↑	‡	EAN
⊕ VS 41X17_F	5	0,24	<a href="#">8595057640566</a>



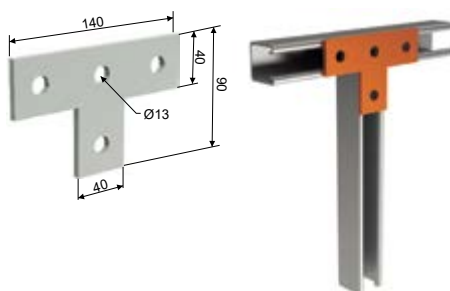
item	↑	‡	EAN
⊕ VS 41X18_F	5	0,21	<a href="#">8595057640573</a>



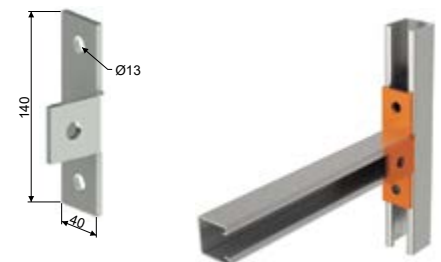
item	↑	‡	EAN
● VS 41X20_F	5	0,35	<a href="#">8595057640597</a>



item	↑	‡	EAN
● VS 41X27_F	5	0,29	<a href="#">8595057640610</a>



item	↑	‡	EAN
● VS 41X31_F	5	0,34	<a href="#">8595057633087</a>



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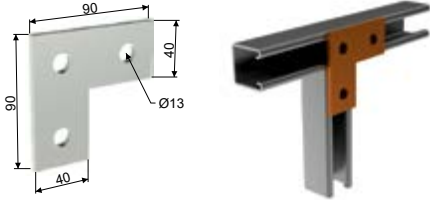
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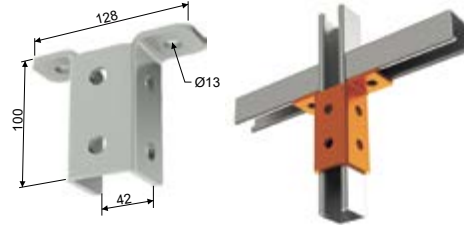


assembly accessories

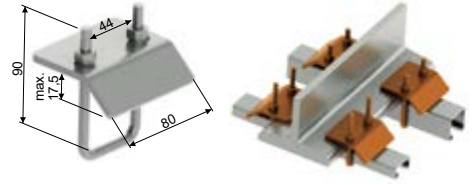
item	t	‡	EAN
● VS 41X36_F	5	0,21	<a href="#">8595057640658</a>



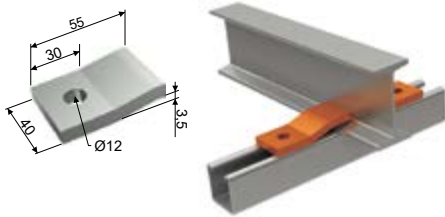
item	t	‡	EAN
● VS 41X37_F	5	0,47	<a href="#">8595057640665</a>



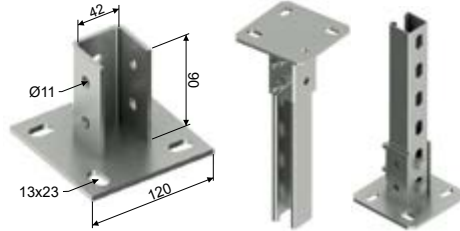
item	t	‡	EAN
● VS 41X41_F	6	0,37	<a href="#">8595057631519</a>



item	t	‡	EAN
● VS 41X43_F	8	0,20	<a href="#">8595057630871</a>



item	t	‡	EAN
● HMP 41_F	4/5	0,96	<a href="#">8595568932549</a>



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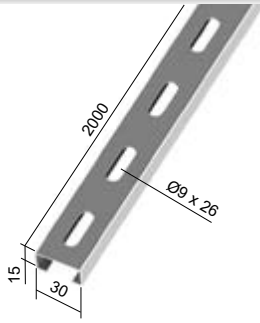
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**load bearing profile**

**Load bearing profile + threaded rods:**

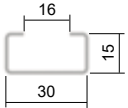
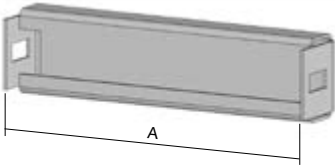
- ▶ The load bearing profile is fixed by using two threaded rods ZT 8 + nuts M 8 + washer PD 8.
- ▶ The cable tray is attached to the support profile using NSM 6X10 screws.
- ▶ The bearing profile is recommended for a width of max. 300 mm.
- ▶ Max. the load for one mounting point is 100 kg.

**Load bearing profile + cable clamps:**

- ▶ Cables are fixed to the support profile using PKC cable clamps.
- ▶ The load bearing profile is fixed using KPO 6 anchors or SB 6.3X35 concrete screws.



item	‡	‡	EAN
● NP 30X15X1.20_S	1,2	0,58	<a href="#">8595568930316</a>

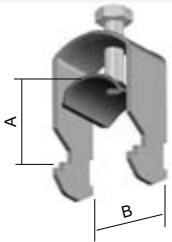
**supporting profile for cable clamps**


- ▶ The supporting profiles is designated for the cable trays.
- ▶ It is installed on the bottom of the cable tray and it is fixed by using two bolts NSM 6X10 (pg. 37) to the tray sidewalls.
- ▶ It is used for mounting of cable clamps and there by for the anchoring of the cables inside the tray.
- ▶ It finds its use primarily in vertical routes, for the lightening of the cable tension. When using a cover it is necessary to take into account the height of the clamps.



item	A	‡	EAN
● NPKV 50_S	47,5	0,04	<a href="#">8595057693784</a>
● NPKV 75_S	72,5	0,05	<a href="#">8595057693791</a>
● NPKV 100_S	97,5	0,07	<a href="#">8595057693807</a>
● NPKV 150_S	147,5	0,10	<a href="#">8595057693814</a>
● NPKV 200_S	197,5	0,13	<a href="#">8595057693821</a>
● NPKV 300_S	297,5	0,19	<a href="#">8595057693838</a>
● NPKV 400_S	397,5	0,25	<a href="#">8595057693845</a>
● NPKV 500_S	497,5	0,32	<a href="#">8595057690066</a>
● NPKV 600_S	597,5	0,38	<a href="#">8595057693852</a>

item	A	‡	EAN
⊕ NPKV 50_F	47,5	0,04	<a href="#">8595568905727</a>
⊕ NPKV 75_F	72,5	0,06	<a href="#">8595568905734</a>
⊕ NPKV 100_F	97,5	0,08	<a href="#">8595568905741</a>
⊕ NPKV 150_F	147,5	0,11	<a href="#">8595568905758</a>
⊕ NPKV 200_F	197,5	0,15	<a href="#">8595568905765</a>
⊕ NPKV 300_F	297,5	0,22	<a href="#">8595568905772</a>
⊕ NPKV 400_F	397,5	0,29	<a href="#">8595568905789</a>
⊕ NPKV 500_F	497,5	0,37	<a href="#">8595568905796</a>
⊕ NPKV 600_F	597,5	0,44	<a href="#">8595568905802</a>

**cable clamp for 1 cable**


- ▶ A min and B indicate the minimum and maximum diameter of the cable being fastened.
- ▶ For basic orientation in choosing cable clamps, use mentioned propositions.
- ▶ The basic surface treatment with which clamps are delivered makes it possible to use them even in harsh weather environments.
- ▶ The clams are designed to secure cable to partition cable tray, load bearing profile NPKV 50-600 or load bearing profile NP 30X15X1.20 (pg. 34).



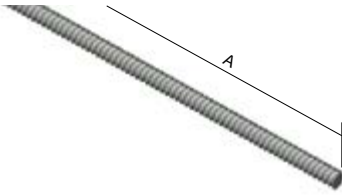
item	A min	B	‡	EAN
● PKC1 1198_F	6	12	0,03	<a href="#">8595057644878</a>
● PKC1 1199_F	7	16	0,03	<a href="#">8595057644885</a>
● PKC1 1200_F	10	19	0,04	<a href="#">8595057642232</a>
● PKC1 1201_F	14	23	0,04	<a href="#">8595057642249</a>
● PKC1 1202_F	20	26	0,04	<a href="#">8595057635586</a>
● PKC1 1203_F	24	30	0,06	<a href="#">8595057635517</a>
● PKC1 1204_F	25	34	0,07	<a href="#">8595057635401</a>
● PKC1 1205_F	29	38	0,08	<a href="#">8595057635524</a>
● PKC1 1206_F	32	43	0,09	<a href="#">8595057644892</a>
● PKC1 1207_F	42	46	0,10	<a href="#">8595057644908</a>
● PKC1 1208_F	44	50	0,10	<a href="#">8595057635531</a>
● PKC1 1209_F	50	54	0,11	<a href="#">8595057635593</a>
● PKC1 1210_F	51	58	0,14	<a href="#">8595057644915</a>
● PKC1 1211_F	55	63	0,16	<a href="#">8595057644922</a>
● PKC1 1212_F	59	69	0,16	<a href="#">8595057635609</a>

	KZI 60	KZI 85	KZI 110
yes	yes	yes	yes
yes	yes	yes	yes
no	yes	yes	yes
no	yes	yes	yes
no	yes	yes	yes
no	yes	yes	yes
no	yes	yes	yes
no	no	yes	yes
no	no	yes	yes
no	no	yes	yes
no	no	yes	yes
no	no	yes	yes
no	no	yes	yes
no	no	no	no
no	no	no	no
no	no	no	no

The possibility of trace covering by cover upon use of maximum cable diameter into the cable clamp.



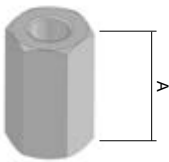
**threaded rod**



- ▶ DIN 976.
- ▶ Strength class 4.8.

	item	Ø	⊥	‡	A	EAN
●	ZT 6_ZNCR	M 6	0,85	0,17	2000	<a href="#">8595057633490</a>
●	ZT 8_ZNCR	M 8	3,43	0,31	2000	<a href="#">8595057631793</a>
●	ZT 10_ZNCR	M 10	5,63	0,46	2000	<a href="#">8595057628922</a>
⊕	ZT 12_ZNCR	M 12	7,73	0,70	2000	<a href="#">8595057639591</a>
⊕	ZT 8_ZNC1	M8	3,43	0,31	1000	<a href="#">8595057692848</a>
⊕	ZT 8_ZNC3	M 8	3,43	0,31	3000	<a href="#">8595568925022</a>
⊕	ZT 10_ZNC3	M 10	5,63	0,46	3000	<a href="#">8595568925039</a>
⊕	ZT 10_GMT	M 10	5,63	0,46	1000	<a href="#">8595568928016</a>

**connection nut**

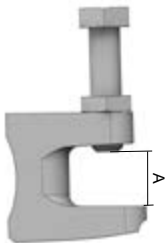


- ▶ Used for the connection of two threaded rods.

	item	A	Ø	‡	EAN
●	MZ 6_ZNCR	18	M 6	0,01	<a href="#">8595057633506</a>
●	MZ 8_ZNCR	24	M 8	0,02	<a href="#">8595057633513</a>
●	MZ 10_ZNCR	30	M 10	0,04	<a href="#">8595057629929</a>
⊕	MZ 12_ZNCR	36	M 12	0,06	<a href="#">8595057639584</a>



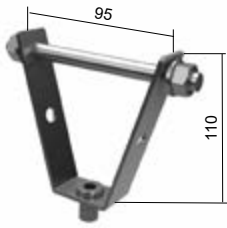
**fixation clamp**



- ▶ The fixation clamp is used for fixation of the threaded rod on I profile, a packing includes a fixation screw and a lock nut.

	item	‡	⊥	used with	A	EAN
●	US 1_ZNCR	0,14	2,5	ZT 8	0 - 20	<a href="#">8595057632691</a>
●	US 2_ZNCR	0,15	2,5	ZT 10	0 - 20	<a href="#">8595057629912</a>
⊕	US 3_ZNCR	0,21	2,5	ZT 12	0 - 26	<a href="#">8595057639577</a>



**bracket for trapeze ceilings**


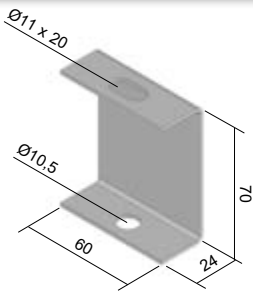
- ▶ The DSOS holder is designed for fitting a threaded rod and attaching it to trapezoidal sheet metal.
- ▶ The DSOS comes with M 8 or M 10 adjusting nuts.
- ▶ The choice of DSOS 8 or DSOS 10 depends on which threaded rod is used, the ZT 8 or the ZT 10.
- ▶ For attachment to a trapezoidal ceiling the hinge is fitted with a transverse M8 x 120 mm pin.
- ▶ The pin has a washer and nut on both sides.



	item	‡	⊥	EAN
●	<b>DSOS 8_ZNCR</b>	0,17	1,3	<a href="#">8595568923783</a>
●	<b>DSOS 10_ZNCR</b>	0,17	1,3	<a href="#">8595568923790</a>

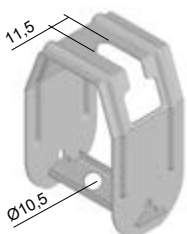
thickness metal sheet of trapeze ceiling (mm)	load (N)
0,63-0,70	630
0,70-0,80	740
0,80-1,00	850
1,00-1,20	1050
1,20-1,50	1250
>1,50	1550

The loading values mentioned in the table are valid only for constant load.

**ceiling bracket**


- ▶ Used together with a threaded rod ZT 8 or ZT 10.

	item	‡	EAN
●	<b>DSZT_S</b>	0,10	<a href="#">8595057633483</a>
⊕	<b>DSZT_F</b>	0,12	<a href="#">8595057662506</a>


**adjustable ceiling bracket**


- ▶ Used together with a threaded rod ZT 8 or ZT 10.
- ▶ Ideal for a slight roof construction slant.

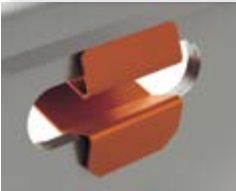
	item	‡	EAN
●	<b>DSS_S</b>	0,14	<a href="#">8595057633599</a>







## clamp



- ▶ Is used for securing the connection of cable trays or the attaching of the mounting plate MDS.

	item	⊂	EAN
●	<b>KSV_GMT</b>	100	<a href="#">8595057627765</a>



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3

## carriage bolt and lock nut



- ▶ It is used to fasten the connection of cable trays and accessories or to fasten it to a support.
- ▶ A solid connection ensures a conductive connection of cable trays and accessories.
- ▶ The GMT surface treatment is used for cable trays in the hot dip galvanizing (F) and Zn+Mg+Al galvanizing (ZM) surface treatment.
- ▶ It is instrumental to assure the conductive connection of cable trays and accessories up to 25 A.

	item	⊂	EAN
●	<b>NSM 6X10_ZNCR</b>	100	<a href="#">8595057667129</a>
●	<b>NSM 6X20_ZNCR</b>	100	<a href="#">8595568934062</a>
●	<b>NSM 6X10_GMT</b>	100	<a href="#">8595057692947</a>
●	<b>NSM 6X20_GMT</b>	100	<a href="#">8595568934079</a>

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## bolt + nut + lock washers



- ▶ It is instrumental to assure the conductive connection – convenient for varnished trays.

	item	⊂	EAN
●	<b>NSMP 6X10_ZNCR</b>	100	<a href="#">8595057679078</a>

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**bolt with hexagonal head**


item	‡	⊂	EAN
● S 6X20_ZNCR	0,006	100	<a href="#">8595057630451</a>
⊕ S 6X30_ZNCR	0,008	100	<a href="#">8595057640733</a>
● S 8X20_ZNCR	0,012	100	<a href="#">8595057638822</a>
● S 8X25_ZNCR	0,014	100	<a href="#">8595568934017</a>
● S 8X30_ZNCR	0,016	100	<a href="#">8595057640740</a>
● S 8X40_ZNCR	0,019	100	<a href="#">8595057640757</a>
● S 8X50_ZNCR	0,022	100	<a href="#">8595057640764</a>
⊕ S 8X70_ZNCR	0,028	100	<a href="#">8595057640771</a>
● S 10X20_ZNCR	0,021	100	<a href="#">8595057628724</a>
● S 10X25_ZNCR	0,024	100	<a href="#">8595568934031</a>
● S 10X30_ZNCR	0,026	100	<a href="#">8595057628731</a>
● S 10X40_ZNCR	0,031	100	<a href="#">8595057640788</a>
● S 10X50_ZNCR	0,036	100	<a href="#">8595057698123</a>
● S 10X70_ZNCR	0,046	100	<a href="#">8595057698130</a>

item	‡	⊂	EAN
⊕ S 12X20_ZNCR	0,031	100	<a href="#">8595057633124</a>
⊕ S 12X25_ZNCR	0,034	100	<a href="#">8595568934055</a>
⊕ S 12X30_ZNCR	0,038	100	<a href="#">8595057633131</a>
⊕ S 12X40_ZNCR	0,045	100	<a href="#">8595057640795</a>
⊕ S 12X50_ZNCR	0,052	100	<a href="#">8595057640801</a>
⊕ S 8X20_GMT	0,012	100	<a href="#">8595568928696</a>
⊕ S 8X30_GMT	0,020	100	<a href="#">8595568924024</a>
⊕ S 10X20_GMT	0,021	100	<a href="#">8595568928702</a>
⊕ S 10X30_GMT	0,026	100	<a href="#">8595568934048</a>
⊕ S 10X40_GMT	0,031	100	<a href="#">8595568928719</a>

**hexagonal nut**

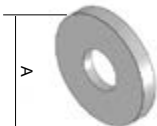

item	⊂	EAN
● M 6_ZNCR	100	<a href="#">8595057633636</a>
● M 8_ZNCR	100	<a href="#">8595057633643</a>
● M 10_ZNCR	100	<a href="#">8595057630406</a>
● M 12_ZNCR	100	<a href="#">8595057640818</a>

item	⊂	EAN
⊕ M 8_GMT	100	<a href="#">8595568928528</a>
⊕ M 10_GMT	100	<a href="#">8595568928511</a>
⊕ M 12_GMT	100	<a href="#">8595568928535</a>

**washer**


item	A	⊂	EAN
● PD 6_ZNCR	12	100	<a href="#">8595057640832</a>
● PD 8_ZNCR	16	100	<a href="#">8595057633438</a>
● PD 10_ZNCR	20	100	<a href="#">8595057633445</a>
● PD 12_ZNCR	24	100	<a href="#">8595057640849</a>

item	A	⊂	EAN
⊕ PD 8_GMT	16	100	<a href="#">8595568927996</a>
⊕ PD 10_GMT	20	100	<a href="#">8595568928542</a>
⊕ PD 12_GMT	24	100	<a href="#">8595568928009</a>

**large washer**


item	A	⊂	EAN
● PVL 6_ZNCR	18	100	<a href="#">8595057629523</a>
● PVL 8_ZNCR	24	100	<a href="#">8595057633421</a>
● PVL 10_ZNCR	30	100	<a href="#">8595057633797</a>
⊕ PVL 12_ZNCR	38	100	<a href="#">8595057640856</a>

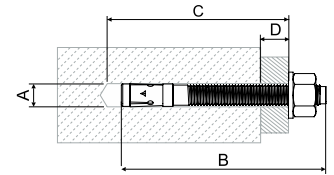
item	A	⊂	EAN
⊕ PVL 8_GMT	24	100	<a href="#">8595568928726</a>
⊕ PVL 10_GMT	30	100	<a href="#">8595568928733</a>



**anchor**



- ▶ The anchors are suitable for suspended, push-through and distance mounting.
- ▶ Types of base material: cracked concrete, non-cracked concrete, natural stone with a dense structure.



item	approved seismicity class	drill bit diameter A [mm]	total length of anchor B [mm]	min. depth of drilled hole during through-hole mounting C [mm]	maximum usable length D [mm]	thread	spanner size	EAN
● KPO 6X50_PO	-	6	65	60	10	M6	10	<a href="#">8595057691162</a>
● KPO 6X70_PO	-	6	65	60	10	M6	10	<a href="#">8595057691179</a>
● KPO 8X77_PO	C1	8	75	70	10	M8	13	<a href="#">8595057691100</a>
● KPO 8X97_PO	C1	8	95	85	30	M8	13	<a href="#">8595057691117</a>
● KPO 8X110_PO	C1/C2	8	115	105	50	M8	13	<a href="#">8595568931139</a>
● KPO 10X95_PO	C1/C2	10	92	85	10	M10	17	<a href="#">8595057691124</a>
● KPO 10X115_PO	C1/C2	10	115	105	30	M10	17	<a href="#">8595057691131</a>
● KPO 10X175_PO	C1/C2	10	185	175	100	M10	17	<a href="#">8595568931153</a>
● KPO 12X120_PO	C1/C2	12	118	110	20	M12	19	<a href="#">8595057691148</a>
⊕ KPO 8X77_POGMT	-	8	80	65	10	M8	13	<a href="#">8595568927965</a>
⊕ KPO 8X97_POGMT	-	8	100	90	35	M8	13	<a href="#">8595568929631</a>
⊕ KPO 10X95_POGMT	-	10	95	84	15	M10	17	<a href="#">8595568927972</a>
⊕ KPO 10X115_POGMT	-	10	115	104	35	M10	17	<a href="#">8595568929648</a>
⊕ KPO 12X120_POGMT	-	12	120	105	25	M12	19	<a href="#">8595568929655</a>

**anchor**



- ▶ The knock in anchors KKZ serve for the direct attachment of the threaded rods.
- ▶ There is a strut pin inside the anchor, which must be driven into the correct position before the assembly of a threaded rod.
- ▶ This item is suitable for fixing into concrete or natural stone.
- ▶ KKZ 8, KKZ 10 and KKZ 12 anchors are fitted with a collar.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	guaranteed tensile load concrete C20/25 (kN)	‡	EAN
● KKZ 6_ZNCR	8	25	27	M6	2,50	0,01	<a href="#">8595057697553</a>
● KKZ 8_ZNCR	10	30	32	M8	3,00	0,01	<a href="#">8595057697560</a>
● KKZ 10_ZNCR	12	40	42	M10	4,75	0,02	<a href="#">8595057697577</a>
● KKZ 12_ZNCR	15	50	52	M12	6,80	0,05	<a href="#">8595057697584</a>

**brass stop anchor**



- ▶ The knock in anchors KKZM serve for the direct attachment of the threaded rods.
- ▶ The brass anchors have an inner conical thread, which expands during the assembly of a threaded rod or bolt.
- ▶ The threaded rod (bolt) must be driven into the full length of the anchor.
- ▶ This item is suitable for fixing into concrete, natural stone, wood, chipboard and solid brick.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	concrete C20/25		‡	EAN
					tensile load (kN)	tightening torque (Nm)		
● KKZM 8_XX	10	30	35	M8	1,50	6	0,01	<a href="#">8595568925893</a>
● KKZM 10_XX	12	35	40	M10	2,50	10	0,01	<a href="#">8595568925909</a>

‡ weight kg/pcs

● standard

⊕ to order

XX brass  
POGMT non electrolytic plating

PO Bichromatic galvanized  
ZNCR Bichromatic galvanized

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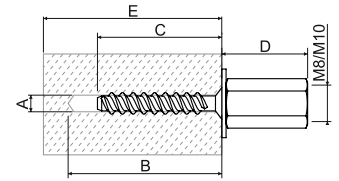
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**bolt into concrete with internal thread**

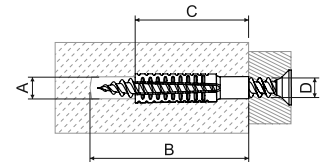

- ▶ M8 / M10 combined screw for quick and easy mounting of screws or threaded rods.
- ▶ Designed for installation in cracked concrete C20 / 25 to C50 / 60, pre-stressed cavity panels C30 / 37 to C50 / 60, into natural stone with a dense structure.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - screw depth
- ▶ D - height of fixing nut
- ▶ E - minimum thickness of the anchor



item	A	B	C	D	E	spanner size	tightening torque	‡	EAN	concrete C20/25 to C50/60		preloaded cavity panels			
										guaranteed load		min. axial distance from the edge	concrete thickness under the cavity	permissible equipment	min. axial distance from the edge
										tensile kN	shearing kN				
● KBS 6X35 M8/M10_PO	6	45	35	26,5	80	13	≤10	0,03	<a href="#">8595568931122</a>	0,6	2,4	35	≥25 ≥30 ≥35	0,4 0,8 1,2	100

**metal expansion anchor**


- ▶ For pre-assembled mounting in concrete, porous concrete, vertically perforated bricks, natural stone with a dense structure, solid brickwork blocks, solid sandlime bricks.
- ▶ The external teeth expand in the building material, thus ensuring a high loadbearing capacity. Thread must be screwed in at least min. to the full length of the anchor. The length of the anchor is calculated: length of the anchor + bolt diameter + thickness of the anchor + thickness of the plaster or insulation.
- ▶ The ribbed inner anchor shape is suitable for screws. If used in systems with maintained functionality in fire, a SB 6.3X35 screw is used.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - length of bolt
- ▶ D - thread diameter



item	A	B	C	D	‡	EAN	the recommended hole diameter for the material			guaranteed load - stroke, cut, oblique stroke applies to the specified thread diameter and material		
							concrete C20/25	porous concrete PB4	vertically perforated bricks HLZ12	thread diameter	porous concrete ≥PB2, PP2 (G2)	porous concrete ≥PB4, PP4 (G4)
							mm	mm	mm	mm	kN	kN
● KHP 6X32_PO	7-9	38	32	5-6	0,01	<a href="#">8595568931009</a>	7	6	7	-	-	-
● KHP 8X38_PO	10-12	46	38	6-8	0,01	<a href="#">8595568931016</a>	10	10	10	8	0,2	0,3
● KHP 8X60_PO	10-12	68	60	6-8	0,03	<a href="#">8595568931023</a>	12	10	10	8	0,3	0,4
● KHP 10X60_PO	12-14	68	60	8-10	0,03	<a href="#">8595568931030</a>	14	12	12	10	0,4	0,6

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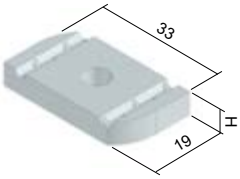
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index



### sliding nut

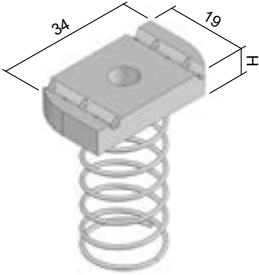


- ▶ It is used to attach the brackets to the ceiling profiles SPL, SPS or to connect the mounting profiles (MP 41X21, MP 41X41) to each other using the VS system (pg. 32 - 33).



	item	‡	H	EAN
⊕	<b>PM 41 M 6_ZNCR</b>	0,03	6	<a href="#">8595057631496</a>
●	<b>PM 41 M 8_ZNCR</b>	0,03	6	<a href="#">8595057631502</a>
●	<b>PM 41 M 10_ZNCR</b>	0,04	8	<a href="#">8595057628717</a>
⊕	<b>PM 41 M 12_ZNCR</b>	0,04	10	<a href="#">8595057633117</a>
●	<b>PM 41 M 10_GMT</b>	0,04	8	<a href="#">8595568928757</a>

### sliding nut with spring



- ▶ It is used to attach the brackets to the ceiling profiles SPS or to connect the mounting profiles MP 41X41 to each other using the VS system (pg. 32 - 33).
- ▶ The spring simplifies the fixation of the nut during assembly.
- ▶ The bracket is fastened with bolts of 20-30 mm in length.



	item	‡	H	EAN
⊕	<b>PMP 41 M 6_ZNCR</b>	0,03	6	<a href="#">8595057640719</a>
●	<b>PMP 41 M 8_ZNCR</b>	0,03	6	<a href="#">8595057630475</a>
●	<b>PMP 41 M 10_ZNCR</b>	0,04	8	<a href="#">8595057630468</a>
⊕	<b>PMP 41 M 12_ZNCR</b>	0,04	8	<a href="#">8595057640726</a>

### zinc paint / spray



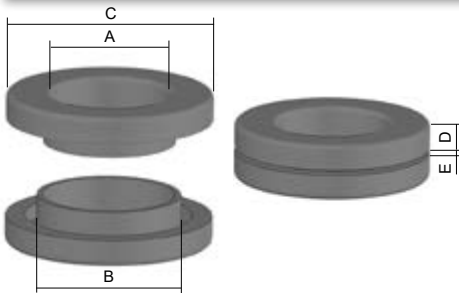
- ▶ Anticorrosive protection to be intended for service of defective and damaged places on galvanized surface.
- ▶ Lay on the color by paintbrush, stipple technology.

	item	‡	EAN
●	<b>WEICON 375_XX (paint)</b>	0,50	<a href="#">8595057621183</a>
●	<b>WEICON 750_XX (paint)</b>	1,10	<a href="#">8595057693609</a>
●	<b>GZS_XX (spray)</b>	0,45	<a href="#">8595057633148</a>

**edge protector**


- ▶ The edge protector made from plastic with a steel insert is used to protect the edges of cable trays.
- ▶ Package = 10 m, sold in entire packs.
- ▶ The protector there is possible to install to the metal sheets of max. 2 mm thickness.

item	‡	EAN
● <b>NCH_XX</b>	0,06	<a href="#">8595057669932</a>

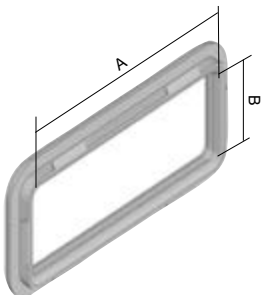
**bushing**


- ▶ Bushings serve for the safe passing of the cables through the sheet metal.
- ▶ One part of the bushing is inserted from one side into the created opening in the bottom or the sidewall of the tray, the second part is inserted from the second side and gentle pressure is used to press both the parts together and this connects them firmly.



B - drilled hole diameter

item	A	B	C	D	E	‡	EAN
● <b>NKP 9_FB</b>	10	15	24	5	0,5 - 5	0,002	<a href="#">8595057689466</a>
● <b>NKP 11_FB</b>	12	18,5	26	6	0,5 - 5	0,004	<a href="#">8595057689473</a>
● <b>NKP 13_FB</b>	16	20	31	6	0,5 - 5	0,006	<a href="#">8595057689480</a>
● <b>NKP 16_FB</b>	17	22	33	6	0,5 - 5	0,006	<a href="#">8595057689497</a>
● <b>NKP 21_FB</b>	24	28	40	7	0,5 - 5	0,010	<a href="#">8595057689503</a>
● <b>NKP 29_FB</b>	31	37	53	7	0,5 - 5	0,018	<a href="#">8595057689510</a>

**cable tray bushing**


- ▶ Bushings serve for safe leading of cables from the cable tray.
- ▶ Specified for cable trays with openings on the side wall, which are produced on order.

\* until the sell-out of stocks

item	A	B	‡		EAN
● <b>OKKZ 32X75_FB*</b>	70	27	0,006	for trays KZI with sidewall height of 60 mm	<a href="#">8595057692565</a>
● <b>OKKZ 57X57_FB*</b>	53	53	0,006	for bottom of the cable tray, for trays KZI with a width from 200 mm	<a href="#">8595057692572</a>



## inner usable cross-section of the channel

Type number	cm <sup>2</sup>	utilization 50% (crosssection) cm <sup>2</sup>	CYKY 3x1,5 Ø 8,6	CYKY 5x1,5 Ø 10,1	CYKY 3x2,5 Ø 9,5	CYKY 5x2,5 Ø 11,2	CYKY 3x4 Ø 11,2	CYKY 5x4 Ø 13,8	CYKY 5x6 Ø 15,1	CYKY 5x10 Ø 18	CYKY 5x16 Ø 20,4	CYKY 5x25 Ø 26,1	CYKY 4x35 Ø 24,8	CYKY 4x50 Ø 31,3	CYKY 3x70+50 Ø 33,6	CYKY 3x95+70 Ø 39,3	CYKY 3x120+95 Ø 43	CYKY 3x240+12 Ø 56,4
KZI 35X50	17,5	8,8	12	9	10	7	7	5	4	3	2	1	1	1	0	0	0	0
KZI 35X75	26,3	13,1	18	13	15	10	10	7	6	4	3	2	2	1	0	0	0	0
KZI 35X100	35	17,5	24	17	19	14	14	9	8	5	4	3	3	2	0	0	0	0
KZI 35X150	52,5	26,3	19	26	29	21	21	14	12	8	6	4	4	3	0	0	0	0
KZI 35X200	70	35,0	47	34	39	28	28	18	15	11	8	5	6	4	0	0	0	0
KZI 35X300	105	52,5	71	51	58	42	42	28	23	16	13	8	9	5	0	0	0	0
KZI 35X400	140	70,0	95	69	78	56	56	37	31	22	17	10	11	7	0	0	0	0
KZI 35X500	175	87,5	118	86	97	70	70	46	38	27	21	13	14	9	0	0	0	0
KZI 35X600	210	105,0	142	103	116	84	84	55	46	32	25	15	17	11	0	0	0	0
KZI 60X50	30	15,0	20	15	17	12	12	8	7	5	4	2	2	2	1	1	0	0
KZI 60X75	45	22,5	30	22	25	18	18	12	10	7	5	3	4	2	2	1	1	1
KZI 60X100	60	30,0	41	29	33	24	24	16	13	9	7	4	5	3	3	2	2	1
KZI 60X150	90	45,0	61	44	50	36	36	24	20	14	11	7	7	5	4	3	2	1
KZI 60X200	120	60,0	81	59	66	48	48	32	26	19	14	9	10	6	5	4	3	2
KZI 60X300	180	90,0	122	88	100	72	72	47	39	28	22	13	15	9	8	6	5	3
KZI 60X400	240	120,0	162	118	133	96	96	63	53	37	29	18	20	12	11	8	6	4
KZI 60X500	300	150,0	203	147	166	120	120	79	66	46	36	22	24	15	13	10	8	5
KZI 60X600	360	180,0	243	176	199	143	143	95	79	56	43	26	29	18	16	12	10	6
KZI 85X100	85	42,5	57	42	47	34	34	22	19	13	10	6	7	4	4	3	2	1
KZI 85X150	127,5	63,8	86	62	71	51	51	33	28	20	15	9	10	7	6	4	3	2
KZI 85X200	170	85,0	115	83	94	68	68	45	37	26	20	12	14	9	8	6	5	3
KZI 85X300	255	127,5	172	125	141	102	102	67	56	39	31	19	21	13	11	8	7	4
KZI 85X400	340	170,0	230	167	188	136	136	89	75	52	41	25	28	17	15	11	9	5
KZI 85X500	425	212,5	287	208	235	169	169	112	93	66	51	31	35	22	19	14	11	7
KZI 85X600	510	255,0	345	250	283	203	203	134	112	79	61	37	41	26	23	17	14	8
KZI 110X150	165	82,5	112	81	91	66	66	43	36	25	20	12	13	8	7	5	4	3
KZI 110X200	220	110,0	149	108	122	88	88	58	48	34	26	16	18	11	10	7	6	3
KZI 110X300	330	165,0	223	162	183	132	132	87	72	51	40	24	27	17	15	11	9	5
KZI 110X400	440	220,0	297	216	244	175	175	116	96	68	53	32	36	22	19	14	12	7
KZI 110X500	550	275,0	372	270	305	219	219	144	121	85	66	40	45	28	24	18	15	9
KZI 110X600	660	330,0	446	323	366	263	263	173	145	102	79	48	54	34	29	21	18	10

The values state the number of cables with the tray at 50% full. Orientation diameters of the cables CYKY.

The values are mathematically calculated. The limit values (small tray x big cable or contrariwise) it is necessary to consider combination of the tray and diameter of the cable and used them with reference to technical conditions.

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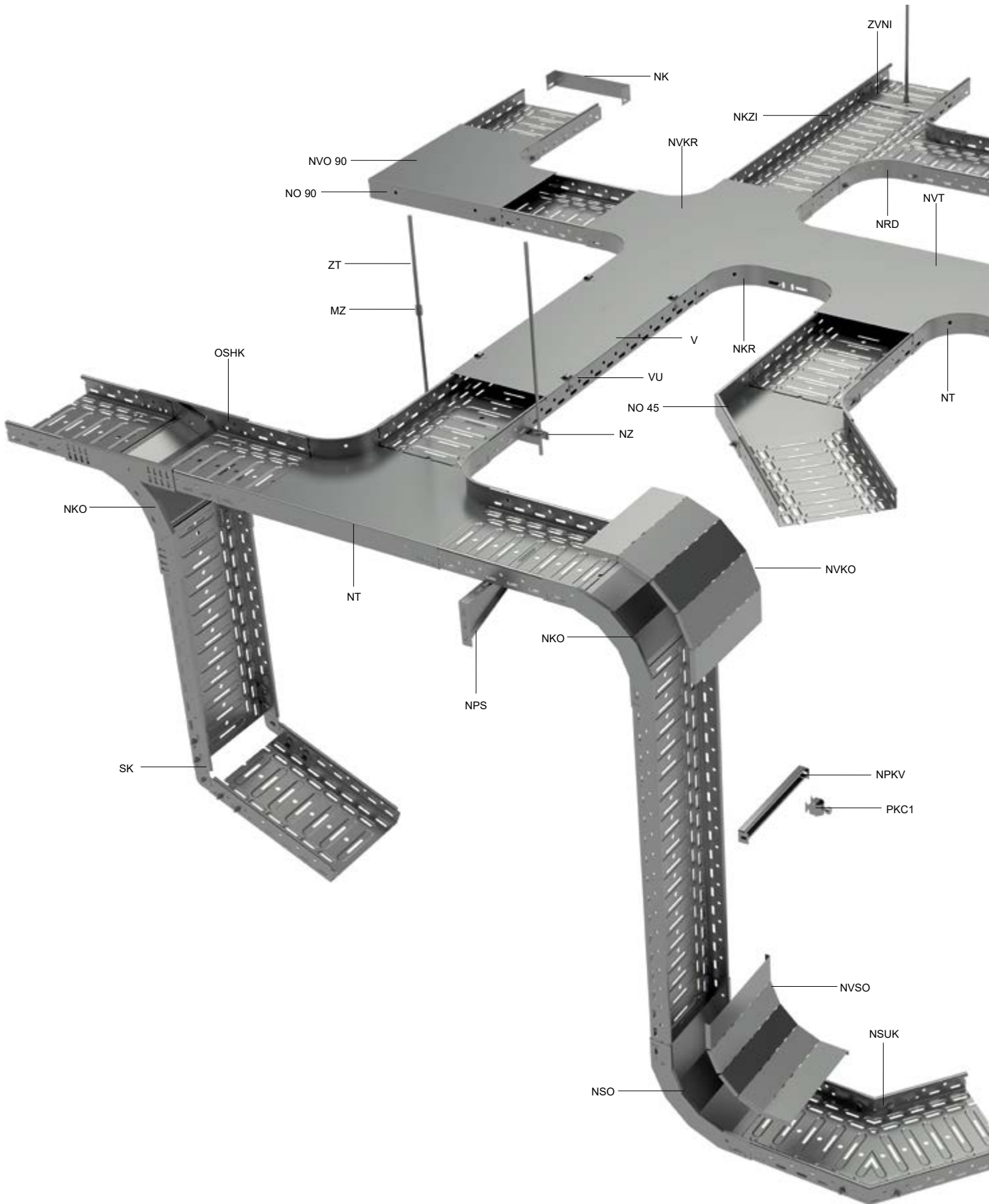






**2**

**CABLE TRAYS  
MARS**



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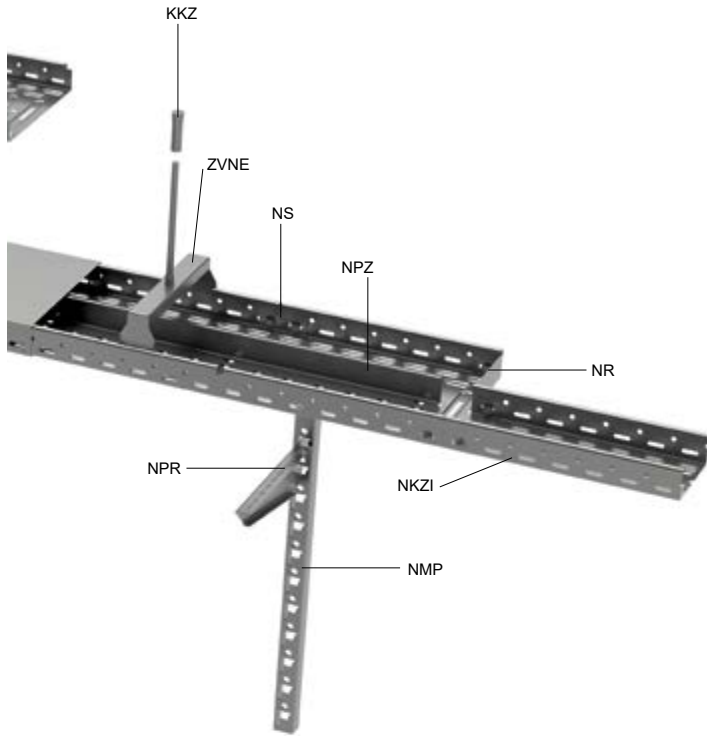
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## OVERVIEW OF SYSTEM ELEMENTS



marking	description	page
KKZ	anchor	<a href="#">29</a>
MZ	connection nut	<a href="#">24</a>
NK	end-piece	<a href="#">16</a>
NKO	low elbow 90°	<a href="#">12</a>
NKR	cross-over	<a href="#">11</a>
NKZI	cable tray with integrated coupling	<a href="#">4</a>
NMP	assembly profile	<a href="#">21</a>
NO 45	elbow 45°	<a href="#">9</a>
NO 90	elbow 90°	<a href="#">8</a>
NPKV	supporting profile for cable clamps	<a href="#">26</a>
NPR	clamp support	<a href="#">20</a>
NPS	wall bracket	<a href="#">20</a>
NPZ	partition	<a href="#">16</a>
NR	reduction	<a href="#">16</a>
NRD	reduction piece	<a href="#">14</a>
NS	coupling	<a href="#">17</a>
NSO	rising elbow 90°	<a href="#">13</a>
NSUK	angle coupling	<a href="#">15</a>
NT	T-piece	<a href="#">10</a>
NVKO	low elbow 90° cover	<a href="#">12</a>
NVKR	cross-over cover	<a href="#">11</a>
NVO 90	elbow cover 90°	<a href="#">8</a>
NVSO	rising elbow 90° cover	<a href="#">13</a>
NVT	T-piece cover	<a href="#">10</a>
NZ	suspension piece	<a href="#">23</a>
PKC1	cable clamp	<a href="#">26</a>
V	cable tray cover	<a href="#">7</a>
VU	cover fixture	<a href="#">7</a>
ZT	threaded rod	<a href="#">24</a>
ZVNE	outer hanger	<a href="#">23</a>
ZVNI	inner hanger	<a href="#">23</a>

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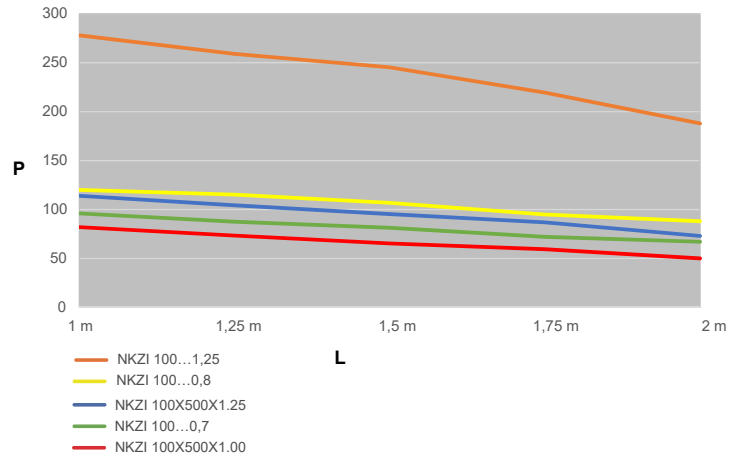
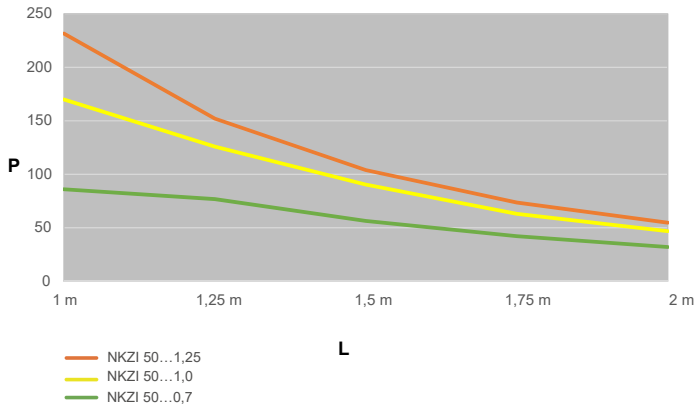
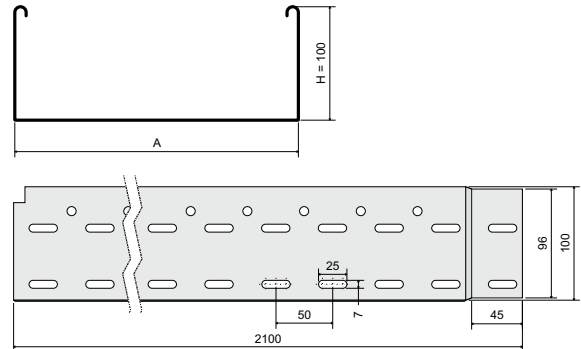
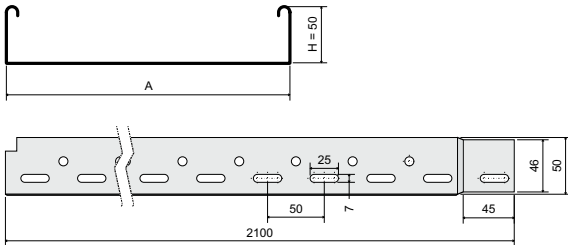
**cable tray with integrated coupling**



- ▶ The standard length of the cable tray is 2,1 m.
- ▶ For the securing of the connections of the trays with integrated coupling there are used the clamps made from spring steel KSV (pg. 27) or the bolts NSM 6X10 (pg. 27).
- ▶ The cable trays comply with the conditions for systems with maintained functionality during fire - for more details, see the catalogue Systems with Maintained Functionality In Fire.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	t	lf	‡	EAN
● NKZI 50X62X0.70_S	62	50	0,7	2	0,89	<a href="#">8595057691902</a>
● NKZI 50X62X1.25_S	62	50	1,25	2	1,66	<a href="#">8595057697447</a>
● NKZI 50X125X0.70_S	125	50	0,7	2	1,30	<a href="#">8595057691919</a>
● NKZI 50X125X1.25_S	125	50	1,25	2	2,31	<a href="#">8595057697454</a>
● NKZI 50X250X0.70_S	250	50	0,7	3	1,86	<a href="#">8595568903396</a>
● NKZI 50X250X1.00_S	250	50	1,00	3	2,75	<a href="#">8595057692008</a>
● NKZI 50X250X1.25_S	250	50	1,25	3	3,31	<a href="#">8595057694538</a>
● NKZI 100X125X0.70_S	125	100	0,7	4	1,80	<a href="#">8595568924414</a>
● NKZI 100X125X1.25_S	125	100	1,25	4	3,25	<a href="#">8595057697515</a>
● NKZI 100X250X0.70_S	250	100	0,7	5	2,49	<a href="#">8595568924476</a>
● NKZI 100X250X1.25_S	250	100	1,25	6	4,24	<a href="#">8595057694552</a>
● NKZI 100X500X1.00_S	500	100	1,0	6	5,43	<a href="#">8595568924537</a>
● NKZI 100X500X1.25_S	500	100	1,25	6	6,34	<a href="#">8595057691940</a>

item	A	H	t	lf	‡	EAN
● NKZI 50X62X0.70_F	62	50	0,8	2	1,10	<a href="#">8595057695764</a>
⊕ NKZI 50X62X1.25_F	62	50	1,25	2	1,88	<a href="#">8595568903273</a>
● NKZI 50X125X0.70_F	125	50	0,8	2	1,60	<a href="#">8595057695740</a>
⊕ NKZI 50X125X1.25_F	125	50	1,25	2	2,49	<a href="#">8595568903280</a>
● NKZI 50X250X1.00_F	250	50	1,00	3	2,92	<a href="#">8595057695757</a>
⊕ NKZI 50X250X1.25_F	250	50	1,25	3	3,75	<a href="#">8595057695856</a>
● NKZI 100X125X0.80_F	125	100	0,8	4	2,30	<a href="#">8595057695719</a>
⊕ NKZI 100X125X1.25_F	125	100	1,25	4	3,60	<a href="#">8595568918741</a>
● NKZI 100X250X0.80_F	250	100	0,8	5	3,44	<a href="#">8595057695726</a>
⊕ NKZI 100X250X1.25_F	250	100	1,25	5	4,80	<a href="#">8595057695849</a>
⊕ NKZI 100X500X1.25_F	500	100	1,25	6	7,18	<a href="#">8595057695733</a>



The graphs show the maximum allowed even loading of the trays in relation to the distances of the supports. External influences are not taken into account in the permissible load and cannot be burdened by person.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

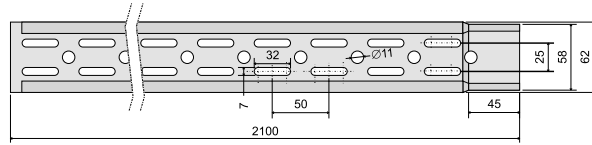
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design bottom punching of NKZI tray

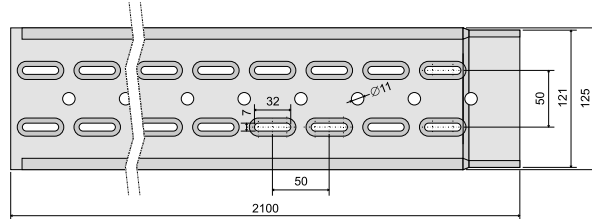
bottom width **62 mm**

NKZI 50X62X...



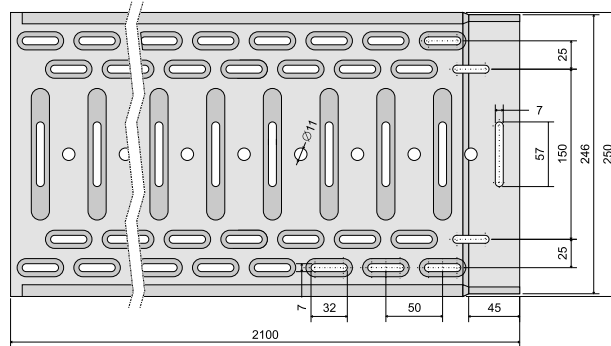
bottom width **125 mm**

NKZI 50X125X...  
NKZI 100X125X...



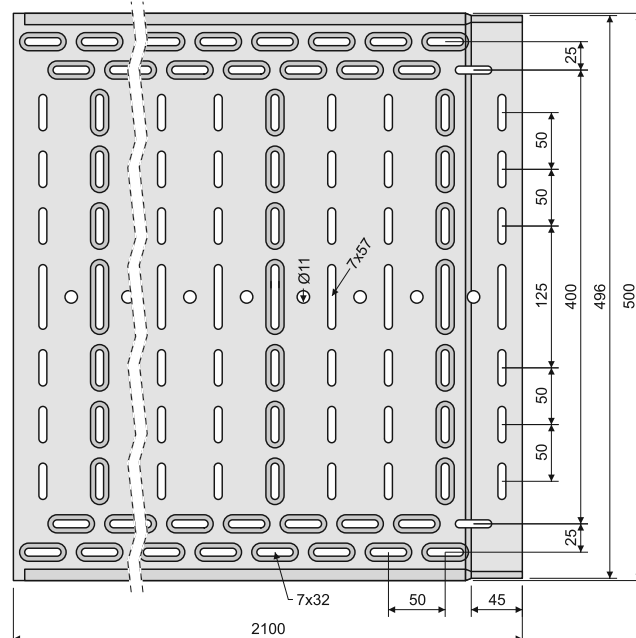
bottom width **250 mm**

NKZI 50X250X...  
NKZI 100X250X...



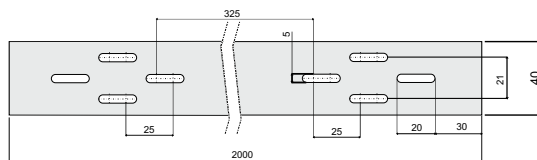
bottom width **500 mm**

NKZI 100X500X...



bottom width **40 mm**

NKZ 20X40



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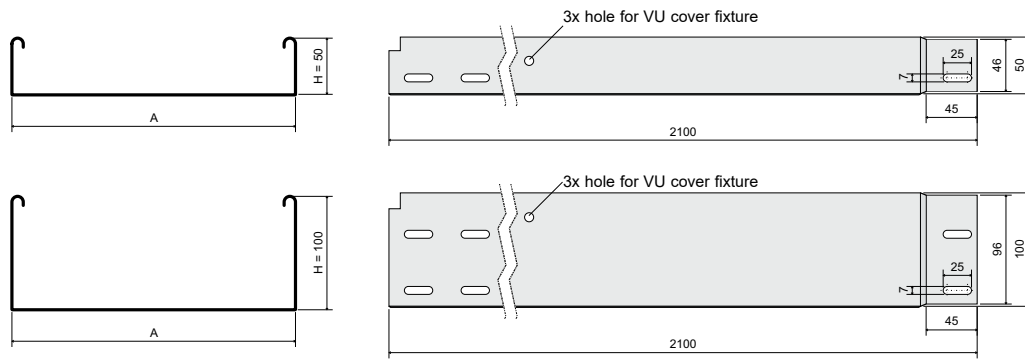
**cable tray with integrated coupling - non-perforated**



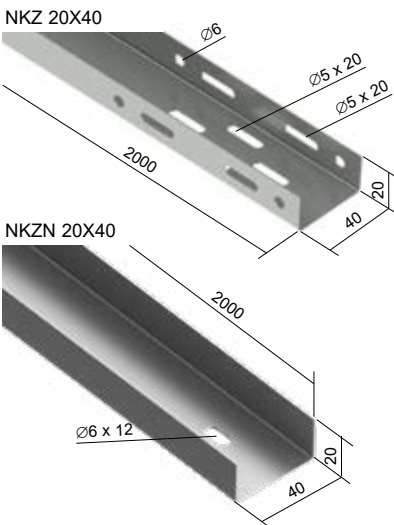
- ▶ The standard length of the cable tray is 2,1 m.
- ▶ For the securing of the connections of the trays with integrated coupling there are used the clamps made from spring steel KSV (pg. 27) or the bolts NSM 6X10 (pg. 27).
- ▶ The cable trays comply with the conditions for systems with maintained functionality during fire - for more details, see the catalogue Systems with Maintained Functionality In Fire.
- ▶ Various cable tray designs can be made to order - contact your sales representative for more information.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	t	lf	‡	EAN
● NKZIN 50X62X0.70_S	62	50	0,7	2	0,98	<a href="#">8595057691957</a>
● NKZIN 50X62X1.25_S	62	50	1,25	2	1,82	<a href="#">8595057698789</a>
● NKZIN 50X125X0.70_S	125	50	0,7	2	1,48	<a href="#">8595057691964</a>
● NKZIN 50X125X1.25_S	125	50	1,25	2	2,45	<a href="#">8595057698796</a>
● NKZIN 50X250X0.70_S	250	50	0,7	2	2,28	<a href="#">8595568903402</a>
● NKZIN 50X250X1.00_S	250	50	1,0	3	3,00	<a href="#">8595057692015</a>
● NKZIN 50X250X1.25_S	250	50	1,25	3	3,65	<a href="#">8595057694545</a>
● NKZIN 100X125X0.70_S	125	100	0,7	4	1,98	<a href="#">8595568924445</a>
● NKZIN 100X125X1.25_S	125	100	1,25	4	3,46	<a href="#">8595057698802</a>
● NKZIN 100X250X0.70_S	250	100	0,7	5	2,70	<a href="#">8595568924506</a>
● NKZIN 100X250X1.25_S	250	100	1,25	5	4,62	<a href="#">8595057694569</a>
● NKZIN 100X500X1.00_S	500	100	1,0	6	5,89	<a href="#">8595568924568</a>

item	A	H	t	lf	‡	EAN
● NKZIN 50X62X0.70_F	62	50	0,8	2	1,36	<a href="#">8595057695825</a>
⊕ NKZIN 50X62X1.25_F	62	50	1,25	2	2,06	<a href="#">8595568914156</a>
● NKZIN 50X125X0.70_F	125	50	0,8	2	1,84	<a href="#">8595057693685</a>
⊕ NKZIN 50X250X1.00_F	250	50	1,0	3	3,50	<a href="#">8595057695801</a>
⊕ NKZIN 50X250X1.25_F	250	50	1,25	3	4,13	<a href="#">8595057695818</a>
● NKZIN 100X125X0.80_F	125	100	0,8	4	2,49	<a href="#">8595057695771</a>
● NKZIN 100X250X0.80_F	250	100	0,8	5	3,44	<a href="#">8595057693678</a>
⊕ NKZIN 100X250X1.25_F	250	100	1,25	5	5,23	<a href="#">8595057695788</a>
● NKZIN 100X500X1.25_F	500	100	1,25	6	8,04	<a href="#">8595057695795</a>



**cable tray perforated / cable tray non-perforated**

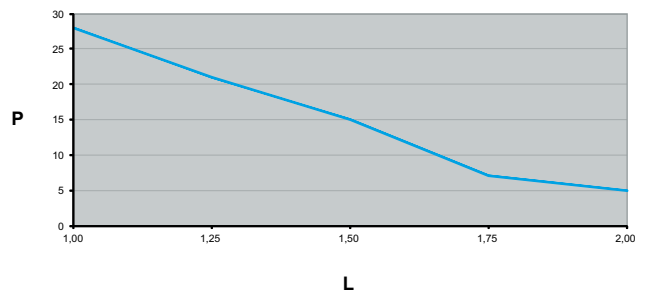


- ▶ The standard length of the cable tray is 2 m.
- ▶ The joining of the trays is performed using the coupling NS 40 (pg. 17) and two NSMP 5X10 (pg. 27).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	t	‡	lf	EAN
● NKZ 20X40_S	0,7	0,43	2	<a href="#">8595057677517</a>
● NKZN 20X40_S	0,7	0,43	2	<a href="#">8595057687196</a>
⊕ NKZ 20X40_F	0,8	0,59	2	<a href="#">8595057699045</a>

The graph show the maximum allowed even loading of the trays in relation to the distances of the supports. External influences are not taken into account in the permissible load and cannot be burdened by person.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)



1

2

3

4

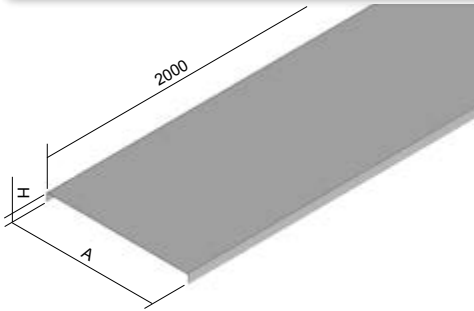
5

6

index



**cable tray cover**



- ▶ The standard length of the cable tray cover is 2 m.
- ▶ Stated sheet metal thickness is delivered as standard. Cover with thicker sheet metal can be delivered without prior notice.
- ▶ Attachment of the cover to the cable tray is done using the VU cover fixture (2 pieces per a meter), except for V 40. The V 40 cover may be alternatively fixed using a clamping belt.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	‡	‡	EAN
● V 40_S	40	10	0,55	0,26	<a href="#">8595057681002</a>
● V 62_S	62	11	0,55	0,36	<a href="#">8595057654778</a>
● V 125_S	125	11	0,55	0,64	<a href="#">8595057654730</a>
● V 250_S	250	11	0,55	1,20	<a href="#">8595057636569</a>
● V 500_S	500	14	1,00	4,22	<a href="#">8595057633162</a>

item	A	H	‡	‡	EAN
⊕ V 40_F	40	10	0,8	0,46	<a href="#">8595057681019</a>
● V 62_F	62	11	0,8	0,62	<a href="#">8595057669741</a>
● V 125_F	125	11	0,8	1,10	<a href="#">8595057669727</a>
● V 250_F	250	11	0,8	2,05	<a href="#">8595057659261</a>
● V 500_F	500	14	1,00	4,80	<a href="#">8595057657977</a>

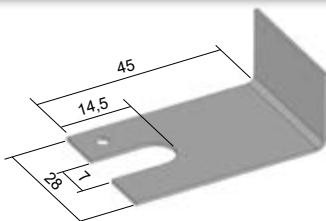
**cover fixture**



- ▶ Is used for a bolt free attachment of the cover to the tray and to the accessories.
- ▶ The cover fixture is placed to the cover and the sidewall in the place of the opening and it is slightly pressed so that the fixture lock slides into the opening.
- ▶ Used for perforated and non-perforated trays; non-perforated trays have holes specially designed for these anchors.

item	‡	EAN
● VU_GMT	0,01	<a href="#">8595057629448</a>

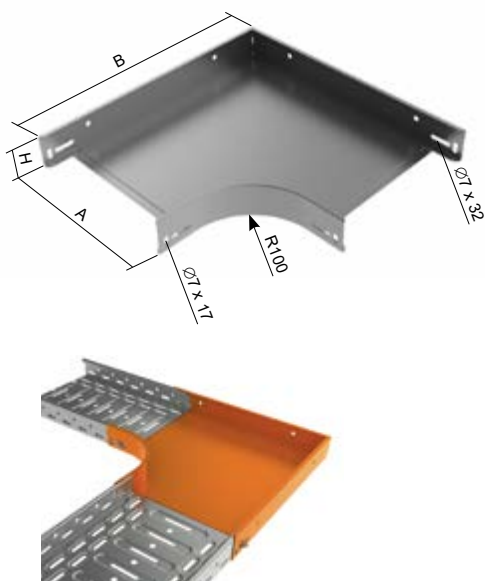
**cover fixture**



- ▶ Serves for the attaching of the cover to the tray using a bolt.
- ▶ With NKZIN non-perforated trays the cover must be attached at the point where the tray connects to the accessories. In this case these screws are used.
- ▶ With perforated trays the screws for attaching the anchors along the cable tray can be used. For this type of installation, the NSM 6X10 screws (pg. 27) must be ordered separately.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

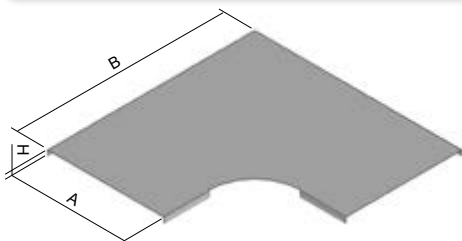


item	‡	EAN
● NUV_S	0,01	<a href="#">8595057654464</a>
⊕ NUV_GMT	0,01	<a href="#">8595057693531</a>

**elbow 90°**


- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NSM 6X10 (pg. 27).
- ▶ For the elbows NO 90X100X500 the outer right angle of the side walls is replaced by skewed cut.
- ▶ These items can also be ordered in a varnished version.  
For more information, see pg. 7-2.

item	A	H	B	†	‡	§	EAN
● NO 90X50X62_S	62	50	222	0,7	4	0,38	<a href="#">8595057653900</a>
● NO 90X50X125_S	125	50	285	0,7	4	0,57	<a href="#">8595057653870</a>
● NO 90X50X250_S	250	50	410	0,7	4	1,08	<a href="#">8595057653894</a>
● NO 90X100X125_S	125	100	285	0,7	8	0,80	<a href="#">8595057619012</a>
● NO 90X100X250_S	250	100	410	0,7	8	1,38	<a href="#">8595057653887</a>
● NO 90X100X500_S	500	100	660	0,7	8	2,59	<a href="#">8595057678057</a>
● NO 90X50X62_F	62	50	222	0,7	4	0,45	<a href="#">8595057669550</a>
● NO 90X50X125_F	125	50	285	0,7	4	0,67	<a href="#">8595057669536</a>
● NO 90X50X250_F	250	50	410	0,7	4	1,44	<a href="#">8595057669543</a>
● NO 90X100X125_F	125	100	285	0,7	8	0,94	<a href="#">8595057669512</a>
● NO 90X100X250_F	250	100	410	0,7	8	1,84	<a href="#">8595057669529</a>
⊕ NO 90X100X500_F	500	100	660	0,7	8	3,47	<a href="#">8595057678064</a>

**elbow cover 90°**


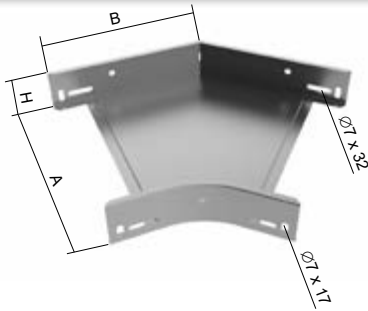
- ▶ The cover of the NVO 90X62 and NVO 90X125 is attached using the 3 VU cover fixtures (pg. 7), the covers of the NVO 90X250 and NVO 90X500 are attached using 5 VU cover fixtures (pg. 7).
- ▶ For the elbow cover NVO 90X500 the outer right angle is replaced by skewed cut.
- ▶ These items can also be ordered in a varnished version.  
For more information, see pg. 7-2.

item	A	H	B	†	‡	EAN
● NVO 90X62_S	62	12	222	0,55	0,14	<a href="#">8595057654556</a>
● NVO 90X125_S	125	12	285	0,55	0,29	<a href="#">8595057654570</a>
● NVO 90X250_S	250	12	410	0,55	0,67	<a href="#">8595057654594</a>
● NVO 90X500_S	500	15	660	0,7	1,62	<a href="#">8595057682504</a>
⊕ NVO 90X62_F	62	12	222	0,6	0,18	<a href="#">8595057669864</a>
⊕ NVO 90X125_F	125	12	285	0,8	0,49	<a href="#">8595057669840</a>
⊕ NVO 90X250_F	250	12	410	0,8	1,15	<a href="#">8595057669857</a>
⊕ NVO 90X500_F	500	15	660	0,8	2,18	<a href="#">8595057682511</a>





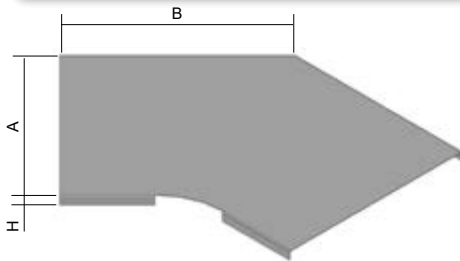
**elbow 45°**



- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NSM 6X10 (pg. 27).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

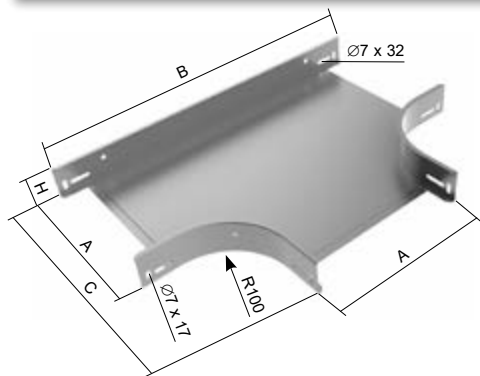
item	A	H	B	t	‡	‡	EAN
● NO 45X50X62_S	62	50	125	0,7	4	0,21	<a href="#">8595057678019</a>
● NO 45X50X125_S	125	50	151	0,7	4	0,29	<a href="#">8595057677951</a>
● NO 45X50X250_S	250	50	203	0,7	4	0,53	<a href="#">8595057677975</a>
● NO 45X100X125_S	125	100	151	0,7	8	0,45	<a href="#">8595057677890</a>
● NO 45X100X250_S	250	100	203	0,7	8	0,69	<a href="#">8595057653818</a>
● NO 45X100X500_S	500	100	307	0,7	8	1,43	<a href="#">8595057677913</a>
⊕ NO 45X50X62_F	62	50	125	0,7	4	0,23	<a href="#">8595057678026</a>
⊕ NO 45X50X125_F	125	50	151	0,7	4	0,33	<a href="#">8595057677968</a>
⊕ NO 45X50X250_F	250	50	203	0,7	4	0,69	<a href="#">8595057677982</a>
⊕ NO 45X100X125_F	125	100	151	0,7	8	0,48	<a href="#">8595057677906</a>
⊕ NO 45X100X250_F	250	100	203	0,7	8	0,89	<a href="#">8595057669499</a>
⊕ NO 45X100X500_F	500	100	307	0,7	8	1,88	<a href="#">8595057677920</a>

**elbow cover 45°**



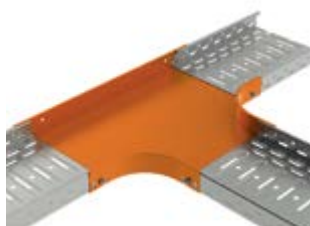
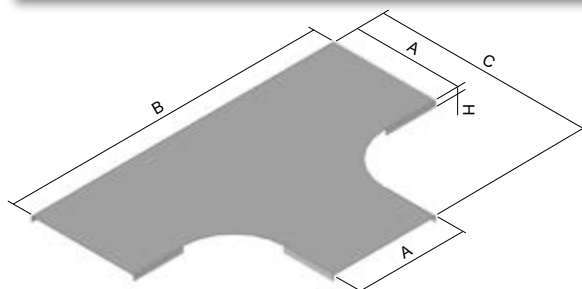
- ▶ To fix the cover use 3 pcs of cover fixtures VU (pg. 7).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	t	‡	EAN
● NVO 45X62_S	62	12	125	0,55	0,08	<a href="#">8595057682429</a>
● NVO 45X125_S	125	12	151	0,55	0,16	<a href="#">8595057654501</a>
● NVO 45X250_S	250	12	203	0,55	0,36	<a href="#">8595057654518</a>
● NVO 45X500_S	500	15	307	0,7	1,20	<a href="#">8595057682405</a>
⊕ NVO 45X62_F	62	12	125	0,6	0,11	<a href="#">8595057682436</a>
⊕ NVO 45X125_F	125	12	151	0,8	0,27	<a href="#">8595057669819</a>
⊕ NVO 45X250_F	250	12	203	0,8	0,62	<a href="#">8595057669826</a>
⊕ NVO 45X500_F	500	15	307	0,8	1,62	<a href="#">8595057682412</a>

**T-piece**


- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NSM 6X10 (pg. 27).
- ▶ To create diversion of different width is possible to use reduction piece NRD (pg. 14).
- ▶ These items can also be ordered in a varnished version.  
For more information, see pg. 7-2.

item	A	H	B	C	↑	‡	‡f	EAN
● NT 50X62_S	62	50	379	222	0,7	0,50	6	<a href="https://www.ean.com/8595057654457">8595057654457</a>
● NT 50X125_S	125	50	442	285	0,7	0,71	6	<a href="https://www.ean.com/8595057654396">8595057654396</a>
● NT 50X250_S	250	50	567	410	0,7	1,28	6	<a href="https://www.ean.com/8595057654419">8595057654419</a>
● NT 100X125_S	125	100	442	285	0,7	1,00	12	<a href="https://www.ean.com/8595057654389">8595057654389</a>
● NT 100X250_S	250	100	567	410	0,7	1,58	12	<a href="https://www.ean.com/8595057654402">8595057654402</a>
● NT 100X500_S	500	100	817	660	0,7	3,25	12	<a href="https://www.ean.com/8595057680128">8595057680128</a>
● NT 50X62_F	62	50	379	222	0,7	0,59	6	<a href="https://www.ean.com/8595057669710">8595057669710</a>
● NT 50X125_F	125	50	442	285	0,7	0,84	6	<a href="https://www.ean.com/8595057669673">8595057669673</a>
● NT 50X250_F	250	50	567	410	0,7	1,69	6	<a href="https://www.ean.com/8595057669697">8595057669697</a>
● NT 100X125_F	125	100	442	285	0,7	1,10	12	<a href="https://www.ean.com/8595057669642">8595057669642</a>
● NT 100X250_F	250	100	567	410	0,7	2,10	12	<a href="https://www.ean.com/8595057669659">8595057669659</a>
⊕ NT 100X500_F	500	100	817	660	0,7	4,26	12	<a href="https://www.ean.com/8595057680135">8595057680135</a>

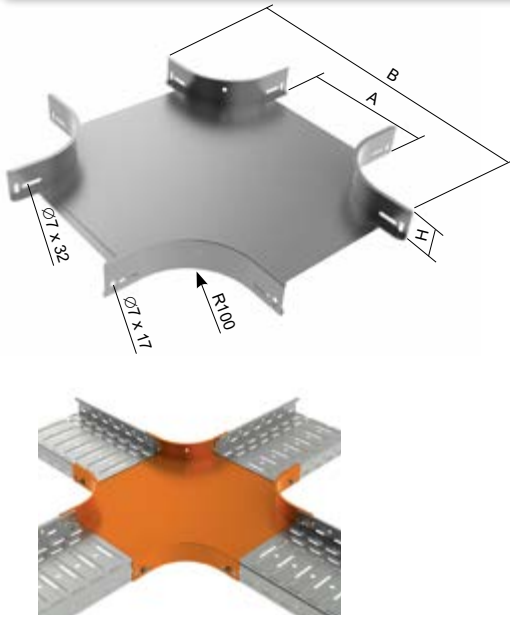

**T-piece cover**


- ▶ To fix the cover use 4 pcs of cover fixtures VU (pg. 7).
- ▶ These items can also be ordered in a varnished version.  
For more information, see pg. 7-2.

item	A	H	B	C	↑	‡	EAN
● NVT 62_S	62	12	379	222	0,55	0,20	<a href="https://www.ean.com/8595057654846">8595057654846</a>
● NVT 125_S	125	12	442	285	0,55	0,38	<a href="https://www.ean.com/8595057654808">8595057654808</a>
● NVT 250_S	250	12	567	410	0,55	0,85	<a href="https://www.ean.com/8595057654822">8595057654822</a>
● NVT 500_S	500	15	817	660	0,7	2,85	<a href="https://www.ean.com/8595057683181">8595057683181</a>
⊕ NVT 62_F	62	12	379	222	0,6	0,26	<a href="https://www.ean.com/8595057669925">8595057669925</a>
⊕ NVT 125_F	125	12	442	285	0,8	0,65	<a href="https://www.ean.com/8595057669895">8595057669895</a>
⊕ NVT 250_F	250	12	567	410	0,8	1,45	<a href="https://www.ean.com/8595057669918">8595057669918</a>
⊕ NVT 500_F	500	15	817	660	0,8	3,84	<a href="https://www.ean.com/8595057683198">8595057683198</a>



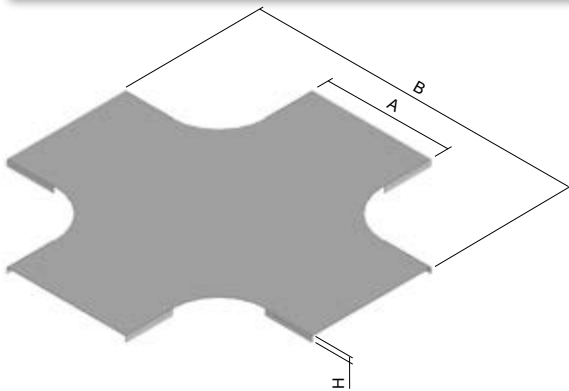
**cross-over**



- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NSM 6X10 (pg. 27).
- ▶ To create diversion of different width is possible to use reduction piece NRD (pg. 14).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

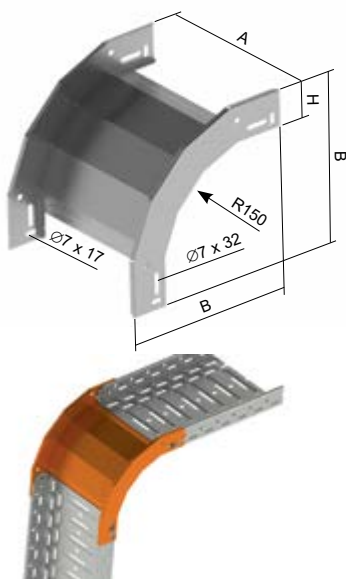
item	A	H	B	‡	‡	‡f	EAN
● NKR 50X62_S	62	50	379	0,7	0,62	8	<a href="https://www.ean.com/8595057676411">8595057676411</a>
● NKR 50X125_S	125	50	442	0,7	0,85	8	<a href="https://www.ean.com/8595057676312">8595057676312</a>
● NKR 50X250_S	250	50	567	0,7	1,43	8	<a href="https://www.ean.com/8595057676350">8595057676350</a>
● NKR 100X125_S	125	100	442	0,7	1,15	16	<a href="https://www.ean.com/8595057676213">8595057676213</a>
● NKR 100X250_S	250	100	567	0,7	1,73	16	<a href="https://www.ean.com/8595057653849">8595057653849</a>
● NKR 100X500_S	500	100	817	0,7	3,41	16	<a href="https://www.ean.com/8595057676251">8595057676251</a>
⊕ NKR 50X62_F	62	50	379	0,7	0,73	8	<a href="https://www.ean.com/8595057676428">8595057676428</a>
⊕ NKR 50X125_F	125	50	442	0,7	1,00	8	<a href="https://www.ean.com/8595057676329">8595057676329</a>
⊕ NKR 50X250_F	250	50	567	0,7	1,86	8	<a href="https://www.ean.com/8595057676367">8595057676367</a>
⊕ NKR 100X125_F	125	100	442	0,7	1,35	16	<a href="https://www.ean.com/8595057676220">8595057676220</a>
⊕ NKR 100X250_F	250	100	567	0,7	2,21	16	<a href="https://www.ean.com/8595057669437">8595057669437</a>
⊕ NKR 100X500_F	500	100	817	0,7	4,48	16	<a href="https://www.ean.com/8595057676268">8595057676268</a>

**cross-over cover**



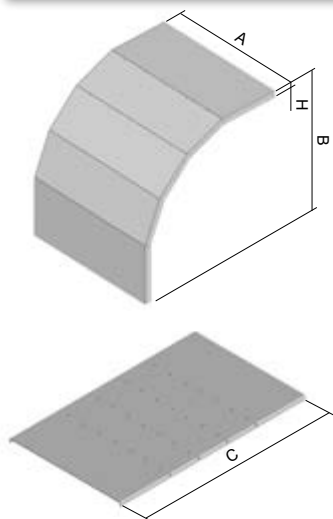
- ▶ To fix the cover use 4 pcs of cover fixtures VU (pg. 7).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	‡	‡	EAN
● NVKR 62_S	62	12	379	0,55	0,25	<a href="https://www.ean.com/8595057681606">8595057681606</a>
● NVKR 125_S	125	12	442	0,55	0,47	<a href="https://www.ean.com/8595057655652">8595057655652</a>
● NVKR 250_S	250	12	567	0,55	1,02	<a href="https://www.ean.com/8595057681507">8595057681507</a>
● NVKR 500_S	500	15	817	0,7	3,26	<a href="https://www.ean.com/8595057681569">8595057681569</a>
⊕ NVKR 62_F	62	12	379	0,6	0,33	<a href="https://www.ean.com/8595057681613">8595057681613</a>
⊕ NVKR 125_F	125	12	442	0,8	0,61	<a href="https://www.ean.com/8595057669802">8595057669802</a>
⊕ NVKR 250_F	250	12	567	0,8	1,75	<a href="https://www.ean.com/8595057681514">8595057681514</a>
⊕ NVKR 500_F	500	15	817	0,8	4,40	<a href="https://www.ean.com/8595057681576">8595057681576</a>

**low elbow 90°**


- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NSM 6X10 (pg. 27).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	†	‡	£†	EAN
● NKO 90X50X62_S	62	50	241	0,7	0,34	4	<a href="#">8595057653986</a>
● NKO 90X50X125_S	125	50	241	0,7	0,42	4	<a href="#">8595057653948</a>
● NKO 90X50X250_S	250	50	241	0,7	0,59	4	<a href="#">8595057653962</a>
● NKO 90X100X125_S	125	100	291	0,7	0,66	8	<a href="#">8595057653931</a>
● NKO 90X100X250_S	250	100	291	0,7	0,83	8	<a href="#">8595057653955</a>
● NKO 90X100X500_S	500	100	291	0,7	1,17	8	<a href="#">8595057675858</a>
⊕ NKO 90X50X62_F	62	50	241	0,7	0,40	4	<a href="#">8595057669420</a>
⊕ NKO 90X50X125_F	125	50	241	0,7	0,50	4	<a href="#">8595057669406</a>
⊕ NKO 90X50X250_F	250	50	241	0,7	0,75	4	<a href="#">8595057669413</a>
⊕ NKO 90X100X125_F	125	100	291	0,7	0,78	8	<a href="#">8595057669383</a>
⊕ NKO 90X100X250_F	250	100	291	0,7	1,03	8	<a href="#">8595057669390</a>
⊕ NKO 90X100X500_F	500	100	291	0,7	1,49	8	<a href="#">8595057675865</a>

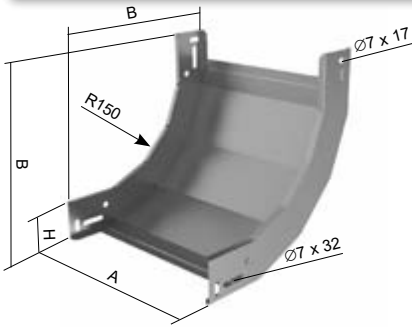
**low elbow 90° cover**


- ▶ To fix the cover use 4 pcs of cover fixtures VU (pg. 7).
- ▶ The covers are delivered straight. They are made from one piece of sheet metal with pre-cut side walls for later bending during assembly.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	C	†	‡	EAN
● NVKO 90X50X62_S	62	12	241	400	0,55	0,15	<a href="#">8595057654662</a>
● NVKO 90X50X125_S	125	12	241	400	0,55	0,26	<a href="#">8595057654624</a>
● NVKO 90X50X250_S	250	12	241	400	0,55	0,47	<a href="#">8595057654648</a>
● NVKO 90X100X125_S	125	12	291	479	0,55	0,31	<a href="#">8595057654617</a>
● NVKO 90X100X250_S	250	12	291	479	0,55	0,57	<a href="#">8595057654631</a>
● NVKO 90X100X500_S	500	15	291	479	0,7	1,42	<a href="#">8595057681101</a>
⊕ NVKO 90X50X62_F	62	12	241	400	0,6	0,20	<a href="#">8595057669796</a>
⊕ NVKO 90X50X125_F	125	12	241	400	0,8	0,45	<a href="#">8595057669772</a>
⊕ NVKO 90X50X250_F	250	12	241	400	0,8	0,81	<a href="#">8595057669789</a>
⊕ NVKO 90X100X125_F	125	12	291	479	0,8	0,53	<a href="#">8595057669758</a>
⊕ NVKO 90X100X250_F	250	12	291	479	0,8	0,97	<a href="#">8595057669765</a>
⊕ NVKO 90X100X500_F	500	15	291	479	0,8	1,91	<a href="#">8595057681118</a>



**rising elbow 90°**



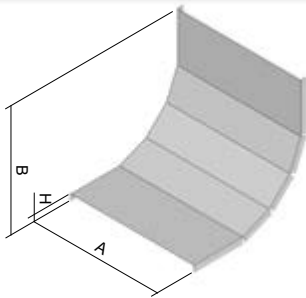
- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NSM 6X10 (pg. 27).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	↑	‡	‡f	EAN
● NSO 90X50X62_S	62	50	241	0,7	0,37	4	<a href="#">8595057679160</a>
● NSO 90X50X125_S	125	50	241	0,7	0,48	4	<a href="#">8595057654037</a>
● NSO 90X50X250_S	250	50	241	0,7	0,71	4	<a href="#">8595057654013</a>
● NSO 90X100X125_S	125	100	291	0,7	0,79	8	<a href="#">8595057653993</a>
● NSO 90X100X250_S	250	100	291	0,7	1,06	8	<a href="#">8595057654006</a>
● NSO 90X100X500_S	500	100	291	0,7	1,62	8	<a href="#">8595057679108</a>



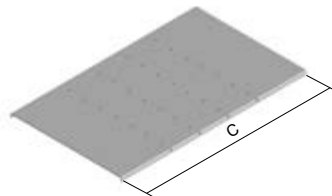
⊕ NSO 90X50X62_F	62	50	241	0,7	0,44	4	<a href="#">8595057679177</a>
⊕ NSO 90X50X125_F	125	50	241	0,7	0,57	4	<a href="#">8595057669628</a>
⊕ NSO 90X50X250_F	250	50	241	0,7	0,91	4	<a href="#">8595057669635</a>
⊕ NSO 90X100X125_F	225	100	291	0,7	0,93	8	<a href="#">8595057669604</a>
⊕ NSO 90X100X250_F	250	100	291	0,7	1,35	8	<a href="#">8595057669611</a>
⊕ NSO 90X100X500_F	500	100	291	0,7	2,10	8	<a href="#">8595057679115</a>

**rising elbow 90° cover**

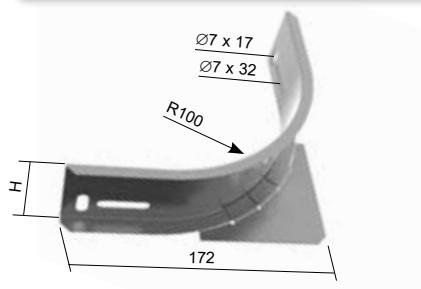


- ▶ To fix the cover use 4 pcs of cover fixtures VU (pg. 7).
- ▶ The covers are delivered straight. They are made from one piece of sheet metal with pre-cut side walls for later bending during assembly.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	C	↑	‡	EAN
● NVSO 90X62_S	62	12	203	316	0,55	0,12	<a href="#">8595057692602</a>
● NVSO 90X125_S	125	12	203	316	0,55	0,20	<a href="#">8595057692619</a>
● NVSO 90X250_S	250	12	203	316	0,55	0,30	<a href="#">8595057692626</a>
● NVSO 90X500_S	500	15	203	316	0,7	0,93	<a href="#">8595057692633</a>



⊕ NVSO 90X62_F	62	12	203	316	0,6	0,15	<a href="#">8595057695962</a>
⊕ NVSO 90X125_F	125	12	203	316	0,8	0,35	<a href="#">8595057695979</a>
⊕ NVSO 90X250_F	250	12	203	316	0,8	0,51	<a href="#">8595057695986</a>
⊕ NVSO 90X500_F	500	15	203	316	0,8	1,26	<a href="#">8595057695993</a>

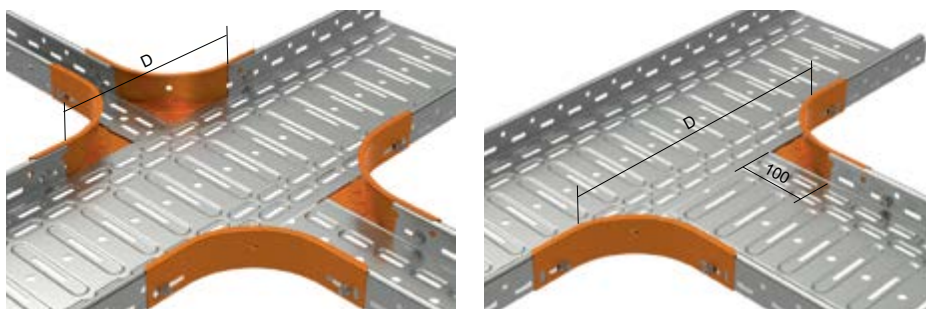
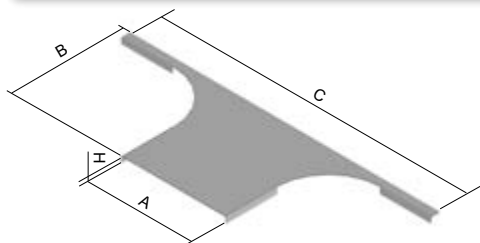
**reduction piece**


- ▶ The joining is performed using the bolts NSM 6X10 (pg. 27).
- ▶ It serves for creating of additional deviation or unequal T-piece or cross.
- ▶ Always to be used in a pair.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	H	†	‡	⌘	EAN
● NRD 50_S	50	0,7	0,12	2	<a href="#">8595057667037</a>
● NRD 100_S	100	0,7	0,47	4	<a href="#">8595057667044</a>
⊕ NRD 50_F	50	0,7	0,16	2	<a href="#">8595057678897</a>
⊕ NRD 100_F	100	0,7	0,55	4	<a href="#">8595057678873</a>

length of cut out side wall of the tray

branch to a channel	D
NKZI 50X62	262
NKZI 50X125	325
NKZI 100X125	325
NKZI 50X250	450
NKZI 100X250	450
NKZI 100X500	700

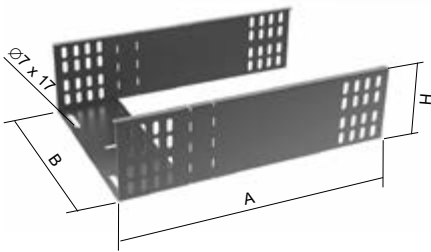

**branch cover**


- ▶ To fix the cover use 2 pcs of cover fixtures VU (pg. 7).
- ▶ The lid serves to cover the trase to be created by help of reducing parts.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	H	B	C	†	‡	EAN
● VOH 62_S	62	12	182	379	0,55	0,11	<a href="#">8595568905253</a>
● VOH 125_S	125	12	182	442	0,55	0,17	<a href="#">8595568905277</a>
● VOH 250_S	250	12	182	567	0,7	0,34	<a href="#">8595057630215</a>
● VOH 500_S	500	15	224	903	1,0	1,05	<a href="#">8595057633308</a>
⊕ VOH 62_F	62	12	182	379	0,8	0,25	<a href="#">8595568905260</a>
⊕ VOH 125_F	125	12	182	442	0,8	0,35	<a href="#">8595568905284</a>
⊕ VOH 250_F	250	12	182	567	0,8	0,56	<a href="#">8595057659339</a>
⊕ VOH 500_F	500	15	224	903	1,0	1,23	<a href="#">8595057659360</a>



**vertical branch - horizontal**



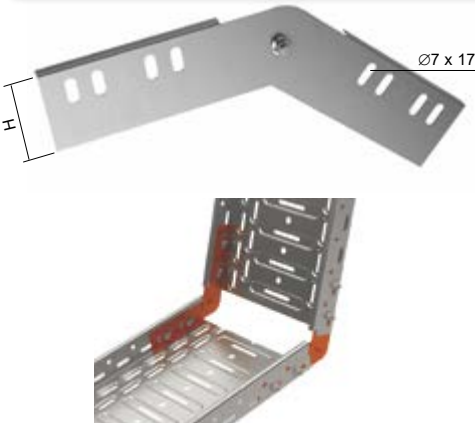
- ▶ This part enables a vertical route to be switched to horizontal.
- ▶ Particularly suitable for the main cable route, e.g. to machines or other equipment.
- ▶ Used together with a downward arc.
- ▶ Protected by industrial model.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	B	t	‡	EAN
● OSHK 50X62_S	300	50	62	0,8	0,24	<a href="#">8595568917584</a>
● OSHK 50X125_S	300	50	125	0,8	0,28	<a href="#">8595568917607</a>
● OSHK 50X250_S	300	50	250	1,0	0,44	<a href="#">8595568917621</a>
● OSHK 100X125_S	372	100	125	0,8	0,55	<a href="#">8595568917645</a>
● OSHK 100X250_S	372	100	250	1,0	0,78	<a href="#">8595568917669</a>
● OSHK 100X500_S	372	100	500	1,2	1,12	<a href="#">8595568917683</a>

item	A	H	B	t	‡	EAN
⊕ OSHK 50X62_F	300	50	62	0,8	0,28	<a href="#">8595568917591</a>
⊕ OSHK 50X125_F	300	50	125	0,8	0,33	<a href="#">8595568917614</a>
⊕ OSHK 50X250_F	300	50	250	1,0	0,51	<a href="#">8595568917638</a>
⊕ OSHK 100X125_F	372	100	125	0,8	0,64	<a href="#">8595568917652</a>
⊕ OSHK 100X250_F	372	100	250	1,0	0,90	<a href="#">8595568917676</a>
⊕ OSHK 100X500_F	372	100	500	1,2	1,32	<a href="#">8595568917690</a>

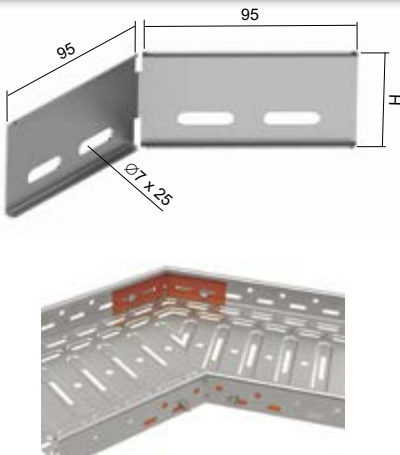
**hinged joint**



- ▶ For the connection of the hinged joint to the tray there are used the bolts NSM 6X10 (pg. 27).
- ▶ The joint is delivered in 1 piece per packing. For creating of trace flexure there are necessary 2 pcs.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	H	t	‡	‡f	EAN
● SK 50_S	43	0,8	0,09	4	<a href="#">8595057698611</a>
● SK 100_S	93	1,2	0,32	8	<a href="#">8595057698635</a>
⊕ SK 50_GMT	43	1,0	0,11	4	<a href="#">8595568926012</a>
⊕ SK 100_GMT	93	1,2	0,32	8	<a href="#">8595568926043</a>

**angle coupling**



- ▶ The joining is performed using the bolts NSM 6X10 (pg. 27).
- ▶ Angle couplings are mostly used at places where the route is slightly bended, for large bending radiuses or for the circumvention of columns and pillars.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	H	t	‡	EAN
● NSUK 50_S	47	1,0	0,07	<a href="#">8595057666948</a>
● NSUK 100_S	97	1,0	0,14	<a href="#">8595057666962</a>
⊕ NSUK 50_GMT	47	1,0	0,08	<a href="#">8595568925978</a>
⊕ NSUK 100_GMT	97	1,0	0,16	<a href="#">8595568925985</a>

t thickness of metal sheet (mm)  
‡f amount of bolts for connection

‡ weight kg/pcs

● standard  
⊕ to order

S Pre-Galvanized  
F Hot Dip Galvanized

GMT non electrolytic plating

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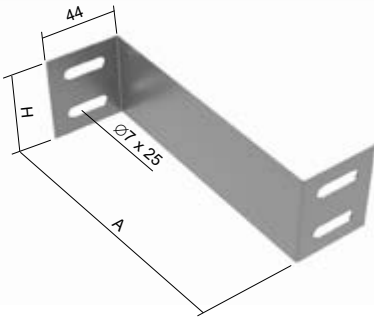
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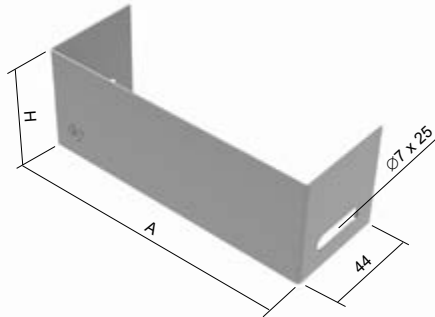
**reduction**


- ▶ The joining is performed using the bolts NSM 6X10 (pg. 27).
- ▶ The reduction is used for the transition between various tray widths with identical height of side walls.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	t	‡	Łf	EAN
● NR 50X62_S	63	40	0,8	0,03	2	<a href="#">8595057678842</a>
● NR 50X125_S	126	40	0,8	0,05	2	<a href="#">8595057678804</a>
● NR 100X125_S	126	90	0,8	0,11	4	<a href="#">8595057678767</a>
● NR 100X250_S	251	90	0,8	0,19	4	<a href="#">8595057678781</a>

item	A	H	t	‡	Łf	EAN
⊕ NR 50X62_F	63	40	0,8	0,04	2	<a href="#">8595057678859</a>
⊕ NR 50X125_F	126	40	0,8	0,05	2	<a href="#">8595057678811</a>
⊕ NR 100X125_F	126	90	0,8	0,14	4	<a href="#">8595057678774</a>
⊕ NR 100X250_F	251	90	0,8	0,23	4	<a href="#">8595057678798</a>

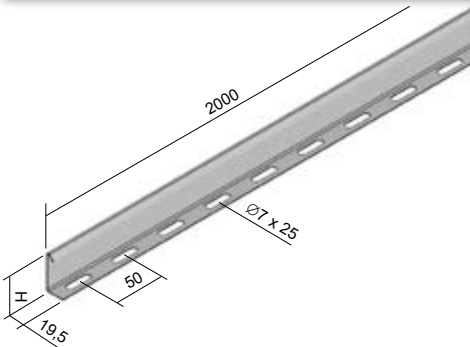
**end-piece**


- ▶ The joining is performed using the bolts NSM 6X10 (pg. 27).
- ▶ The end-piece serves for the ending off a route.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	A	H	t	‡	Łf	EAN
● NK 50X62_S	59	45	0,8	0,04	2	<a href="#">8595057675537</a>
● NK 50X125_S	122	45	0,8	0,06	2	<a href="#">8595057675476</a>
● NK 50X250_S	247	45	0,8	0,09	2	<a href="#">8595057675490</a>
● NK 100X125_S	122	95	0,8	0,12	4	<a href="#">8595057675391</a>
● NK 100X250_S	247	95	0,8	0,20	4	<a href="#">8595057675414</a>
● NK 100X500_S	497	95	0,8	0,44	4	<a href="#">8595057675438</a>

item	A	H	t	‡	Łf	EAN
⊕ NK 50X62_F	59	45	1,0	0,05	2	<a href="#">8595057675544</a>
⊕ NK 50X125_F	122	45	0,8	0,07	2	<a href="#">8595057675483</a>
⊕ NK 50X250_F	247	45	0,8	0,11	2	<a href="#">8595057675506</a>
⊕ NK 100X125_F	122	95	1,0	0,18	4	<a href="#">8595057675407</a>
⊕ NK 100X250_F	247	95	1,0	0,29	4	<a href="#">8595057675421</a>
⊕ NK 100X500_F	497	95	1,0	0,51	4	<a href="#">8595057675445</a>

**partition**


- ▶ The fixing of the partition is carried out by bolts NSM 6X10 (pg. 27).
- ▶ The partition serves to spatial separation of cables and ducting of different networks and functions. As well as it serves to separation of particular kinds of ducting from the viewpoint of electric compatibility. For this purpose there is recommended to use the lid and by this to create the closed shielded space.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	H	t	‡	EAN
● NPZ 50_S	44	0,8	0,47	<a href="#">8595057654198</a>
● NPZ 100_S	94	0,8	0,75	<a href="#">8595057654181</a>
⊕ NPZ 50_F	44	1,0	0,64	<a href="#">8595057669574</a>
⊕ NPZ 100_F	94	1,0	1,10	<a href="#">8595057669567</a>

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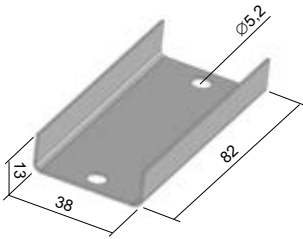
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coupling

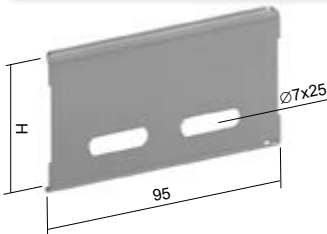


- ▶ The connection is made by bolt NSMP 5X10 (pg. 27).
- ▶ Lock washers shall always be used under the bolt head and under nut M5 to meet the requirement of conductive connecting according to ČSN 33 2000-4-41.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	↑	‡	∫	EAN
● NS 40_S	1,0	0,04	2	<a href="#">8595057678941</a>
⊕ NS 40_GMT	1,0	0,04	2	<a href="#">8595568925947</a>

coupling

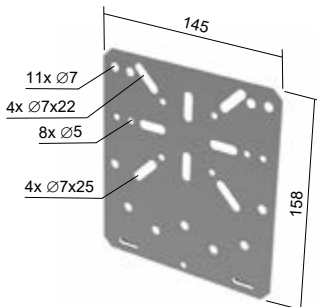


- ▶ The joining is performed using the bolts NSM 6X10 (pg. 27).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



item	H	↑	‡	∫	EAN
● NS 50_S	47	1,0	0,03	2	<a href="#">8595057654365</a>
● NS 100_S	97	1,0	0,07	4	<a href="#">8595057654303</a>
● NS 50_GMT	47	1,0	0,04	2	<a href="#">8595568925954</a>
● NS 100_GMT	97	1,0	0,08	4	<a href="#">8595568925961</a>

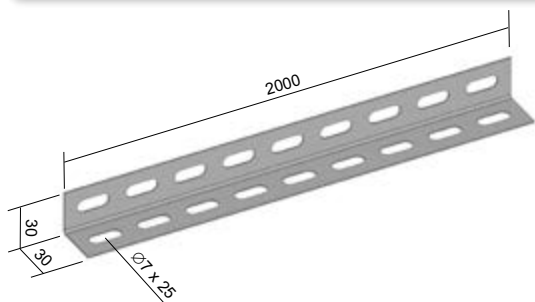
mounting plate



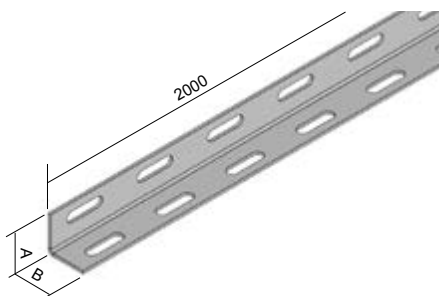
- ▶ For fastening junction boxes to the cable trays.
- ▶ It is pushed onto the side of cable trays and it is fixed by screws NSM 6X10 (pg. 27).
- ▶ Recommended for boxes KSK 80, KSK 100, KSK 125, KSK 175; 8101; 8102; 8106; 8107; 8110; 8111; 8112; 8130; 8135; 003.CS.K; 005.CS.K (see catalogue of Wiring materials).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.



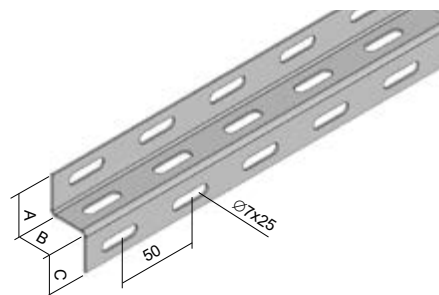
item	↑	‡	EAN
● MDS_S	1,0	0,165	<a href="#">8595057631762</a>
⊕ MDS_GMT	1,0	0,170	<a href="#">8595568927422</a>

**supporting corner**


item	‡	‡	EAN
● <b>NU 30X30_S</b>	1,0	0,80	<a href="#">8595057680944</a>
⊕ <b>NU 30X30_F</b>	1,0	0,93	<a href="#">8595057695832</a>

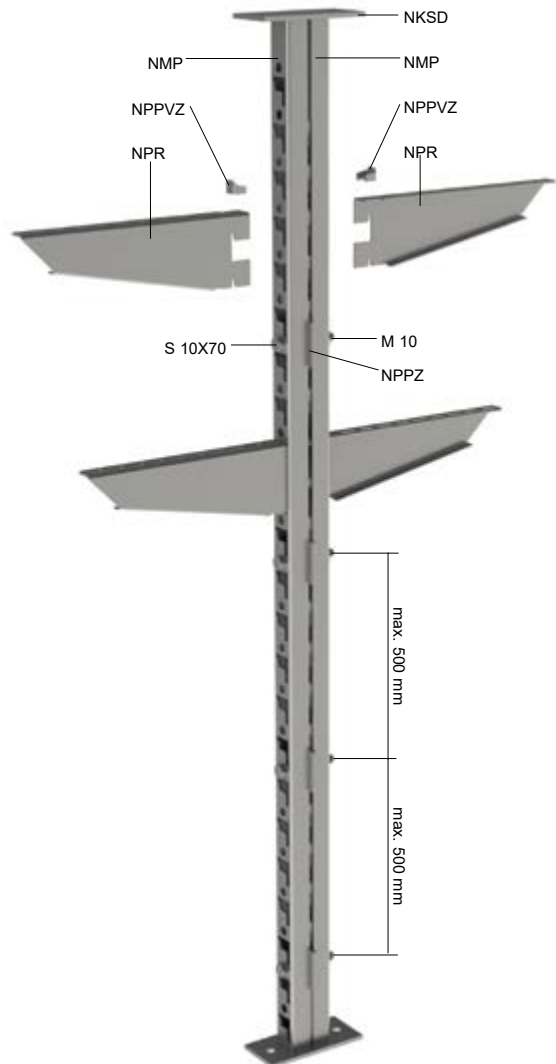
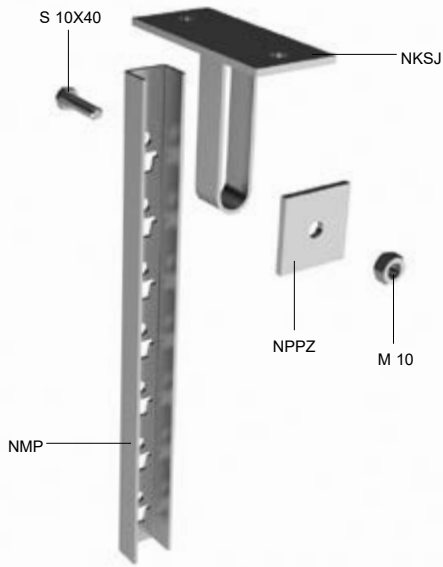
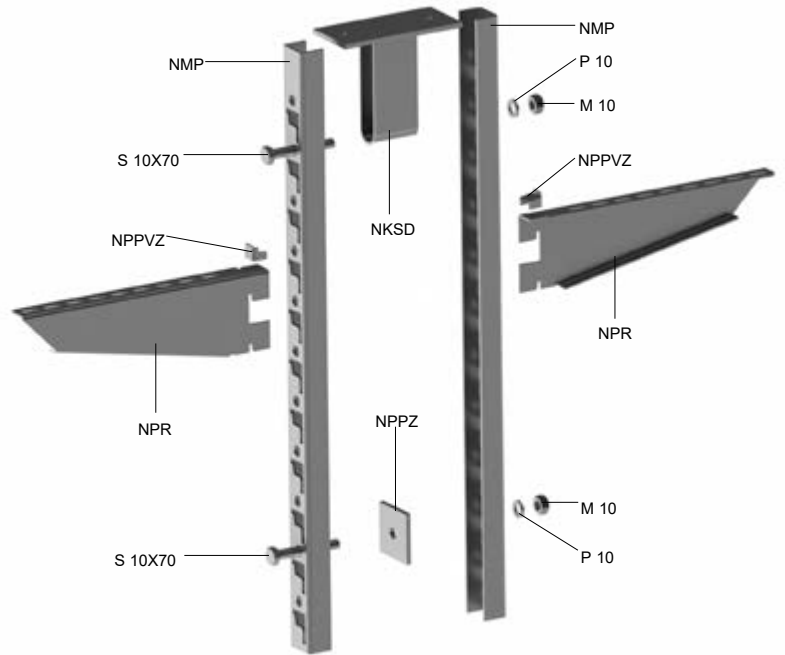
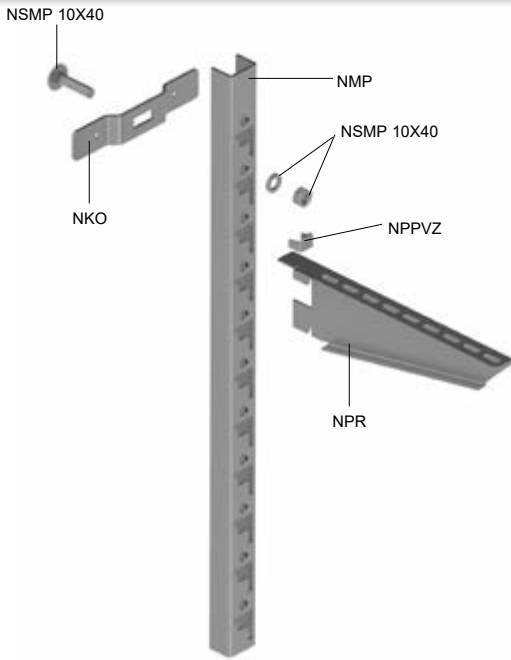
**L-profil and Z-profil**


item	A	B	C	‡	‡	EAN
● <b>L 25X1.25_S</b>	25	25	-	1,25	0,83	<a href="#">8595057631564</a>
● <b>L 25X50X1.25_S</b>	25	50	-	1,25	1,29	<a href="#">8595057640405</a>
● <b>L 50X50X1.25_S</b>	50	50	-	1,25	1,71	<a href="#">8595057631571</a>
⊕ <b>L 50X50X1.50_S</b>	50	50	-	1,50	2,05	<a href="#">8595057690301</a>
● <b>Z 25X1.50_S</b>	25	25	25	1,50	1,48	<a href="#">8595057631557</a>
● <b>Z 50X1.50_S</b>	50	50	50	1,50	3,01	<a href="#">8595057631540</a>
⊕ <b>L 25X1.25_F</b>	25	25	-	1,25	0,97	<a href="#">8595057662100</a>
⊕ <b>L 25X50X1.25_F</b>	25	50	-	1,25	1,49	<a href="#">8595057662124</a>
⊕ <b>L 50X50X1.25_F</b>	50	50	-	1,25	1,98	<a href="#">8595057662148</a>
⊕ <b>Z 25X1.50_F</b>	25	25	25	1,50	1,48	<a href="#">8595057665293</a>
⊕ <b>Z 50X1.50_F</b>	50	50	50	1,50	3,01	<a href="#">8595057665309</a>





examples of assemblies - assembly profiles, supports, brackets



marking	description	page
NKO	bracket	<a href="#">22</a>
NKSD	double vertical bracket	<a href="#">22</a>
NKSJ	single vertical bracket	<a href="#">22</a>
NMP	assembly profile	<a href="#">21</a>
NPPVZ	safety lock	<a href="#">21</a>
NPPZ	washer	<a href="#">21</a>
NPR	clamp support	<a href="#">20</a>
NSMP 10X40	bolt + nut + washer	<a href="#">27</a>
S 10X40	bolt	<a href="#">28</a>
S 10X70	bolt	<a href="#">28</a>
M 10	nut	<a href="#">28</a>
PD 10	washer	<a href="#">28</a>

The distance of suspended assembly profiles depends on the ceiling material, the load carrying capacity of fasteners and the weight of cables installed.

The brackets are attached to the ceiling and the floor in the same way.

1

2

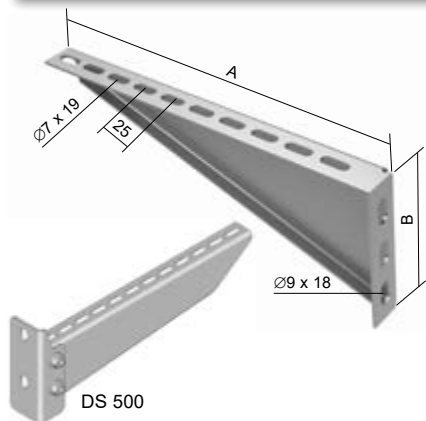
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**wall bracket**


- ▶ The tray is fixed to the support using 2 NSM 6X10 screws (pg. 27) - just 1 screw for the NPS 62.
- ▶ The support is fixed to the wall using 2 Ø 8 mm anchors (just 1 anchor for the NPS 62).
- ▶ The support DS 500 is designated for tray with a width of 500 mm.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

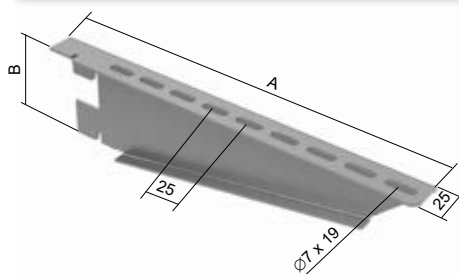


item	A	B	t	⊥	‡	EAN
● NPS 62_ZNCR	82	42	1,5	120	0,06	<a href="#">8595057654136</a>
● NPS 125_ZNCR	145	70	2,0	180	0,17	<a href="#">8595057654112</a>
● NPS 250_ZNCR	270	100	2,0	200	0,38	<a href="#">8595057678712</a>

item	A	B	t	⊥	‡	EAN
● NPS 62_F	82	42	1,5	120	0,07	<a href="#">8595057696266</a>
● NPS 125_F	145	70	2,0	180	0,17	<a href="#">8595057696273</a>
● NPS 250_F	270	100	2,0	200	0,44	<a href="#">8595057696280</a>

● DS 500_S	518	140	2,0	160	1,00	<a href="#">8595057628458</a>
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● DT 500_F	520	155	2,5	350	1,30	<a href="#">8595057628540</a>
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**clamp support**


- ▶ The tray is fixed to the support using 2 NSM 6X10 screws (pg. 27).
- ▶ When installed in an assembly profile, the support has to be secured by a safety lock NPPVZ (pg. 21).
- ▶ Example of assembling - see pg. 19.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	A	B	t	‡	EAN
● NPR 125_S	148	78	2,0	0,17	<a href="#">8595057654471</a>
● NPR 250_S	273	78	2,0	0,35	<a href="#">8595057678668</a>
● NPR 500_S	523	78	2,0	0,69	<a href="#">8595057678699</a>

⊕ NPR 125_F	148	78	2,0	0,20	<a href="#">8595057697416</a>
⊕ NPR 250_F	273	78	2,0	0,40	<a href="#">8595057697423</a>
⊕ NPR 500_F	523	78	2,0	0,80	<a href="#">8595057697430</a>



## assembly profile



- ▶ For the attachment of the assembly profile there is used the bracket NKO (pg. 22).
- ▶ Example of assembling - see pg. 19.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	A	B	‡	Ⓕ	EAN
●	NMP 300_F	35	300	0,45	2	<a href="#">8595057654235</a>
●	NMP 600_F	35	600	0,94	2	<a href="#">8595057677852</a>
●	NMP 800_F	35	800	1,24	3	<a href="#">8595057677869</a>
●	NMP 1200_F	35	1200	1,84	3	<a href="#">8595057677838</a>
●	NMP 2000_F	35	2000	3,08	4	<a href="#">8595057677845</a>
●	NMP 3000_F	35	3000	4,82	4	<a href="#">8595568935540</a>

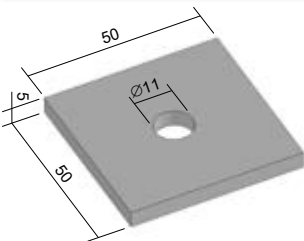
## safety lock



- ▶ The safety lock is used to secure clamp supports type NPR (pg. 20) in the assembly profile.
- ▶ Example of assembling - see pg. 19.

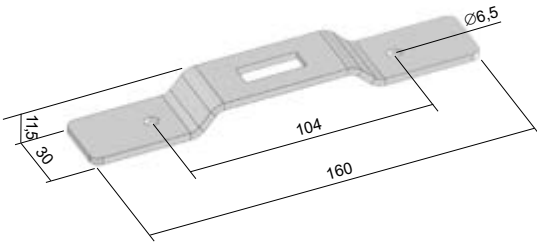
	item	‡	EAN
●	NPPVZ_S	0,008	<a href="#">8595057654143</a>

## washer



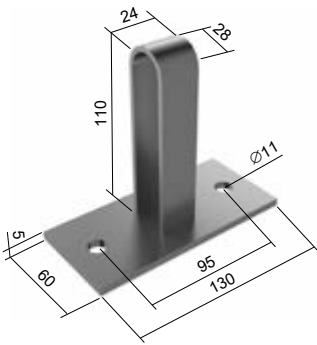
- ▶ The fixation is made by the bolt S10X40 for single-sided assembling or S 10X70 for both-sided assembling (pg. 28).
- ▶ Example of assembling - see pg. 19.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	‡	EAN
●	NPPZ_F	0,09	<a href="#">8595057667174</a>

**bracket**


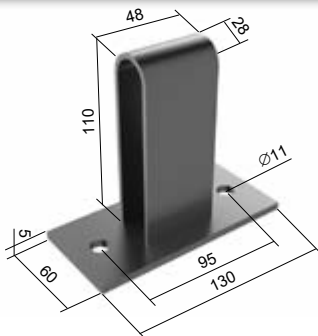
- ▶ For the attachment of the assembly profile to the bracket there is used the NSMP 10X40 (pg. 27).
- ▶ Brackets may be attached to a wall by using Ø 6 mm anchors, or with a nailer.
- ▶ Example of assembling - see pg. 19.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	‡	‡	EAN
● NKO_F	3,0	0,11	<a href="https://www.ean.com/8595057653788">8595057653788</a>

**single vertical bracket**


- ▶ The bracket is designed to anchor the mounting profile on the ceiling or floor.
- ▶ The fixing is carried out by the bolt S 10X40 (pg. 28).
- ▶ Example of assembling - see pg. 19.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	‡	EAN
● NKSJ_F	0,45	<a href="https://www.ean.com/8595057654242">8595057654242</a>

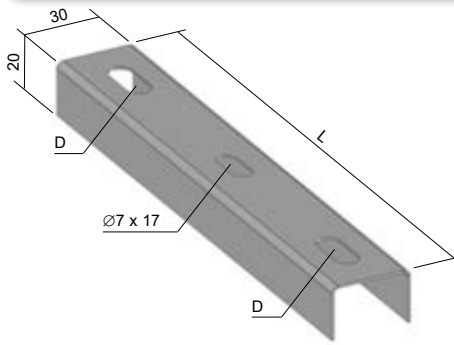
**double vertical bracket**


- ▶ The bracket is designed to anchor the mounting profile on the ceiling or floor.
- ▶ The fixing is carried out by the bolt S 10X70 (pg. 28).
- ▶ Example of assembling - see pg. 19.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	‡	EAN
● NKSD_F	0,58	<a href="https://www.ean.com/8595057667167">8595057667167</a>

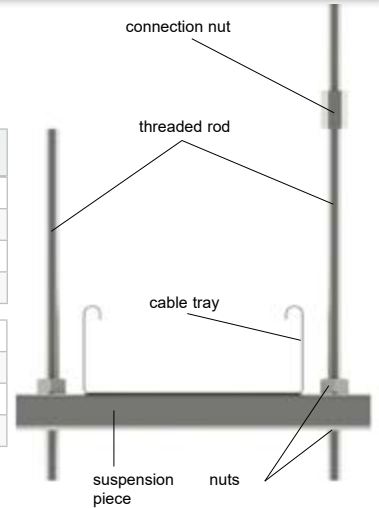


suspension piece

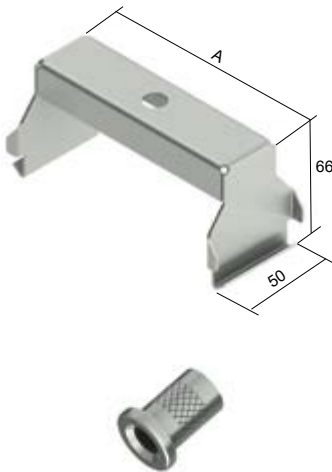


- ▶ It is used to suspend a cable tray in combination with threaded rods.
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

item	L	D	↑	‡	EAN
● NZ 62_S	107	∅ 9 x 18	1,0	0,06	<a href="#">8595057683839</a>
● NZ 125_S	170	∅ 9 x 18	1,0	0,19	<a href="#">8595057683808</a>
● NZ 250_S	295	∅ 9 x 18	1,0	0,15	<a href="#">8595057683815</a>
● NZ 500_S	545	∅ 11 x 20	1,0	0,29	<a href="#">8595057683822</a>
⊕ NZ 62_F	107	∅ 9 x 18	1,0	0,06	<a href="#">8595568927385</a>
⊕ NZ 125_F	170	∅ 9 x 18	1,0	0,10	<a href="#">8595568927392</a>
⊕ NZ 250_F	295	∅ 9 x 18	1,0	0,18	<a href="#">8595568927408</a>
⊕ NZ 500_F	545	∅ 11 x 20	1,0	0,33	<a href="#">8595568927415</a>



outer hanger



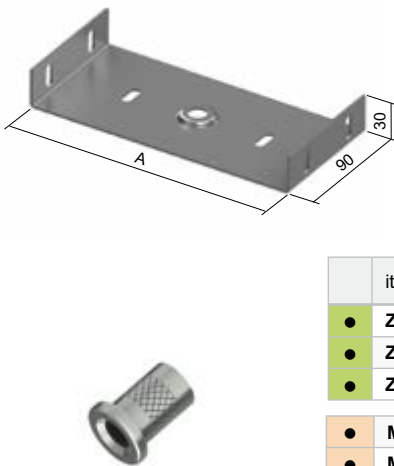
- ▶ The maximum load is 90 kg.
- ▶ It is mounted using the threaded rod ZT 8 or ZT 10 and nuts.
- ▶ **The MN nut is not part of the hangings.**
- ▶ The dimension of the nut is selected according to the diameter of threading bar.
- ▶ The hanging is suitable for hang-up the trays with partition.



item	A	‡	EAN
● ZVNE 62_S	42	0,11	<a href="#">8595568903013</a>
● ZVNE 125_S	105	0,16	<a href="#">8595568903020</a>
● ZVNE 250_S	230	0,27	<a href="#">8595057639546</a>
● MN 8_ZNCR	-	0,01	<a href="#">8595568903594</a>
● MN 10_ZNCR	-	0,01	<a href="#">8595568903600</a>

item	A	‡	EAN
⊕ ZVNE 62_F	42	0,12	<a href="#">8595568923448</a>
⊕ ZVNE 125_F	105	0,18	<a href="#">8595568923455</a>
⊕ ZVNE 250_F	230	0,30	<a href="#">8595057662476</a>

inner hanger



- ▶ The maximum load is 90 kg.
- ▶ It is mounted using the threaded rod ZT 8 or ZT 10 and nuts.
- ▶ **The MN nut is not part of the hangings.**
- ▶ The dimension of the nut is selected according to the diameter of threading bar.
- ▶ The inner hanger is inserted into the tray before connecting it to another tray.



item	A	‡	‡f	EAN
● ZVNI 62_S	58	0,14	4	<a href="#">8595568927439</a>
● ZVNI 125_S	121	0,20	4	<a href="#">8595568927453</a>
● ZVNI 250_S	246	0,41	4 (6)	<a href="#">8595568927477</a>
● MN 8_ZNCR	-	0,01	-	<a href="#">8595568903594</a>
● MN 10_ZNCR	-	0,01	-	<a href="#">8595568903600</a>

item	A	‡	‡f	EAN
⊕ ZVNI 62_F	58	0,16	4	<a href="#">8595568927446</a>
⊕ ZVNI 125_F	121	0,27	4	<a href="#">8595568927460</a>
⊕ ZVNI 250_F	246	0,47	4 (6)	<a href="#">8595568927484</a>

↑ thickness of metal sheet (mm)  
‡f amount of bolts for connection

● standard  
⊕ to order

ZNCR Bichromatic galvanized

F Hot Dip Galvanized  
S Pre-Galvanized

1

2

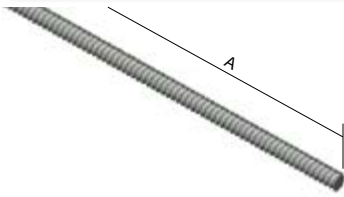
3

4

5

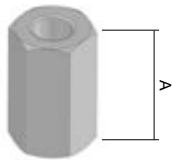
6

index

**threaded rod**


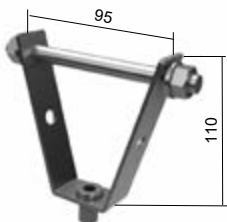
- ▶ DIN 976.
- ▶ Strength class 4.8

	item	Ø	±	‡	A	EAN
●	ZT 6_ZNCR	M6	0,85	0,17	2000	<a href="#">8595057633490</a>
●	ZT 8_ZNCR	M8	3,43	0,31	2000	<a href="#">8595057631793</a>
●	ZT 10_ZNCR	M10	5,63	0,46	2000	<a href="#">8595057628922</a>
⊕	ZT 12_ZNCR	M12	7,73	0,70	2000	<a href="#">8595057639591</a>
⊕	ZT 8_ZNC1	M8	3,43	0,31	1000	<a href="#">8595057692848</a>
⊕	ZT 8_ZNC3	M8	3,43	0,31	3000	<a href="#">8595568925022</a>
⊕	ZT 10_ZNC3	M10	5,63	0,46	3000	<a href="#">8595568925039</a>
⊕	ZT 10_GMT	M10	5,63	0,46	1000	<a href="#">8595568928016</a>

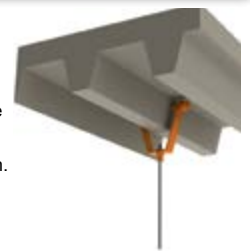
**connection nut**


- ▶ Used for the connection of two threaded rods.

	item	A	Ø	‡	EAN
●	MZ 6_ZNCR	18	M6	0,01	<a href="#">8595057633506</a>
●	MZ 8_ZNCR	24	M8	0,02	<a href="#">8595057633513</a>
●	MZ 10_ZNCR	30	M10	0,04	<a href="#">8595057629929</a>


**bracket for trapeze ceilings**


- ▶ The DSOS holder is designed for fitting a threaded rod and attaching it to trapezoidal sheet metal.
- ▶ The DSOS comes with M 8 or M 10 adjusting nuts.
- ▶ The choice of DSOS 8 or DSOS 10 depends on which threaded rod is used, the ZT 8 or the ZT 10.
- ▶ For attachment to a trapezoidal ceiling the hinge is fitted with a transverse M8 x 120 mm pin.
- ▶ The pin has a washer and nut on both sides.



	item	‡	±	EAN
●	DSOS 8_ZNCR	0,17	1,3	<a href="#">8595568923783</a>
●	DSOS 10_ZNCR	0,17	1,3	<a href="#">8595568923790</a>

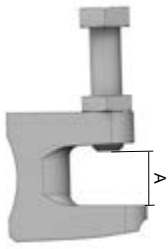
thickness metal sheet of trapeze ceiling (mm)	load (N)
0,63-0,70	630
0,70-0,80	740
0,80-1,00	850
1,00-1,20	1050
1,20-1,50	1250
>1,50	1550

The loading values mentioned in the table are valid only for constant load.





**fixation clamp**



- ▶ The fixation clamp is used for fixation of the threaded rod on I profile, a packing includes a fixation screw and a lock nut.

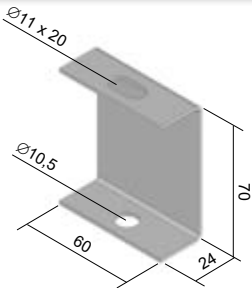
	item	‡	⊥	used with	A	EAN
●	US 1_ZNCR	0,14	2,5	ZT 8	0 - 20	<a href="#">8595057632691</a>
●	US 2_ZNCR	0,15	2,5	ZT 10	0 - 20	<a href="#">8595057629912</a>
⊕	US 3_ZNCR	0,21	2,5	ZT 12	0 - 26	<a href="#">8595057639577</a>



1

2

**ceiling bracket**



- ▶ Used together with a threaded rod ZT8 or ZT10.

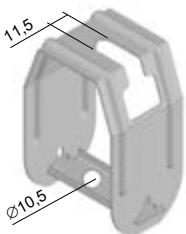
	item	‡	EAN
●	DSZT_S	0,10	<a href="#">8595057633483</a>
⊕	DSZT_F	0,12	<a href="#">8595057662506</a>



3

4

**adjustable ceiling bracket**



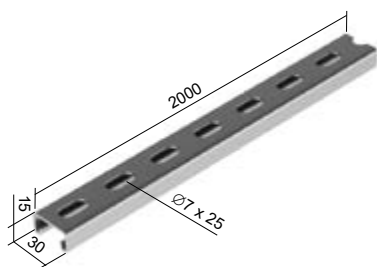
- ▶ Used together with a threaded rod ZT8 or ZT10.
- ▶ Ideal for a slight roof construction slant.

	item	‡	EAN
●	DSS_S	0,14	<a href="#">8595057633599</a>



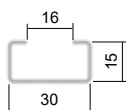
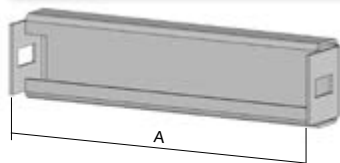
5

6

**load bearing profile**


- It is designed to mount PKC cable clamps and thus anchor the cables to the wall or ceiling.

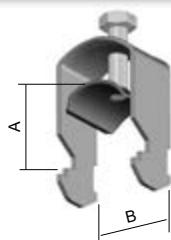
item	‡	‡	EAN
● NP 30X15X1.20_S	1,2	0,58	<a href="#">8595568930316</a>


**supporting profile for cable trays**


- The supporting profiles is designated for the cable trays.
- It is installed on the bottom of the cable tray and it is fixed by using two bolts NSM 6X10 (pg. 27) to the tray sidewalls.
- It is used for mounting of cable clamps and there by for the anchoring of the cables inside the tray.
- It finds its use primarily in vertical routes, for the lightening of the cable tension. When using a cover it is necessary to take into account the height of the clamps.



item	A	‡	EAN	item	A	‡	EAN
● NPKV 125_S	122,5	0,08	<a href="#">8595057690042</a>	⊕ NPKV 125_F	122,5	0,10	<a href="#">8595568915061</a>
● NPKV 250_S	247,5	0,16	<a href="#">8595057690059</a>	⊕ NPKV 250_F	247,5	0,19	<a href="#">8595568915078</a>
● NPKV 500_S	497,5	0,32	<a href="#">8595057690066</a>	⊕ NPKV 500_F	497,5	0,37	<a href="#">8595568905796</a>

**cable clamp for 1 cable**


- A min and B indicate the minimum and maximum diameter of the cable being fastened.
- For basic orientation in choosing cable clamps, use mentioned propositions.
- The basic surface treatment with which clamps are delivered makes it possible to use them even in harsh weather environments.



item	A min	B	‡	EAN
● PKC1 1198_F	6	12	0,03	<a href="#">8595057644878</a>
● PKC1 1199_F	7	16	0,03	<a href="#">8595057644885</a>
● PKC1 1200_F	10	19	0,04	<a href="#">8595057642232</a>
● PKC1 1201_F	14	23	0,04	<a href="#">8595057642249</a>
● PKC1 1202_F	20	26	0,04	<a href="#">8595057635586</a>
● PKC1 1203_F	24	30	0,06	<a href="#">8595057635517</a>
● PKC1 1204_F	25	34	0,07	<a href="#">8595057635401</a>
● PKC1 1205_F	29	38	0,08	<a href="#">8595057635524</a>
● PKC1 1206_F	32	43	0,09	<a href="#">8595057644892</a>
● PKC1 1207_F	42	46	0,10	<a href="#">8595057644908</a>
● PKC1 1208_F	44	50	0,10	<a href="#">8595057635531</a>
● PKC1 1209_F	50	54	0,11	<a href="#">8595057635593</a>
● PKC1 1210_F	51	58	0,14	<a href="#">8595057644915</a>
● PKC1 1211_F	55	63	0,16	<a href="#">8595057644922</a>
● PKC1 1212_F	59	69	0,16	<a href="#">8595057635609</a>

NKZI 50	NKZI 100
no	yes
no	yes
no	yes
no	yes
no	yes
no	yes
no	yes
no	yes
no	yes
no	no
no	no
no	no
no	no
no	no
no	no

The possibility of trace covering by cover upon use of maximum cable diameter into the cable clamps.





## clamp



- ▶ Serves for securing the connection of cable trays.
- ▶ The GMT surface finish also means it can be used with cable trays with a hot dip galvanized finish.

	item	⊂	EAN
●	<b>KSV_GMT</b>	100	<a href="#">8595057627765</a>



## carriage bolt and lock nut



- ▶ It is used to fixing the connection of cable trays and accessories or to fasten to the support.
- ▶ Designed to assure conductive bonding of cable trays and accessories.
- ▶ The GMT surface treatment is used for cable trays in the hot dip galvanizing (F) and Zn+Mg+Al galvanizing (ZM) surface treatment. May also be used for galvanized trays (conf. S).

	item	⊂	EAN
●	<b>NSM 6X10_ZNCR</b>	100	<a href="#">8595057667129</a>
●	<b>NSM 6X20_ZNCR</b>	100	<a href="#">8595568934062</a>
●	<b>NSM 6X10_GMT</b>	100	<a href="#">8595057692947</a>
●	<b>NSM 6X20_GMT</b>	100	<a href="#">8595568934079</a>

## bolt + nut + lock washers



- ▶ Serves to secure the conductive interconnection - suitable for coated trays.

	item	⊂	EAN
●	<b>NSMP 5X10_ZNCR</b>	100	<a href="#">8595568903839</a>
●	<b>NSMP 6X10_ZNCR</b>	100	<a href="#">8595057679078</a>

## carriage bolt + nut + plain washer



- ▶ Used to attach the NMP mounting profile to the NKO bracket (see pg. 19).

	item	⊂	EAN
●	<b>NSMP 10X40_ZNCR</b>	50	<a href="#">8595568904096</a>

**bolt with hexagonal head**


- ▶ S 10X40 - serves to fixation of assembling profile NMP for single console NKSJ. The assembling is executed by help of NPPZ pad and M 10 nut (see pg. 19).
- ▶ S 10X70 - serves to fixation of assembling profile NMP for double console NKSD. The assembling is executed by help of PD 10 pad and M 10 nut. Further it serves to fixation of 2 assembling profiles NMP to one another.
- ▶ The assembling is executed by help of NPPZ pad, PD 10 pad and M 10 nut (see pg. 19).

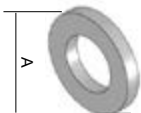
item	‡	∪	EAN
● S 6X20_ZNCR	0,006	100	<a href="#">8595057630451</a>
⊕ S 6X30_ZNCR	0,008	100	<a href="#">8595057640733</a>
● S 8X20_ZNCR	0,012	100	<a href="#">8595057638822</a>
● S 8X25_ZNCR	0,014	100	<a href="#">8595568934017</a>
● S 8X30_ZNCR	0,016	100	<a href="#">8595057640740</a>
● S 8X40_ZNCR	0,019	100	<a href="#">8595057640757</a>
● S 8X50_ZNCR	0,022	100	<a href="#">8595057640764</a>
⊕ S 8X70_ZNCR	0,028	100	<a href="#">8595057640771</a>
● S 10X20_ZNCR	0,021	100	<a href="#">8595057628724</a>
● S 10X25_ZNCR	0,024	100	<a href="#">8595568934031</a>
● S 10X30_ZNCR	0,026	100	<a href="#">8595057628731</a>
● S 10X40_ZNCR	0,031	100	<a href="#">8595057640788</a>
● S 10X50_ZNCR	0,036	100	<a href="#">8595057698123</a>
● S 10X70_ZNCR	0,046	100	<a href="#">8595057698130</a>

item	‡	∪	EAN
⊕ S 12X20_ZNCR	0,031	100	<a href="#">8595057633124</a>
⊕ S 12X25_ZNCR	0,034	100	<a href="#">8595568934055</a>
⊕ S 12X30_ZNCR	0,038	100	<a href="#">8595057633131</a>
⊕ S 12X40_ZNCR	0,045	100	<a href="#">8595057640795</a>
⊕ S 12X50_ZNCR	0,052	100	<a href="#">8595057640801</a>
⊕ S 8X20_GMT	0,012	100	<a href="#">8595568928696</a>
⊕ S 8X30_GMT	0,020	100	<a href="#">8595568924024</a>
⊕ S 10X20_GMT	0,021	100	<a href="#">8595568928702</a>
⊕ S 10X30_GMT	0,026	100	<a href="#">8595568934048</a>
⊕ S 10X40_GMT	0,031	100	<a href="#">8595568928719</a>

**hexagonal nut**


item	∪	EAN
● M 6_ZNCR	100	<a href="#">8595057633636</a>
● M 8_ZNCR	100	<a href="#">8595057633643</a>
● M 10_ZNCR	100	<a href="#">8595057630406</a>
● M 12_ZNCR	100	<a href="#">8595057640818</a>

item	∪	EAN
⊕ M 8_GMT	100	<a href="#">8595568928528</a>
⊕ M 10_GMT	100	<a href="#">8595568928511</a>
⊕ M 12_GMT	100	<a href="#">8595568928535</a>

**washer**


item	A	∪	EAN
● PD 6_ZNCR	12	100	<a href="#">8595057640832</a>
● PD 8_ZNCR	16	100	<a href="#">8595057633438</a>
● PD 10_ZNCR	20	100	<a href="#">8595057633445</a>
● PD 12_ZNCR	24	100	<a href="#">8595057640849</a>

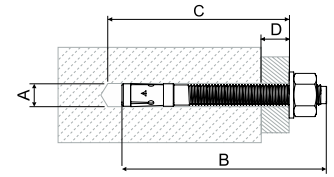
item	A	∪	EAN
⊕ PD 8_GMT	16	100	<a href="#">8595568927996</a>
⊕ PD 10_GMT	20	100	<a href="#">8595568928542</a>
⊕ PD 12_GMT	24	100	<a href="#">8595568928009</a>



**anchor**



- ▶ The anchors are suitable for suspended, push-through and distance mounting.
- ▶ Types of base material: cracked concrete, non-cracked concrete, natural stone with a dense structure.



	item	approved seismicity class	drill bit diameter A [mm]	total length of anchor B [mm]	min. depth of drilled hole during through-hole mounting C [mm]	maximum usable length D [mm]	thread	spanner size	EAN
●	KPO 6X50_PO	-	6	65	60	10	M6	10	<a href="#">8595057691162</a>
●	KPO 6X70_PO	-	6	65	60	10	M6	10	<a href="#">8595057691179</a>
●	KPO 8X77_PO	C1	8	75	70	10	M8	13	<a href="#">8595057691100</a>
●	KPO 8X97_PO	C1	8	95	85	30	M8	13	<a href="#">8595057691117</a>
●	KPO 8X110_PO	C1/C2	8	115	105	50	M8	13	<a href="#">8595568931139</a>
●	KPO 10X95_PO	C1/C2	10	92	85	10	M10	17	<a href="#">8595057691124</a>
●	KPO 10X115_PO	C1/C2	10	115	105	30	M10	17	<a href="#">8595057691131</a>
●	KPO 10X175_PO	C1/C2	10	185	175	100	M10	17	<a href="#">8595568931153</a>
●	KPO 12X120_PO	C1/C2	12	118	110	20	M12	19	<a href="#">8595057691148</a>
⊕	KPO 8X77_POGMT	-	8	80	65	10	M8	13	<a href="#">8595568927965</a>
⊕	KPO 8X97_POGMT	-	8	100	90	35	M8	13	<a href="#">8595568929631</a>
⊕	KPO 10X95_POGMT	-	10	95	84	15	M10	17	<a href="#">8595568927972</a>
⊕	KPO 10X115_POGMT	-	10	115	104	35	M10	17	<a href="#">8595568929648</a>
⊕	KPO 12X120_POGMT	-	12	120	105	25	M12	19	<a href="#">8595568929655</a>

**anchor**



- ▶ The knock in anchors KKZ serve for the direct attachment of the threaded rods.
- ▶ There is a strut pin inside the anchor, which must be driven into the correct position before the assembly of a threaded rod.
- ▶ This item is suitable for fixing into concrete or natural stone.
- ▶ KKZ 8, KKZ 10 and KKZ 12 anchors are fitted with a collar.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

	item	A	B	C	thread	guaranteed tensile load concrete C20/25 (kN)	‡	EAN
●	KKZ 6_ZNCR	8	25	27	M6	2,50	0,01	<a href="#">8595057697553</a>
●	KKZ 8_ZNCR	10	30	32	M8	3,00	0,01	<a href="#">8595057697560</a>
●	KKZ 10_ZNCR	12	40	42	M10	4,75	0,02	<a href="#">8595057697577</a>
●	KKZ 12_ZNCR	15	50	52	M12	6,80	0,05	<a href="#">8595057697584</a>

**brass stop anchor**



- ▶ The knock in anchors KKZM serve for the direct attachment of the threaded rods.
- ▶ The brass anchors have an inner conical thread, which expands during the assembly of a threaded rod or bolt.
- ▶ The threaded rod (bolt) must be driven into the full length of the anchor.
- ▶ This item is suitable for fixing into concrete, natural stone, wood, chipboard and solid brick.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

	item	A	B	C	thread	concrete C20/25		‡	EAN
						tensile load (kN)	tightening torque (Nm)		
●	KKZM 8_XX	10	30	35	M8	1,50	6	0,01	<a href="#">8595568925893</a>
●	KKZM 10_XX	12	35	40	M10	2,50	10	0,01	<a href="#">8595568925909</a>

‡ weight kg/pcs

● standard

⊕ to order

XX brass

POGMT non electrolytic plating

ZNCR Bichromatic galvanized

PO Bichromatic galvanized

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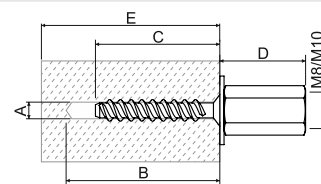
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**bolt into concrete with internal thread**

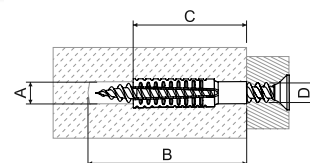

- ▶ M8 / M10 combined screw for quick and easy mounting of screws or threaded rods.
- ▶ Designed for installation in cracked concrete C20 / 25 to C50 / 60, pre stressed cavity panels C30 / 37 to C50 / 60, into natural stone with a dense structure.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - screw depth
- ▶ D - height of fixing nut
- ▶ E - minimum thickness of the anchor



item	A	B	C	D	E	spanner size	tightening torque	‡	EAN	concrete C20/25 to C50/60		preloaded cavity panels			
										guaranteed load		min. axial distance from the edge	concrete thickness under the cavity	permissible equipment	min. axial distance from the edge
										tensile	shearing				
										kN	kN				
● <b>KBS 6X35 M8/M10_PO</b>	6	45	35	26,5	80	13	≤10	0,03	<a href="#">8595568931122</a>	0,6	2,4	35	≥25	0,4	100
													≥30	0,8	
													≥35	1,2	

**metal expansion anchor**


- ▶ For pre-assembled mounting in concrete, porous concrete, vertically perforated bricks, natural stone with a dense structure, solid brickwork blocks, solid sandlime bricks.
- ▶ The external teeth expand in the building material, thus ensuring a high loadbearing capacity. Thread must be screwed in at least min. to the full length of the anchor. The length of the anchor is calculated: length of the anchor + bolt diameter + thickness of the anchor + thickness of the plaster or insulation.
- ▶ The ribbed inner anchor shape is suitable for screws. If used in systems with maintained functionality in fire, a SB 6.3X35 screw is used.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - length of bolt
- ▶ D - thread diameter



item	A	B	C	D	‡	EAN	the recommended hole diameter for the material			guaranteed load - stroke, cut, oblique stroke applies to the specified thread diameter and material		
							concrete C20/25	porous concrete PB4	vertically perforated bricks HLZ12	thread diameter	porous concrete ≥PB2, PP2 (G2)	porous concrete ≥PB4, PP4 (G4)
							mm	mm	mm	mm	kN	kN
● <b>KHP 6X32_PO</b>	7-9	38	32	5-6	0,01	<a href="#">8595568931009</a>	7	6	7	-	-	-
● <b>KHP 8X38_PO</b>	10-12	46	38	6-8	0,01	<a href="#">8595568931016</a>	10	10	10	8	0,2	0,3
● <b>KHP 8X60_PO</b>	10-12	68	60	6-8	0,03	<a href="#">8595568931023</a>	12	10	10	8	0,3	0,4
● <b>KHP 10X60_PO</b>	12-14	68	60	8-10	0,03	<a href="#">8595568931030</a>	14	12	12	10	0,4	0,6



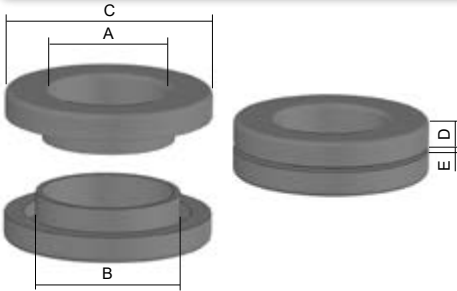
**edge protector**



- ▶ The edge protector made from plastic with a steel insert is used to protect the edges of cable trays.
- ▶ Package = 10 m, sold in entire packs.
- ▶ The protector there is possible to install to the metal sheets of max. 2 mm thickness.

item	‡	EAN
● <b>NCH_XX</b>	0,06	<a href="#">8595057669932</a>

**bushing**



- ▶ Bushings serve for the safe passing of the cables through the sheet metal.
- ▶ One part of the bushing is inserted from one side into the created opening in the bottom or the sidewall of the tray, the second part is inserted from the second side and gentle pressure is used to press both the parts together and this connects them firmly.



B - drilled hole diameter

item	A	B	C	D	E	‡	EAN
● <b>NKP 9_FB</b>	10	<b>15</b>	24	5	0,5 - 5	0,002	<a href="#">8595057689466</a>
● <b>NKP 11_FB</b>	12	<b>18,5</b>	26	6	0,5 - 5	0,004	<a href="#">8595057689473</a>
● <b>NKP 13_FB</b>	16	<b>20</b>	31	6	0,5 - 5	0,006	<a href="#">8595057689480</a>
● <b>NKP 16_FB</b>	17	<b>22</b>	33	6	0,5 - 5	0,006	<a href="#">8595057689497</a>
● <b>NKP 21_FB</b>	24	<b>28</b>	40	7	0,5 - 5	0,010	<a href="#">8595057689503</a>
● <b>NKP 29_FB</b>	31	<b>37</b>	53	7	0,5 - 5	0,018	<a href="#">8595057689510</a>

**zinc paint / spray**



- ▶ Anticorrosive protection to be intended for service of defective and damaged places on galvanized surface.
- ▶ Lay on the color by paintbrush, stipple technology.

item	‡	EAN
● <b>WEICON 375_XX</b> (paint)	0,50	<a href="#">8595057621183</a>
● <b>WEICON 750_XX</b> (paint)	1,10	<a href="#">8595057693609</a>
● <b>GZS_XX</b> (spray)	0,45	<a href="#">8595057633148</a>

**construction - flexion or evansion of the trace**

For horizontal flexion we use the elbows O 90 (O 45), which ensure the horizontal flexion 90 (45).

Such created flexion provides all advantages which offers the accessories to be offered to the system of cable trays. It mainly concerns of the rigidity of the connection, exactly defined angle or protection of installed cables by the skimming at the edge of the accessories.

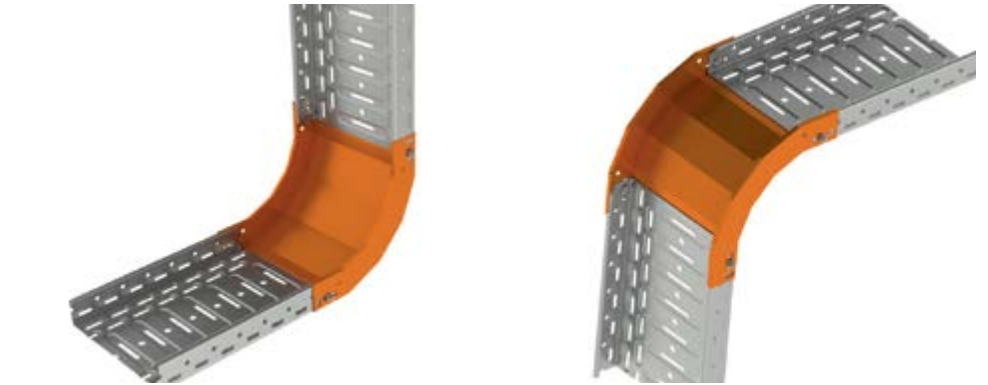


For creating of horizontal flexion of the trace there is possible to use NSUK connection.

This connection enables to create the horizontal flexion of the trace according to customer requirements, by cutting the connecting conduits under the required angle. The connection is subsequently inflected and it is screwed to the trays by help of screws.



For creating of vertical evasion of the trace there are intended the rising elbows and declining elbows. Those parts serve to the creating of the change of trace for 90° in vertical direction.



For creating of another angle at vertical direction serves the hinged connection. This connection enables to change the trace direction for the angle from 1° till 75°. Its use is useful for creating of smaller angles, whereas by the advantage of hinged connection there is the possibility of setting of random angle at given range.



By recommended option there is the adjustment of the trays to eliminate as much as possible the empty space at trays bottoms. It concerns especially for use of reducing part. This accessories enables to create the sufficient deviation from the trace, whereas there is possible the deviation to optional tray width. By the first step there is the removing of the tray side from which we deviate.

Further, by help of screw, there are installed 2 pcs of reduction parts at the distance corresponding to the width of deviation tray. For the elimination of empty space at the bottom of the tray there is possible to cut the sides of the devious tray.



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## inner usable cross-section of the channel

Type number	cm <sup>2</sup>	utilization 50% (cross- -section cm <sup>2</sup> )	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY
			3x1,5	5x1,5	3x2,5	5x2,5	3x4	5x4	5x6	5x10	5x16	5x25	4x35	4x50	3x70 +50	3x95 +70	3x120 +95	3x240 +120
			Ø 8,6	Ø 10,1	Ø 9,5	Ø 11,2	Ø 11,2	Ø 13,8	Ø 15,1	Ø 18	Ø 20,4	Ø 26,1	Ø 24,8	Ø 31,3	Ø 33,6	Ø 39,3	Ø 43	Ø 56,4
<b>NKZ 20X40</b>	8	4	5	4	4	3	3	2	2	0	0	0	0	0	0	0	0	0
<b>NKZI 50X62X0.70</b>	31	15,5	21	15	17	12	12	8	7	5	4	2	3	2	1	1	1	0
<b>NKZI 50X125X0.70</b>	62,5	31,25	42	31	35	25	25	16	14	10	8	5	5	3	3	2	2	0
<b>NKZI 100X125X0.70</b>	125	62,5	85	61	69	50	50	33	27	19	15	9	10	6	6	4	3	2
<b>NKZI 50X250X0.70</b>	125	62,5	85	61	69	50	50	33	27	19	15	9	10	6	6	4	3	0
<b>NKZI 100X250X0.70</b>	250	125	169	123	139	100	100	66	55	39	30	18	20	13	11	8	7	4
<b>NKZI 100X500X1.00</b>	500	250	338	245	277	199	199	131	110	77	60	37	41	26	22	16	14	8

The values state the number of cables with the tray at 50% full. Orientation cable diameters result from CYKY.

The values are to be gained by mathematical calculation. At limiting values (small tray x big cable, or conversely) there is necessary to consider the combination of tray type and cables diameter and to choose them with view to their technical conditions / parameters.

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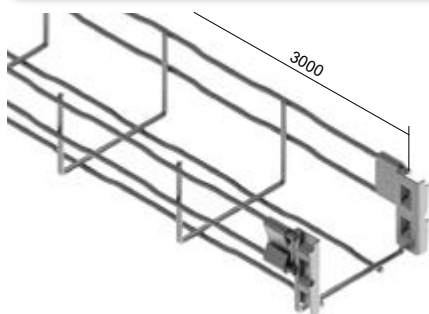




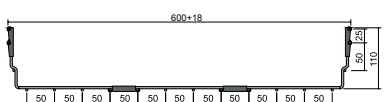
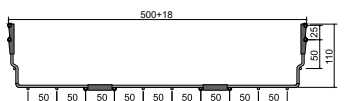
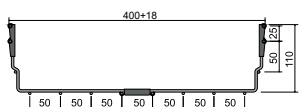
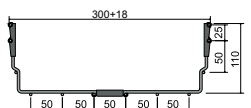
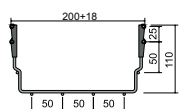
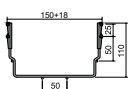
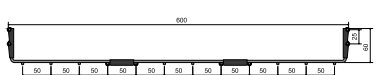
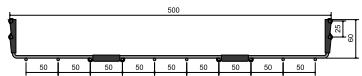
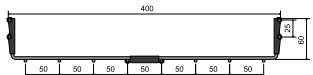
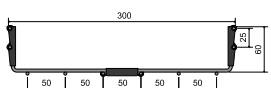
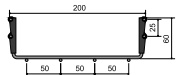
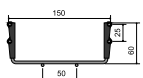
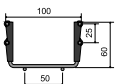
**3**

**WIRE CABLE  
TRAYS**

## wire cable tray with integrated coupling



- ▶ There are couplings at one end of the wire cable tray - to the width of 200 mm the couplings are situated on the sideways; from the width 300 mm there are couplings on the sideways and also at the bottom of the tray.
- ▶ The way of the tray connection can be seen at pg. 3. In this way the conductive connection is fulfilled.
- ▶ To enable the proper ventilation it is recommended to install the trays at a distance at least 250 mm from each other and 20 mm from the wall.

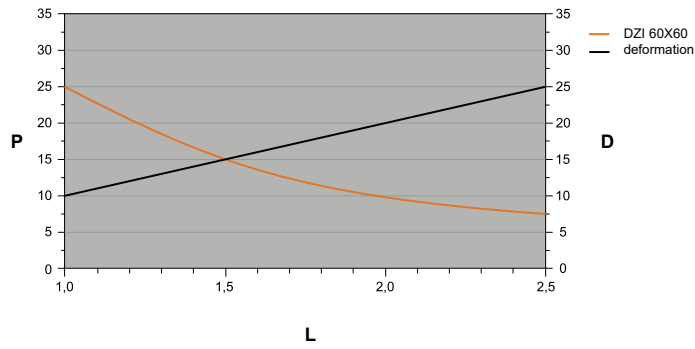


item	∅	☒	‡	coupling piece in the bottom	EAN
● DZI 60X60_BZNCR	3,9	21	0,75	0	<a href="https://ean.com/8595568927859">8595568927859</a>
● DZI 60X100_BZNCR	3,9	43	0,79	0	<a href="https://ean.com/8595568927866">8595568927866</a>
● DZI 60X150_BZNCR	3,9	72	0,84	0	<a href="https://ean.com/8595568927873">8595568927873</a>
● DZI 60X200_BZNCR	3,9	100	1,09	0	<a href="https://ean.com/8595568927880">8595568927880</a>
● DZI 60X300_BZNCR	4,3	156	1,58	1	<a href="https://ean.com/8595568927897">8595568927897</a>
● DZI 60X400_BZNCR	4,3	212	2,01	1	<a href="https://ean.com/8595568927903">8595568927903</a>
● DZI 60X500_BZNCR	4,6	268	2,72	2	<a href="https://ean.com/8595568927910">8595568927910</a>
● DZI 60X600_BZNCR	4,6	324	3,13	2	<a href="https://ean.com/8595568927927">8595568927927</a>

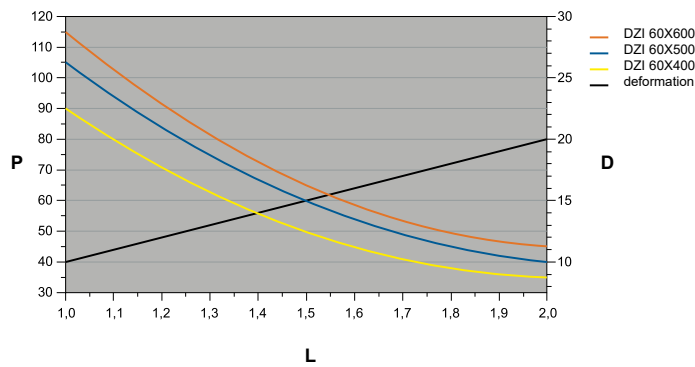
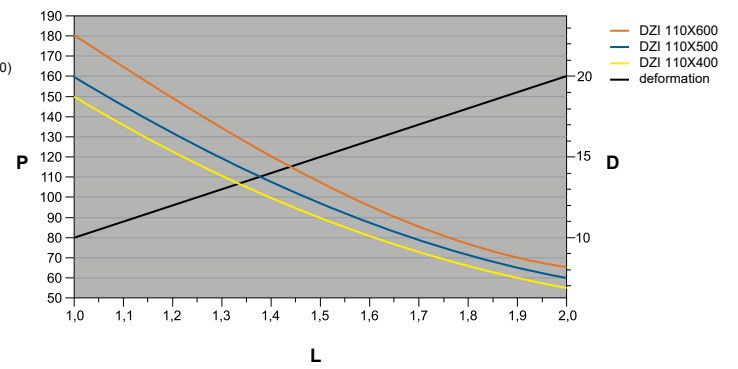
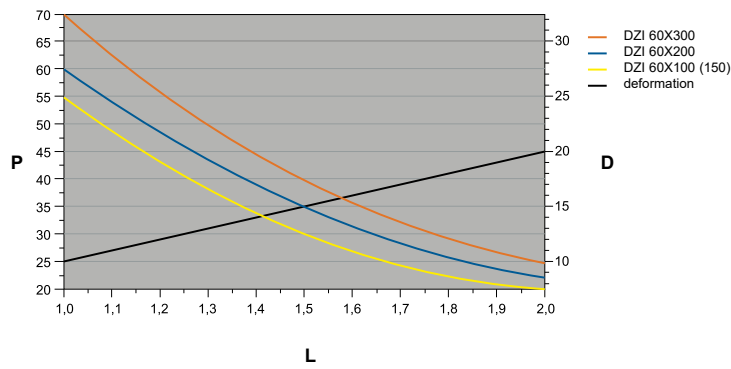
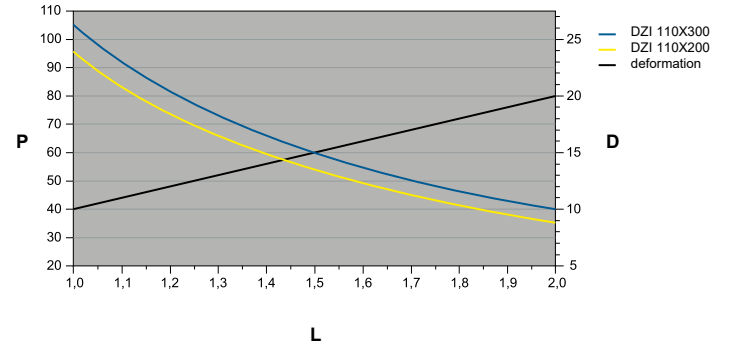
⊕ DZI 110X150_BZNCR	4,3	133	1,14	0	<a href="https://ean.com/8595568931221">8595568931221</a>
● DZI 110X200_BZNCR	4,3	186	1,59	0	<a href="https://ean.com/8595568927934">8595568927934</a>
● DZI 110X300_BZNCR	4,3	291	2,04	1	<a href="https://ean.com/8595568927941">8595568927941</a>
● DZI 110X400_BZNCR	4,6	396	2,71	1	<a href="https://ean.com/8595568927958">8595568927958</a>
⊕ DZI 110X500_BZNCR	4,6	501	3,12	2	<a href="https://ean.com/8595568931238">8595568931238</a>
⊕ DZI 110X600_BZNCR	4,6	606	3,53	2	<a href="https://ean.com/8595568931245">8595568931245</a>



60 - wire cable tray with integrated coupling

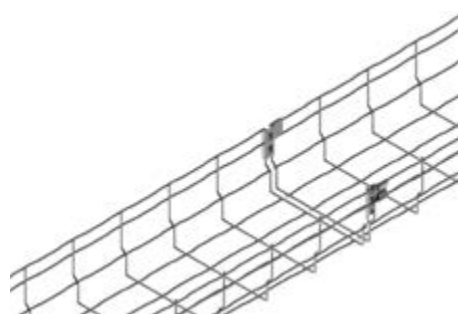
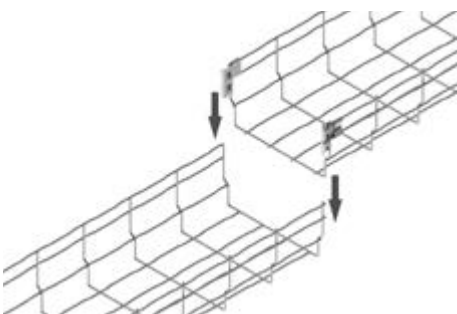


110 - wire cable tray with integrated coupling



The graphs show the maximum allowed even loading of the trays in relation to the distances of the supports. External influences are not taken into account in the permissible load and cannot be burdened by person.

- L = distance of supports (m)
- P = allowed even loading (weight kg/m)
- D = deformation (mm)



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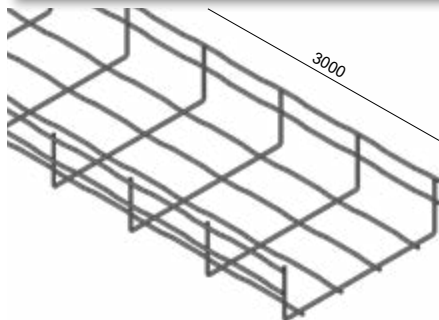
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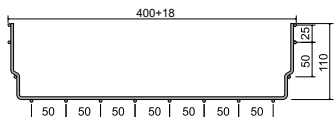
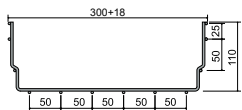
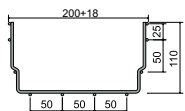
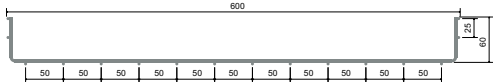
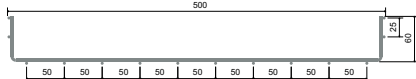
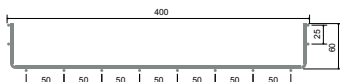
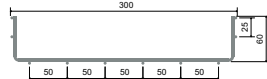
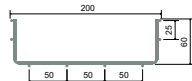
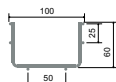
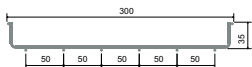
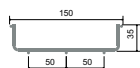
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wire cable tray



- ▶ The standard length of the wire cable tray is 3 m.
- ▶ Screen: 50 x 100 mm (not valid for DZ 60X60).
- ▶ Wire cable trays are joined using the coupling DZS/B (pg. 6). Trays with side height of 60 and 110 mm can be connected using the quick coupling DZRS/B (pg. 7) or using the connection reinforcement plate DZSP/B (pg. 7).



item	∅	⊠	‡	EAN
● DZ 35X100_BZNCR	3,9	27	0,55	<a href="https://ean.com/8595057689893">8595057689893</a>
⊕ DZ 35X100_BF	3,9	27	0,55	<a href="https://ean.com/8595568903129">8595568903129</a>
● DZ 35X150_BZNCR	3,9	42	0,67	<a href="https://ean.com/8595057690127">8595057690127</a>
⊕ DZ 35X150_BF	3,9	42	0,67	<a href="https://ean.com/8595568903136">8595568903136</a>
● DZ 35X200_BZNCR	3,9	58	0,81	<a href="https://ean.com/8595057690134">8595057690134</a>
⊕ DZ 35X200_BF	3,9	58	0,81	<a href="https://ean.com/8595568903143">8595568903143</a>
● DZ 35X300_BZNCR	4,3	89	1,27	<a href="https://ean.com/8595057690141">8595057690141</a>
⊕ DZ 35X300_BF	4,3	89	1,27	<a href="https://ean.com/8595568903150">8595568903150</a>
⊕ DZ 60X60_BF	3,9	23	0,55	<a href="https://ean.com/8595568903167">8595568903167</a>
⊕ DZ 60X100_BF	3,9	47	0,77	<a href="https://ean.com/8595568903174">8595568903174</a>
⊕ DZ 60X150_BF	3,9	75	0,82	<a href="https://ean.com/8595568903181">8595568903181</a>
⊕ DZ 60X200_BF	3,9	102	1,06	<a href="https://ean.com/8595568903198">8595568903198</a>
⊕ DZ 60X300_BF	4,3	157	1,57	<a href="https://ean.com/8595568903204">8595568903204</a>
⊕ DZ 60X400_BF	4,3	212	1,90	<a href="https://ean.com/8595568903211">8595568903211</a>
⊕ DZ 60X500_BF	4,6	267	2,46	<a href="https://ean.com/8595568903228">8595568903228</a>
⊕ DZ 60X600_BF	4,6	322	2,83	<a href="https://ean.com/8595568903235">8595568903235</a>
⊕ DZ 110X200_BF	4,3	193	1,57	<a href="https://ean.com/8595568903242">8595568903242</a>
⊕ DZ 110X300_BF	4,3	297	1,90	<a href="https://ean.com/8595568903259">8595568903259</a>
⊕ DZ 110X400_BF	4,6	401	2,46	<a href="https://ean.com/8595568903266">8595568903266</a>

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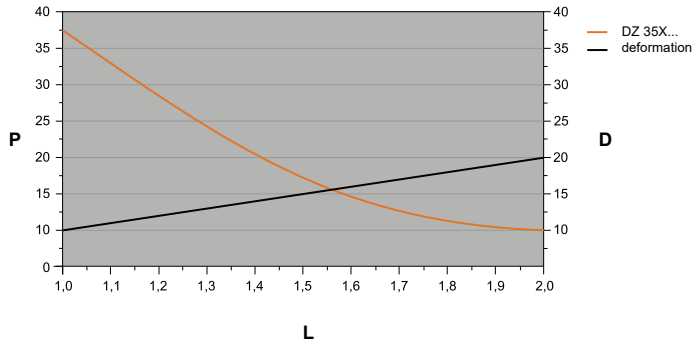
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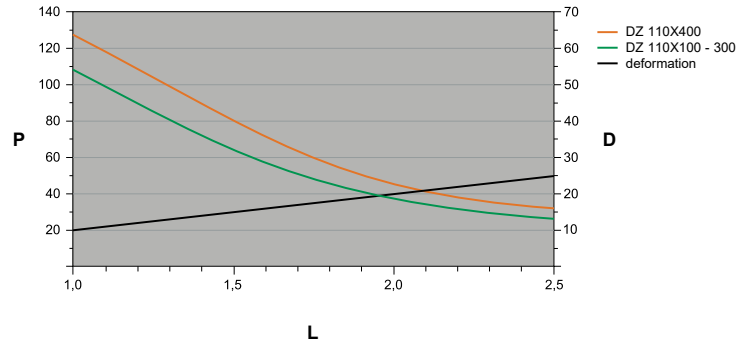
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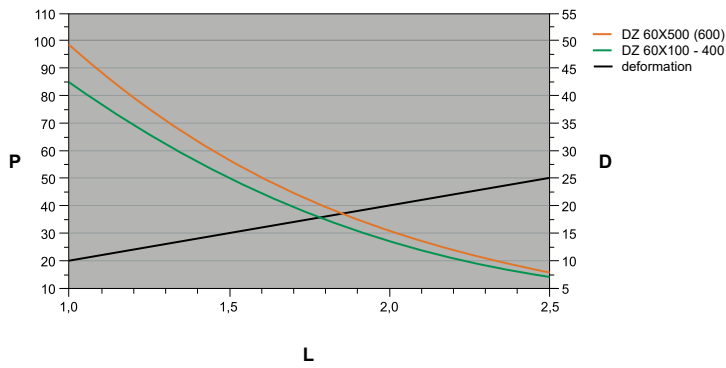
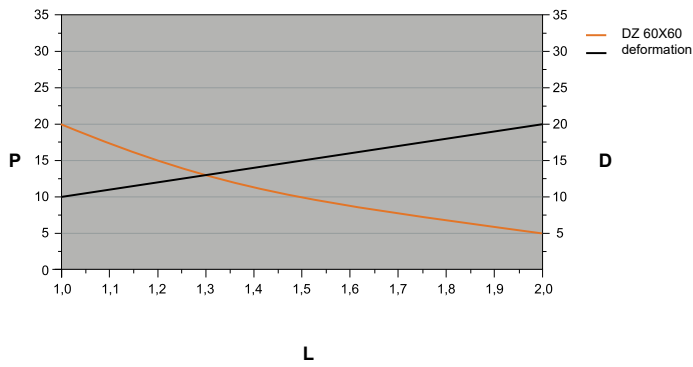
35 - wire cable tray



110 - wire cable tray



60 - wire cable tray



The graphs show the maximum allowed even loading of the trays in relation to the distances of the supports. External influences are not taken into account in the permissible load and cannot be burdened by person.

- L = distance of supports (m)
- P = allowed even loading (weight kg/m)
- D = deformation (mm)

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**fastening bolt**


- ▶ The special design of the screw head enables quick and reliable connection of the wire tray, for example, to a bracket.

	item	‡	EAN
●	DZSU/B_ZNCR	0,02	<a href="#">8595057689855</a>

**coupling**


- ▶ The special design of the bolt head enables quick and reliable connection of the trays with all highs of sides.

	item	‡	EAN
●	DZS/B_ZNCR	0,03	<a href="#">8595057689831</a>
⊕	DZS/B_F	0,03	<a href="#">8595568902597</a>

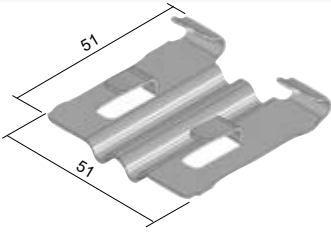


	tray type	amount of couplings DZS/B
DZ 35	100; 150; 200	2
	300	3
DZ 60	60; 100; 150; 200	2
	300; 400	3
	500; 600	4
DZ 110	200	2
	300; 400	3





**quick coupling**



- ▶ The quick coupling enables the connecting of the trays with a side height of 60 and 110 mm without using bolts.
- ▶ For the formation of fix connection there is necessary to decline the fixative studs by the anchor.

	item	‡	EAN
●	DZRS/B_ZNCR	0,03	<a href="#">8595057689824</a>
⊕	DZRS/B_F	0,03	<a href="#">8595568902603</a>

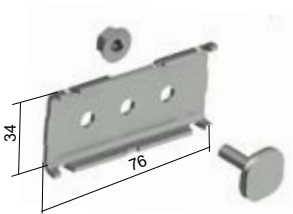


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**connection reinforcement plate**



- ▶ The connection reinforcement plate for a more solid connection of trays.
- ▶ Attached using a DZSU/B screw, which is included.
- ▶ The reinforcement plate is designed for the connecting of wire trays with a side height of 60 and 110 mm.

	item	‡	EAN
●	DZSP/B_ZNCR	0,06	<a href="#">8595057689848</a>
⊕	DZSP/B_F	0,06	<a href="#">8595568902610</a>

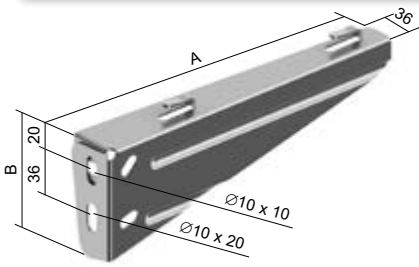


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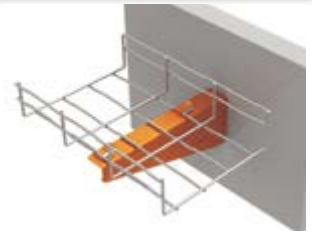
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index

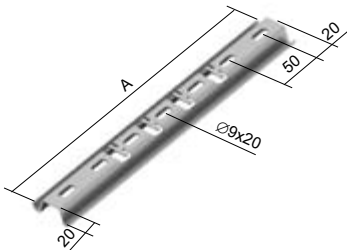
**wall bracket**


► Quick and reliable fixation of the wire tray to the bracket is secured by bending in the fastening tabs.



	item	A	B	↓	‡	EAN
●	DZDS 100/B_S	150	85	70	0,18	<a href="#">8595057689909</a>
●	DZDS 150/B_S	200	85	60	0,26	<a href="#">8595057690233</a>
●	DZDS 200/B_S	250	85	60	0,38	<a href="#">8595057689916</a>
●	DZDS 300/B_S	350	85	60	0,49	<a href="#">8595057690240</a>
●	DZDS 400/B_S	450	85	60	0,63	<a href="#">8595057690257</a>
⊕	DZDS 500/B_S	550	122	60	1,01	<a href="#">8595057690264</a>
⊕	DZDS 600/B_S	650	122	60	1,14	<a href="#">8595057690271</a>

	item	A	B	↓	‡	EAN
⊕	DZDS 100/B_F	150	85	70	0,20	<a href="#">8595568902658</a>
⊕	DZDS 150/B_F	200	85	60	0,42	<a href="#">8595568902665</a>
⊕	DZDS 200/B_F	250	85	60	0,42	<a href="#">8595568902672</a>
⊕	DZDS 300/B_F	350	85	60	0,52	<a href="#">8595568902689</a>
⊕	DZDS 400/B_F	450	85	60	0,69	<a href="#">8595568902696</a>
⊕	DZDS 500/B_F	550	122	60	1,09	<a href="#">8595568902702</a>
⊕	DZDS 600/B_F	650	122	60	1,24	<a href="#">8595568902719</a>

**load bearing profile**


► The supporting profile is intended for hanging the wire cable tray from the ceiling using two ZT 8 threaded rods, M 8 nuts and PD 8 washers.  
 ► The wire tray is placed on the support in the prepared cutouts

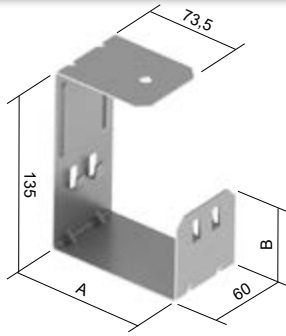


	item	A	↑	↓	‡	EAN
●	DZNP 100/B_S	250	1,5	250	0,24	<a href="#">8595568935748</a>
●	DZNP 150/B_S	300	1,5	200	0,31	<a href="#">8595568935755</a>
●	DZNP 200/B_S	350	2,0	294	0,37	<a href="#">8595568935762</a>
●	DZNP 300/B_S	450	2,0	235	0,43	<a href="#">8595568935779</a>
●	DZNP 400/B_S	550	2,0	161	0,55	<a href="#">8595568935786</a>
⊕	DZNP 500/B_S	650	2,0	115	0,67	<a href="#">8595568935793</a>
⊕	DZNP 600/B_S	750	2,0	87	0,79	<a href="#">8595568935809</a>

	item	A	↑	↓	‡	EAN
⊕	DZNP 100/B_F	250	1,5	250	0,25	<a href="#">8595568935816</a>
⊕	DZNP 150/B_F	300	1,5	200	0,32	<a href="#">8595568935823</a>
⊕	DZNP 200/B_F	350	2,0	294	0,39	<a href="#">8595568935830</a>
⊕	DZNP 300/B_F	450	2,0	235	0,45	<a href="#">8595568935847</a>
⊕	DZNP 400/B_F	550	2,0	161	0,57	<a href="#">8595568935854</a>
⊕	DZNP 500/B_F	650	2,0	115	0,69	<a href="#">8595568935861</a>
⊕	DZNP 600/B_F	750	2,0	87	0,81	<a href="#">8595568935878</a>



central hanger

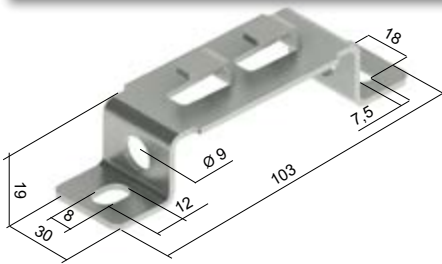


- ▶ The central hanger is designed for fastening of the wire trays from ceiling together with a threaded rod  $\varnothing$  8 mm and 2 nuts M 8.
- ▶ The wire cable trays to the hanger is inserted at the cross wire point, which is placed between two overhangs on the holder.
- ▶ Maximum load of the hanger is 5 kg/m.

item	A	B	†	‡	EAN
● <b>DZSZ 35X100_S</b>	103	51,5	1,5	0,25	<a href="#">8595568930385</a>
● <b>DZSZ 60X60_S</b>	63	61,5	1,5	0,22	<a href="#">8595568930361</a>
● <b>DZSZ 60X100_S</b>	103	61,5	1,5	0,26	<a href="#">8595568930378</a>

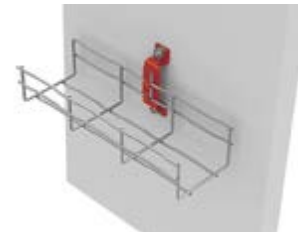


hanger

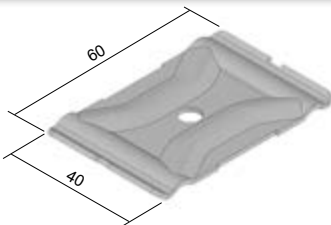


- ▶ The hanger can be used for the fastening of the wire tray to a wall or for hanging from the ceiling together with a threaded rod  $\varnothing$  8 mm.
- ▶ Hanging from the ceiling using two threaded rods is intended for trays with a height of side-wall 60 mm and a width of 60 - 200 mm.
- ▶ The fixation to the wall there is possible just for trays of 60X60 and 60X100.
- ▶ The hanger is attached using KPO 6 anchors (2 pcs).

item	‡	EAN
● <b>DZZ/B_ZNCR</b>	0,05	<a href="#">8595057689800</a>
⊕ <b>DZZ/B_F</b>	0,05	<a href="#">8595568902627</a>

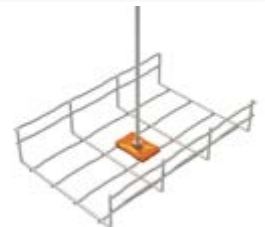


central hanger



- ▶ The central hanger is designated for the hanging of the wire tray from the ceiling. For the hanging it is necessary to use two central hanger pieces and the threaded rod  $\varnothing$  8 mm.
- ▶ The hanger is not intended for hanging of the trays of 60X60 and 35X150.
- ▶ For creating a single hanger attachment by using an inner hanger, 2 pcs of middle hangers must be ordered.
- ▶ There is recommended for cable trays width max. 300 mm.

item	‡	EAN
● <b>DZCZ/B_ZNCR</b>	0,03	<a href="#">8595057689794</a>
⊕ <b>DZCZ/B_F</b>	0,03	<a href="#">8595568902634</a>



† weight kg/pcs

● standard

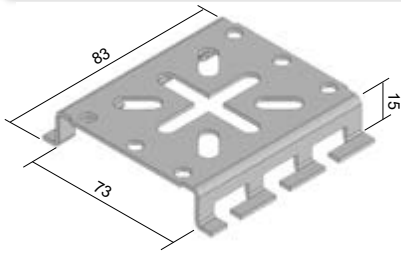
ZNCR Bichromatic galvanized

F Hot Dip Galvanized

‡ thickness of metal sheet (mm)

⊕ to order

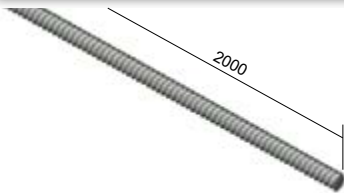
S Pre-Galvanized

**mounting plate**


- ▶ Mounting plate serves to the assembling of electroinstallation boxes.
- ▶ It is fixed to the side plate of wire cable tray of side plate height of 60 and 110 mm.
- ▶ Mounting plate there is possible to fix to the outer side of the bottom of all trays, except the trays of DZ 60X60.



	item	‡	EAN
●	DZMD/B_ZNCR	0,08	<a href="#">8595057689817</a>
⊕	DZMD/B_F	0,08	<a href="#">8595568902641</a>

**threaded rod**


- ▶ DIN 976
- ▶ Strength class 4.8

	item	∅	‡	EAN
●	ZT 8_ZNCR	M 8	0,31	<a href="#">8595057631793</a>

**hexagonal nut**

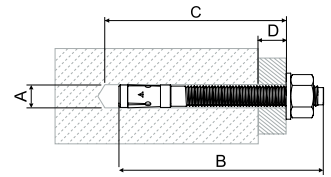

	item	EAN
●	M 8_ZNCR	<a href="#">8595057633643</a>



**anchor**



- ▶ The anchors are suitable for suspended, push-through and distance mounting.
- ▶ Types of base material: cracked concrete, non-cracked concrete, natural stone with a dense structure.



item	approved seismicity class	drill bit diameter A [mm]	total length of anchor B [mm]	min. depth of drilled hole during through-hole mounting C [mm]	maximum usable length D [mm]	thread	spanner size	EAN
● KPO 6X50_PO	-	6	65	60	10	M6	10	<a href="#">8595057691162</a>
● KPO 6X70_PO	-	6	65	60	10	M6	10	<a href="#">8595057691179</a>
● KPO 8X77_PO	C1	8	75	70	10	M8	13	<a href="#">8595057691100</a>
● KPO 8X97_PO	C1	8	95	85	30	M8	13	<a href="#">8595057691117</a>
● KPO 8X110_PO	C1/C2	8	115	105	50	M8	13	<a href="#">8595568931139</a>
● KPO 10X95_PO	C1/C2	10	92	85	10	M10	17	<a href="#">8595057691124</a>
● KPO 10X115_PO	C1/C2	10	115	105	30	M10	17	<a href="#">8595057691131</a>
● KPO 10X175_PO	C1/C2	10	185	175	100	M10	17	<a href="#">8595568931153</a>
● KPO 12X120_PO	C1/C2	12	118	110	20	M12	19	<a href="#">8595057691148</a>
⊕ KPO 8X77_POGMT	-	8	80	65	10	M8	13	<a href="#">859556892965</a>
⊕ KPO 8X97_POGMT	-	8	100	90	35	M8	13	<a href="#">8595568929631</a>
⊕ KPO 10X95_POGMT	-	10	95	84	15	M10	17	<a href="#">859556892972</a>
⊕ KPO 10X115_POGMT	-	10	115	104	35	M10	17	<a href="#">8595568929648</a>
⊕ KPO 12X120_POGMT	-	12	120	105	25	M12	19	<a href="#">8595568929655</a>

**anchor**



- ▶ The knock in anchors KKZ serve for the direct attachment of the threaded rods.
- ▶ There is a strut pin inside the anchor, which must be driven into the correct position before the assembly of a threaded rod.
- ▶ This item is suitable for fixing into concrete or natural stone.
- ▶ KKZ 8, KKZ 10 and KKZ 12 anchors are fitted with a collar.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	guaranteed tensile load concrete C20/25 (kN)	‡	EAN
● KKZ 6_ZNCR	8	25	27	M6	2,50	0,01	<a href="#">8595057697553</a>
● KKZ 8_ZNCR	10	30	32	M8	3,00	0,01	<a href="#">8595057697560</a>
● KKZ 10_ZNCR	12	40	42	M10	4,75	0,02	<a href="#">8595057697577</a>
● KKZ 12_ZNCR	15	50	52	M12	6,80	0,05	<a href="#">8595057697584</a>

**brass stop anchor**



- ▶ The knock in anchors KKZM serve for the direct attachment of the threaded rods.
- ▶ The brass anchors have an inner conical thread, which expands during the assembly of a threaded rod or bolt.
- ▶ The threaded rod (bolt) must be driven into the full length of the anchor.
- ▶ This item is suitable for fixing into concrete, natural stone, wood, chipboard and solid brick.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	concrete C20/25		‡	EAN
					tensile load (kN)	tightening torque (Nm)		
● KKZM 8_XX	10	30	35	M8	1,50	6	0,01	<a href="#">8595568925893</a>
● KKZM 10_XX	12	35	40	M10	2,50	10	0,01	<a href="#">8595568925909</a>

‡ weight kg/pcs

● standard  
⊕ to order

XX brass  
POGMT non electrolytic plating

ZNCR Bichromatic galvanized  
PO Bichromatic galvanized

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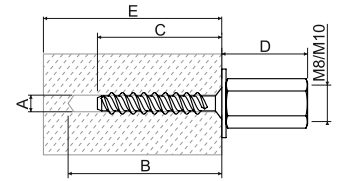
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index

**bolt into concrete with internal thread**

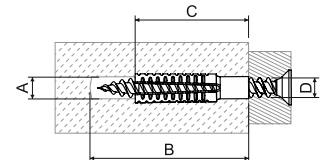

- ▶ M8 / M10 combined screw for quick and easy mounting of screws or threaded rods.
- ▶ Designed for installation in cracked concrete C20 / 25 to C50 / 60, pre-stressed cavity panels C30 / 37 to C50 / 60, into natural stone with a dense structure.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - screw depth
- ▶ D - height of fixing nut
- ▶ E - minimum thickness of the anchor



item	A	B	C	D	E	spanner size	tightening torque	‡	EAN	concrete C20/25 to C50/60		preloaded cavity panels			
										guaranteed load		min. axial distance from the edge	concrete thickness under the cavity	permissible equipment	min. axial distance from the edge
										tensile kN	shearing kN				
● KBS 6X35 M8/M10_PO	6	45	35	26,5	80	13	≤10	0,03	<a href="#">8595568931122</a>	0,6	2,4	35	≥25 ≥30 ≥35	0,4 0,8 1,2	100

**metal expansion anchor**


- ▶ For pre-assembled mounting in concrete, porous concrete, vertically perforated bricks, natural stone with a dense structure, solid brickwork blocks, solid sandlime bricks.
- ▶ The external teeth expand in the building material, thus ensuring a high loadbearing capacity. Thread must be screwed in at least min. to the full length of the anchor. The length of the anchor is calculated: length of the anchor + bolt diameter + thickness of the anchor + thickness of the plaster or insulation.
- ▶ The ribbed inner anchor shape is suitable for screws. If used in systems with maintained functionality in fire, a SB 6.3X35 screw is used.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - length of bolt
- ▶ D - thread diameter



item	A	B	C	D	‡	EAN	the recommended hole diameter for the material			guaranteed load - stroke, cut, oblique stroke applies to the specified thread diameter and material		
							concrete C20/25	porous concrete PB4	vertically perforated bricks HLZ12	thread diameter	porous concrete ≥PB2, PP2 (G2)	porous concrete ≥PB4, PP4 (G4)
							mm	mm	mm	mm	kN	kN
● KHP 6X32_PO	7-9	38	32	5-6	0,01	<a href="#">8595568931009</a>	7	6	7	-	-	-
● KHP 8X38_PO	10-12	46	38	6-8	0,01	<a href="#">8595568931016</a>	10	10	10	8	0,2	0,3
● KHP 8X60_PO	10-12	68	60	6-8	0,03	<a href="#">8595568931023</a>	12	10	10	8	0,3	0,4
● KHP 10X60_PO	12-14	68	60	8-10	0,03	<a href="#">8595568931030</a>	14	12	12	10	0,4	0,6

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index



## bolt cutter



- ▶ The cutter has jaws with an offset cut.
- ▶ It is suitable to cut the wires on the trays as close as possible to the crossing.

item	‡	EAN
• DZDN_XX	0,75	<a href="#">8595057668591</a>

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3

## zinc paint / spray



- ▶ Anticorrosive protection to be intended for service of defective and damaged places on galvanized surface.
- ▶ Lay on the color by paintbrush, stipple technology.

item	‡	EAN
• WEICON 375_XX (paint)	0,50	<a href="#">8595057621183</a>
• WEICON 750_XX (paint)	1,10	<a href="#">8595057693609</a>
• GZS_XX (spray)	0,45	<a href="#">8595057633148</a>

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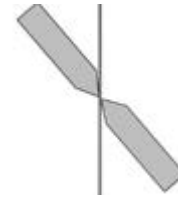
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## construction


**CUTTING THE WIRE**

The shape of a route made from wire trays can be changed to suit your requirements. We recommend using professional cutting pliers to cut the wire mesh on trays. It is recommended that wire be cut as closely as possible to where the wires cross, to prevent damage to the cables.

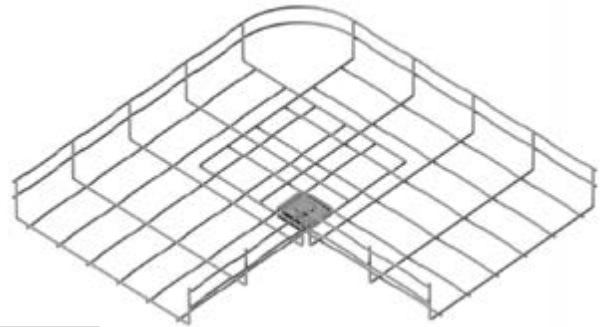


placing of the cutting jaws

**BEND**

To make the bend, areas must be cut out from the bottom and the side of the wire tray. The connecting wire must not be cut from the outer side. The sides of the wire tray are then bent into a 90° bend. The bend is reinforced at the bottom using two pieces of central hanger DZCZ/B fixed with a DZSU/B screw. Depending on the wires in the tray, the central hangers are rotated 90° relative to each other.

For tray widths of 60 and 100 mm, the DZS/B coupling is used for connection.



tray width	amount of couplings DZS/B	amount of bolts DZSU/B	amount of central hangers DZCZ/B	cutting out of areas	montage
60	1	0	0		
100	1	0	0		
150	0	1	2		
200	0	1	2		
300	0	1	2		
400	0	1	2		
500	0	1	2		
600	0	1	2		

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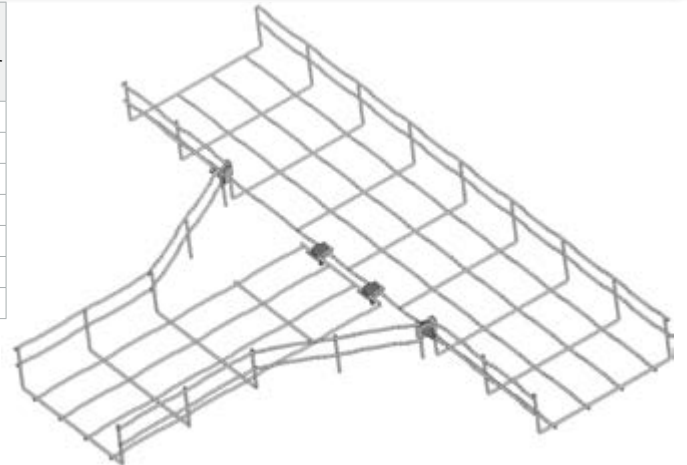
**construction**

**T-PIECE**

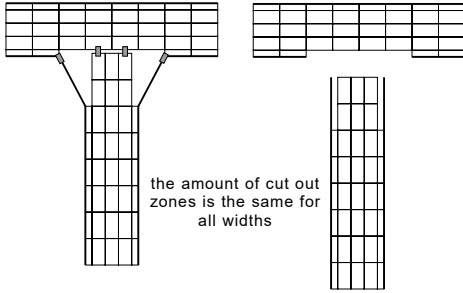
The T-piece is made out of two pieces of wire trays. Two zones of the "turning" tray are cut off from the bottom, this applies for all tray widths. The sides are cut off from the "continual" tray, the amount of zones depends on the width of the "turning" tray and it is stated in the table. The bottoms and the sides of the trays are connected using the coupling DZS/B.

It is also possible to make the T-piece from various tray widths.

tray width	amount of couplings DZS/B	amount of zones (sides) for removal
100	4	2
150	4	3
200	4	4
300	4	5
400	4	6
500	4	7
600	4	8



amount of cut out zones is stated in the table



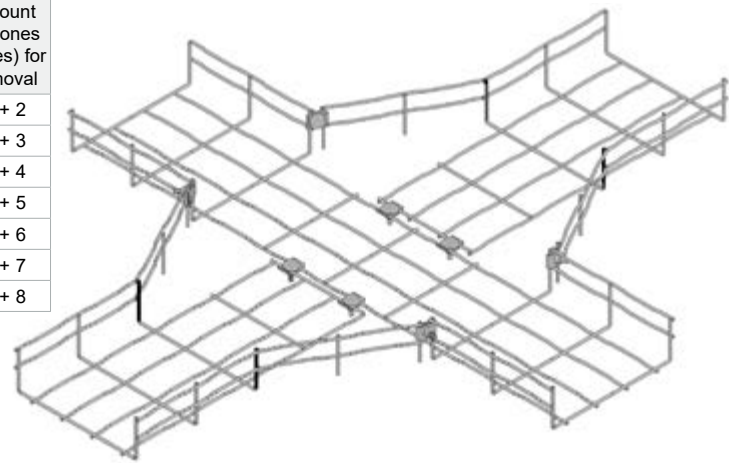
**CROSS-OVER**

The creating of a crossover is basically the creating of two T-pieces. Two zones of the two "turning" trays side are cut off from the bottom, this applies for all tray widths. The sides are cut off from the "continual" tray on both sides, the amount of zones depends on the width of the tray being connected and it is stated in the table.

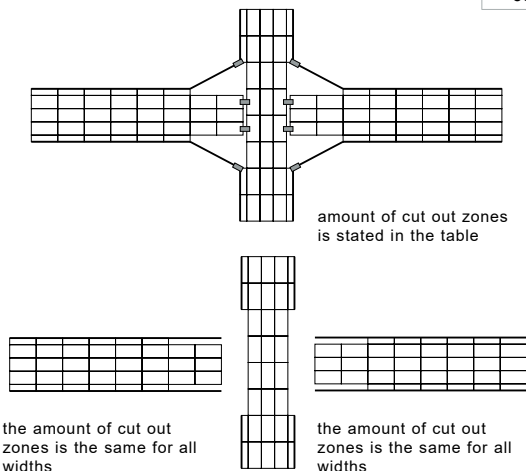
The bottoms and the sides of the trays are connected using the coupling DZS/B.

It is also possible to make the Cross over from various tray widths.

tray width	amount of couplings DZS/B	amount of zones (sides) for removal
100	8	2 + 2
150	8	3 + 3
200	8	4 + 4
300	8	5 + 5
400	8	6 + 6
500	8	7 + 7
600	8	8 + 8



amount of cut out zones is stated in the table



the amount of cut out zones is the same for all widths

the amount of cut out zones is the same for all widths

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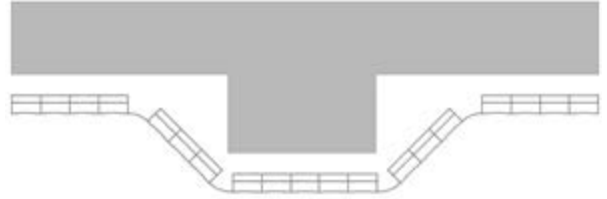
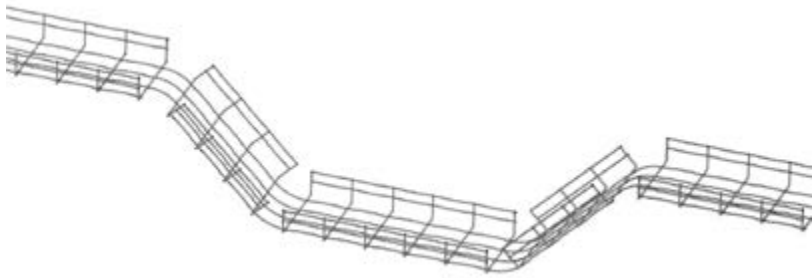
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construction

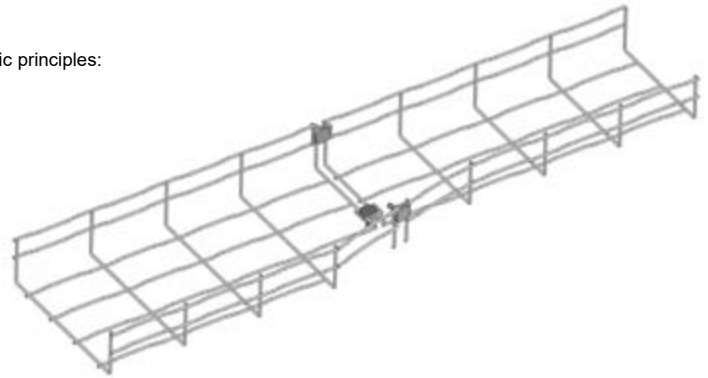
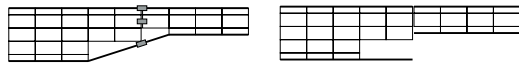
**VARYING LEVELS**

Any change in the horizontal level can be achieved by cutting off the corresponding zone and bending the wire tray in this area until the required shape is achieved.



**REDUCTIONS**

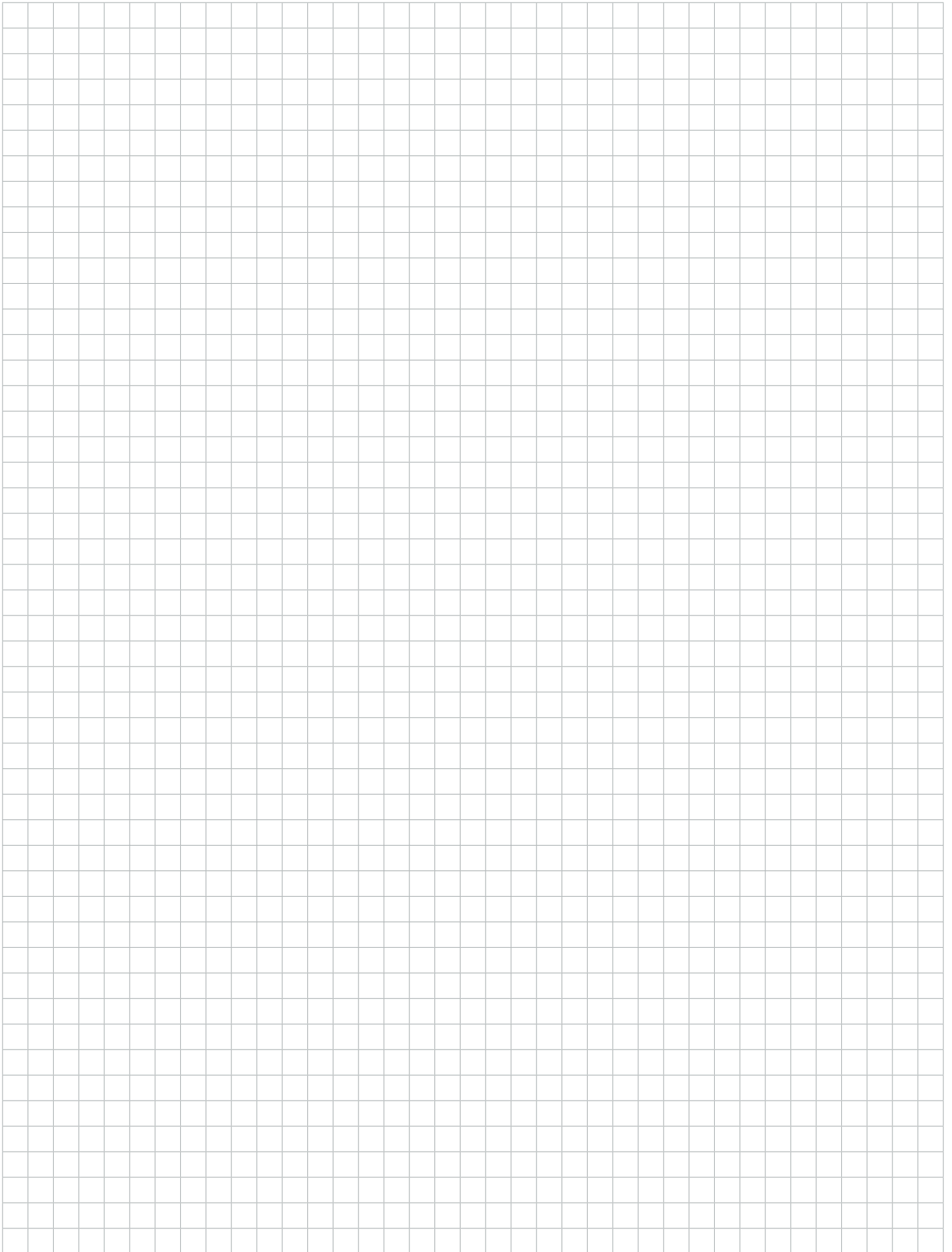
Wire cable trays can be narrowed, so they can be connected to a narrower piece.  
 In order to reach the required result, all of the combinations are based on several basic principles:  
 - cut out the necessary zones from the bottom and the sides  
 - bend the side to the required width  
 - connect the ends using 3 pcs of DZS/B



inner usable cross - section of the channel

Type number	cm <sup>2</sup>	utilization 50% (cross- section cm <sup>2</sup> )	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY
			3x1,5	5x1,5	3x2,5	5x2,5	3x4	5x4	5x6	5x10	5x16	5x25	4x35	4x50	3x70+50	3x95+70	3x120+95	3x240+120
			Ø 8,6	Ø 10,1	Ø 9,5	Ø 11,2	Ø 11,2	Ø 13,8	Ø 15,1	Ø 18	Ø 20,4	Ø 26,1	Ø 24,8	Ø 31,3	Ø 33,6	Ø 39,3	Ø 43	Ø 56,4
DZ 35X100	35	17,5	24	17	19	14	14	9	8	5	4	3	3	2	2	0	0	0
DZ 35X150	52,5	26,3	35	26	29	21	21	14	12	8	6	4	4	3	2	0	0	0
DZ 35X200	70	35,0	47	34	39	28	28	18	15	11	8	5	6	4	3	0	0	0
DZ 35X300	105	52,5	71	51	58	42	42	28	23	16	13	8	9	5	4	0	0	0
DZ 60X60	45	22,5	24	18	20	14	14	9	8	6	4	3	3	2	2	1	1	0
DZ 60X100	60	30,0	41	29	33	24	24	16	13	9	7	4	5	3	3	1	1	1
DZ 60X150	90	45,0	61	44	50	36	36	24	20	14	11	7	7	5	4	2	2	2
DZ 60X200	120	60,0	81	59	66	48	48	32	26	19	14	9	10	6	5	4	3	2
DZ 60X300	180	90,0	122	88	100	72	72	47	39	28	22	13	15	9	8	6	5	3
DZ 60X400	240	120,0	162	118	133	96	96	63	53	37	29	18	20	12	11	8	6	4
DZ 60X500	300	150,0	203	147	166	120	120	79	66	46	36	22	24	15	13	10	8	5
DZ 60X600	360	180,0	243	176	199	143	143	95	79	56	43	26	29	18	16	12	10	6
DZ 110X200	220	110,0	149	108	122	88	88	58	48	34	26	16	18	11	10	7	6	3
DZ 110X300	330	165,0	223	162	183	132	132	87	72	51	40	24	27	17	15	11	9	5
DZ 110X400	440	220,0	297	216	244	175	175	116	96	68	53	32	36	22	19	14	12	7

The values state the number of cables with the tray at 50% full. Orientation diameters of the cables CYKY.  
 The values are mathematically calculated. The limit values (small tray x big cable or contrariwise) it is necessary to consider combination of the tray and diameter of the cable and used them with reference to technical conditions.



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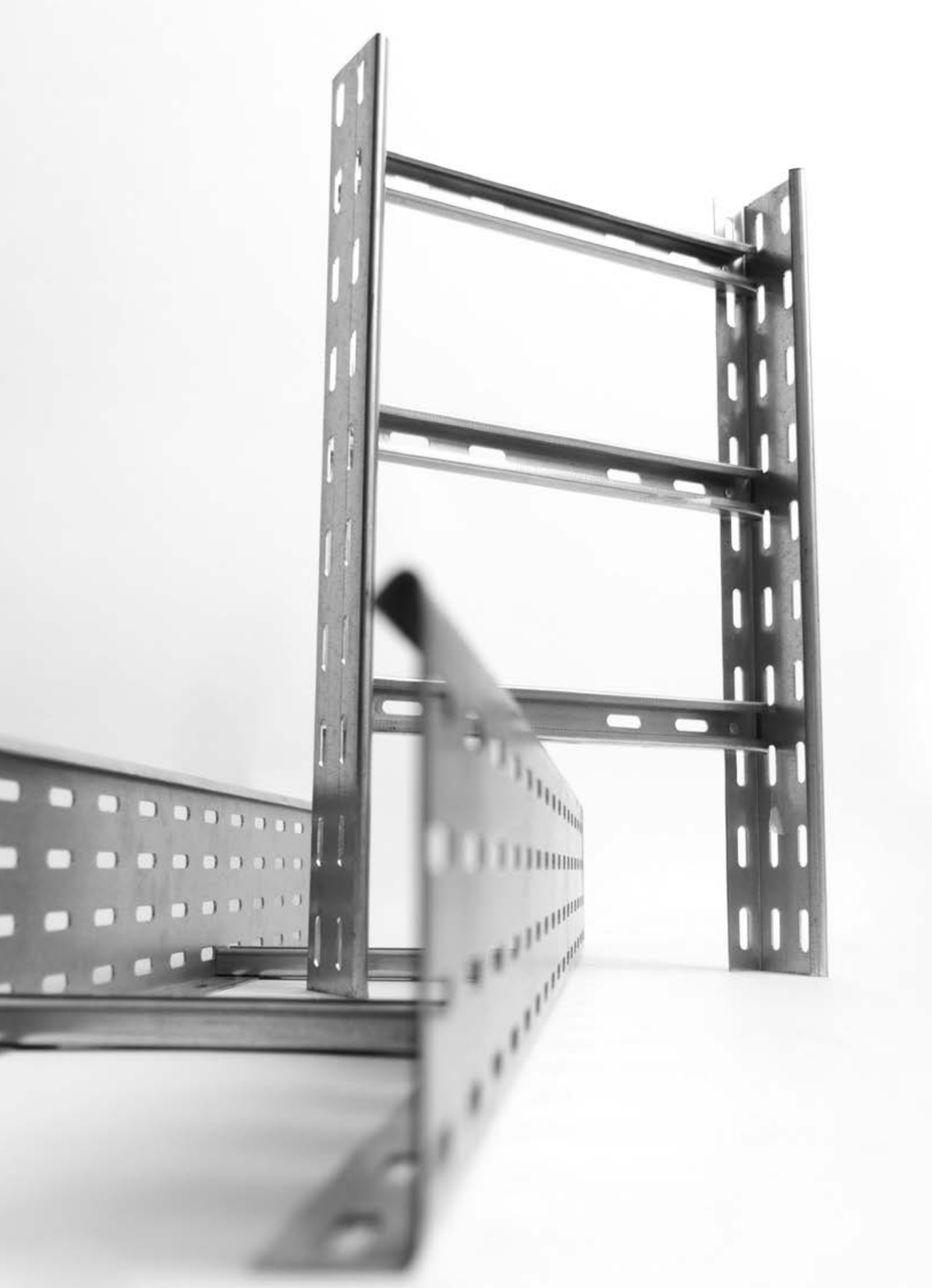
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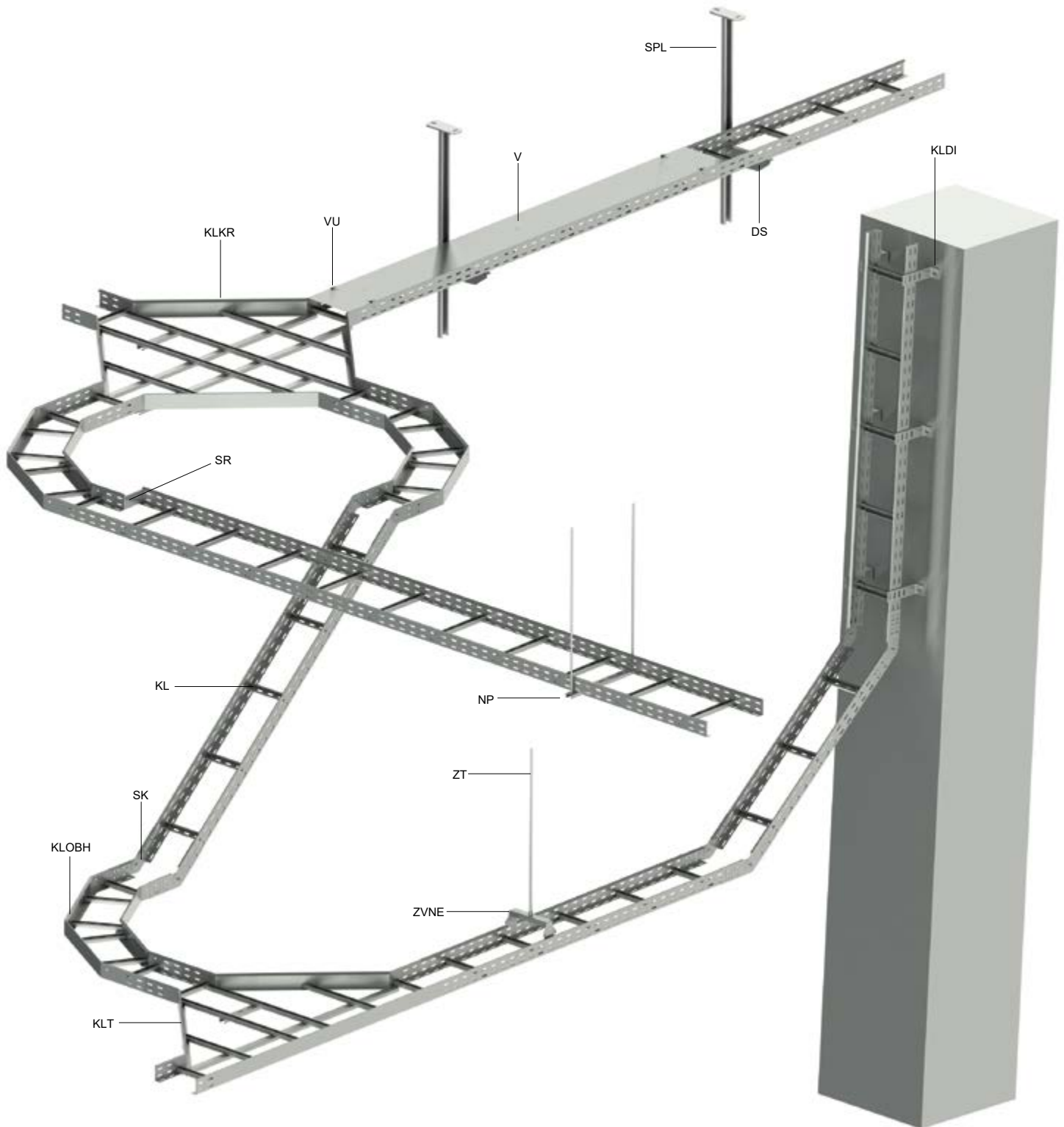




**4**

**CABLE  
LADDERS**

## OVERVIEW OF SYSTEM ELEMENTS

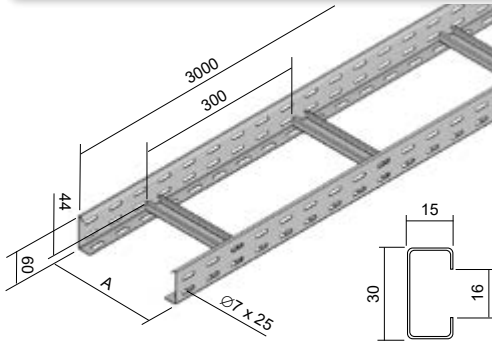


marking	description	page
DS	bracket - medium	<a href="#">14</a>
KL	cable ladder	<a href="#">3 - 5</a>
KLDI	distance bracket	<a href="#">12</a>
KLKR	cross-over	<a href="#">8</a>
KLOBH	horizontal bend	<a href="#">7</a>
KLT	T-piece	<a href="#">7</a>
NP	load bearing profile	<a href="#">17</a>

marking	description	page
SK	hinged joint	<a href="#">9</a>
SPL	ceiling profile - light	<a href="#">15</a>
SR	reduction coupling	<a href="#">10</a>
V	cover	<a href="#">6</a>
VU	cover fixture	<a href="#">6</a>
ZT	threaded rod	<a href="#">20</a>
ZVNE	outer hanger	<a href="#">16</a>

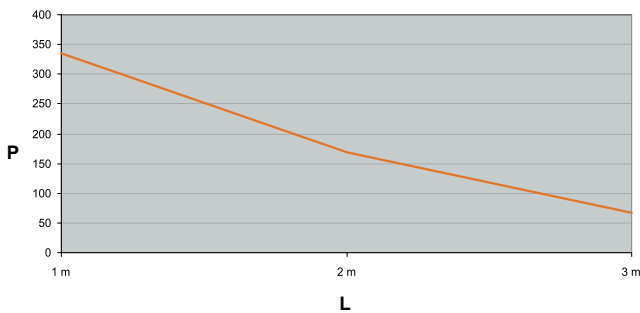


60 - cable ladder



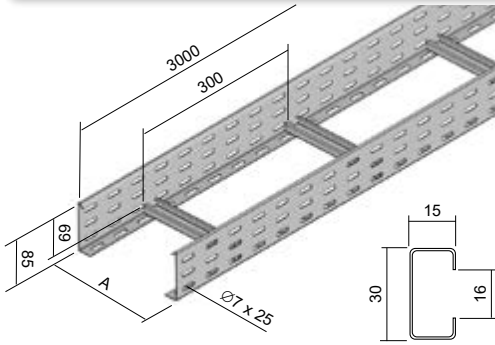
- ▶ The standard length of the cable ladder is 3 m.
- ▶ The joining of the ladders is performed by using the couplings S 60X200 (pg. 11) and min. 4 pcs of bolts NSM 6X10 (pg. 23).
- ▶ The side walls are L-profiles with return flange. The perforated C-profile rungs are placed in the side walls by extrusion with a spacing of 300 mm, with open side of the profile facing up.
- ▶ It is possible to create on order the ladders with rung spacing of 150 and 450 mm.
- ▶ For spatial separation of cables, it is possible to use partition NPZ 50 (pg. 2-16). The partition is fixed every 60 cm with an NSM 6X20 screw (pg. 23)

item	A	↑	‡	∪	EAN
● KL 60X150_S	150	1,5 / 1,2	2,23	312	<a href="#">8595057691681</a>
● KL 60X200_S	200	1,5 / 1,2	2,37	240	<a href="#">8595057635487</a>
● KL 60X300_S	300	1,5 / 1,2	2,60	156	<a href="#">8595057634947</a>
● KL 60X400_S	400	1,5 / 1,2	2,80	108	<a href="#">8595057635494</a>
● KL 60X500_S	500	1,5 / 1,2	3,10	96	<a href="#">8595057644359</a>
● KL 60X600_S	600	1,5 / 1,2	3,24	78	<a href="#">8595057644366</a>
● KL 60X150_F	150	1,5 / 1,2	2,50	312	<a href="#">8595057691698</a>
● KL 60X200_F	200	1,5 / 1,2	2,65	240	<a href="#">8595057658073</a>
● KL 60X300_F	300	1,5 / 1,2	2,90	156	<a href="#">8595057656345</a>
● KL 60X400_F	400	1,5 / 1,2	3,14	108	<a href="#">8595057658066</a>
● KL 60X500_F	500	1,5 / 1,2	3,38	96	<a href="#">8595057658042</a>
● KL 60X600_F	600	1,5 / 1,2	3,63	78	<a href="#">8595057661219</a>
● KL 60X200_ZM	200	1,5 / 1,2	2,37	240	8595568937940
● KL 60X300_ZM	300	1,5 / 1,2	2,60	156	8595568937957
● KL 60X400_ZM	400	1,5 / 1,2	2,90	108	8595568937964
● KL 60X500_ZM	500	1,5 / 1,2	3,10	96	8595568937971
● KL 60X600_ZM	600	1,5 / 1,2	3,24	78	8595568937988



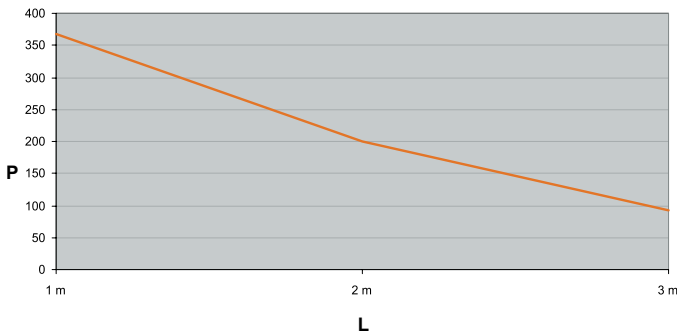
The graph shows the maximum allowed even loading of the ladder in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

**85 - cable ladder**


- ▶ The standard length of the cable ladder is 3 m.
- ▶ The joining of the ladders is performed by using the couplings S 85X200 (pg. 11) and min. 6 pcs of bolts NSM 6X10 (pg. 23).
- ▶ The side walls are L-profiles with return flange. The perforated C-profile rungs are placed in the side walls by extrusion with a spacing of 300 mm, with open side of the profile facing up.
- ▶ It is possible to create on order the ladders with rung spacing of 150 and 450 mm.
- ▶ For spatial separation of cables, it is possible to use partition P 60 (pg. 1-22). The partition is fixed every 60 cm with an NSM 6X20 screw (pg. 23)

item	A	t	‡	U	EAN
● KL 85X150_S	150	1,5 / 1,2	2,71	216	<a href="#">8595057692657</a>
● KL 85X200_S	200	1,5 / 1,2	2,90	180	<a href="#">8595057644175</a>
● KL 85X300_S	300	1,5 / 1,2	3,10	120	<a href="#">8595057644182</a>
● KL 85X400_S	400	1,5 / 1,2	3,30	84	<a href="#">8595057644199</a>
● KL 85X500_S	500	1,5 / 1,2	3,50	72	<a href="#">8595057644205</a>
⊕ KL 85X600_S	600	1,5 / 1,2	3,72	60	<a href="#">8595057644212</a>
⊕ KL 85X150_F	150	1,5 / 1,2	3,03	216	<a href="#">8595568902412</a>
⊕ KL 85X200_F	200	1,5 / 1,2	3,19	180	<a href="#">8595057661226</a>
⊕ KL 85X300_F	300	1,5 / 1,2	3,43	120	<a href="#">8595057661233</a>
⊕ KL 85X400_F	400	1,5 / 1,2	3,70	84	<a href="#">8595057661240</a>
⊕ KL 85X500_F	500	1,5 / 1,2	3,92	72	<a href="#">8595057661257</a>
⊕ KL 85X600_F	600	1,5 / 1,2	4,20	60	<a href="#">8595057661264</a>



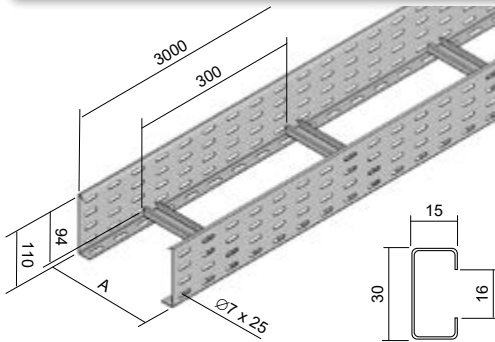
The graph shows the maximum allowed even loading of the ladder in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)



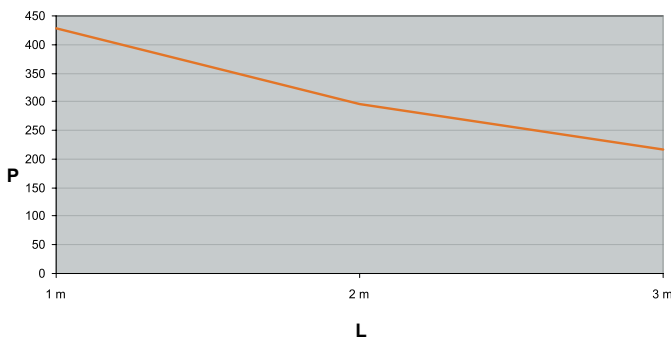


110 - cable ladder



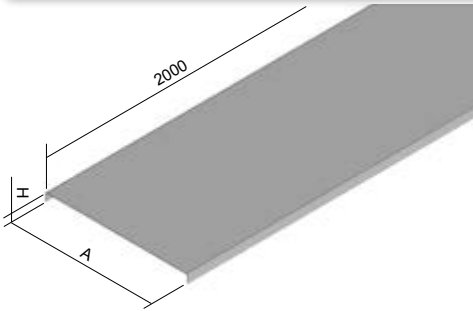
- ▶ The standard length of the cable ladder is 3 m.
- ▶ The joining of the ladders is performed by using the couplings S 110X200 (pg. 11) and min. 8 pcs of bolts NSM 6X10 (pg. 23).
- ▶ The side walls are L-profiles with return flange. The perforated C-profile rungs are placed in the side walls by extrusion with a spacing of 300 mm, with open side of the profile facing up.
- ▶ It is possible to create on order the ladders with rung spacing of 150 and 450 mm.
- ▶ For spatial separation of cables, it is possible to use partition NPZ 100 (pg. 2-16). The partition is fixed every 60 cm with an NSM 6X20 screw (pg. 23)

item	A	t	‡	U	EAN
● KL 110X150_S	150	1,5 / 1,2	3,18	144	<a href="#">8595057692664</a>
● KL 110X200_S	200	1,5 / 1,2	3,31	126	<a href="#">8595057644373</a>
● KL 110X300_S	300	1,5 / 1,2	3,53	84	<a href="#">8595057644380</a>
● KL 110X400_S	400	1,5 / 1,2	3,75	60	<a href="#">8595057644397</a>
● KL 110X500_S	500	1,5 / 1,2	4,00	48	<a href="#">8595057644403</a>
● KL 110X600_S	600	1,5 / 1,2	4,20	42	<a href="#">8595057644410</a>
⊕ KL 110X150_F	150	1,5 / 1,2	3,56	144	<a href="#">8595568902368</a>
⊕ KL 110X200_F	200	1,5 / 1,2	3,71	120	<a href="#">8595057661028</a>
⊕ KL 110X300_F	300	1,5 / 1,2	3,95	84	<a href="#">8595057661172</a>
⊕ KL 110X400_F	400	1,5 / 1,2	4,20	60	<a href="#">8595057661189</a>
⊕ KL 110X500_F	500	1,5 / 1,2	4,44	48	<a href="#">8595057661196</a>
⊕ KL 110X600_F	600	1,5 / 1,2	4,70	42	<a href="#">8595057661202</a>
● KL 110X200_ZM	200	1,5 / 1,2	3,31	126	8595568937896
● KL 110X300_ZM	300	1,5 / 1,2	3,53	84	8595568937902
● KL 110X400_ZM	400	1,5 / 1,2	3,75	60	8595568937919
● KL 110X500_ZM	500	1,5 / 1,2	4,00	48	8595568937926
● KL 110X600_ZM	600	1,5 / 1,2	4,20	42	8595568937933



The graph shows the maximum allowed even loading of the ladder in relation to the distances of the supports.

L = distance of supports (m)  
P = allowed even loading (weight kg/m)

**cable ladder cover**


- ▶ The standard length of the cable ladder cover is 2 m.
- ▶ Stated sheet metal thickness is delivered as standard. Cover with thicker sheet metal can be delivered without prior notice.
- ▶ The fixing of the cover to the tray is done using the cover fixture VU (2 pcs per meter).

item	A	H	t	‡	EAN
● V 150_S	150	11	0,55	0,75	<a href="#">8595057629790</a>
● V 200_S	200	11	0,55	0,98	<a href="#">8595057629424</a>
● V 300_S	300	11	0,8	2,07	<a href="#">8595057629516</a>
● V 400_S	400	14	1,0	3,43	<a href="#">8595057629394</a>
● V 500_S	500	14	1,0	4,22	<a href="#">8595057633162</a>
● V 600_S	600	14	1,2	6,27	<a href="#">8595057636576</a>
● V 200_ZM	200	11	0,75	1,31	8595568937858
● V 300_ZM	300	11	0,75	1,90	8595568937865
● V 400_ZM	400	14	1,0	3,36	8595568937872
● V 500_ZM	500	14	1,0	4,14	8595568937889

item	A	H	t	‡	EAN
● V 150_F	150	11	0,8	1,30	<a href="#">8595057657991</a>
● V 200_F	200	11	0,8	1,68	<a href="#">8595057656222</a>
● V 300_F	300	11	0,8	2,73	<a href="#">8595057656239</a>
● V 400_F	400	14	1,0	3,63	<a href="#">8595057656246</a>
● V 500_F	500	14	1,0	4,80	<a href="#">8595057657977</a>
● V 600_F	600	14	1,2	6,70	<a href="#">8595057659278</a>

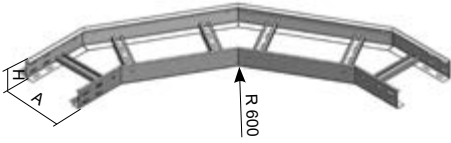
**cover fixture**


- ▶ Is used for a bolt free attachment of the cover to the tray and to the accessories.
- ▶ The cover fixture is placed to the cover and the sidewall in the place of the opening and it is slightly pressed so that the fixture lock slides into the opening.

item	‡	EAN
● VU_GMT	0,01	<a href="#">8595057629448</a>



horizontal bend

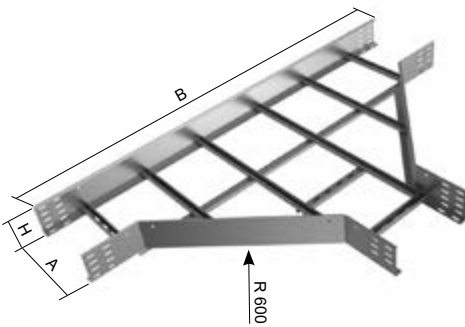


- ▶ The connection of the bend with the ladder is performed by using the couplings S ..X200 (pg. 11) and the bolts NSM 6X10 (pg. 23).
- ▶ Horizontal bend can be replaced by bend for JUPITER cable trays, demonstration of installation see pg. 8.
- ▶ On request, it is possible to add a lid to the fitting.

	item	A	H	t	lf	EAN
⊕	KLOBH 60X150_S	150	60	1,5 / 1,2	16	<a href="#">8595568910011</a>
⊕	KLOBH 60X200_S	200	60	1,5 / 1,2	16	<a href="#">8595057644489</a>
⊕	KLOBH 60X300_S	300	60	1,5 / 1,2	16	<a href="#">8595057644496</a>
⊕	KLOBH 60X400_S	400	60	1,5 / 1,2	16	<a href="#">8595057644502</a>
⊕	KLOBH 60X500_S	500	60	1,5 / 1,2	16	<a href="#">8595057644519</a>
⊕	KLOBH 60X600_S	600	60	1,5 / 1,2	16	<a href="#">8595057644526</a>
⊕	KLOBH 85X200_S	200	85	1,5 / 1,2	24	<a href="#">8595057644533</a>
⊕	KLOBH 85X300_S	300	85	1,5 / 1,2	24	<a href="#">8595057644540</a>
⊕	KLOBH 85X400_S	400	85	1,5 / 1,2	24	<a href="#">8595057644557</a>
⊕	KLOBH 85X500_S	500	85	1,5 / 1,2	24	<a href="#">8595057644564</a>
⊕	KLOBH 85X600_S	600	85	1,5 / 1,2	24	<a href="#">8595057644571</a>
⊕	KLOBH 110X200_S	200	110	1,5 / 1,2	32	<a href="#">8595057644434</a>
⊕	KLOBH 110X300_S	300	110	1,5 / 1,2	32	<a href="#">8595057644441</a>
⊕	KLOBH 110X400_S	400	110	1,5 / 1,2	32	<a href="#">8595057644458</a>
⊕	KLOBH 110X500_S	500	110	1,5 / 1,2	32	<a href="#">8595057644465</a>
⊕	KLOBH 110X600_S	600	110	1,5 / 1,2	32	<a href="#">8595057644472</a>

	item	A	H	t	lf	EAN
⊕	KLOBH 60X150_F	150	60	1,5 / 1,2	16	<a href="#">8595568910028</a>
⊕	KLOBH 60X200_F	200	60	1,5 / 1,2	16	<a href="#">8595057661271</a>
⊕	KLOBH 60X300_F	300	60	1,5 / 1,2	16	<a href="#">8595057661288</a>
⊕	KLOBH 60X400_F	400	60	1,5 / 1,2	16	<a href="#">8595057661295</a>
⊕	KLOBH 60X500_F	500	60	1,5 / 1,2	16	<a href="#">8595057661301</a>
⊕	KLOBH 60X600_F	600	60	1,5 / 1,2	16	<a href="#">8595057661318</a>
⊕	KLOBH 85X200_F	200	85	1,5 / 1,2	24	<a href="#">8595057661325</a>
⊕	KLOBH 85X300_F	300	85	1,5 / 1,2	24	<a href="#">8595057661332</a>
⊕	KLOBH 85X400_F	400	85	1,5 / 1,2	24	<a href="#">8595057661349</a>
⊕	KLOBH 85X500_F	500	85	1,5 / 1,2	24	<a href="#">8595057661356</a>
⊕	KLOBH 85X600_F	600	85	1,5 / 1,2	24	<a href="#">8595057661363</a>
⊕	KLOBH 110X200_F	200	110	1,5 / 1,2	32	<a href="#">8595057661370</a>
⊕	KLOBH 110X300_F	300	110	1,5 / 1,2	32	<a href="#">8595057661387</a>
⊕	KLOBH 110X400_F	400	110	1,5 / 1,2	32	<a href="#">8595057661394</a>
⊕	KLOBH 110X500_F	500	110	1,5 / 1,2	32	<a href="#">8595057661400</a>
⊕	KLOBH 110X600_F	600	110	1,5 / 1,2	32	<a href="#">8595057661417</a>

T-piece



- ▶ The connection of the T-piece with the ladder is performed by using the couplings S ..X200 (pg. 11) and the bolts NSM 6X10 (pg. 23).
- ▶ T-piece can be replaced by T-piece for JUPITER cable trays, demonstration of installation see pg. 8.
- ▶ On request, it is possible to add a lid to the fitting.

	item	A	H	B	t	lf	EAN
⊕	KLT 60X200_S	200	60	1400	1,5 / 1,2	24	<a href="#">8595057644632</a>
⊕	KLT 60X300_S	300	60	1500	1,5 / 1,2	24	<a href="#">8595057642256</a>
⊕	KLT 60X400_S	400	60	1600	1,5 / 1,2	24	<a href="#">8595057644649</a>
⊕	KLT 60X500_S	500	60	1700	1,5 / 1,2	24	<a href="#">8595057644656</a>
⊕	KLT 60X600_S	600	60	1800	1,5 / 1,2	24	<a href="#">8595057644663</a>
⊕	KLT 85X200_S	200	85	1400	1,5 / 1,2	36	<a href="#">8595057644670</a>
⊕	KLT 85X300_S	300	85	1500	1,5 / 1,2	36	<a href="#">8595057644687</a>
⊕	KLT 85X400_S	400	85	1600	1,5 / 1,2	36	<a href="#">8595057644694</a>
⊕	KLT 85X500_S	500	85	1700	1,5 / 1,2	36	<a href="#">8595057644700</a>
⊕	KLT 85X600_S	600	85	1800	1,5 / 1,2	36	<a href="#">8595057644717</a>
⊕	KLT 110X200_S	200	110	1400	1,5 / 1,2	48	<a href="#">8595057644588</a>
⊕	KLT 110X300_S	300	110	1500	1,5 / 1,2	48	<a href="#">8595057644595</a>
⊕	KLT 110X400_S	400	110	1600	1,5 / 1,2	48	<a href="#">8595057644601</a>
⊕	KLT 110X500_S	500	110	1700	1,5 / 1,2	48	<a href="#">8595057644618</a>
⊕	KLT 110X600_S	600	110	1800	1,5 / 1,2	48	<a href="#">8595057644625</a>

	item	A	H	B	t	lf	EAN
⊕	KLT 60X200_F	200	60	1400	1,5 / 1,2	24	<a href="#">8595057661424</a>
⊕	KLT 60X300_F	300	60	1500	1,5 / 1,2	24	<a href="#">8595057661431</a>
⊕	KLT 60X400_F	400	60	1600	1,5 / 1,2	24	<a href="#">8595057661448</a>
⊕	KLT 60X500_F	500	60	1700	1,5 / 1,2	24	<a href="#">8595057661455</a>
⊕	KLT 60X600_F	600	60	1800	1,5 / 1,2	24	<a href="#">8595057661462</a>
⊕	KLT 85X200_F	200	85	1400	1,5 / 1,2	36	<a href="#">8595057661479</a>
⊕	KLT 85X300_F	300	85	1500	1,5 / 1,2	36	<a href="#">8595057661486</a>
⊕	KLT 85X400_F	400	85	1600	1,5 / 1,2	36	<a href="#">8595057661493</a>
⊕	KLT 85X500_F	500	85	1700	1,5 / 1,2	36	<a href="#">8595057661509</a>
⊕	KLT 85X600_F	600	85	1800	1,5 / 1,2	36	<a href="#">8595057661516</a>
⊕	KLT 110X200_F	200	110	1400	1,5 / 1,2	48	<a href="#">8595057661523</a>
⊕	KLT 110X300_F	300	110	1500	1,5 / 1,2	48	<a href="#">8595057661530</a>
⊕	KLT 110X400_F	400	110	1600	1,5 / 1,2	48	<a href="#">8595057661547</a>
⊕	KLT 110X500_F	500	110	1700	1,5 / 1,2	48	<a href="#">8595057661554</a>
⊕	KLT 110X600_F	600	110	1800	1,5 / 1,2	48	<a href="#">8595057661561</a>

t thickness of metal sheet (mm) ⊕ to order  
lf min. amount of bolts for connection

S Pre-Galvanized  
F Hot Dip Galvanized

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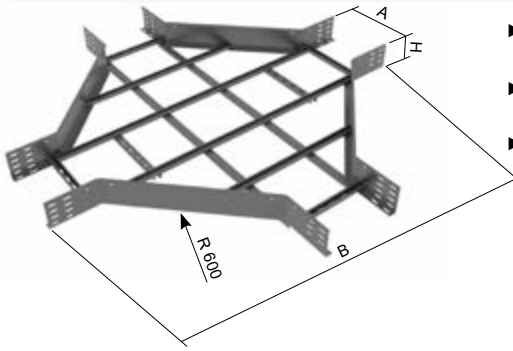
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index

cross-over



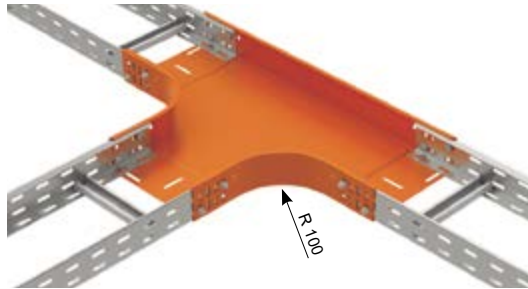
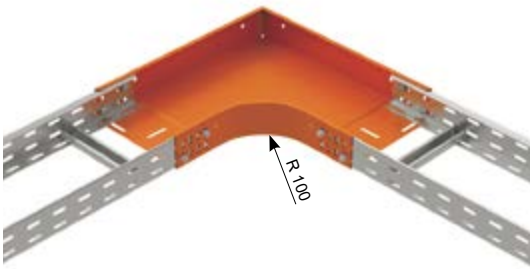
- ▶ The connection of the cross-over with the ladder is performed by using the couplings S ..X200 (pg. 11) and the bolts NSM 6X10 (pg. 23).
- ▶ Cross-over can be replaced by cross-over for JUPITER cable trays, demonstration of installation see pg. 8.
- ▶ On request, it is possible to add a lid to the fitting.

item	A	H	B	t	ƒ	EAN
⊕ KLKR 60X200_S	200	60	1400	1,5 / 1,2	32	<a href="#">8595057644779</a>
⊕ KLKR 60X300_S	300	60	1500	1,5 / 1,2	32	<a href="#">8595057644786</a>
⊕ KLKR 60X400_S	400	60	1600	1,5 / 1,2	32	<a href="#">8595057644793</a>
⊕ KLKR 60X500_S	500	60	1700	1,5 / 1,2	32	<a href="#">8595057644809</a>
⊕ KLKR 60X600_S	600	60	1800	1,5 / 1,2	32	<a href="#">8595057644816</a>
⊕ KLKR 85X200_S	200	85	1400	1,5 / 1,2	48	<a href="#">8595057644823</a>
⊕ KLKR 85X300_S	300	85	1500	1,5 / 1,2	48	<a href="#">8595057644830</a>
⊕ KLKR 85X400_S	400	85	1600	1,5 / 1,2	48	<a href="#">8595057644847</a>
⊕ KLKR 85X500_S	500	85	1700	1,5 / 1,2	48	<a href="#">8595057644854</a>
⊕ KLKR 85X600_S	600	85	1800	1,5 / 1,2	48	<a href="#">8595057644861</a>
⊕ KLKR 110X200_S	200	110	1400	1,5 / 1,2	64	<a href="#">8595057644724</a>
⊕ KLKR 110X300_S	300	110	1500	1,5 / 1,2	64	<a href="#">8595057644731</a>
⊕ KLKR 110X400_S	400	110	1600	1,5 / 1,2	64	<a href="#">8595057644748</a>
⊕ KLKR 110X500_S	500	110	1700	1,5 / 1,2	64	<a href="#">8595057644755</a>
⊕ KLKR 110X600_S	600	110	1800	1,5 / 1,2	64	<a href="#">8595057644762</a>

item	A	H	B	t	ƒ	EAN
⊕ KLKR 60X200_F	200	60	1400	1,5 / 1,2	32	<a href="#">8595057661578</a>
⊕ KLKR 60X300_F	300	60	1500	1,5 / 1,2	32	<a href="#">8595057661585</a>
⊕ KLKR 60X400_F	400	60	1600	1,5 / 1,2	32	<a href="#">8595057661592</a>
⊕ KLKR 60X500_F	500	60	1700	1,5 / 1,2	32	<a href="#">8595057661608</a>
⊕ KLKR 60X600_F	600	60	1800	1,5 / 1,2	32	<a href="#">8595057661615</a>
⊕ KLKR 85X200_F	200	85	1400	1,5 / 1,2	48	<a href="#">8595057661622</a>
⊕ KLKR 85X300_F	300	85	1500	1,5 / 1,2	48	<a href="#">8595057661639</a>
⊕ KLKR 85X400_F	400	85	1600	1,5 / 1,2	48	<a href="#">8595057661646</a>
⊕ KLKR 85X500_F	500	85	1700	1,5 / 1,2	48	<a href="#">8595057661653</a>
⊕ KLKR 85X600_F	600	85	1800	1,5 / 1,2	48	<a href="#">8595057661660</a>
⊕ KLKR 110X200_F	200	110	1400	1,5 / 1,2	64	<a href="#">8595057661677</a>
⊕ KLKR 110X300_F	300	110	1500	1,5 / 1,2	64	<a href="#">8595057661684</a>
⊕ KLKR 110X400_F	400	110	1600	1,5 / 1,2	64	<a href="#">8595057661691</a>
⊕ KLKR 110X500_F	500	110	1700	1,5 / 1,2	64	<a href="#">8595057661707</a>
⊕ KLKR 110X600_F	600	110	1800	1,5 / 1,2	64	<a href="#">8595057661714</a>

Demonstration of cable ladder bend installed together with cable tray bend (pg. 1-12).

Demonstration of cable ladder bend installed together with cable tray T-piece (pg. 1-14).



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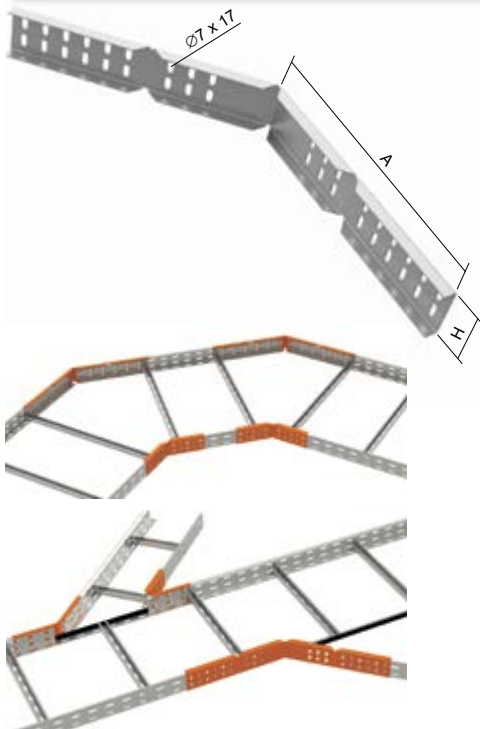
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index



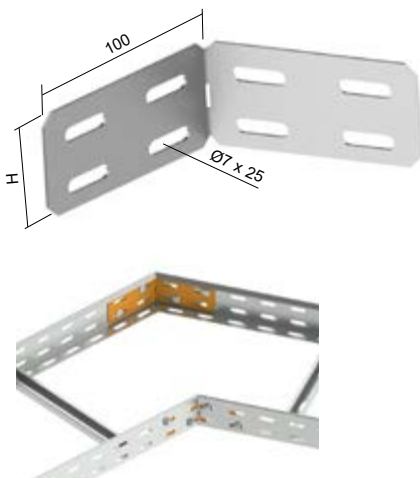
**horizontal side wall clamp**



- ▶ Used to create branches in cable ladder routes or as a substitute for cable ladder fittings or to create a change in a route at different angles and different bending radiuses. Connectors are a cost-effective and versatile way of creating branches in routes in a horizontal direction.
- ▶ Cut the side wall of the cable ladder to bend off c. 15 mm above the bottom – in the bottom perforation axis.
- ▶ It is necessary to use NCH (pg. 27).
- ▶ The fastening of the joint is performed with the bolts NSM 6X10 (pg. 23).

	item	H	A	↑	‡	EAN
●	<b>BSKH 60 K_S</b>	64	140	2	0,36	<a href="#">8595568904133</a>
⊕	<b>BSKH 85 K_S</b>	89	140	2	0,45	<a href="#">8595568904157</a>
●	<b>BSKH 110 K_S</b>	114	140	2	0,55	<a href="#">8595568904171</a>
●	<b>BSKH 60 D_S</b>	64	315	2	0,83	<a href="#">8595568904195</a>
⊕	<b>BSKH 85 D_S</b>	89	315	2	1,05	<a href="#">8595568904218</a>
●	<b>BSKH 110 D_S</b>	114	315	2	1,28	<a href="#">8595568904232</a>
⊕	<b>BSKH 60 K_F</b>	64	140	2	0,41	<a href="#">8595568904140</a>
⊕	<b>BSKH 85 K_F</b>	89	140	2	0,53	<a href="#">8595568904164</a>
⊕	<b>BSKH 110 K_F</b>	114	140	2	0,64	<a href="#">8595568904188</a>
⊕	<b>BSKH 60 D_F</b>	64	315	2	0,96	<a href="#">8595568904201</a>
⊕	<b>BSKH 85 D_F</b>	89	315	2	1,22	<a href="#">8595568904225</a>
⊕	<b>BSKH 110 D_F</b>	114	315	2	1,48	<a href="#">8595568904249</a>
●	<b>BSKH 60 K_ZM</b>	64	140	1,5	0,27	8595568938022
●	<b>BSKH 110 K_ZM</b>	114	140	1,5	0,41	8595568938008
●	<b>BSKH 60 D_ZM</b>	64	315	1,5	0,62	8595568938015
●	<b>BSKH 110 D_ZM</b>	114	315	1,5	0,96	8595568937995

**angle coupling**



- ▶ Angle couplings are used to create any angle, mainly for connecting in places of a slight bend in the route or for creating arcs of large radii or bypassing columns and pillars.
- ▶ The connection is performed using the bolts NSM 6X10 (pg. 23).
- ▶ These items can also be ordered in a varnished version. For more information, see pg. 7-2.

	item	H	↑	‡	‡f	EAN
⊕	<b>SSU 35_S</b>	25	1,2	0,04	4	<a href="#">8595568936684</a>
●	<b>SSU 60_S</b>	50	1,5	0,11	4	<a href="#">8595568936691</a>
⊕	<b>SSU 85_S</b>	75	1,5	0,16	6	<a href="#">8595568936707</a>
⊕	<b>SSU 110_S</b>	100	1,5	0,23	8	<a href="#">8595568936714</a>
⊕	<b>SSU 35_GMT</b>	25	1,2	0,07	4	<a href="#">8595568936721</a>
⊕	<b>SSU 60_GMT</b>	50	1,5	0,12	4	<a href="#">8595568936738</a>
⊕	<b>SSU 85_GMT</b>	75	1,5	0,18	6	<a href="#">8595568936745</a>
⊕	<b>SSU 110_GMT</b>	100	1,5	0,30	8	<a href="#">8595568936752</a>
●	<b>SSU 60_ZM</b>	50	1,5	0,11	4	8595568938084
●	<b>SSU 110_ZM</b>	100	1,5	0,23	8	8595568938077

**hinged joint**



- ▶ For the connection of the hinged joint to the ladder there are used the bolts NSM 6X10 (pg. 23).
- ▶ The joint is delivered in 1 piece per packing. 2 pieces are needed to create the bend in the route.

	item	H	↑	‡	‡f	EAN
●	<b>SK 60_S</b>	53	0,8	0,10	4	<a href="#">8595057627772</a>
⊕	<b>SK 85_S</b>	78	1,2	0,24	8	<a href="#">8595057630413</a>
●	<b>SK 110_S</b>	103	1,2	0,35	8	<a href="#">8595057633384</a>
●	<b>SK 60_GMT</b>	53	1,0	0,13	4	<a href="#">8595568926029</a>
⊕	<b>SK 85_GMT</b>	78	1,2	0,24	8	<a href="#">8595568926036</a>
●	<b>SK 110_GMT</b>	103	1,2	0,35	8	<a href="#">8595568926050</a>
●	<b>SK 60_ZM</b>	53	0,75	0,10	4	8595568938060
●	<b>SK 110_ZM</b>	103	1,2	0,35	8	8595568938053

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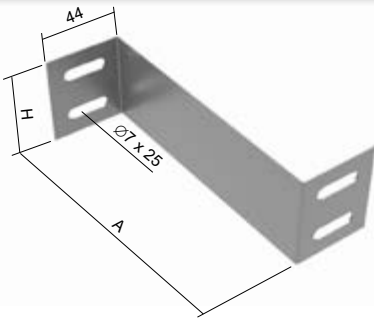
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index

reduction



► The fastening of the joint is performed with the bolts NSM 6X10 (pg. 23).

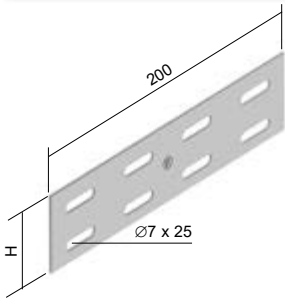


item	H	A	↑	‡	⌘	EAN
● SR 60X25_S	50	25	1,0	0,038	4	<a href="#">8595057638426</a>
● SR 60X50_S	50	50	1,0	0,048	4	<a href="#">8595057633582</a>
● SR 60X75_S	50	75	1,0	0,058	4	<a href="#">8595057638433</a>
● SR 60X100_S	50	100	1,0	0,068	4	<a href="#">8595057631755</a>
● SR 60X125_S	50	125	1,0	0,078	4	<a href="#">8595057638440</a>
● SR 60X150_S	50	150	1,0	0,088	4	<a href="#">8595057638457</a>
● SR 60X200_S	50	200	1,0	0,108	4	<a href="#">8595057638464</a>
● SR 60X250_S	50	250	1,0	0,128	4	<a href="#">8595057638471</a>
● SR 60X300_S	50	300	1,0	0,148	4	<a href="#">8595057638488</a>
● SR 60X350_S	50	350	1,0	0,168	4	<a href="#">8595057638495</a>
● SR 60X400_S	50	400	1,0	0,188	4	<a href="#">8595057638501</a>
⊕ SR 85X25_S	75	25	1,0	0,058	4	<a href="#">8595057638518</a>
⊕ SR 85X50_S	75	50	1,0	0,073	4	<a href="#">8595057633377</a>
⊕ SR 85X75_S	75	75	1,0	0,088	4	<a href="#">8595057638525</a>
⊕ SR 85X100_S	75	100	1,0	0,103	4	<a href="#">8595057630376</a>
⊕ SR 85X125_S	75	125	1,0	0,118	4	<a href="#">8595057638532</a>
⊕ SR 85X150_S	75	150	1,0	0,133	4	<a href="#">8595057638549</a>
⊕ SR 85X200_S	75	200	1,0	0,163	4	<a href="#">8595057638556</a>
⊕ SR 85X250_S	75	250	1,0	0,193	4	<a href="#">8595057638563</a>
⊕ SR 85X300_S	75	300	1,0	0,223	4	<a href="#">8595057638570</a>
⊕ SR 85X350_S	75	350	1,0	0,253	4	<a href="#">8595057638594</a>
⊕ SR 85X400_S	75	400	1,0	0,283	4	<a href="#">8595057638587</a>
● SR 110X25_S	100	25	1,0	0,077	4	<a href="#">8595057638600</a>
● SR 110X50_S	100	50	1,0	0,097	4	<a href="#">8595057632820</a>
● SR 110X75_S	100	75	1,0	0,117	4	<a href="#">8595057638617</a>
● SR 110X100_S	100	100	1,0	0,137	4	<a href="#">8595057633360</a>
● SR 110X125_S	100	125	1,0	0,157	4	<a href="#">8595057638624</a>
● SR 110X150_S	100	150	1,0	0,177	4	<a href="#">8595057633766</a>
● SR 110X200_S	100	200	1,0	0,217	4	<a href="#">8595057633759</a>
● SR 110X250_S	100	250	1,0	0,257	4	<a href="#">8595057638631</a>
● SR 110X300_S	100	300	1,0	0,297	4	<a href="#">8595057638648</a>
● SR 110X350_S	100	350	1,0	0,337	4	<a href="#">8595057638655</a>
● SR 110X400_S	100	400	1,0	0,377	4	<a href="#">8595057638662</a>

item	H	A	↑	‡	⌘	EAN
⊕ SR 60X25_F	50	25	1,0	0,044	4	<a href="#">8595057665071</a>
⊕ SR 60X50_F	50	50	1,0	0,056	4	<a href="#">8595057665088</a>
⊕ SR 60X75_F	50	75	1,0	0,067	4	<a href="#">8595057665095</a>
⊕ SR 60X100_F	50	100	1,0	0,079	4	<a href="#">8595057650664</a>
⊕ SR 60X125_F	50	125	1,0	0,091	4	<a href="#">8595057665101</a>
⊕ SR 60X150_F	50	150	1,0	0,102	4	<a href="#">8595057665118</a>
⊕ SR 60X200_F	50	200	1,0	0,125	4	<a href="#">8595057665125</a>
⊕ SR 60X250_F	50	250	1,0	0,149	4	<a href="#">8595057665132</a>
⊕ SR 60X300_F	50	300	1,0	0,172	4	<a href="#">8595057665149</a>
⊕ SR 60X350_F	50	350	1,0	0,195	4	<a href="#">8595057665156</a>
⊕ SR 60X400_F	50	400	1,0	0,218	4	<a href="#">8595057665163</a>
⊕ SR 85X25_F	75	25	1,0	0,067	4	<a href="#">8595057665170</a>
⊕ SR 85X50_F	75	50	1,0	0,085	4	<a href="#">8595057665187</a>
⊕ SR 85X75_F	75	75	1,0	0,102	4	<a href="#">8595057665194</a>
⊕ SR 85X100_F	75	100	1,0	0,120	4	<a href="#">8595057665200</a>
⊕ SR 85X125_F	75	125	1,0	0,137	4	<a href="#">8595057665217</a>
⊕ SR 85X150_F	75	150	1,0	0,154	4	<a href="#">8595057665224</a>
⊕ SR 85X200_F	75	200	1,0	0,189	4	<a href="#">8595057665231</a>
⊕ SR 85X250_F	75	250	1,0	0,224	4	<a href="#">8595057665248</a>
⊕ SR 85X300_F	75	300	1,0	0,258	4	<a href="#">8595057665255</a>
⊕ SR 85X350_F	75	350	1,0	0,294	4	<a href="#">8595057665262</a>
⊕ SR 85X400_F	75	400	1,0	0,328	4	<a href="#">8595057665279</a>
⊕ SR 110X25_F	100	25	1,0	0,089	4	<a href="#">8595057664869</a>
⊕ SR 110X50_F	100	50	1,0	0,113	4	<a href="#">8595057664876</a>
⊕ SR 110X75_F	100	75	1,0	0,138	4	<a href="#">8595057664883</a>
⊕ SR 110X100_F	100	100	1,0	0,159	4	<a href="#">8595057664890</a>
⊕ SR 110X125_F	100	125	1,0	0,182	4	<a href="#">8595057664906</a>
⊕ SR 110X150_F	100	150	1,0	0,205	4	<a href="#">8595057664913</a>
⊕ SR 110X200_F	100	200	1,0	0,252	4	<a href="#">8595057664920</a>
⊕ SR 110X250_F	100	250	1,0	0,298	4	<a href="#">8595057664937</a>
⊕ SR 110X300_F	100	300	1,0	0,345	4	<a href="#">8595057664944</a>
⊕ SR 110X350_F	100	350	1,0	0,391	4	<a href="#">8595057664951</a>
⊕ SR 110X400_F	100	400	1,0	0,440	4	<a href="#">8595057664968</a>



**coupling**

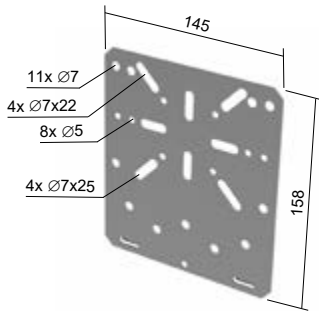


- ▶ It is designated to connect the cable ladders.
- ▶ The connection is performed using the bolts NSM 6X10 (pg. 23).

item	H	‡	‡	‡	EAN
● S 60X200_S	50	1,5	0,11	4	<a href="#">8595057627796</a>
● S 85X200_S	75	1,5	0,16	6	<a href="#">8595057629769</a>
● S 110X200_S	100	1,5	0,23	8	<a href="#">8595057629752</a>
● S 60X200_GMT	50	1,5	0,12	4	<a href="#">8595568926081</a>
⊕ S 85X200_GMT	75	1,5	0,18	6	<a href="#">8595568926098</a>
⊕ S 110X200_GMT	100	1,5	0,30	8	<a href="#">8595568926104</a>
● S 60X200_ZM	50	1,5	0,11	4	8595568938046
● S 110X200_ZM	100	1,5	0,18	8	8595568938039



**mounting plate**



- ▶ For mounting distribution boxes to the cable ladders up to a sidewall height of 60 mm.
- ▶ It is pushed onto the side of cable ladders and it is fixed by screws NSM 6X10 (pg. 23).
- ▶ Recommended for boxes KSK 80, KSK 100, KSK 125, KSK 175; 8101; 8102; 8106; 8107; 8110; 8111; 8112; 8130; 8135; 003.CS.K; 005.CS.K (see catalogue of Wiring materials).

item	‡	‡	EAN
● MDS_S	1,0	0,165	<a href="#">8595057631762</a>
● MDS_GMT	1,0	0,170	<a href="#">8595568927422</a>



‡ thickness of metal sheet (mm)  
‡ min. amount of bolts for connection

‡ weight kg/pcs

● standard  
⊕ to order

ZM Zn+Mg+Al galvanizing

S Pre-Galvanized  
GMT non electrolytic plating

1

2

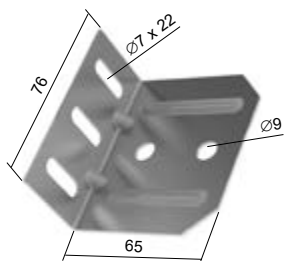
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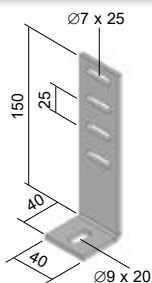
6

index

**cable ladder wall bracket**


- ▶ Use screws NSM 6X10 NSM 6X10 (pg. 23) for installation to cable ladder.
- ▶ The 8 mm anchor is used for mounting on the wall.

item	†	‡	EAN
● <b>KLSU_S</b>	1,5	0,07	<a href="#">8595568908681</a>
● <b>KLSU_F</b>	1,5	0,09	<a href="#">8595568908698</a>


**distance bracket**


- ▶ Used for the assembly to the sidewall of the cable ladder and for subsequent attaching to the wall.
- ▶ The distance between the cable ladder and the wall is at least 50 mm.
- ▶ It is fixed by using the bolt NSM 6X10 (pg. 23).

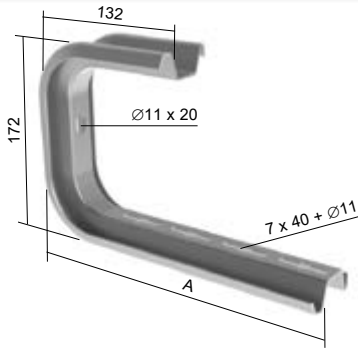
item	†	‡	EAN
● <b>KLDI 35X110_F</b>	4	0,21	<a href="#">8595057635388</a>







hang clamp

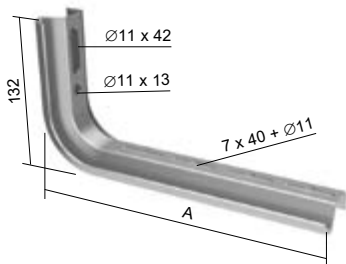


- ▶ Designated for direct mounting to the ceiling or with a threaded rod ZT 8 or ZT 10.
- ▶ The cable tray is fixed by using the bolts NSM 6X10.
- ▶ To eliminate deformation during assembly the STS reinforcement is designated.
- ▶ The installation is done by the anchors KPO 10X95 or KKZ 10, bolts S 10X40 and washers PD 10.



item	A	⊥	‡	EAN
● CTS 200_S	261	70	0,64	<a href="#">8595057630222</a>
● CTS 300_S	361	50	0,76	<a href="#">8595057630239</a>

bracket

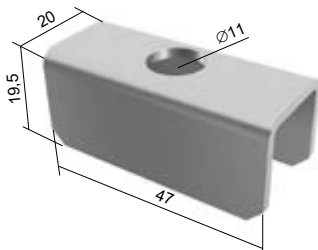


- ▶ The cable ladder is fixed by using the bolts NSM 6X10.
- ▶ LTS 100 - LTS 400 holders are used on the wall or on the ceiling profile.
- ▶ LTS 500 - LTS 600 holders are used as ceiling profiles.
- ▶ To eliminate deformation during assembly the STS reinforcement is designated.
- ▶ The installation is done by the anchors KPO 10X95 or KKZ 10, bolts S 10X40 and washers PD 10.



item	A	⊥	‡	EAN
● LTS 150_S	213	120	0,40	<a href="#">8595057639706</a>
● LTS 200_S	263	110	0,46	<a href="#">8595057639713</a>
● LTS 300_S	363	75	0,59	<a href="#">8595057630840</a>
● LTS 400_S	463	50	0,71	<a href="#">8595057634091</a>
⊕ LTS 500_S	563	-	0,82	<a href="#">8595057639737</a>
⊕ LTS 600_S	663	-	0,94	<a href="#">8595057639744</a>

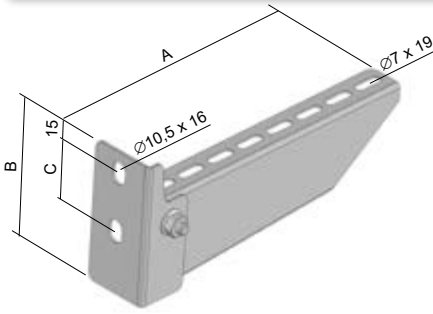
reinforcement piece for LTS and CTS profile



- ▶ For assembly onto a wall 1 piece, for double assembly 2 pieces back to back.

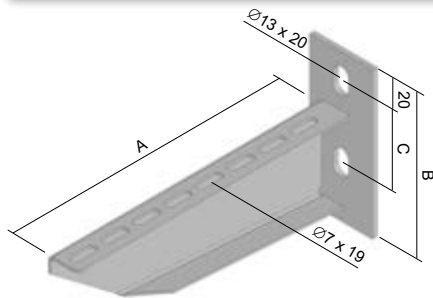
item	‡	EAN
● STS_S	0,04	<a href="#">8595057639751</a>



**bracket - medium**


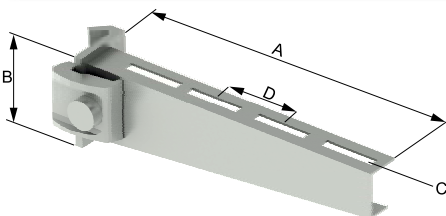
- ▶ The holder is designed to be mounted on a wall or a ceiling profile.
- ▶ Fix to the wall using 2 pcs.  $\varnothing$  8 mm anchors.
- ▶ For assembly to the ceiling profile SPL and SPS there are used the sliding nuts PM 41 M 10 (PMP 41 M 10) together with the bolts S 10X20 (2 pcs).
- ▶ The fixing of the cable ladder to the holder is performed by means of NSM 6X10 bolt or an SUP fixing clamp (pg. 23).

	item	A	B	C	⊥	‡	EAN
●	DS 150_S	168	94	60	160	0,33	<a href="#">8595057633834</a>
●	DS 200_S	218	104	60	150	0,38	<a href="#">8595057632585</a>
●	DS 300_S	318	120	60	160	0,63	<a href="#">8595057628434</a>
●	DS 400_S	418	120	60	160	0,76	<a href="#">8595057628441</a>
●	DS 500_S	518	140	90	160	1,00	<a href="#">8595057628458</a>
●	DS 600_S	618	140	90	150	1,23	<a href="#">8595057636439</a>


**bracket - heavy**


- ▶ The holder is designed to be mounted on a wall or a ceiling profile.
- ▶ For assembly to the ceiling profile SPL and SPS there are used the sliding nuts PM 41 M 10 (PMP 41 M 10) together with the bolts S 10X20 (2 pcs).
- ▶ The fixing of the cable ladder to the holder is performed by means of NSM 6X10 bolt or an SUP fixing clamp (pg. 23).

	item	A	B	C	⊥	‡	EAN
●	DT 150_F	170	120	60	250	0,36	<a href="#">8595057632592</a>
●	DT 200_F	220	120	60	250	0,43	<a href="#">8595057631779</a>
●	DT 250_F	270	120	60	250	0,53	<a href="#">8595057636996</a>
●	DT 300_F	320	135	60	325	0,73	<a href="#">8595057628519</a>
●	DT 400_F	420	135	60	325	0,88	<a href="#">8595057628526</a>
●	DT 500_F	520	155	90	350	1,30	<a href="#">8595057628533</a>
●	DT 600_F	620	155	90	350	1,60	<a href="#">8595057628540</a>
⊕	DT 800_F	820	155	90	250	1,90	<a href="#">8595057639904</a>
⊕	DT 1000_F	1020	155	90	180	2,40	<a href="#">8595057639911</a>


**clamp bracket - heavy**


- ▶ Only for assembly onto the ceiling profile SPT or I-profil 80 mm.
- ▶ Clamp angle, nut and bolt are included.
- ▶ Cable ladders are attached to the holder with an SUP mounting clamp or NSM 6X10 screws (pg. 23).

	item	A	B	C	D	⊥	‡	EAN
⊕	DRT 100_F	115	90	7x20	25	300	0,30	<a href="#">8595057635296</a>
⊕	DRT 150_F	160	55	7x15	25	250	0,40	<a href="#">8595057635302</a>
⊕	DRT 200_F	210	55	7x40	50	250	0,47	<a href="#">8595057639928</a>
⊕	DRT 300_F	310	75	7x40	50	250	0,77	<a href="#">8595057639942</a>
⊕	DRT 400_F	415	117	7x20	25	310	0,85	<a href="#">8595057639959</a>
⊕	DRT 500_F	510	95	7x38	50	250	1,24	<a href="#">8595057639966</a>
⊕	DRT 600_F	610	95	7x38	50	250	1,41	<a href="#">8595057639973</a>



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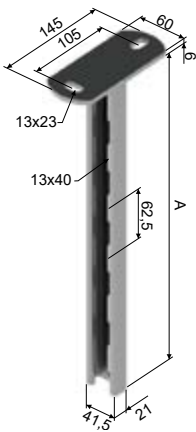
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ceiling profile - light

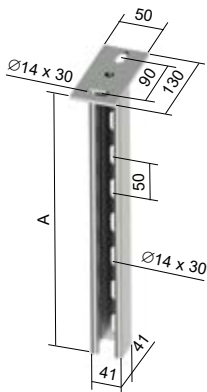


- ▶ Designated for one sided fastening of the brackets DS and DT with the use of sliding nuts PM 41 M 10 and the bolts with a hexagonal head S 10X20 (10X25, 10X30).
- ▶ OKSPL - end seal from PE.

item	A	‡	EAN
● SPL 200_F	214	0,76	<a href="#">8595057628557</a>
● SPL 300_F	304	0,92	<a href="#">8595057632097</a>
● SPL 400_F	424	1,11	<a href="#">8595057628564</a>
● SPL 500_F	514	1,32	<a href="#">8595057635067</a>
● SPL 600_F	604	1,51	<a href="#">8595057628571</a>
● SPL 800_F	814	1,87	<a href="#">8595057634978</a>
● SPL 1000_F	1024	2,26	<a href="#">8595057640061</a>
● SPL 1200_F	1204	2,63	<a href="#">8595057640078</a>
● OKSPL_DB	-	0,01	<a href="#">8595057640870</a>



ceiling profile - medium

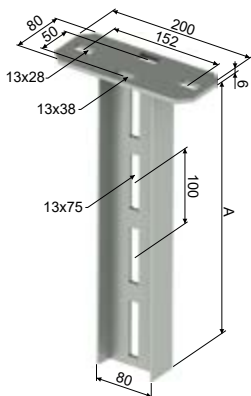


- ▶ Designated for one sided fastening of the brackets DS and DT with the use of sliding nuts PM 41 M 10 and the bolts with a hexagonal head S 10X20 (10X25, 10X30).
- ▶ For double-sided mounting, the brackets are fastened with S 10X70 bolts, M 10 nuts and PD 10 washers.
- ▶ Special surface treatment with higher corrosion resistance than hot-dip galvanizing - smooth, shiny appearance.
- ▶ OKSPS - end seal from PE.

item	A	‡	EAN
● SPS 200_F	207	1,03	<a href="#">8595057640139</a>
● SPS 300_F	307	1,33	<a href="#">8595057633452</a>
● SPS 400_F	407	1,60	<a href="#">8595057628618</a>
● SPS 500_F	507	1,90	<a href="#">8595057640146</a>
● SPS 600_F	607	2,15	<a href="#">8595057628625</a>
● SPS 800_F	757	2,70	<a href="#">8595057628632</a>
● SPS 1000_F	1007	3,25	<a href="#">8595057628649</a>
⊕ SPS 1200_F	1207	3,80	<a href="#">8595057640153</a>
● OKSPS_DB	-	0,01	<a href="#">8595057633841</a>



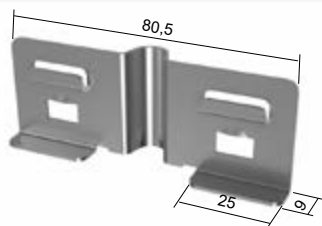
ceiling profile - heavy



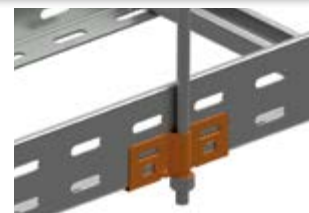
- ▶ Designated for one sided and double sided fastening of the clamp brackets DRT.
- ▶ Used as a bracket for the ceiling or the floor.
- ▶ OKSPT - end seal from PVC.

item	A	‡	EAN
⊕ SPT 200_F	208	1,80	<a href="#">8595057640221</a>
⊕ SPT 400_F	408	3,05	<a href="#">8595057640238</a>
⊕ SPT 500_F	508	3,60	<a href="#">8595057640245</a>
⊕ SPT 600_F	608	4,20	<a href="#">8595057640252</a>
⊕ SPT 800_F	808	5,50	<a href="#">8595057640269</a>
⊕ SPT 1000_F	1008	6,70	<a href="#">8595057640276</a>
⊕ SPT 1200_F	1208	8,00	<a href="#">8595057640283</a>
⊕ SPT 1500_F	1508	9,90	<a href="#">8595057640290</a>
⊕ SPT 1800_F	1808	12,00	<a href="#">8595057640306</a>
⊕ SPT 2000_F	2008	13,30	<a href="#">8595057640313</a>
⊕ OKSPT_EB	-	0,02	<a href="#">8595057650022</a>

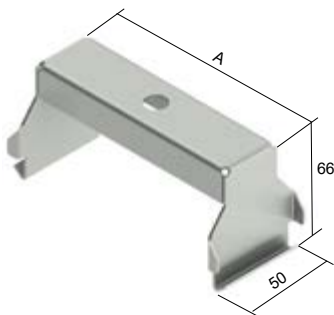


**outer side hanger**


- ▶ The outer side hanger is designed for hanging a cable route running through cable ladders on a ZT 8 threaded rod.
- ▶ The hanger is fixed to the route by snapping the studs on the hanger into the ladder sidewall.
- ▶ The threaded rod is fixed using a PD 8 washer and an M 8 nut.
- ▶ The hanger is designed for cable ladders or for cable trays made from 1.5 mm sheet metal.
- ▶ Hangers are supplied individually. 2 hangers are needed to create one suspension point.
- ▶ The product is protected by the utility model.



item	⊥	‡	EAN
● <b>ZVB 1.5_S</b>	60	0,02	<a href="#">8595568915085</a>

**outer hanger**


- ▶ The maximum load is 90 kg.
- ▶ It is mounted using the threaded rod ZT 8 or ZT 10 and nuts.
- ▶ The MN nut is not part of the hangings.
- ▶ The dimension of the nut is selected according to the diameter of threading bar.
- ▶ The hanging is suitable for hang-up the trays with partition.

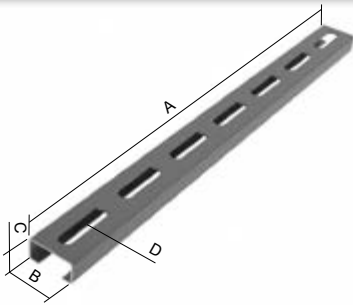


item	A	‡	EAN
● <b>ZVNE 150_S</b>	130	0,19	<a href="#">8595057628816</a>
● <b>ZVNE 200_S</b>	180	0,22	<a href="#">8595057628823</a>
● <b>ZVNE 300_S</b>	280	0,31	<a href="#">8595057639553</a>
● <b>ZVNE 400_S</b>	380	0,39	<a href="#">8595057639560</a>
⊕ <b>ZVNE 150_F</b>	130	0,19	<a href="#">8595057662452</a>
⊕ <b>ZVNE 200_F</b>	180	0,22	<a href="#">8595057662469</a>
⊕ <b>ZVNE 300_F</b>	280	0,31	<a href="#">8595057662483</a>
⊕ <b>ZVNE 400_F</b>	380	0,39	<a href="#">8595057662490</a>
● <b>MN 8_ZNCR</b>	-	0,01	<a href="#">8595568903594</a>
● <b>MN 10_ZNCR</b>	-	0,01	<a href="#">8595568903600</a>





load bearing profile



- ▶ The load bearing profile NP 200 to NP 350 is fixed by using two threaded rods ZT 8 + nut M 8 + washer PD 8.
- ▶ The load bearing profile NP 450 to NP 650 is fixed by using two threaded rods ZT 10 + nut M 10 + washer PD 10.
- ▶ **The size of the load bearing profile is determined according to the width of the cable ladder +50 mm**, for example for a cable ladder that is 150 mm wide, order NP 200.
- ▶ The cable ladder is attached to the support profile with the NSM 6X10 screw or the SUP fastening clamp (pg. 23).



NP 200  
NP 250  
NP 350

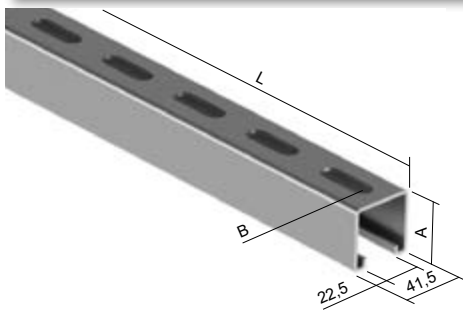


NP 450  
NP 550  
NP 650



item	A	B	C	D (inner)	D (outer)	t	±	‡	for KL	EAN
● NP 200_S	200	30	15	–	∅ 9 x 35	1,2	100	0,11	KL ..X150	<a href="#">8595057639782</a>
● NP 250_S	250	30	15	∅ 7 x 32	∅ 9 x 35	1,2	100	0,14	KL ..X200	<a href="#">8595057639799</a>
● NP 350_S	350	30	15	∅ 7 x 32	∅ 9 x 35	1,2	100	0,20	KL ..X300	<a href="#">8595057630864</a>
● NP 450_S	450	41,5	21	∅ 7 x 32	∅ 11 x 35	1,5	150	0,50	KL ..X400	<a href="#">8595057639812</a>
● NP 550_S	550	41,5	21	∅ 7 x 32	∅ 11 x 35	1,5	150	0,62	KL ..X500	<a href="#">8595057639829</a>
● NP 650_S	650	41,5	21	∅ 7 x 32	∅ 11 x 35	1,5	150	0,73	KL ..X600	<a href="#">8595057639836</a>
⊕ NP 200_F	200	30	15	–	∅ 9 x 35	1,2	100	0,13	KL ..X150	<a href="#">8595057659568</a>
⊕ NP 250_F	250	30	15	∅ 7 x 32	∅ 9 x 35	1,2	100	0,17	KL ..X200	<a href="#">8595057659575</a>
⊕ NP 350_F	350	30	15	∅ 7 x 32	∅ 9 x 35	1,2	100	0,23	KL ..X300	<a href="#">8595057659599</a>
⊕ NP 450_F	450	41,5	21	∅ 7 x 32	∅ 11 x 35	1,5	150	0,58	KL ..X400	<a href="#">8595057659605</a>
⊕ NP 550_F	550	41,5	21	∅ 7 x 32	∅ 11 x 35	1,5	150	0,71	KL ..X500	<a href="#">8595057659612</a>
⊕ NP 650_F	650	41,5	21	∅ 7 x 32	∅ 11 x 35	1,5	150	0,84	KL ..X600	<a href="#">8595057659629</a>

assembly profile



- ▶ The standard length of the assembly profile is 3 m.
- ▶ Suitable to install a beam for cable lines on the threaded rod or to install supporting structure with the aid of mounting accessoriespg. 18.
- ▶ Assembly profile MP 41X21\_S and MP 41X21\_F can be terminated with OKSPL protective cover (pg. 15).
- ▶ Assembly profile MP 41X41\_S and MP 41X41\_F can be terminated with OKSPS protective cover (pg. 15).



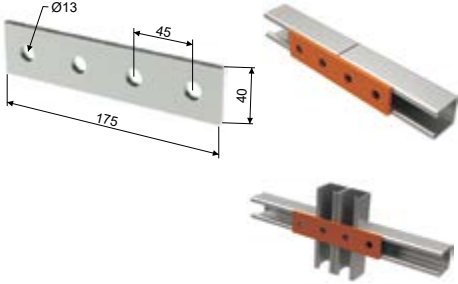
item	A	B*	C*	L	t	EAN
● MP 41X21_S	21	13 x 30	50	3000	2,5	<a href="#">8595057699557</a>
● MP 41X21X1.50_S	21	13 x 30	50	3000	1,5	<a href="#">8595057628939</a>
● MP 41X21X1.50X2000_S	21	14 x 30	50	2000	1,5	<a href="#">8595568919571</a>
● MP 41X41_S	41	13 x 30	50	3000	2,5	<a href="#">8595057699564</a>
● MP 41X21_F	21	13 x 30	50	3000	2,5	<a href="#">8595057633469</a>
● MP 41X41_F	41	13 x 30	50	3000	2,5	<a href="#">8595057632103</a>

\* dimensions are for information only, changes reserved

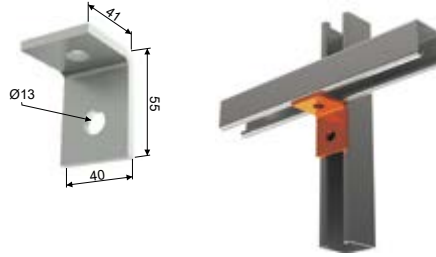
**assembly accessories**

- ▶ Designed for use with mounting profiles MP 41X21 and MP 41X41, or with ceiling profiles SPL or SPS.
- ▶ Fastening is done with bolts S 10X20, S10X25, S 10X30, S 12X25 or S 12X30 and sliding nuts PM 41 M 10 or PM 41 M 12.
- ▶ HMP 41 head: the MP 41X41 mounting profile is fastened to the head using S10X70 bolts, M10 nuts and PD10 washers.
- ▶ The MP 41X21 mounting profile is fastened to the head using S 10X50 bolts, M 10 nuts and PD 10 washers.

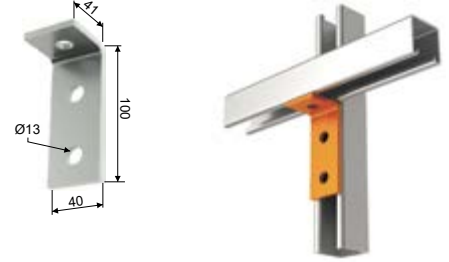
item	↑	‡	EAN
● VS 41X03_F	5	0,26	<a href="#">8595057640436</a>



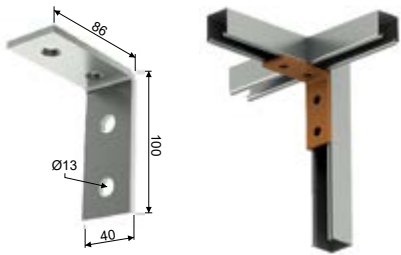
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● VS 41X05_F	5	0,13	<a href="#">8595057640436</a>



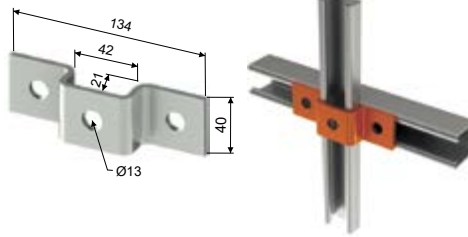
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● VS 41X06_F	5	0,19	<a href="#">8595057640467</a>



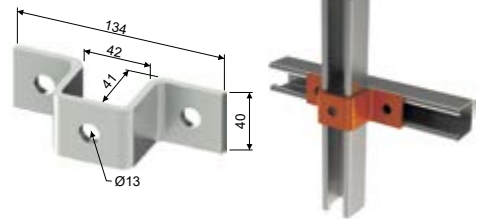
item	↑	‡	EAN
● VS 41X08_F	5	0,26	<a href="#">8595057640481</a>



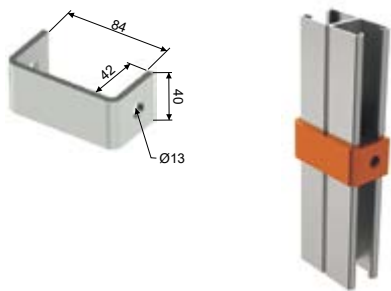
item	↑	‡	EAN
● VS 41X12_F	4	0,26	<a href="#">8595057640528</a>



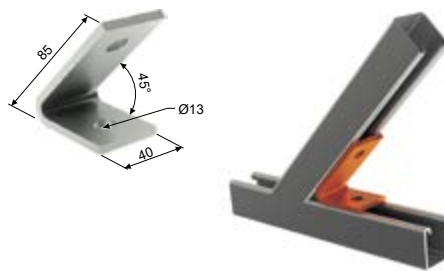
item	↑	‡	EAN
● VS 41X13_F	5	0,32	<a href="#">8595057640535</a>



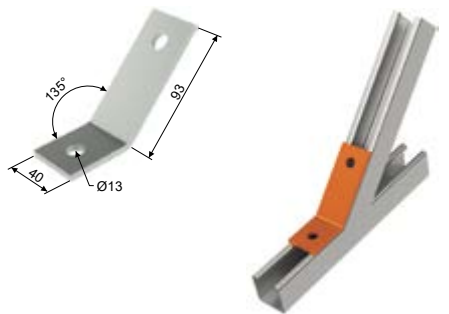
item	↑	‡	EAN
● VS 41X16_F	5	0,27	<a href="#">8595057634985</a>



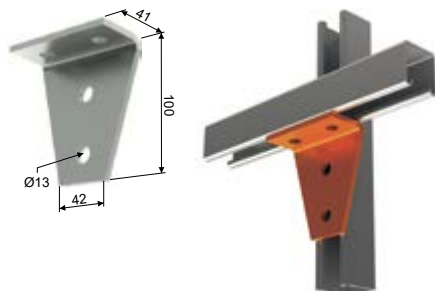
item	↑	‡	EAN
⊕ VS 41X17_F	5	0,24	<a href="#">8595057640566</a>



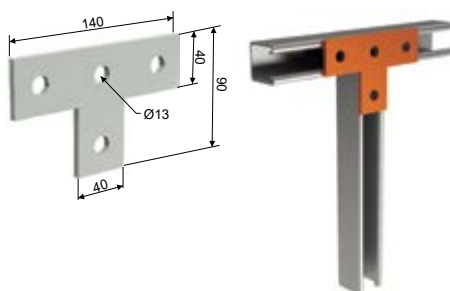
item	↑	‡	EAN
⊕ VS 41X18_F	5	0,21	<a href="#">8595057640573</a>



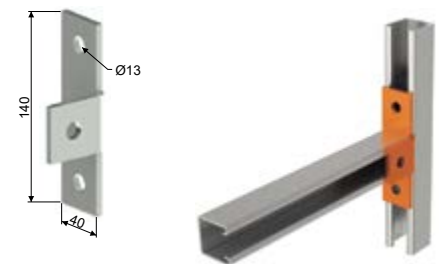
item	↑	‡	EAN
● VS 41X20_F	5	0,35	<a href="#">8595057640597</a>



item	↑	‡	EAN
● VS 41X27_F	5	0,29	<a href="#">8595057640610</a>



item	↑	‡	EAN
● VS 41X31_F	5	0,34	<a href="#">8595057633087</a>



1

2

3

4

5

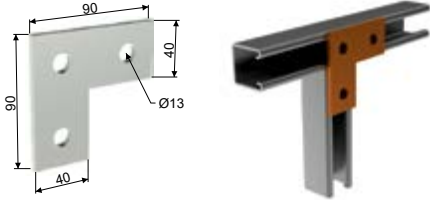
6

index

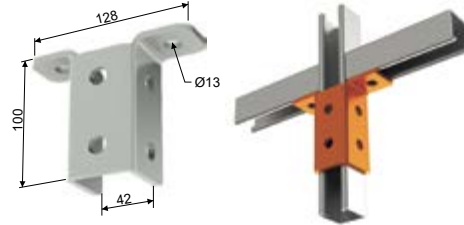


assembly accessories

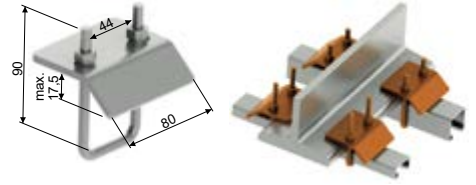
	item	t	‡	EAN
●	VS 41X36_F	5	0,21	<a href="#">8595057640658</a>



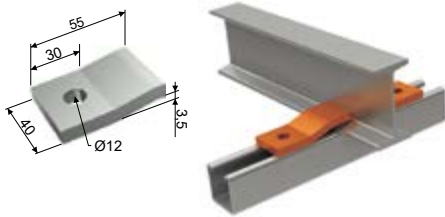
	item	t	‡	EAN
●	VS 41X37_F	5	0,47	<a href="#">8595057640665</a>



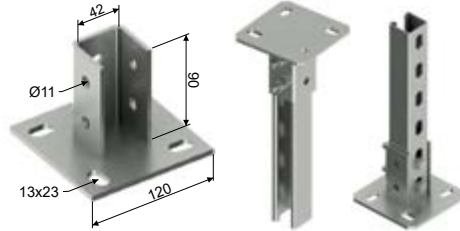
	item	t	‡	EAN
●	VS 41X41_F	6	0,37	<a href="#">8595057631519</a>



	item	t	‡	EAN
●	VS 41X43_F	8	0,20	<a href="#">8595057630871</a>



	item	t	‡	EAN
●	HMP 41_F	4/5	0,96	<a href="#">8595568932549</a>



t thickness of metal sheet (mm)  
‡ weight kg/pcs

● standard

F Hot Dip Galvanized

1

2

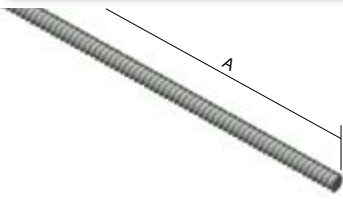
3

4

5

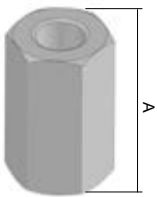
6

index

**threaded rod**


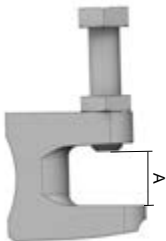
- ▶ DIN 976.
- ▶ Strength class 4.8

	item	Ø	⊥	‡	A	EAN
●	ZT 6_ZNCR	M 6	0,85	0,17	2000	<a href="#">8595057633490</a>
●	ZT 8_ZNCR	M 8	3,43	0,31	2000	<a href="#">8595057631793</a>
●	ZT 10_ZNCR	M 10	5,63	0,46	2000	<a href="#">8595057628922</a>
⊕	ZT 12_ZNCR	M 12	7,73	0,70	2000	<a href="#">8595057639591</a>
⊕	ZT 8_ZNC1	M8	3,43	0,31	1000	<a href="#">8595057692848</a>
⊕	ZT 8_ZNC3	M 8	3,43	0,31	3000	<a href="#">8595568925022</a>
⊕	ZT 10_ZNC3	M 10	5,63	0,46	3000	<a href="#">8595568925039</a>
⊕	ZT 10_GMT	M 10	5,63	0,46	1000	<a href="#">8595568928016</a>

**connection nut**


- ▶ Used for the connection of two threaded rods.

	item	A	Ø	‡	EAN
●	MZ 6_ZNCR	18	M 6	0,01	<a href="#">8595057633506</a>
●	MZ 8_ZNCR	24	M 8	0,02	<a href="#">8595057633513</a>
●	MZ 10_ZNCR	30	M 10	0,04	<a href="#">8595057629929</a>
⊕	MZ 12_ZNCR	36	M 12	0,06	<a href="#">8595057639584</a>

**fixation clamp**


- ▶ The fixation clamp is used for fixation of the threaded rod on I profile. The packing includes a fixation screw and a lock nut.

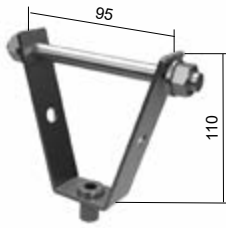
	item	‡	⊥	used with	A	EAN
●	US 1_ZNCR	0,14	2,5	ZT 8	0 - 20	<a href="#">8595057632691</a>
●	US 2_ZNCR	0,15	2,5	ZT 10	0 - 20	<a href="#">8595057629912</a>
⊕	US 3_ZNCR	0,21	2,5	ZT 12	0 - 26	<a href="#">8595057639577</a>







**bracket for trapeze ceilings**



- ▶ The DSOS holder is designed for fitting a threaded rod and attaching it to trapezoidal sheet metal.
- ▶ The DSOS comes with M 8 or M 10 adjusting nuts.
- ▶ The choice of DSOS 8 or DSOS 10 depends on which threaded rod is used, the ZT 8 or the ZT 10.
- ▶ For attachment to a trapezoidal ceiling the hinge is fitted with a transverse M8 x 120 mm pin.
- ▶ The pin has a washer and nut on both sides.

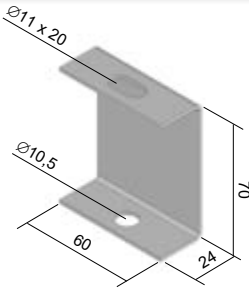


item	‡	⊥	EAN
● <b>DSOS 8_ZNCR</b>	0,17	1,3	<a href="#">8595568923783</a>
● <b>DSOS 10_ZNCR</b>	0,17	1,3	<a href="#">8595568923790</a>

thickness metal sheet of trapeze ceiling (mm)	load (N)
0,63-0,70	630
0,70-0,80	740
0,80-1,00	850
1,00-1,20	1050
1,20-1,50	1250
>1,50	1550

The loading values mentioned in the table are valid only for constant load.

**ceiling bracket**

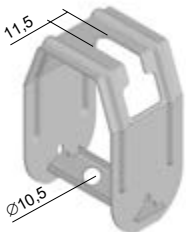


- ▶ Used together with a threaded rod ZT 8 or ZT 10.

item	‡	EAN
● <b>DSZT_S</b>	0,10	<a href="#">8595057633483</a>
⊕ <b>DSZT_F</b>	0,12	<a href="#">8595057662506</a>



**adjustable ceiling bracket**

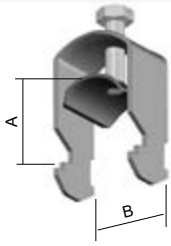


- ▶ Used together with a threaded rod ZT 8 or ZT 10.
- ▶ Ideal for a slight roof construction slant.

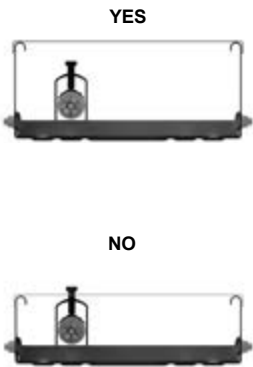
item	‡	EAN
● <b>DSS_S</b>	0,14	<a href="#">8595057633599</a>



**cable clamp for 1 cable**



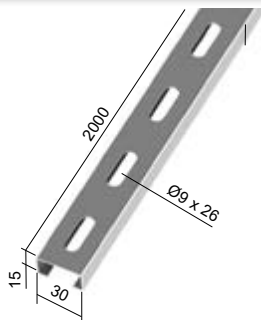
- ▶ A min and B indicate the minimum and maximum diameter of the cable being fastened.
- ▶ \* The possibility of trace covering by cover upon use of maximum cable diameter into the cable clampg.
- ▶ \*\* The table shows the maximum of used cable clamps, which are put next to each other. The table doesn't count with the high of the cable ladders with regard to possibility of covering the line.
- ▶ Its meaning is to demonstrate the maximum of using cables, which is possible to install in exact ladder while using the cable clamps.
- ▶ On the base cable clamps width, can be specified the quantity of cable clamps with different combinations and propositions in one ladder.
- ▶ For basic orientation in choosing cable clamps, use mentioned propositions.
- ▶ Dimension B +2 mm is the outer width of the clampg.
- ▶ The basic surface treatment with which clamps are delivered makes it possible to use them even in harsh weather environments.
- ▶ The clams are designed to secure cable to partition cable tray, load bearing profile NPKV 50-600 or load bearing profile NP 30X15X1.20 (pg. 22).



item	A min	B	‡	€	EAN
● PKC1 1198_F	6	12	0,03		<a href="#">8595057644878</a>
● PKC1 1199_F	7	16	0,03		<a href="#">8595057644885</a>
● PKC1 1200_F	10	19	0,04		<a href="#">8595057642232</a>
● PKC1 1201_F	14	23	0,04		<a href="#">8595057642249</a>
● PKC1 1202_F	20	26	0,04		<a href="#">8595057635586</a>
● PKC1 1203_F	24	30	0,06		<a href="#">8595057635517</a>
● PKC1 1204_F	25	34	0,07		<a href="#">8595057635401</a>
● PKC1 1205_F	29	38	0,08		<a href="#">8595057635524</a>
● PKC1 1206_F	32	43	0,09		<a href="#">8595057644892</a>
● PKC1 1207_F	42	46	0,10		<a href="#">8595057644908</a>
● PKC1 1208_F	44	50	0,10		<a href="#">8595057635531</a>
● PKC1 1209_F	50	54	0,11		<a href="#">8595057635593</a>
● PKC1 1210_F	51	58	0,14		<a href="#">8595057644915</a>
● PKC1 1211_F	55	63	0,16		<a href="#">8595057644922</a>
● PKC1 1212_F	59	69	0,16		<a href="#">8595057635609</a>

cover tray*			quantity of cable clamps **					
height KL			width KL					
60	85	110	150	200	300	400	500	600
yes	yes	yes	8	12	18	24	30	37
yes	yes	yes	7	9	14	19	24	29
no	yes	yes	5	7	11	15	19	23
no	yes	yes	5	6	10	14	17	21
no	yes	yes	4	5	8	11	14	17
no	yes	yes	3	5	7	10	12	15
no	yes	yes	3	4	6	9	11	14
no	yes	yes	3	4	6	8	10	13
no	no	yes	2	3	5	7	9	11
no	no	yes	2	3	5	7	8	10
no	no	yes	2	3	5	6	8	10
no	no	yes	2	3	4	6	7	9
no	no	no	2	2	4	5	7	8
no	no	no	1	2	4	5	6	8
no	no	no	1	2	3	5	6	7

**load bearing profile**



**Load bearing profile + threaded rods:**

- ▶ The load bearing profile is fixed by using two threaded rods ZT 8 + nuts M 8 + washer PD 8.
- ▶ The cable ladder is fixed to the bearing profile using NSM 6X10 screws.
- ▶ The bearing profile is recommended for a width of max. 300 mm.
- ▶ Max. the load for one mounting point is 100 kg.

**Load bearing profile + cable clamps**

- ▶ Cables are fixed to the support profile using PKC cable clamps.
- ▶ The load bearing profile is fixed using KPO 6 anchors or SB 6.3X35 concrete screws



item	‡	€	EAN
● NP 30X15X1.20_S	1,2	0,58	<a href="#">8595568930316</a>

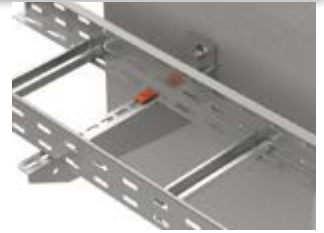


### fixation clamp



- ▶ For the attaching of the cable ladder to the bracket.
- ▶ Two pieces per bracket.

	item	‡	EAN
●	SUP_S	0,02	<a href="#">8595057635371</a>
●	SUP_F	0,02	<a href="#">8595057665712</a>



### carriage bolt and lock nut



- ▶ It is instrumental to assure the conductive connection of cable trays and accessories.
- ▶ A solid connection ensures a conductive connection of cable trays and accessories.
- ▶ The GMT surface treatment is used for cable ladders in the hot dip galvanizing (F) and Zn+Mg+Al galvanizing (ZM) surface treatment. May also be used for galvanized ladders (conf. S).

	item	∪	EAN
●	NSM 6X10_ZNCR	100	<a href="#">8595057667129</a>
●	NSM 6X20_ZNCR	100	<a href="#">8595568934062</a>
●	NSM 6X10_GMT	100	<a href="#">8595057692947</a>
●	NSM 6X20_GMT	100	<a href="#">8595568934079</a>

### bolt + nut + lock washers



- ▶ It is instrumental to assure the conductive connection.

	item	∪	EAN
●	NSMP 6X10_ZNCR	100	<a href="#">8595057679078</a>

**bolt with hexagonal head**


	item	‡	∪	EAN
●	S 6X20_ZNCR	0,006	100	<a href="#">8595057630451</a>
⊕	S 6X30_ZNCR	0,008	100	<a href="#">8595057640733</a>
●	S 8X20_ZNCR	0,012	100	<a href="#">8595057638822</a>
●	S 8X25_ZNCR	0,014	100	<a href="#">8595568934017</a>
●	S 8X30_ZNCR	0,016	100	<a href="#">8595057640740</a>
●	S 8X40_ZNCR	0,019	100	<a href="#">8595057640757</a>
●	S 8X50_ZNCR	0,022	100	<a href="#">8595057640764</a>
⊕	S 8X70_ZNCR	0,028	100	<a href="#">8595057640771</a>
●	S 10X20_ZNCR	0,021	100	<a href="#">8595057628724</a>
●	S 10X25_ZNCR	0,024	100	<a href="#">8595568934031</a>
●	S 10X30_ZNCR	0,026	100	<a href="#">8595057628731</a>
●	S 10X40_ZNCR	0,031	100	<a href="#">8595057640788</a>
●	S 10X50_ZNCR	0,036	100	<a href="#">8595057698123</a>
●	S 10X70_ZNCR	0,046	100	<a href="#">8595057698130</a>

	item	‡	∪	EAN
⊕	S 12X20_ZNCR	0,031	100	<a href="#">8595057633124</a>
⊕	S 12X25_ZNCR	0,034	100	<a href="#">8595568934055</a>
⊕	S 12X30_ZNCR	0,038	100	<a href="#">8595057633131</a>
⊕	S 12X40_ZNCR	0,045	100	<a href="#">8595057640795</a>
⊕	S 12X50_ZNCR	0,052	100	<a href="#">8595057640801</a>
⊕	S 8X20_GMT	0,012	100	<a href="#">8595568928696</a>
⊕	S 8X30_GMT	0,020	100	<a href="#">8595568924024</a>
⊕	S 10X20_GMT	0,021	100	<a href="#">8595568928702</a>
⊕	S 10X30_GMT	0,026	100	<a href="#">8595568934048</a>
⊕	S 10X40_GMT	0,031	100	<a href="#">8595568928719</a>

**hexagonal nut**

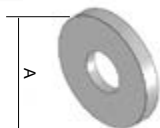

	item	∪	EAN
●	M 6_ZNCR	100	<a href="#">8595057633636</a>
●	M 8_ZNCR	100	<a href="#">8595057633643</a>
●	M 10_ZNCR	100	<a href="#">8595057630406</a>
●	M 12_ZNCR	100	<a href="#">8595057640818</a>

	item	∪	EAN
⊕	M 8_GMT	100	<a href="#">8595568928528</a>
⊕	M 10_GMT	100	<a href="#">8595568928511</a>
⊕	M 12_GMT	100	<a href="#">8595568928535</a>

**washer**


	item	A	∪	EAN
●	PD 6_ZNCR	12	100	<a href="#">8595057640832</a>
●	PD 8_ZNCR	16	100	<a href="#">8595057633438</a>
●	PD 10_ZNCR	20	100	<a href="#">8595057633445</a>
●	PD 12_ZNCR	24	100	<a href="#">8595057640849</a>

	item	A	∪	EAN
⊕	PD 8_GMT	16	100	<a href="#">8595568927996</a>
⊕	PD 10_GMT	20	100	<a href="#">8595568928542</a>
⊕	PD 12_GMT	24	100	<a href="#">8595568928009</a>

**large washer**


	item	A	∪	EAN
●	PVL 6_ZNCR	18	100	<a href="#">8595057629523</a>
●	PVL 8_ZNCR	24	100	<a href="#">8595057633421</a>
●	PVL 10_ZNCR	30	100	<a href="#">8595057633797</a>
⊕	PVL 12_ZNCR	38	100	<a href="#">8595057640856</a>

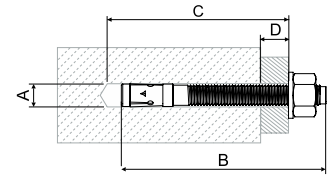
	item	A	∪	EAN
⊕	PVL 8_GMT	24	100	<a href="#">8595568928726</a>
⊕	PVL 10_GMT	30	100	<a href="#">8595568928733</a>



**anchor**



- ▶ The anchors are suitable for suspended, push-through and distance mounting.
- ▶ Types of base material: cracked concrete, non-cracked concrete, natural stone with a dense structure.



item	approved seismicity class	drill bit diameter A [mm]	total length of anchor B [mm]	min. depth of drilled hole during through-hole mounting C [mm]	maximum usable length D [mm]	thread	spanner size	EAN
● KPO 6X50_PO	-	6	65	60	10	M6	10	<a href="#">8595057691162</a>
● KPO 6X70_PO	-	6	65	60	10	M6	10	<a href="#">8595057691179</a>
● KPO 8X77_PO	C1	8	75	70	10	M8	13	<a href="#">8595057691100</a>
● KPO 8X97_PO	C1	8	95	85	30	M8	13	<a href="#">8595057691117</a>
● KPO 8X110_PO	C1/C2	8	115	105	50	M8	13	<a href="#">8595568931139</a>
● KPO 10X95_PO	C1/C2	10	92	85	10	M10	17	<a href="#">8595057691124</a>
● KPO 10X115_PO	C1/C2	10	115	105	30	M10	17	<a href="#">8595057691131</a>
● KPO 10X175_PO	C1/C2	10	185	175	100	M10	17	<a href="#">8595568931153</a>
● KPO 12X120_PO	C1/C2	12	118	110	20	M12	19	<a href="#">8595057691148</a>
⊕ KPO 8X77_POGMT	-	8	80	65	10	M8	13	<a href="#">8595568927965</a>
⊕ KPO 8X97_POGMT	-	8	100	90	35	M8	13	<a href="#">8595568929631</a>
⊕ KPO 10X95_POGMT	-	10	95	84	15	M10	17	<a href="#">8595568927972</a>
⊕ KPO 10X115_POGMT	-	10	115	104	35	M10	17	<a href="#">8595568929648</a>
⊕ KPO 12X120_POGMT	-	12	120	105	25	M12	19	<a href="#">8595568929655</a>

**anchor**



- ▶ The knock in anchors KKZ serve for the direct attachment of the threaded rods.
- ▶ There is a strut pin inside the anchor, which must be driven into the correct position before the assembly of a threaded rod.
- ▶ This item is suitable for fixing into concrete or natural stone.
- ▶ KKZ 8, KKZ 10 and KKZ 12 anchors are fitted with a collar.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	guaranteed tensile load concrete C20/25 (kN)	‡	EAN
● KKZ 6_ZNCR	8	25	27	M6	2,50	0,01	<a href="#">8595057697553</a>
● KKZ 8_ZNCR	10	30	32	M8	3,00	0,01	<a href="#">8595057697560</a>
● KKZ 10_ZNCR	12	40	42	M10	4,75	0,02	<a href="#">8595057697577</a>
● KKZ 12_ZNCR	15	50	52	M12	6,80	0,05	<a href="#">8595057697584</a>

**brass stop anchor**



- ▶ The knock in anchors KKZM serve for the direct attachment of the threaded rods.
- ▶ The brass anchors have an inner conical thread, which expands during the assembly of a threaded rod or bolt.
- ▶ The threaded rod (bolt) must be driven into the full length of the anchor.
- ▶ This item is suitable for fixing into concrete, natural stone, wood, chipboard and solid brick.
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	concrete C20/25		‡	EAN
					tensile load (kN)	tightening torque (Nm)		
● KKZM 8_XX	10	30	35	M8	1,50	6	0,01	<a href="#">8595568925893</a>
● KKZM 10_XX	12	35	40	M10	2,50	10	0,01	<a href="#">8595568925909</a>

‡ weight kg/pcs

● standard

⊕ to order

XX brass  
POGMT non electrolytic plating

ZNCR Bichromatic galvanized  
PO Bichromatic galvanized

1

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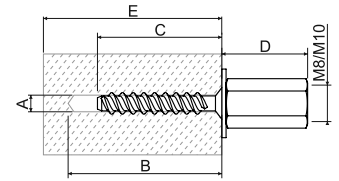
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6

index

**bolt into concrete with internal thread**

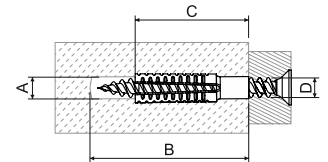

- ▶ M8 / M10 combined screw for quick and easy mounting of screws or threaded rods.
- ▶ Designed for installation in cracked concrete C20 / 25 to C50 / 60, prestressed cavity panels C30 / 37 to C50 / 60, into natural stone with a dense structure.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - screw depth
- ▶ D - height of fixing nut
- ▶ E - minimum thickness of the anchor



item	A	B	C	D	E	spanner size	tightening torque	‡	EAN	concrete C20/25 to C50/60		preloaded cavity panels			
										guaranteed load		min. axial distance from the edge	concrete thickness under the cavity	permissible equipment	min. axial distance from the edge
										tensile kN	shearing kN				
● KBS 6X35 M8/M10_PO	6	45	35	26,5	80	13	≤10	0,03	<a href="#">8595568931122</a>	0,6	2,4	35	≥25 ≥30 ≥35	0,4 0,8 1,2	100

**metal expansion anchor**


- ▶ For pre-assembled mounting in concrete, porous concrete, vertically perforated bricks, natural stone with a dense structure, solid brickwork blocks, solid sandlime bricks.
- ▶ The external teeth expand in the building material, thus ensuring a high loadbearing capacity. Thread must be screwed in at least min. to the full length of the anchor. The length of the anchor is calculated: length of the anchor + bolt diameter + thickness of the anchor + thickness of the plaster or insulation.
- ▶ The ribbed inner anchor shape is suitable for screws. If used in systems with maintained functionality in fire, a SB 6.3X35 screw is used.
- ▶ A - hole diameter
- ▶ B - minimum hole depth
- ▶ C - length of bolt
- ▶ D - thread diameter



item	A	B	C	D	‡	EAN	the recommended hole diameter for the material			guaranteed load - stroke, cut, oblique stroke applies to the specified thread diameter and material		
							concrete C20/25	porous concrete PB4	vertically perforated bricks HLZ12	thread diameter	porous concrete ≥PB2, PP2 (G2)	porous concrete ≥PB4, PP4 (G4)
							mm	mm	mm	mm	kN	kN
● KHP 6X32_PO	7-9	38	32	5-6	0,01	<a href="#">8595568931009</a>	7	6	7	-	-	-
● KHP 8X38_PO	10-12	46	38	6-8	0,01	<a href="#">8595568931016</a>	10	10	10	8	0,2	0,3
● KHP 8X60_PO	10-12	68	60	6-8	0,03	<a href="#">8595568931023</a>	12	10	10	8	0,3	0,4
● KHP 10X60_PO	12-14	68	60	8-10	0,03	<a href="#">8595568931030</a>	14	12	12	10	0,4	0,6

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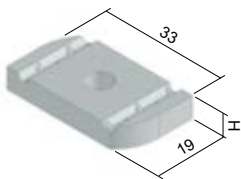
5

6

index



### sliding nut

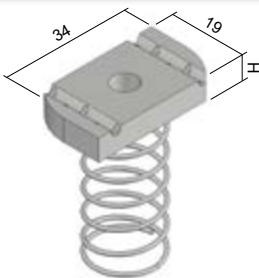


- ▶ It is used to attach the brackets to the ceiling profiles SPL, SPS or to connect the mounting profiles (MP 41X21, MP 41X41) to each other using the VS system (pg. 18 - 19).

	item	‡	H	EAN
⌚	PM 41 M 6_ZNCR	0,03	6	<a href="#">8595057631496</a>
●	PM 41 M 8_ZNCR	0,03	6	<a href="#">8595057631502</a>
●	PM 41 M 10_ZNCR	0,04	8	<a href="#">8595057628717</a>
⌚	PM 41 M 12_ZNCR	0,04	10	<a href="#">8595057633117</a>
●	PM 41 M 10_GMT	0,04	8	<a href="#">8595568928757</a>



### sliding nut with spring



- ▶ It is used to attach the brackets to the ceiling profiles or to connect the mounting profiles MP 41X41 to each other using the VS system (pg. 18 - 19).
- ▶ The spring simplifies the fixation of the nut during assembly.
- ▶ The bracket is fastened with bolts of 20-30 mm in length.

	item	‡	H	EAN
⌚	PMP 41 M 6_ZNCR	0,03	6	<a href="#">8595057640719</a>
●	PMP 41 M 8_ZNCR	0,03	6	<a href="#">8595057630475</a>
●	PMP 41 M 10_ZNCR	0,04	8	<a href="#">8595057630468</a>
⌚	PMP 41 M 12_ZNCR	0,04	8	<a href="#">8595057640726</a>



### edge protector



- ▶ The edge protector made from plastic with a steel insert is used to protect the edges of cable trays.
- ▶ Package = 10 m, sold in entire packs.
- ▶ The protector there is possible to install to the metal sheets of max. 2 mm thickness.

	item	‡	EAN
●	NCH_XX	0,06	<a href="#">8595057669932</a>

### zinc paint / spray



- ▶ Anticorrosive protection to be intended for service of defective and damaged places on galvanized surface.
- ▶ Lay on the color by paintbrush, stipple technology.

	item	‡	EAN
●	WEICON 375_XX (paint)	0,50	<a href="#">8595057621183</a>
●	WEICON 750_XX (paint)	1,10	<a href="#">8595057693609</a>
●	GZS_XX (spray)	0,45	<a href="#">8595057633148</a>



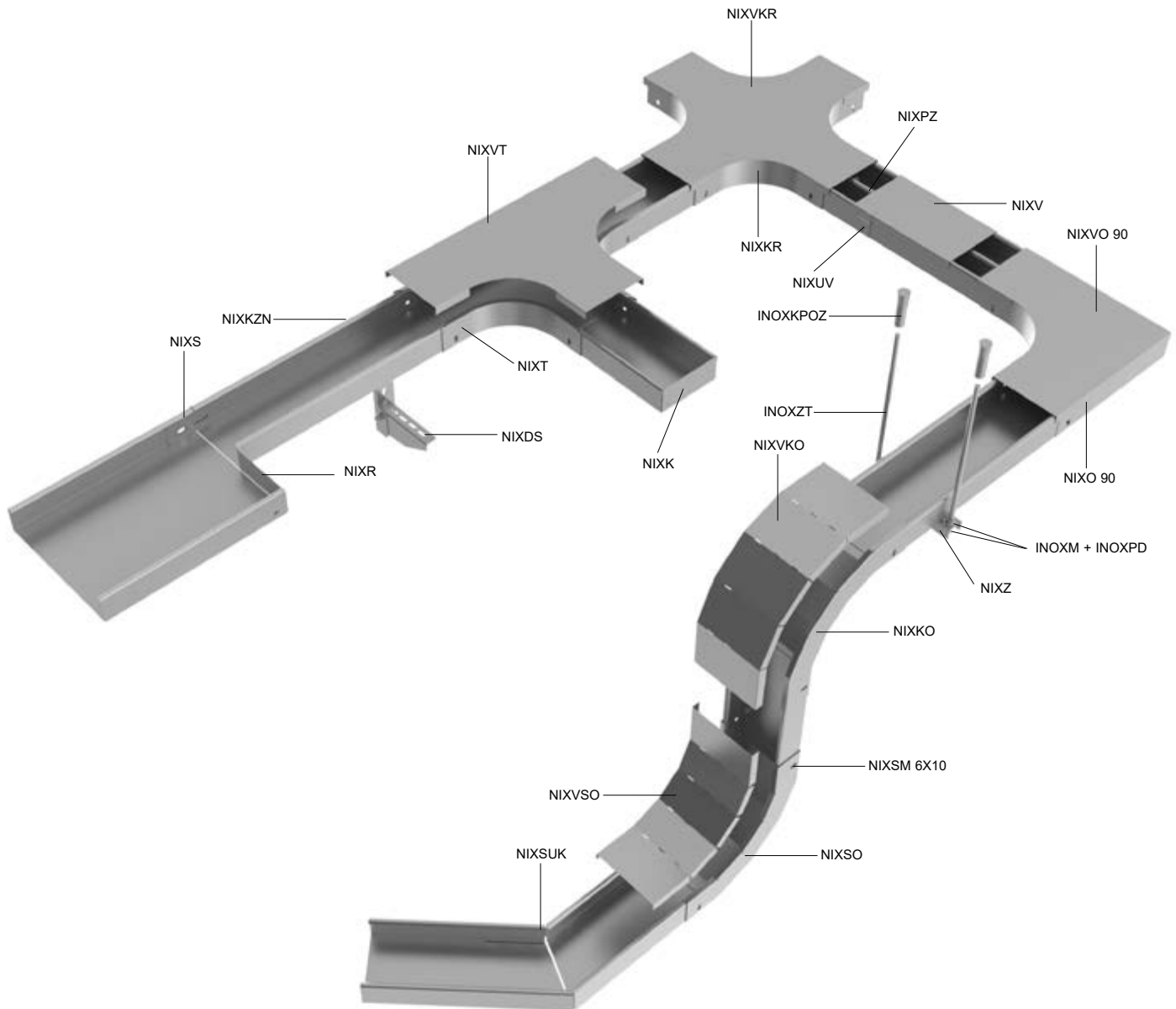




**5**

**CABLE TRAYS MARS,  
CABLE LADDERS  
AND WIRE CABLE TRAYS  
- STAINLESS**

## OVERVIEW OF SYSTEM ELEMENTS - CABLE TRAYS MARS



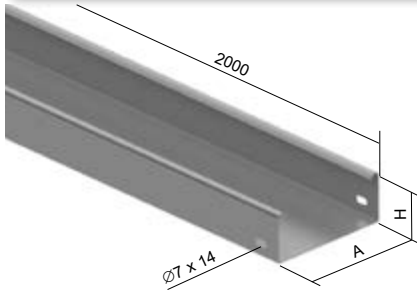
marking	description	page
NIXS	coupling	<a href="#">3</a>
NIXSM 6X10	screw and nut for connection trays and accessories	<a href="#">24</a>
NIXSO	rising elbow 90°	<a href="#">8</a>
NIXSUK	angle coupling	<a href="#">11</a>
NIXT	T-piece	<a href="#">9</a>
NIXUV	cover fixture	<a href="#">5</a>
NIXV	cable tray cover	<a href="#">5</a>
NIXVKO	low elbow 90° cover	<a href="#">7</a>
NIXVKR	cross-over cover	<a href="#">10</a>
NIXVO 90	elbow cover 90°	<a href="#">6</a>
NIXVSO	rising elbow 90° cover	<a href="#">8</a>
NIXZ	suspension piece	<a href="#">13</a>

marking	description	page
INOXKPOZ	anchor	<a href="#">26</a>
INOXM	nut	<a href="#">25</a>
INOXPD	washer	<a href="#">25</a>
INOXZT	threaded rod	<a href="#">24</a>
NIXDS	wall bracket	<a href="#">13</a>
NIXK	end-piece	<a href="#">12</a>
NIXKO	low elbow 90°	<a href="#">7</a>
NIXKR	cross-over	<a href="#">10</a>
NIXKZN	cable tray	<a href="#">3</a>
NIXO 90	elbow 90°	<a href="#">6</a>
NIXPZ	partition	<a href="#">12</a>
NIXR	reduction	<a href="#">12</a>

Used material: stainless steel AISI 304  
 Custom production: AISI 316

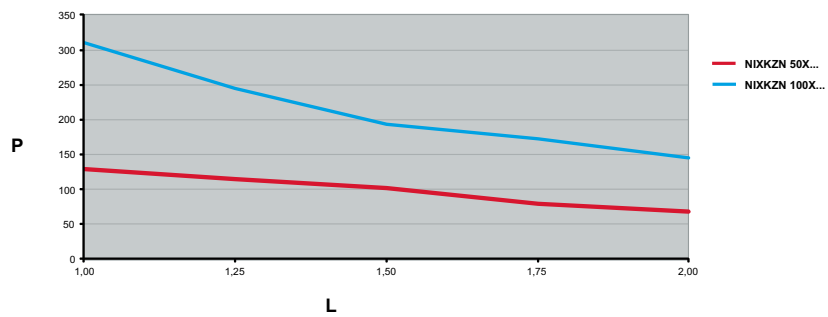


non-perforated cable tray



- ▶ The standard length of the cable tray is 2 m.
- ▶ The joining of the trays is performed by using of the couplings NIXS 50 / NIXS 100 (pg. 3) and the bolts NIXSM 6X10 (pg. 24).
- ▶ The connection of the tray with the accessory is direct without the use of connectors - the tray is inserted into the accessory, fixing is done with NIXSM 6X10 screws. (pg. 24).
- ▶ Perforated cable trays are available on request - contact your sales representative for more information.

item	A	H	‡	‡	‡f	EAN
● NIXKZN 50X62_IX	62	50	0,8	1,13	4	<a href="#">8595057669451</a>
● NIXKZN 50X125_IX	125	50	0,8	1,53	4	<a href="#">8595057669468</a>
● NIXKZN 50X250_IX	250	50	0,8	2,33	4	<a href="#">8595057669482</a>
● NIXKZN 100X125_IX	125	100	0,8	2,17	8	<a href="#">8595057669475</a>
● NIXKZN 100X250_IX	250	100	0,8	2,97	8	<a href="#">8595057677463</a>
⊕ NIXKZN 100X500_IX	500	100	1,0	5,72	8	<a href="#">8595057677487</a>

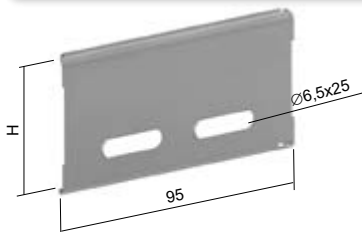


The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)

P = allowed even loading (weight kg/m)

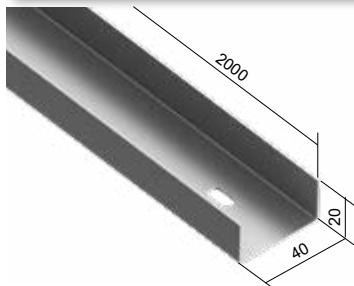
coupling



- ▶ The joining is performed by using the bolts NIXSM 6X10 (pg. 24).

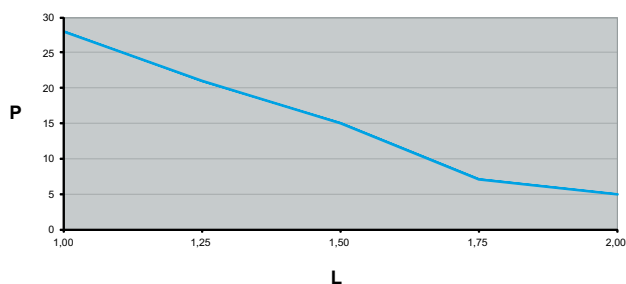
item	H	‡	‡	‡f	EAN
● NIXS 50_IX	47	0,8	0,03	2	<a href="#">8595057672109</a>
● NIXS 100_IX	97	0,8	0,06	4	<a href="#">8595057672062</a>



**non-perforated cable tray**


- ▶ The standard length of the cable tray is 2 m.
- ▶ The joining of the trays is performed by using of the coupling NIXS 40 (pg. 4) and by two bolts NIXSMP 5X10 (pg. 24).
- ▶ In the bottom, at the ends of the cable tray there is a hole  $\varnothing 6 \times 12$  mm for connection.

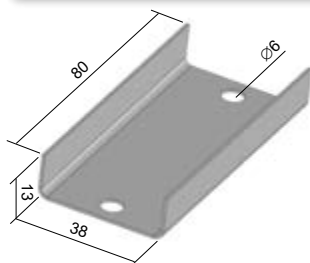
	item	t	‡	∫	EAN
●	NIXKZN 20X40_IX	0,8	0,40	2	<a href="#">8595057669444</a>



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)

P = allowed even loading (weight kg/m)

**coupling**


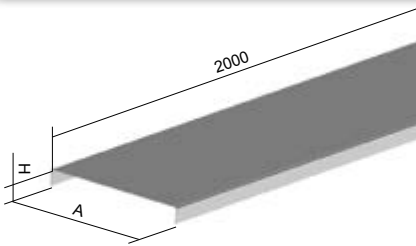
- ▶ The joining is performed by using the bolts NIXSMP 5X10 (pg. 24).
- ▶ To ensure a conductive bond pursuant to ČSN 33 2000-4-41, it is essential to always use fan washers (part of the NIXSMP 5X10) under the screw head and under the M5 nut.

	item	t	‡	∫	EAN
●	NIXS 40_IX	0,8	0,03	2	<a href="#">8595057672093</a>





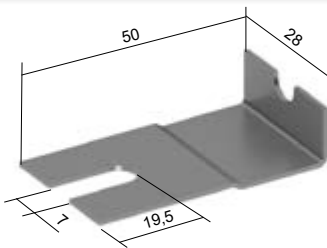
**cable tray cover**



- ▶ The standard length of the cable tray cover is 2 m.
- ▶ The fixing of the cover to the tray is done by using of the cover fixture NIXUV (pg. 5).
- ▶ The NIXV 40 cover is fixed in place by bending the edges. To fix the cover more firmly to the NIXKZN 20X40 tray we recommend using an SPK 200X4.6 stainless steel tightening strap (pg. 26).

item	A	H	t	‡	EAN
● NIXV 40_IX	40	10	0,6	0,29	<a href="#">8595057673724</a>
● NIXV 62_IX	62	14	0,6	0,43	<a href="#">8595057673755</a>
● NIXV 125_IX	125	14	0,6	0,73	<a href="#">8595057673694</a>
● NIXV 250_IX	250	14	0,6	1,33	<a href="#">8595057673717</a>
⊕ NIXV 500_IX	500	14	0,8	3,37	<a href="#">8595057673748</a>

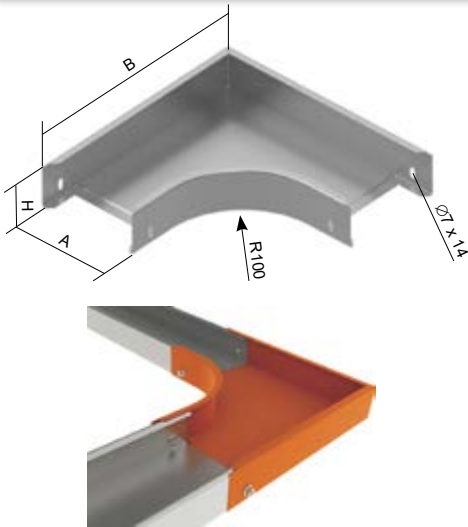
**cover fixture**



- ▶ Used to fasten covers to trays or fittings with a NIXSM 6X10 screw.
- ▶ The number of anchors on the cover is the same as the number of cable tray interconnections and connections of cable trays with accessories.

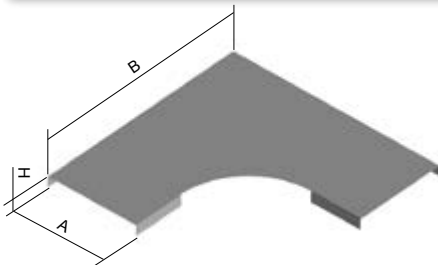


item	‡	EAN
● NIXUV_IX	0,01	<a href="#">8595057673663</a>

**elbow 90°**


- ▶ The arc is used to create a 90° branch in a horizontal direction.
- ▶ The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NIXSM 6X10 (pg. 24).
- ▶ On the NIXO 90X100X500 arc the outer right angle of the sides is replaced by a chamfer.

item	A	H	B	t	‡	‡f	EAN
● NIXO 90X50X62_IX	62	50	225	0,8	0,45	4	<a href="#">8595057671546</a>
● NIXO 90X50X125_IX	125	50	288	0,8	0,68	4	<a href="#">8595057671515</a>
● NIXO 90X50X250_IX	250	50	413	0,8	1,30	4	<a href="#">8595057671522</a>
● NIXO 90X100X125_IX	125	100	288	0,8	0,10	8	<a href="#">8595057671478</a>
● NIXO 90X100X250_IX	250	100	413	0,8	1,63	8	<a href="#">8595057671485</a>
⊕ NIXO 90X100X500_IX	500	100	663	0,8	3,07	8	<a href="#">8595057671492</a>

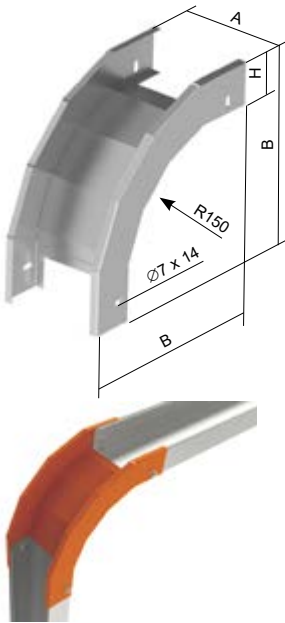
**elbow cover 90°**


- ▶ To fix the cover use cover fixtures NIXUV (pg. 5).

item	A	H	B	t	‡	EAN
● NIXVO 90X62_IX	62	15	238	0,6	0,18	<a href="#">8595057674608</a>
● NIXVO 90X125_IX	125	15	301	0,6	0,35	<a href="#">8595057674554</a>
● NIXVO 90X250_IX	250	15	426	0,6	0,80	<a href="#">8595057674578</a>
⊕ NIXVO 90X500_IX	500	15	676	0,6	2,16	<a href="#">8595057674592</a>



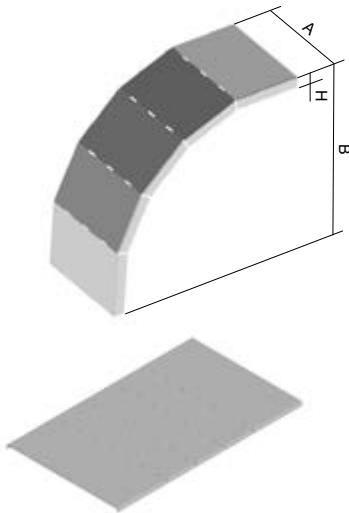
low elbow 90°



► The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NIXSM 6X10 (pg. 24).

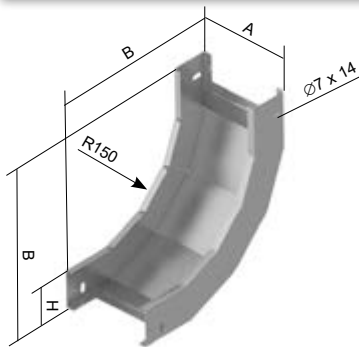
	item	A	H	B	‡	‡	‡f	EAN
●	NIXKO 90X50X62_IX	62	50	240	0,8	0,40	4	<a href="#">8595057670266</a>
●	NIXKO 90X50X125_IX	125	50	240	0,8	0,50	4	<a href="#">8595057670235</a>
●	NIXKO 90X50X250_IX	250	50	240	0,8	0,70	4	<a href="#">8595057670242</a>
●	NIXKO 90X100X125_IX	125	100	290	0,8	0,78	8	<a href="#">8595057670198</a>
●	NIXKO 90X100X250_IX	250	100	290	0,8	0,98	8	<a href="#">8595057670204</a>
⊕	NIXKO 90X100X500_IX	500	100	290	0,8	1,37	8	<a href="#">8595057670211</a>

low elbow 90° cover



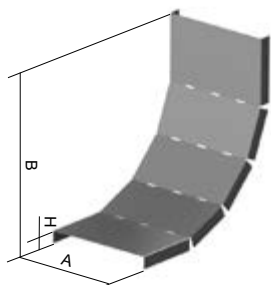
► To fix the cover use cover fixtures NIXUV (pg. 5).  
 ► The covers are delivered straight. They are made from one piece of sheet metal with pre-cut side walls for later bending during assembly

	item	A	H	B	‡	‡	EAN
●	NIXVKO 90X50X62_IX	62	15	276	0,6	0,19	<a href="#">8595057673854</a>
●	NIXVKO 90X50X125_IX	125	15	276	0,6	0,31	<a href="#">8595057673823</a>
●	NIXVKO 90X50X250_IX	250	15	276	0,6	0,56	<a href="#">8595057673830</a>
●	NIXVKO 90X100X125_IX	125	15	326	0,6	0,37	<a href="#">8595057673786</a>
●	NIXVKO 90X100X250_IX	250	15	326	0,6	0,67	<a href="#">8595057673793</a>
⊕	NIXVKO 90X100X500_IX	500	15	326	0,6	1,27	<a href="#">8595057673809</a>

**rising elbow 90°**


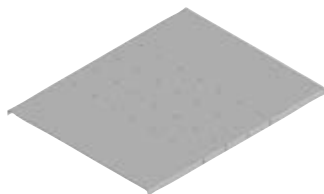
- The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NIXSM 6X10 (pg. 24).

	item	A	H	B	t	‡	£f	EAN
●	NIXSO 90X50X62_IX	62	50	240	0,8	0,44	4	<a href="#">8595057672284</a>
●	NIXSO 90X50X125_IX	125	50	240	0,8	0,57	4	<a href="#">8595057672253</a>
●	NIXSO 90X50X250_IX	250	50	240	0,8	0,82	4	<a href="#">8595057672260</a>
●	NIXSO 90X100X125_IX	125	100	290	0,8	0,92	8	<a href="#">8595057672215</a>
●	NIXSO 90X100X250_IX	250	100	290	0,8	1,24	8	<a href="#">8595057672222</a>
⊕	NIXSO 90X100X500_IX	500	100	290	0,8	1,88	8	<a href="#">8595057672239</a>


**rising elbow 90° cover**


- To fix the cover use cover fixtures NIXUV (pg. 5).
- The covers are delivered straight. They are made from one piece of sheet metal with pre-cut side walls for later bending during assembly.

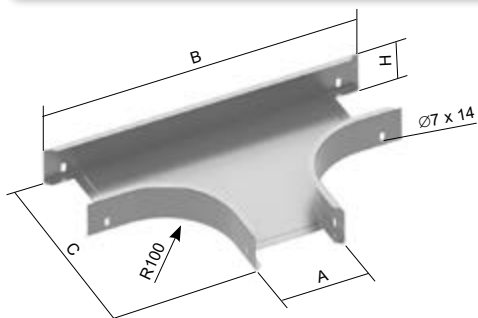
	item	A	H	B	t	‡	EAN
●	NIXVSO 90X62_IX	62	15	221	0,6	0,15	<a href="#">8595568904713</a>
●	NIXVSO 90X125_IX	125	15	221	0,6	0,25	<a href="#">8595568904720</a>
●	NIXVSO 90X250_IX	250	15	221	0,6	0,45	<a href="#">8595568904737</a>
⊕	NIXVSO 90X500_IX	500	15	221	0,6	0,86	<a href="#">8595568904744</a>







**T-piece**

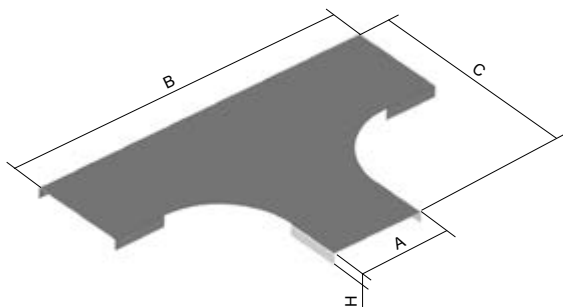


► The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NIXSM 6X10 (pg. 24).

	item	A	H	B	C	‡	‡	‡f	EAN
●	NIXT 50X62_IX	62	50	385	225	0,8	0,61	6	<a href="https://ean.com/8595057672888">8595057672888</a>
●	NIXT 50X125_IX	125	50	448	288	0,8	0,87	6	<a href="https://ean.com/8595057672826">8595057672826</a>
●	NIXT 50X250_IX	250	50	573	413	0,8	1,52	6	<a href="https://ean.com/8595057672857">8595057672857</a>
●	NIXT 100X125_IX	125	100	448	288	0,8	1,19	12	<a href="https://ean.com/8595057672765">8595057672765</a>
●	NIXT 100X250_IX	250	100	573	413	0,8	1,88	12	<a href="https://ean.com/8595057672772">8595057672772</a>
⊕	NIXT 100X500_IX	500	100	823	663	0,8	3,87	12	<a href="https://ean.com/8595057672796">8595057672796</a>

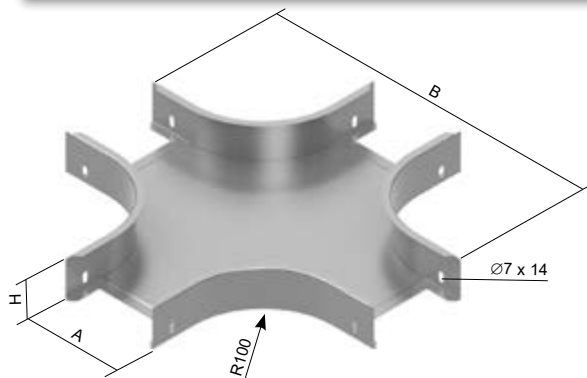


**T-piece cover**



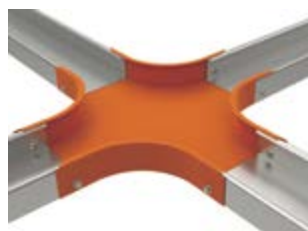
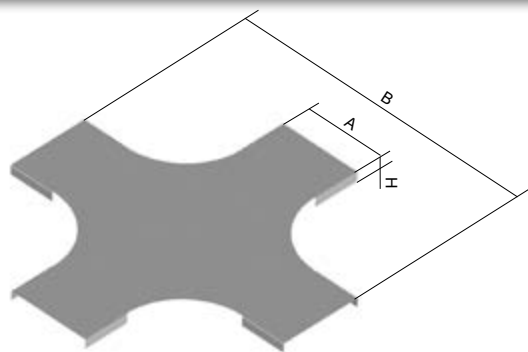
► To fix the cover use cover fixtures NIXUV (pg. 5).

	item	A	H	B	C	‡	‡	EAN
●	NIXVT 62_IX	62	15	409	238	0,6	0,25	<a href="https://ean.com/8595057675018">8595057675018</a>
●	NIXVT 125_IX	125	15	472	300	0,6	0,47	<a href="https://ean.com/8595057674936">8595057674936</a>
●	NIXVT 250_IX	250	15	597	426	0,6	1,01	<a href="https://ean.com/8595057674967">8595057674967</a>
⊕	NIXVT 500_IX	500	15	848	676	0,6	2,56	<a href="https://ean.com/8595057674998">8595057674998</a>

**cross-over**


► The connection is performed by direct sliding of the cable tray into the shaped piece and subsequent securing with bolts NIXSM 6X10 (pg. 24).

	item	A	H	B	‡	‡	‡	EAN
⊕	<b>NIXKR 50X62_IX</b>	62	50	385	0,8	0,77	8	<a href="https://ean.com/8595057670532">8595057670532</a>
⊕	<b>NIXKR 50X125_IX</b>	125	50	448	0,8	1,04	8	<a href="https://ean.com/8595057670488">8595057670488</a>
⊕	<b>NIXKR 50X250_IX</b>	250	50	573	0,8	1,74	8	<a href="https://ean.com/8595057670501">8595057670501</a>
⊕	<b>NIXKR 100X125_IX</b>	125	100	448	0,8	1,39	16	<a href="https://ean.com/8595057670426">8595057670426</a>
⊕	<b>NIXKR 100X250_IX</b>	250	100	573	0,8	2,10	16	<a href="https://ean.com/8595057670433">8595057670433</a>
⊕	<b>NIXKR 100X500_IX</b>	500	100	823	0,8	4,09	16	<a href="https://ean.com/8595057670457">8595057670457</a>


**cross-over cover**


► To fix the cover use cover fixtures NIXUV (pg. 5).

	item	A	H	B	‡	‡	EAN
⊕	<b>NIXVKR 62_IX</b>	62	15	409	0,6	0,31	<a href="https://ean.com/8595057674097">8595057674097</a>
⊕	<b>NIXVKR 125_IX</b>	125	15	472	0,6	0,58	<a href="https://ean.com/8595057674011">8595057674011</a>
⊕	<b>NIXVKR 250_IX</b>	250	15	597	0,6	1,22	<a href="https://ean.com/8595057674042">8595057674042</a>
⊕	<b>NIXVKR 500_IX</b>	500	15	848	0,6	2,95	<a href="https://ean.com/8595057674073">8595057674073</a>



## hinged joint

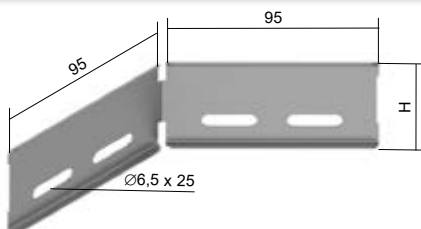


- ▶ For the connection of the hinged joint to the tray there are used the bolts NIXSM 6X10 (pg. 24).
- ▶ The joint is delivered in 1 piece per packing.
- ▶ 2 pieces are needed to create the bend in the route.



	item	H	‡	‡	‡f	EAN
●	<b>INOXSK 50_IX</b>	43	1,0	0,09	2	<a href="#">8595568930552</a>
●	<b>INOXSK 100_IX</b>	93	1,0	0,21	4	<a href="#">8595568930569</a>

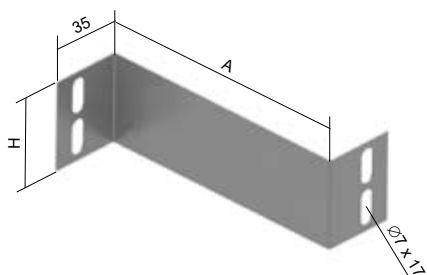
## angle coupling



- ▶ The joining is performed by using the bolts NIXSM 6X10 (pg. 24).
- ▶ Angle couplings are mostly used at places where the route is slightly bended, for large bending radiuses or for the circumvention of columns and pillars.
- ▶ The advantage of the angle connector is that it enables angled routes to be easily created at virtually any angle.

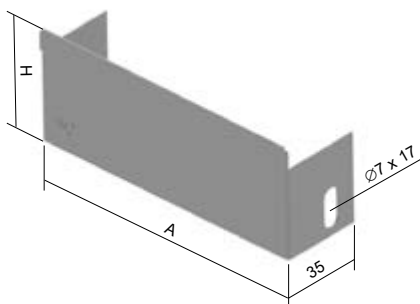


	item	H	‡	‡	EAN
●	<b>NIXSUK 50_IX</b>	46	0,8	0,05	<a href="#">8595057672666</a>
●	<b>NIXSUK 100_IX</b>	96	0,8	0,12	<a href="#">8595057672642</a>

**reduction**


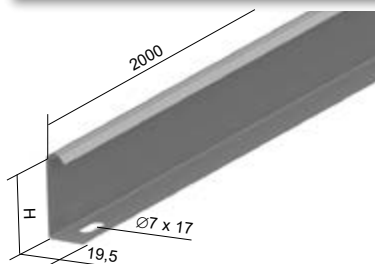
- ▶ The joining is performed by using the bolts NIXSM 6X10 (pg. 24).
- ▶ The reduction is used for the transition between various tray widths with identical height of side walls.

	item	A	H	t	‡	£f	EAN
●	NIXR 50X62_IX	65	43	0,6	0,02	2	<a href="#">8595057672031</a>
●	NIXR 50X125_IX	127	43	0,6	0,04	2	<a href="#">8595057672017</a>
●	NIXR 100X125_IX	127	93	0,6	0,08	4	<a href="#">8595057671997</a>
⊕	NIXR 100X250_IX	250	93	0,6	0,18	4	<a href="#">8595057672000</a>


**end-piece**


- ▶ The joining is performed by using the bolts NIXSM 6X10 (pg. 24).
- ▶ The end-piece serves for the ending off a route.

	item	A	H	t	‡	£f	EAN
●	NIXK 50X62_IX	60	50	0,6	0,03	2	<a href="#">8595057670020</a>
●	NIXK 50X125_IX	123	50	0,6	0,04	2	<a href="#">8595057669994</a>
●	NIXK 50X250_IX	248	50	0,6	0,07	4	<a href="#">8595057670006</a>
●	NIXK 100X125_IX	125	100	0,6	0,08	2	<a href="#">8595057669956</a>
●	NIXK 100X250_IX	250	100	0,6	0,14	4	<a href="#">8595057669963</a>
⊕	NIXK 100X500_IX	500	100	0,6	0,34	4	<a href="#">8595057669970</a>


**partition**


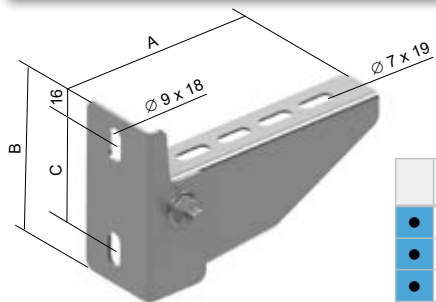
- ▶ The standard length of the partition is 2 m.
- ▶ The fixing of the partition is carried out by bolts NIXSM 6X10 (pg. 24).

	item	H	t	‡	EAN
●	NIXPZ 50_IX	44	0,6	0,35	<a href="#">8595057671973</a>
●	NIXPZ 100_IX	94	0,6	0,60	<a href="#">8595057671959</a>





wall bracket

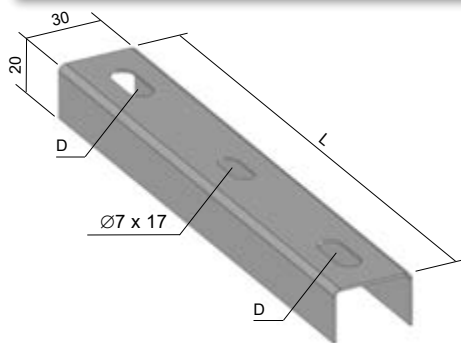


- ▶ Cable tray attaching to the wall support is carried out by bolts NIXSM 6X10 (pg. 24).
- ▶ The support is fixed to the wall using 2 pcs INOXKPO 8X75 anchors (pg. 26).

item	A	B	C	±	‡	EAN
● NIXDS 62_IX	88	72	38	180	0,13	<a href="#">8595568917492</a>
● NIXDS 125_IX	142	90	56	160	0,22	<a href="#">8595568917508</a>
● NIXDS 250_IX	267	104	70	150	0,38	<a href="#">8595568917515</a>
⊕ NIXDS 500_IX	518	130	90	170	1,02	<a href="#">8595568924377</a>

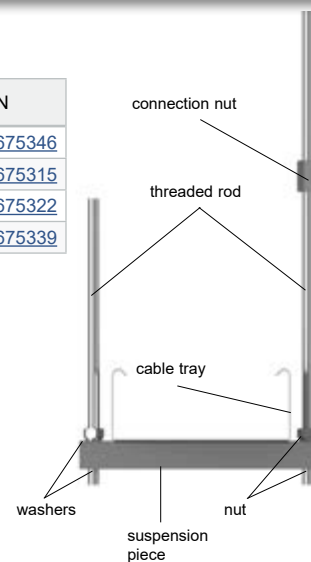


suspension piece

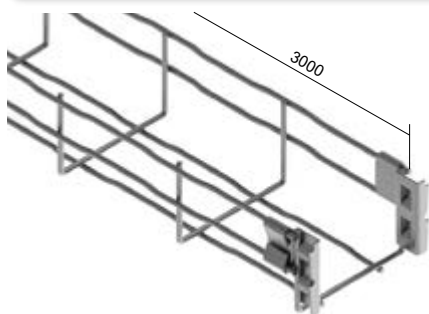


- ▶ It is used to suspend a cable tray in combination with threaded rods.

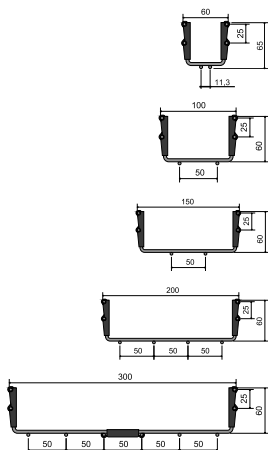
item	L	D	±	‡	EAN
● NIXZ 62_IX	107	Ø9 x 18	1,0	0,05	<a href="#">8595057675346</a>
● NIXZ 125_IX	170	Ø9 x 18	1,0	0,09	<a href="#">8595057675315</a>
● NIXZ 250_IX	295	Ø9 x 18	1,0	0,15	<a href="#">8595057675322</a>
⊕ NIXZ 500_IX	545	Ø11 x 20	1,0	0,28	<a href="#">8595057675339</a>



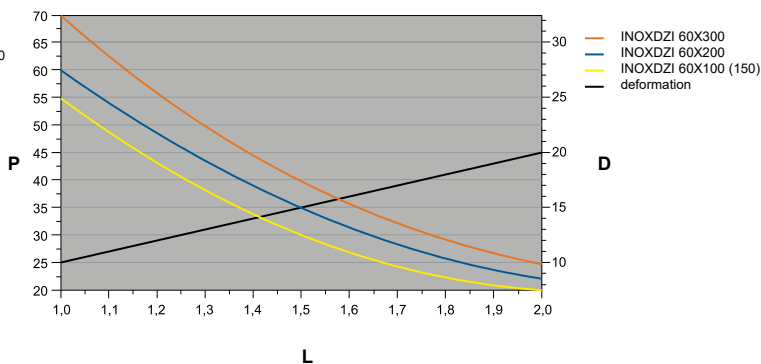
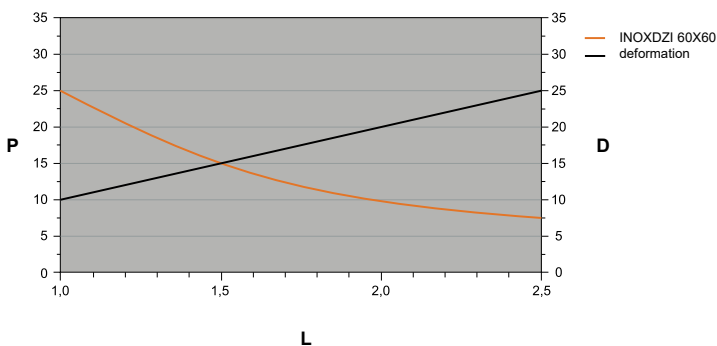
wire cable tray with integrated coupling



- ▶ There are couplings at one end of the wire cable tray - to the width of 200 mm the couplings are situated on the sideways; from the width 300 mm there are couplings on the sideways and also at the bottom of the tray.
- ▶ The way of the tray connection can be seen in the pictures below. In this way the conductive connection is fulfilled.
- ▶ To enable the proper ventilation it is recommended to install the trays at a distance at least 250 mm from each other and 20 mm from the wall.
- ▶ **Wire trays are made of AISI 304 stainless steel.**

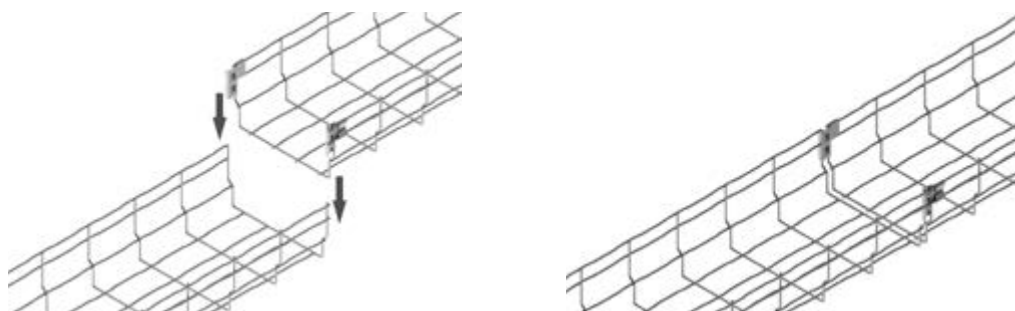


item	∅	☒	‡	EAN
● INOXDZI 60X60_BIX	3,5	21	0,59	<a href="https://ean.com/8595568931399">8595568931399</a>
● INOXDZI 60X100_BIX	4,0	43	0,82	<a href="https://ean.com/8595568931405">8595568931405</a>
⌚ INOXDZI 60X150_BIX	4,0	72	0,88	<a href="https://ean.com/8595568931412">8595568931412</a>
⌚ INOXDZI 60X200_BIX	4,0	100	1,13	<a href="https://ean.com/8595568931429">8595568931429</a>
⌚ INOXDZI 60X300_BIX	4,4	156	1,74	<a href="https://ean.com/8595568931436">8595568931436</a>



The graphs show the maximum allowed even loading of the trays in relation to the distances of the supports.

L = distance of supports (m)  
 P = allowed even loading (weight kg/m)  
 D = deformation (mm)





## fastening bolt



- ▶ The special design of the screw head enables quick and reliable connection of the wire tray, for example, to a bracket.

	item	‡	EAN
⊕	<b>INOXDZSU/B_BX</b>	0,02	<a href="#">8595057697263</a>

## coupling

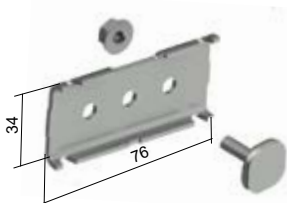


- ▶ The special design of the bolt head enables quick and reliable connection of the trays with all highs of sides.

	item	‡	EAN
⊕	<b>INOXDZS/B_BX</b>	0,03	<a href="#">8595057697256</a>



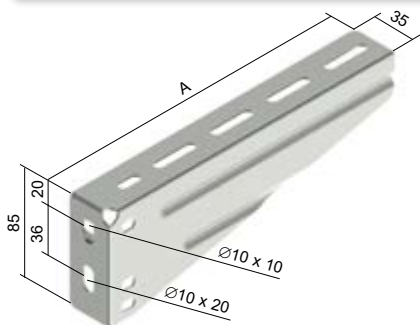
## connection reinforcement plate



- ▶ The connection reinforcement plate for a more solid connection of trays.
- ▶ Attached using a INOXDZSU/B screw, which is included.

	item	‡	EAN
⊕	<b>INOXDZSP/B_BX</b>	0,06	<a href="#">8595568902856</a>

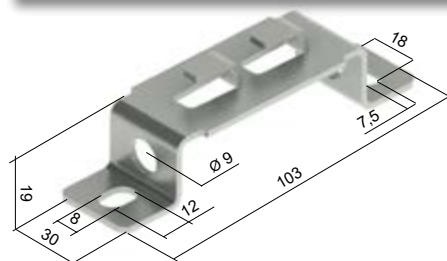


**wall bracket**


- ▶ The wire tray is fixed to the bracket with 2 fixing screws INOXDZSU/B.
- ▶ To fix the INOXDZ 60X60 channel to the wall, it is necessary to use the INOXDZZ/B hanger.



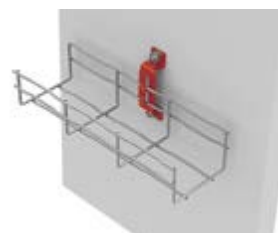
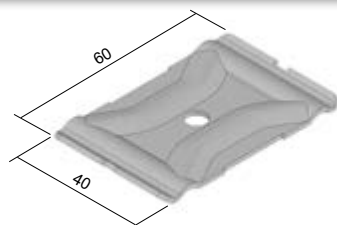
item	A	±	‡	EAN
⊕ INOXDZDS 100/B_BX	150	100	0,23	<a href="#">8595568902917</a>
⊕ INOXDZDS 150/B_BX	200	80	0,29	<a href="#">8595568902924</a>
⊕ INOXDZDS 200/B_BX	250	70	0,40	<a href="#">8595568902931</a>
⊕ INOXDZDS 300/B_BX	350	50	0,49	<a href="#">8595568902948</a>

**suspension piece**


- ▶ The hanger can be used for the fastening of the wire tray to a wall or for hanging from the ceiling together with a threaded rod  $\varnothing$  8 mm.
- ▶ The hanging by means of 2 threaded bars from the ceiling is intended for the trays of the side height of 60 mm and of the width of 60 - 200 mm.
- ▶ The fixation to the wall there is possible just for trays of 60X60 and 60X100.
- ▶ The hanger is attached using KPO 6 anchors (2 pcs).



item	‡	EAN
⊕ INOXDZZ/B_BX	0,05	<a href="#">8595568902863</a>


**central hanger**


- ▶ The central hanger is designated for the hanging of the wire tray from the ceiling. For the hanging it is necessary to use two central hanger pieces and the threaded rod  $\varnothing$  8 mm.
- ▶ The hanger is not intended for hanging of the trays of 60X60.
- ▶ For creating a single hanger attachment by using an inner hanger, 2 pcs of middle hangers must be ordered.
- ▶ FThere is recommended for cable trays width max. 300 mm.

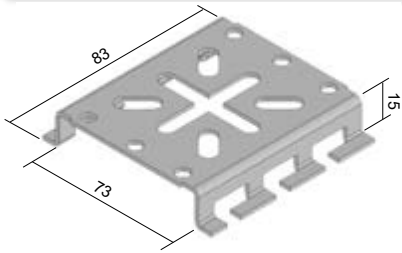


item	‡	EAN
⊕ INOXDZCZ/B_BX	0,03	<a href="#">8595568902870</a>





mounting plate



- ▶ The mounting plate is used to mount wiring boxes on the side of the cable tray.
- ▶ Mounting plate there is possible to fix to the outer side of the bottom of all trays, except the trays of INOXDZ 60X60.



	item	‡	EAN
⊕	<b>INOXDZMD/B_BX</b>	0,08	<a href="#">8595568902887</a>

1

2

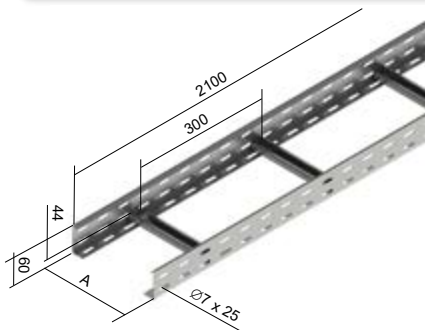
3

4

5

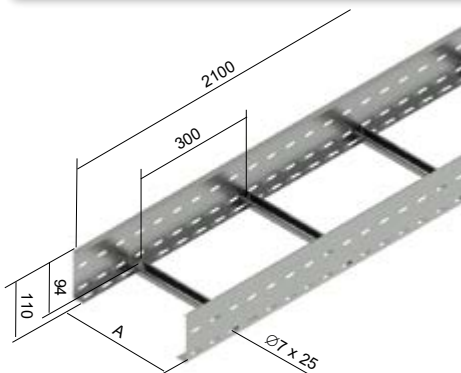
6

index

**60 - stainless steel cable ladder**


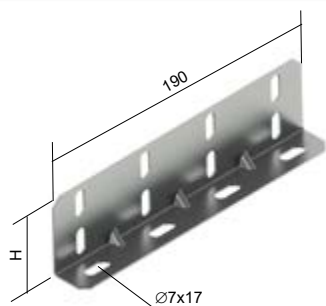
- ▶ The length of the cable ladder is 2,1 m.
- ▶ The joining of the ladders is performed by using the couplings INOXS 60 (pg. 18) and min. 4 pcs of bolts NIXSM 6X10 (pg. 24).
- ▶ The perforated sides form an L-profile with a bent edge. The perforated C-profile rungs are placed in the side walls by extrusion with a spacing of 300 mm, with open side of the profile facing up.

	item	A	†	‡	⊔	EAN
⊕	<b>INOXKL 60X200_IX</b>	200	1,2	2,1	168	<a href="#">8595057641907</a>
⊕	<b>INOXKL 60X300_IX</b>	300	1,2	2,3	109,2	<a href="#">8595057641914</a>
⊕	<b>INOXKL 60X400_IX</b>	400	1,2	2,5	75,6	<a href="#">8595057641921</a>

**110 - stainless steel cable ladder**


- ▶ The length of the cable ladder is 2,1 m.
- ▶ The joining of the ladders is performed by using the couplings INOXS 110 (pg. 18) and min. 8 pcs of bolts NIXSM 6X10 (pg. 24).
- ▶ The perforated sides form an L-profile with a bent edge. The perforated C-profile rungs are placed in the side walls by extrusion with a spacing of 300 mm, with open side of the profile facing up.

	item	A	†	‡	⊔	EAN
⊕	<b>INOXKL 110X200_IX</b>	200	1,2	3,1	84	<a href="#">8595568934116</a>
⊕	<b>INOXKL 110X300_IX</b>	300	1,2	3,3	58,8	<a href="#">8595568934123</a>
⊕	<b>INOXKL 110X400_IX</b>	400	1,2	3,5	42	<a href="#">8595568934130</a>

**stainless steel coupling**


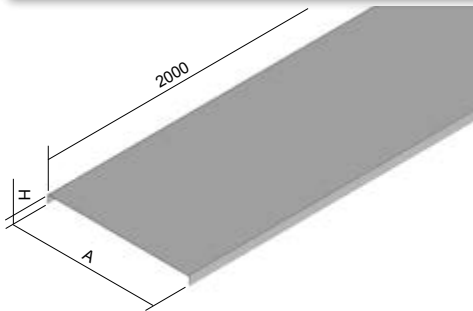
- ▶ It is designated to connect the stainless steel cable ladders.
- ▶ The fastening of the joint is performed with the bolts NIXSM 6X10 (pg. 24)

	item	H	†	‡	‡†	EAN
⊕	<b>INOXS 60_IX</b>	50	1,2	0,12	4	<a href="#">8595568934215</a>
⊕	<b>INOXS 110_IX</b>	98	1,2	0,21	8	<a href="#">8595568934147</a>





### cable ladder cover



- ▶ The standard length of the cable ladder cover is 2 m.
- ▶ Fixing the cover to the cable ladder is done using the INOXUV cover holder (2 pcs per meter) and the NIXSM 6X10 screw (pg. 24).

	item	A	H	t	‡	EAN
⊕	<b>INOXV 200_IX</b>	200	14	0,8	1,46	<a href="#">8595057632271</a>
⊕	<b>INOXV 300_IX</b>	300	14	0,8	2,1	<a href="#">8595057641853</a>
⊕	<b>INOXV 400_IX</b>	400	14	0,8	2,74	<a href="#">8595057641860</a>

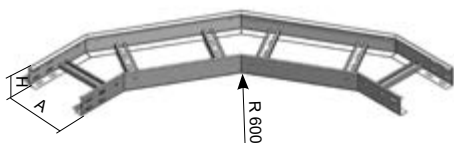
### stainless cover fixture



- ▶ It is used to attach stainless steel covers to cable ladders using a NIXSM 6X10 screw.
- ▶ The covers can be fixed directly at the joint of the cable ladders or into the longitudinal perforation of the sides of the cable ladders.

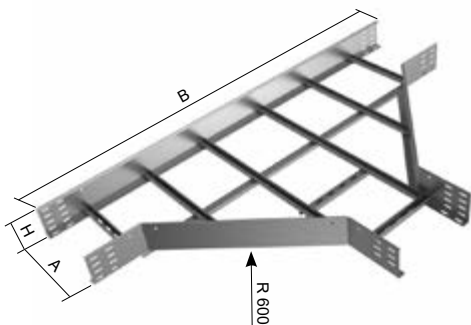
	item	t	‡	EAN
⊕	<b>INOXUV_IX</b>	1	0,01	<a href="#">8595568934239</a>



**horizontal bend**


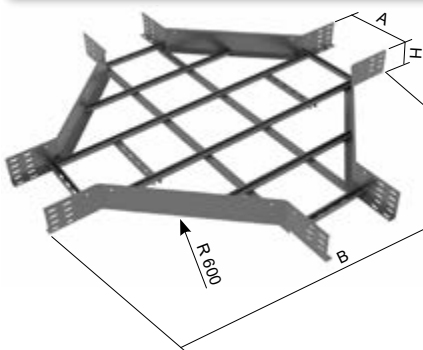
► The stainless steel bend is connected to the stainless steel ladder using INOX S couplings (pg. 18) and the bolts NIXSM 6X10 (pg. 24).

	item	A	H	t	lf	EAN
⊕	<a href="#">INOXKLOBH 60X200_IX</a>	200	60	1,2	16	<a href="#">8595568934345</a>
⊕	<a href="#">INOXKLOBH 60X300_IX</a>	300	60	1,2	16	<a href="#">8595568934352</a>
⊕	<a href="#">INOXKLOBH 60X400_IX</a>	400	60	1,2	16	<a href="#">8595568934369</a>
⊕	<a href="#">INOXKLOBH 110X200_IX</a>	200	110	1,2	32	<a href="#">8595568934376</a>
⊕	<a href="#">INOXKLOBH 110X300_IX</a>	300	110	1,2	32	<a href="#">8595568934383</a>
⊕	<a href="#">INOXKLOBH 110X400_IX</a>	400	110	1,2	32	<a href="#">8595568934390</a>

**T-piece**


► The stainless steel T-piece is connected to the stainless steel ladder using INOX S couplings (pg. 18) and the bolts NIXSM 6X10 (pg. 24).

	item	A	H	B	t	lf	EAN
⊕	<a href="#">INOXKLT 60X200_IX</a>	200	60	1400	1,2	24	<a href="#">8595568934406</a>
⊕	<a href="#">INOXKLT 60X300_IX</a>	300	60	1500	1,2	24	<a href="#">8595568934413</a>
⊕	<a href="#">INOXKLT 60X400_IX</a>	400	60	1600	1,2	24	<a href="#">8595568934420</a>
⊕	<a href="#">INOXKLT 110X200_IX</a>	200	110	1400	1,2	48	<a href="#">8595568934437</a>
⊕	<a href="#">INOXKLT 110X300_IX</a>	300	110	1500	1,2	48	<a href="#">8595568934444</a>
⊕	<a href="#">INOXKLT 110X400_IX</a>	400	110	1600	1,2	48	<a href="#">8595568934451</a>

**cross-over**


► The stainless steel cross is connected to the stainless steel ladder using INOX S couplings (pg. 18) and the bolts NIXSM 6X10 (pg. 24).

	item	A	H	B	t	lf	EAN
⊕	<a href="#">INOXKLR 60X200_IX</a>	200	60	1400	1,2	32	<a href="#">8595568934468</a>
⊕	<a href="#">INOXKLR 60X300_IX</a>	300	60	1500	1,2	32	<a href="#">8595568934475</a>
⊕	<a href="#">INOXKLR 60X400_IX</a>	400	60	1600	1,2	32	<a href="#">8595568934482</a>
⊕	<a href="#">INOXKLR 110X200_IX</a>	200	110	1400	1,2	64	<a href="#">8595568934499</a>
⊕	<a href="#">INOXKLR 110X300_IX</a>	300	110	1500	1,2	64	<a href="#">8595568934505</a>
⊕	<a href="#">INOXKLR 110X400_IX</a>	400	110	1600	1,2	64	<a href="#">8595568934512</a>



**hinged joint**

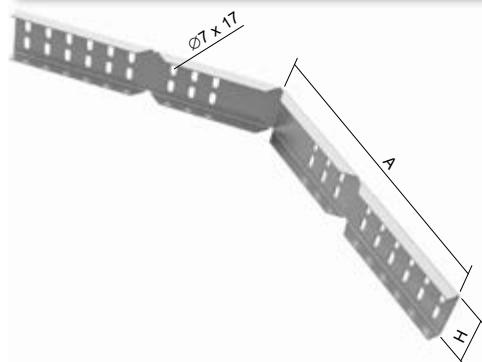


- ▶ NIXSM 6X10 screws (pg. 24) are used to connect the articulated coupling to the ladder.
- ▶ The joint is delivered in 1 piece per packing. 2 pieces are needed to create the bend in the route.

	item	H	t	‡	‡f	EAN
⊕	<b>INOXSK 60_IX</b>	53	1,2	0,15	4	<a href="#">8595057631199</a>
⊕	<b>INOXSK 110_IX</b>	103	1,2	0,36	8	<a href="#">8595568934178</a>



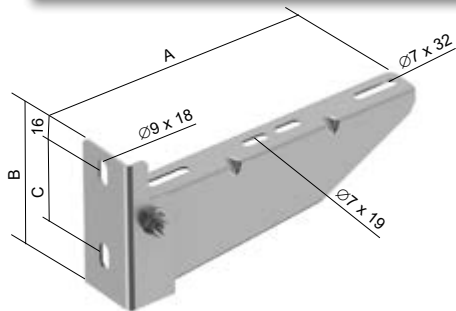
**horizontal side wall clamp**



- ▶ Used to create branches in cable ladder routes or as a substitute for cable ladder fittings or to create a change in a route at different angles and different bending radiuses. Connectors are a cost-effective and versatile way of creating branches in routes in a horizontal direction.
- ▶ Cut the side wall of the cable ladder to bend off c. 15 mm above the bottom – in the bottom perforation axis.
- ▶ It is necessary to use NCH (pg. 27).
- ▶ The fastening of the joint is performed with the bolts NIXSM 6X10 (pg. 24).

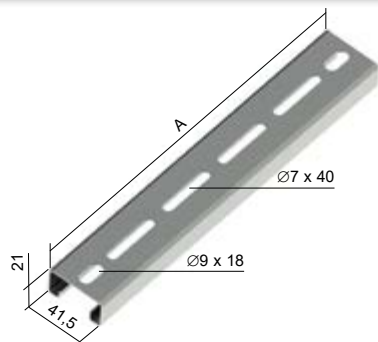
	item	H	A	t	‡	EAN
⊕	<b>INOXBSKH 60 K_IX</b>	63	140	1,5	0,27	<a href="#">8595568905840</a>
⊕	<b>INOXBSKH 110 K_IX</b>	113	140	1,5	0,42	<a href="#">8595568934161</a>
⊕	<b>INOXBSKH 60 D_IX</b>	63	315	1,5	0,62	<a href="#">8595568905857</a>
⊕	<b>INOXBSKH 110 D_IX</b>	113	315	1,5	0,98	<a href="#">8595568934154</a>



**bracket - medium**


- ▶ The holder is designed to be mounted on a wall or a ceiling profile.
- ▶ Fix to the wall using 2 pcs.  $\varnothing$  8 mm anchors.
- ▶ INOXPM sliding nuts are used together with INOXS screws for installation on the INOXSPS ceiling profile.
- ▶ The cable ladder is fixed to the holder with a NIXSM 6X10 screw.

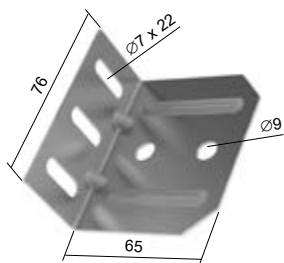
	item	A	B	C	⊥	‡	EAN
⊕	<b>INOXDS 200_IX</b>	222	104	60	150	0,34	<a href="#">8595568934185</a>
⊕	<b>INOXDS 300_IX</b>	322	110	70	130	0,47	<a href="#">8595568934192</a>
⊕	<b>INOXDS 400_IX</b>	422	116	80	100	0,61	<a href="#">8595568934208</a>


**load bearing profile**


- ▶ The bearing profile is fixed with two INOXZT 8 threaded rods + INOXM 8 nuts + INOXPD 8.
- ▶ **The size of the load bearing profile is determined according to the width of the cable ladder +50 mm**, for example for a cable ladder that is 200 mm wide, order INOXNP 250.
- ▶ The cable ladder is attached to the supporting profile with a NIXSM 6X10 screw (pg. 24).



	item	A	‡	⊥	‡	pro KL	EAN
⊕	<b>INOXNP 250_IX</b>	250	1,2	100	0,24	INOXKL ...X200	<a href="#">8595568906281</a>
⊕	<b>INOXNP 350_IX</b>	350	1,2	100	0,33	INOXKL ...X300	<a href="#">8595568906298</a>
⊕	<b>INOXNP 450_IX</b>	450	1,2	100	0,42	INOXKL ...X400	<a href="#">8595568906304</a>

**cable ladder wall bracket**


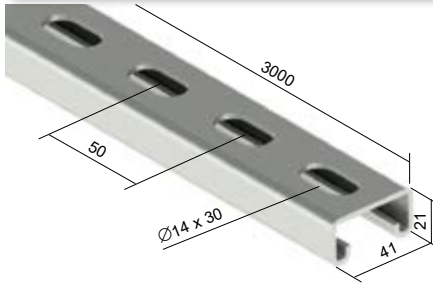
- ▶ Use screws NIXSM 6X10 (pg. 24) for installation to cable ladder.
- ▶ The 8 mm anchor is used for mounting on the wall.

	item	‡	‡	EAN
⊕	<b>INOXKLSU_IX</b>	1,5	0,07	<a href="#">8595568936516</a>



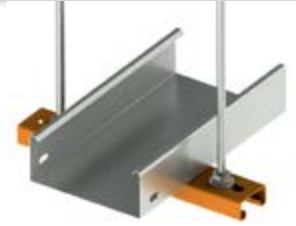


**assembly profile**

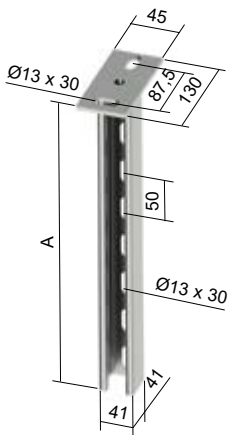


- ▶ Suitable to create support for cable trays mounted on threaded rods.
- ▶ Assembly profile can be terminated with OKSPS protective cover (pg. 1-27).

item	‡	EAN
⊕ INOXMP 41X21_IX	2,5	<a href="#">8595057630598</a>



**ceiling profile - medium**

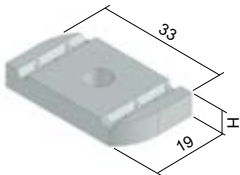


- ▶ Designed for fixing NIXDS or INOXDS brackets using INOXPM sliding nuts and INOXS hex head screws.
- ▶ For double-sided installation, the brackets are fastened with INOXS ..X70 screws, INOXM nuts and INOXPD washers.
- ▶ AISI 316 stainless steel.
- ▶ OKSPS - end seal from PE

item	A	‡	EAN
⊕ INOXSPS 200_IX	208	0,83	<a href="#">8595568930392</a>
⊕ INOXSPS 300_IX	308	1,04	<a href="#">8595568930408</a>
⊕ INOXSPS 400_IX	408	1,28	<a href="#">8595568930415</a>
⊕ INOXSPS 500_IX	508	1,45	<a href="#">8595568930422</a>
⊕ INOXSPS 600_IX	608	1,78	<a href="#">8595568930439</a>
● OKSPS_DB	-	0,01	<a href="#">8595057633841</a>



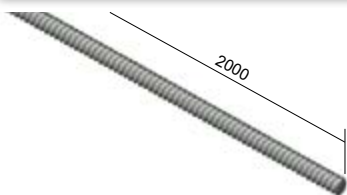
**sliding nut**



- ▶ It is used to attach the brackets to the ceiling profiles INOXSPS.

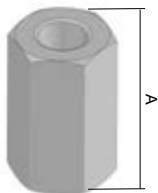
item	‡	H	EAN
⊕ INOXPM 41 M 8_IX	0,03	6	<a href="#">8595057630611</a>
⊕ INOXPM 41 M 10_IX	0,03	8	<a href="#">8595057642515</a>



**threaded rod**


▶ DIN 976.

	item	Ø	EAN
●	<b>INOXZT 8_IX</b>	M8	<a href="#">8595057630604</a>
⊕	<b>INOXZT 10_IX</b>	M10	<a href="#">8595057642683</a>

**connection nut**


▶ Used for the connection of two threaded rods INOXZT 8.

	item	A	Ø	‡	EAN
⊕	<b>INOXMZ 8_IX</b>	24	M8	0,02	<a href="#">8595568930217</a>
⊕	<b>INOXMZ 10_IX</b>	30	M10	0,02	<a href="#">8595568930064</a>

**bolt + nut + lock washers**


- ▶ It is used to fasten the connection of cable trays .
- ▶ A solid connection ensures a conductive connection of cable trays.

	item	⊕	EAN
●	<b>NIXSMP 5X10_IX</b>	100	<a href="#">8595568904751</a>

**bolt with round head and lock nut**


- ▶ It is used to fasten the connection of cable trays and accessories or to fasten it to a support.
- ▶ A solid connection ensures a conductive connection of cable trays and accessories.

	item	⊕	EAN
●	<b>NIXSM 6X10_IX</b>	100	<a href="#">8595057672185</a>





**bolt with hexagonal head**



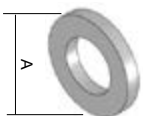
	item	‡	⊂	EAN
⊕	<b>INOXS 8X20_IX</b>	0,012	100	<a href="#">8595057642546</a>
⊕	<b>INOXS 8X70_IX</b>	0,028	100	<a href="#">8595568930194</a>
⊕	<b>INOXS 10X20_IX</b>	0,021	100	<a href="#">8595057642560</a>
⊕	<b>INOXS 10X70_IX</b>	0,046	100	<a href="#">8595568904126</a>

**hexagonal nut**



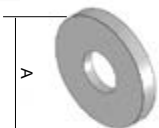
	item	⊂	EAN
●	<b>INOXM 8_IX</b>	100	<a href="#">8595057630635</a>
⊕	<b>INOXM 10_IX</b>	100	<a href="#">8595057642706</a>

**washer**



	item	A	⊂	EAN
●	<b>INOXPD 8_IX</b>	16	100	<a href="#">8595057630710</a>
⊕	<b>INOXPD 10_IX</b>	20	100	<a href="#">8595057642720</a>

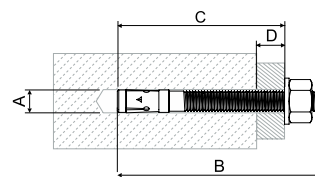
**large washer**



	item	A	⊂	EAN
⊕	<b>INOXPVL 6_IX</b>	18	100	<a href="#">8595057642737</a>
⊕	<b>INOXPVL 8_IX</b>	24	100	<a href="#">8595057642744</a>
⊕	<b>INOXPVL 10_IX</b>	30	100	<a href="#">8595057642751</a>

**anchor**


- ▶ The anchors are suitable for suspended, push-through and distance mounting.
- ▶ Types of base material: cracked concrete, non-cracked concrete, natural stone with a dense structure.

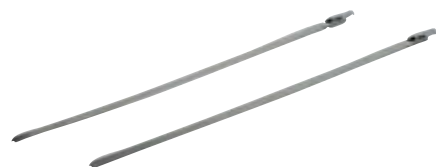


item	approved seismicity class	drill bit diameter A [mm]	total length of anchor B [mm]	min. depth of drilled hole during through-hole mounting C [mm]	maximum usable length D [mm]	thread	spanner size	EAN
● INOXKPO 8X75_IX	C1	8	75	65	10	M8x38	13	<a href="#">8595568921987</a>
● INOXKPO 10X95_IX	C1/C2	10	105	95	20	M10x63	17	<a href="#">8595568905888</a>

**stop anchor**


- ▶ The clamping anchors are used to attach the threaded rods directly to the base material (concrete, brick).
- ▶ A - drill bit diameter
- ▶ B - total length of anchor
- ▶ C - minimum depth of the drilled hole

item	A	B	C	thread	‡	EAN
● INOXKPOZ 8_IX	10	30	33	M8x14	0,01	<a href="#">8595568905895</a>
● INOXKPOZ 10_IX	12	40	43	M10x17	0,01	<a href="#">8595568905901</a>

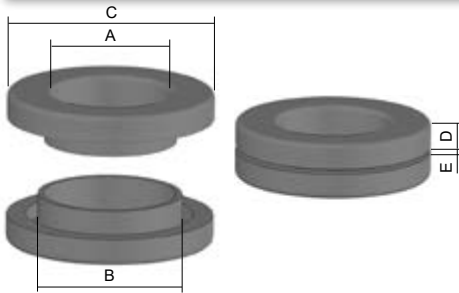
**tightening strip**


- ▶ The tightening strip used to fixed the NIXV 40 (pg. 4) lid to the NIXKZN 20X40 tray (pg. 3).
- ▶ The connection is not detachable.

item	‡	∪	EAN
● SPK 200X4.6_IX	0,002	100	<a href="#">8595057698116</a>



**bushing**



- ▶ Bushings serve for the safe passing of the cables through the sheet metal.
- ▶ One part of the bushing is inserted from one side into the created opening in the bottom or the sidewall of the tray, the second part is inserted from the second side and gentle pressure is used to press both the parts together and this connects them firmly.



B - drilled hole diameter

	item	A	B	C	D	E	‡	EAN
●	<b>NKP 9_FB</b>	10	15	24	5	0,5 - 5	0,002	<a href="#">8595057689466</a>
●	<b>NKP 11_FB</b>	12	18,5	26	6	0,5 - 5	0,004	<a href="#">8595057689473</a>
●	<b>NKP 13_FB</b>	16	20	31	6	0,5 - 5	0,006	<a href="#">8595057689480</a>
●	<b>NKP 16_FB</b>	17	22	33	6	0,5 - 5	0,006	<a href="#">8595057689497</a>
●	<b>NKP 21_FB</b>	24	28	40	7	0,5 - 5	0,010	<a href="#">8595057689503</a>
●	<b>NKP 29_FB</b>	31	37	53	7	0,5 - 5	0,018	<a href="#">8595057689510</a>

**edge protector**



- ▶ The edge protector made from plastic with a steel insert is used to protect the edges of cable trays.
- ▶ Package = 10 m, sold in entire packs.
- ▶ The protector there is possible to install to the metal sheets of max. 2 mm thickness.

	item	‡	EAN
●	<b>NCH_XX</b>	0,06	<a href="#">8595057669932</a>

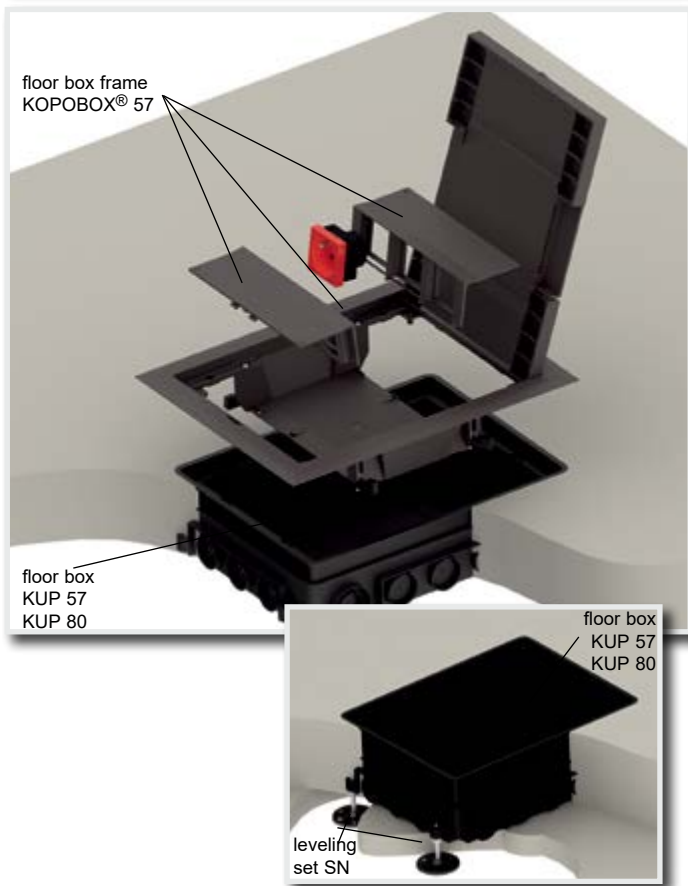




**6**

**FLOOR  
INSTALLATIONS**

### KOPOBOX® 57 floor box assembly for 6 modular devices - use in concrete floor



The complete set of a floor box composed of KOPOBOX 57 and KUP 57 or KUP 80 is designated for the assembly of the modular devices 45 x 45 mm. The mounting feet (designed for doubled floors) are not used during the installation of the box KOPOBOX® 57 into KUP.

#### Instructions for the assembly of KOPOBOX® 57:

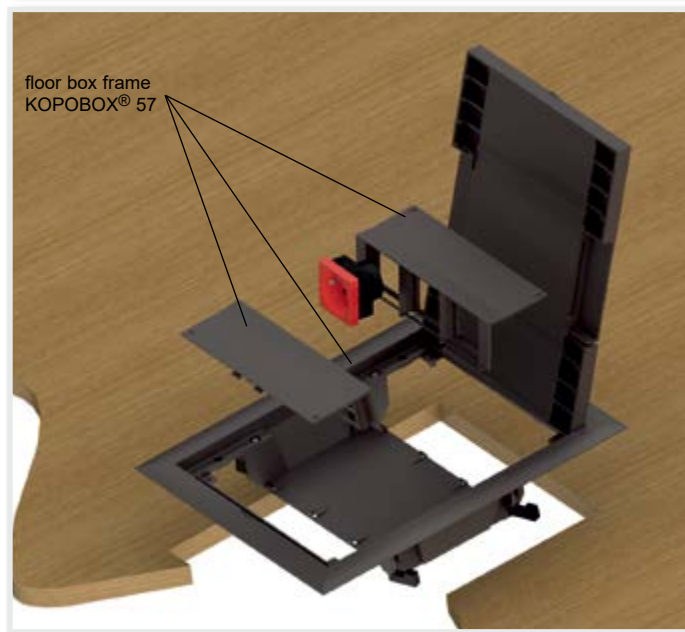
Installation box KUP 57 is suitable for the concrete layers from 57 mm up to 75 mm, KUP 80 is suitable for the concrete layers from 80 up to 95 mm. There is necessary to fix the installation box on the background surface. The height of the box can be adjusted by raising of insertion in range from 57 up to 75 mm (KUP 57) or from 80 up to 95 mm (KUP 80) with screws.

In case of concrete layer higher than 75 mm (KUP 57) or 95 mm (KUP 80) is necessary to use and levelling set SN (4 pcs) anchored to the surface. The leveling set enable to increase the height of the box for concreting by up to 35 mm. Universal KUP boxes are designed for installation of electrical pipes or floor ducts PUK 38X150 S1. Every single input together with raising insertion for height setting must be sealed to avoid breaking the concrete into the box. During concreting it is necessary to use the cover plate (part of the package KUP) against filling the box with concrete mixture. After hardening of the concrete mixture to remove the cover boards of floor box KUP. Floor box KUP after laying the final coverings fitted with a frame KOPOBOX® 57. Fixing frame KOPOBOX® 57 is using the enclosed screw diameter 3,9x13. In case of higher floor covering use the included screws diameter 3,9x19. Into frame KOPOBOX® 57 are installed holders of the devices and implement the electrical modular devices.

KOPOBOX® 57 is mainly designed for cables with direct plugs. Use of cables with indirect plugs is limited. Use of adapters and chargers is limited by their size. It is possible to install QUADRO modular instruments in the system (pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

The cover of the frame is determined for floor covering with highest layer of 7 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors. Floor boxes KOPOBOX® are designed for a maximum load of 1500 N. See assembly video at [www.kopos.com](http://www.kopos.com)

### KOPOBOX® 57 floor box assembly for 6 modular devices - use in double floor



KOPOBOX® 57 is designed for mounting of modular apparatuses 45 x 45. Installation of the classic apparatuses into this frame is not possible. However it enables the installation into floors already from a depth of 56 mm. The cover plate for apparatus for modular apparatuses is already a part of the frame KOPOBOX® 57 and it is not necessary to order it separately.

The paper template in the frame package is used for the marking and subsequent cutting out of the opening in the floor. The inner perforated template enables the cutting out of the flooring into the frame cover. The inserted frame is secured by turning the feet bolts, until the feet firmly grip the frame to the floor. After inserting plate for the apparatuses the electric installation of the modular apparatuses is performed.

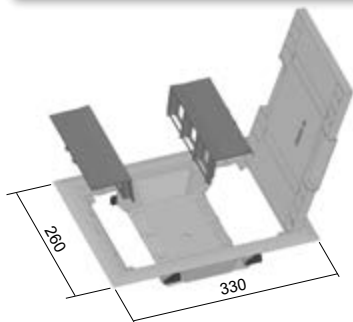
The cover of the frame is determined for floor covering with highest layer of 7 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors.

KOPOBOX® 57 is mainly designed for cables with direct plugs. Use of cables with indirect plugs is limited. Use of adapters and chargers is limited by their size. It is possible to install QUADRO modular instruments in the system (pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

The system are designed for distribution system with voltage 500 V. Floor boxes KOPOBOX® are designed for a maximum load of 1500 N.



**floor box frame**



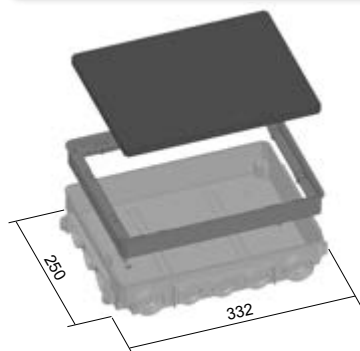
**MAT**

PA -5- +105°C 850°C A1 - F 30 sec. IP30

- ▶ Designed for installation into the universal floor box KUP 57 or KUP 80.
- ▶ It is possible to assemble QUADRO modular instruments of 45 x 45 mm (max 6 pcs - pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.
- ▶ Reinforcement of the lid by the sheet ensures its high mechanical strength while maintaining the possibility of inserting the final floor covering at a height of max. 7 mm.
- ▶ The lid has 2 tilt flaps enabling the outlet of the cables from the box.
- ▶ Included are screws for attaching the frame to the floor box KUP.
- ▶ KOPOBOX® comes in dark grey as a standard. For orders over 500 pieces we can supply different RAL colour (except for actual device carriers).
- ▶ The frame is separately applied for double floors with a thickness of 10-40 mm, the proposition of hole to insert the floor box is 218 x 288 mm.

item	⚙	‡	EAN
● <b>KOPOBOX 57_LB</b>	grey RAL 7012	0,59	<a href="https://www.ean.com/8595057690721">8595057690721</a>

**universal floor box**



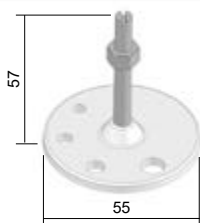
**MAT**

PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ The box is designed for concrete floors. After hardening of the concrete mixture, the floor box KOPOBOX® is installed.
- ▶ KUP 57 is designed for a concrete layer of 57 - 75 mm. KUP 80 is designed for concrete layer 80 - 95 mm. The desired height of the box is adjusted by raising the internal insert using screws in the corners of the box.
- ▶ With a SN-leveling set, it is possible to increase the height for concreting by up to 35 mm.
- ▶ The box is designed for wiring pipes grommets and PUK floor canal. It has pre-marked process 4x Ø 25, 4x Ø 40, 12x Ø 32 and 4x 150x38 mm.
- ▶ The package includes a cover plate to prevent the box from being poured over with concrete.

item	⚙	‡	EAN
● <b>KUP 57_FB</b>	black RAL 9011	0,6	<a href="https://www.ean.com/8595057690745">8595057690745</a>
● <b>KUP 80_FB</b>	black RAL 9011	0,7	<a href="https://www.ean.com/8595057690752">8595057690752</a>

**leveling set**



**MAT**

PE -5- +105°C 850°C A1 - F 30 sec.

- ▶ To set the exact height of the universal box KUP 57 or KUP 80 when pouring into concrete floors. It allows to raise the height of the concrete by up to 35 mm.
- ▶ To prevent wash-up with concrete, fix the box using M6 nuts - included in the package.
- ▶ The leveling set includes 4 adjustable elements (in each corner of the KUP box).
- ▶ Groove for screwing allowing comfortable and precise height adjustment.



item	⚙	‡	EAN
● <b>SN_XX</b>	black RAL 9011	0,015	<a href="https://www.ean.com/8595057690844">8595057690844</a>

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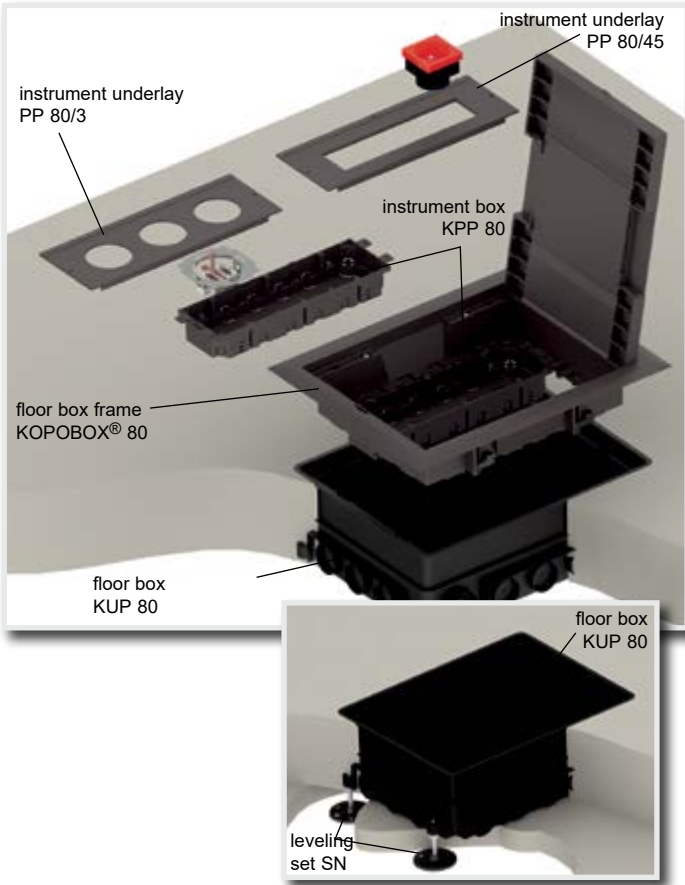
4

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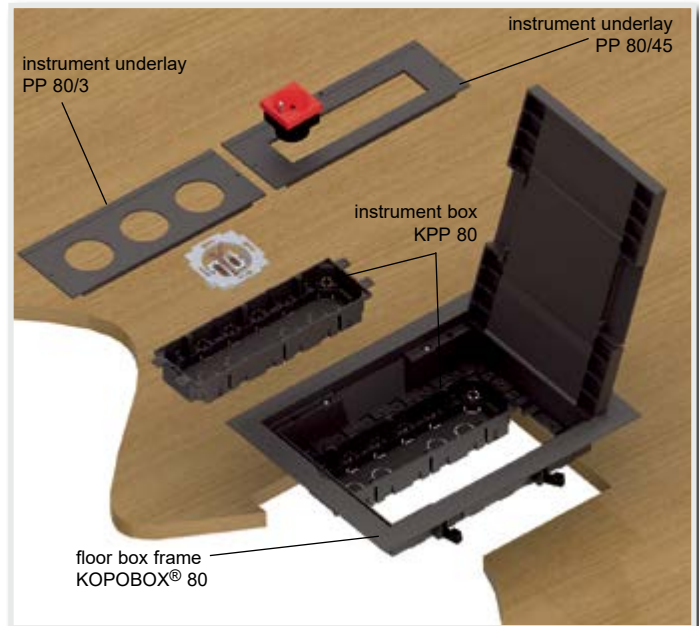
6

index

### KOPOBOX® 80 floor box assembly for 6 classic or 8 modular devices - use in concrete floor



### KOPOBOX® 80 floor box assembly for 6 classic or 8 modular devices - use in double floor



The complete set of the floor box composed of KOPOBOX® 80 and KUP 80 is designated for the installation of classic and also modular devices. The selection of the type of devices being installed is given by the type of the devices underlay. The mounting feet (designed for doubled floors) are not used during the installation of the box KOPOBOX® 80 into KUP 80.

#### Instructions for the assembly of KOPOBOX® 80:

Installation box KUP 80 is suitable for the concrete layers from 80 mm up to 95 mm. There is necessary to fix the installation box on the background surface. The height of the box can be adjusted by raising of insertion in range from 80 up to 95 mm with screws. In case of concrete layer higher than 95 mm there is necessary to use and levelling set SN (4 pcs) anchored to the surface. The levelling set enable to increase the height of the box for concreting by up to 35 mm.

Universal KUP boxes are designed for installation of electrical pipes or floor ducts PUK 38X150 S1. Every single input together with raising insertion for height setting must be sealed to avoid breaking the concrete into the box. During placement of concrete it is necessary to use and cover board (included KUP 80) to prevent the box from being filled with concrete. After the concrete mix hardens and the cover board is removed the floor box KUP 80 is fitted with and frame of the floor box KOPOBOX® 80. Subsequently the instrument boxes KPP 80 are inserted to the frame. On the base of installed apparatus, PP 80 instrument underlay should be used.

#### Modular devices (max. 8 modular devices 45x45):

- installation into KPP 80 + PP 80/45,
- installation directly on PP 80/45, while using the cross-piece PKUP.

#### Classic devices (max. 6 classic devices):

- installation into KPP 80 + PP 80/3 for the non-fitted assembly openings use the end cap ZPP.

KOPOBOX® 80 is mainly designed for cables with indirect plugs. Use of cables with direct plugs is limited and use of adapters and chargers is limited. It is possible to install QUADRO modular instruments in the system (pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

The cover of the frame is determined for floor covering with highest layer of 7 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors. Floor boxes KOPOBOX® are designed for a maximum load of 1500 N. See assembly video at [www.kopos.com](http://www.kopos.com)

KOPOBOX® 80 enables installation of classic and also modular apparatuses (the selection is performed by suitable selection of the cover plate for apparatus), however it is possible to use the frame already from a floor depth of 78 mm. For the frame KOPOBOX® 80 it is necessary to order the cover plates for apparatus according to the selected types of apparatuses. The paper template in the frame package is used for the marking and subsequent cutting out of the opening in the floor. The inner perforated template enables the cutting out of the flooring into the frame cover. The inserted frame is secured by turning the feet bolts, until the feet firmly grip the frame to the floor. The KPP 80 box with the relevant broken off cable passages is then inserted into the frame, the cables are secured against mechanical stressing using the straps (part of the package).

The KPP 80 box is then mounted with the cover plates for apparatus according to the selected types of apparatuses, and the connecting of the apparatuses is performed.

The cover of the frame is determined for floor covering with highest layer of 7 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors.

#### Modular apparatuses:

- installation into KPP 80 + PP 80/45,
- installation directly onto PP 80/45, while using the partition plate PKUP.

#### Classic apparatuses:

- installation into KPP 80 + PP 80/3, for empty assembly opening use the caps ZPP.

KOPOBOX® 80 is mainly designed for cables with indirect plugs. Use of cables with direct plugs is limited and use of adapters and chargers is limited. It is possible to install QUADRO modular instruments in the system (pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

The system are designed for distribution system with voltage 500 V.

Floor boxes KOPOBOX® are designed for a maximum load of 1500 N.

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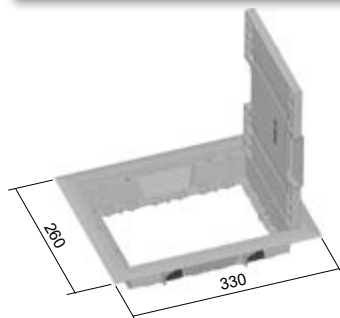
6

index





floor box frame



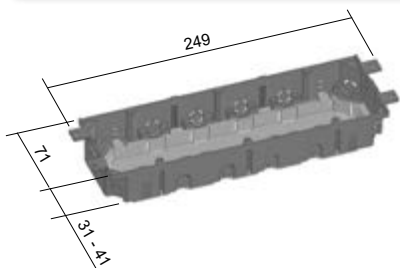
**MAT** | | | | |

PA -5- +105°C 850°C A1 - F 30 sec. IP30

- ▶ Designed for installation into the universal floor box KUP 80.
- ▶ The use of KPP 80 instrument boxes (max 2 pcs) together with PP 80/3 instrument plates allows the assembly of standard instruments (max 6 pcs); with PP 80/45 instrument plates allows the assembly of QUADRO modular instruments (max 8 pcs - pg. 6-13) or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.
- ▶ Reinforcement of the lid by the sheet ensures its high mechanical strength while maintaining the possibility of inserting the final floor covering at a height of max. 7 mm.
- ▶ The lid has 2 tilt flaps enabling the outlet of the cables from the box.
- ▶ Included are screws for attaching the frame to the floor box KUP.
- ▶ KOPOBOX® comes in dark grey as a standard. For orders over 500 pieces we can supply different RAL colour (except for actual device carriers).
- ▶ The frame is separately applied for double floors with a thickness of 10-40 mm, the proposition of hole to insert the floor box is 218 x 288 mm.

item	⚙	‡	EAN
● <b>KOPOBOX 80_LB</b>	grey RAL 7012	0,52	<a href="https://www.ean.com/8595057690738">8595057690738</a>

apparatus floor box



**MAT** | | | |

PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ Universal device box for mounting into KOPOBOX® 80 (max. 2 pcs).
- ▶ Device screws, cable link screws and cable fixing links are included.
- ▶ Depth of the box is adjustable by changing the position of the bottom.

item	⚙	‡	EAN
● <b>KPP 80_LB</b>	grey RAL 7012	0,12	<a href="https://www.ean.com/8595057690769">8595057690769</a>

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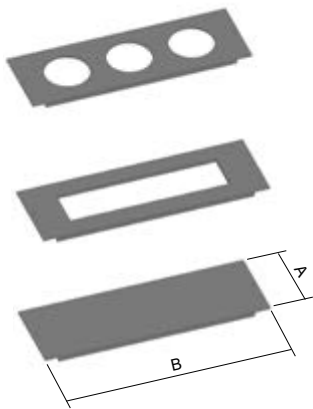
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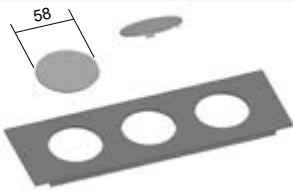
index

**instrument underlay**

**MAT**


PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ Device plate is installed into the floor box KOPOBOX® 80 frame.
- ▶ Installation is recommended together with the device box KPP 80.
- ▶ When installing multiple modular devices, it is appropriate to remove the inner partition.
- ▶ External dimensions of other device pads are identical with the drawing.
- ▶ PP80/0 - it is used for blanding unpopulated space in KOPOBOX® 80 floor box frame
- ▶ PP 80/3 - serves for the assembly of up to 3 pcs of classic apparatuses
- ▶ PP 80/45 - serve for assembly of up to 4 QUADRO modular instruments or instruments with compatible construction, e.g. those made by companies ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira

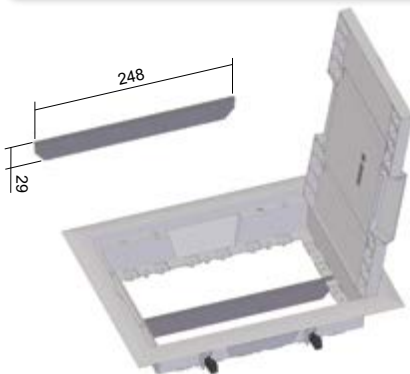
item	A	B	⚙	‡	EAN
● <b>PP 80/0_LB</b>	89	250	grey RAL 7012	0,07	<a href="#">8595057690783</a>
● <b>PP 80/3_LB</b>	89	250	grey RAL 7012	0,05	<a href="#">8595057690790</a>
● <b>PP 80/45_LB</b>	89	250	grey RAL 7012	0,05	<a href="#">8595057690806</a>

**end cap**

**MAT**


PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ To blind vacant holes on the device pad PP 80/3.

item	⚙	‡	EAN
● <b>ZPP_LB</b>	grey RAL 7012	0,005	<a href="#">8595057690820</a>

**partition**

**MAT**

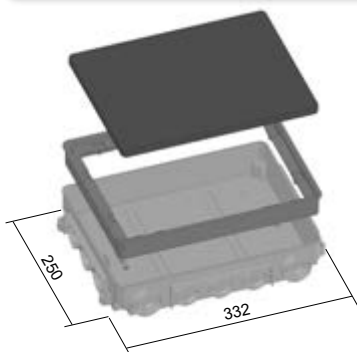

PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ To divide the interior of KOPOBOX® 80.

item	⚙	‡	EAN
● <b>PKUP_LB</b>	grey RAL 7012	0,015	<a href="#">8595057690837</a>



universal floor box



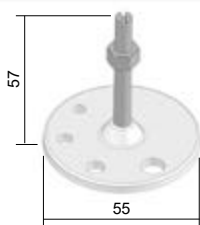
**MAT**

PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ The box is designed for concrete floors. After hardening of the concrete mixture, the floor box KOPOBOX® is installed.
- ▶ KUP 80 is designed for concrete layer 80 - 95 mm. The desired height of the box is adjusted by raising the internal insert using screws in the corners of the box.
- ▶ With a SN-leveling set, it is possible to increase the height for concreting by up to 35 mm.
- ▶ The box is designed for wiring pipes grommets and PUK floor canal.
- ▶ The package includes a cover plate to prevent the box from being poured over with concrete.

item	⚙	‡	EAN
● KUP 80_FB	black RAL 9011	0,7	<a href="https://www.ean.com/8595057690752">8595057690752</a>

leveling set



**MAT**

PE -5- +105°C 850°C A1 - F 30 sec.

- ▶ To set the exact height of the universal box KUP 57 or KUP 80 when pouring into concrete floors. It allows to raise the height of the concrete by up to 35 mm.
- ▶ To prevent wash-up with concrete, fix the box using M6 nuts - included in the package.
- ▶ The leveling set includes 4 adjustable elements (in each corner of the KUP box).
- ▶ Groove for screwing allowing comfortable and precise height adjustment.



item	⚙	‡	EAN
● SN_XX	black RAL 9011	0,015	<a href="https://www.ean.com/8595057690844">8595057690844</a>

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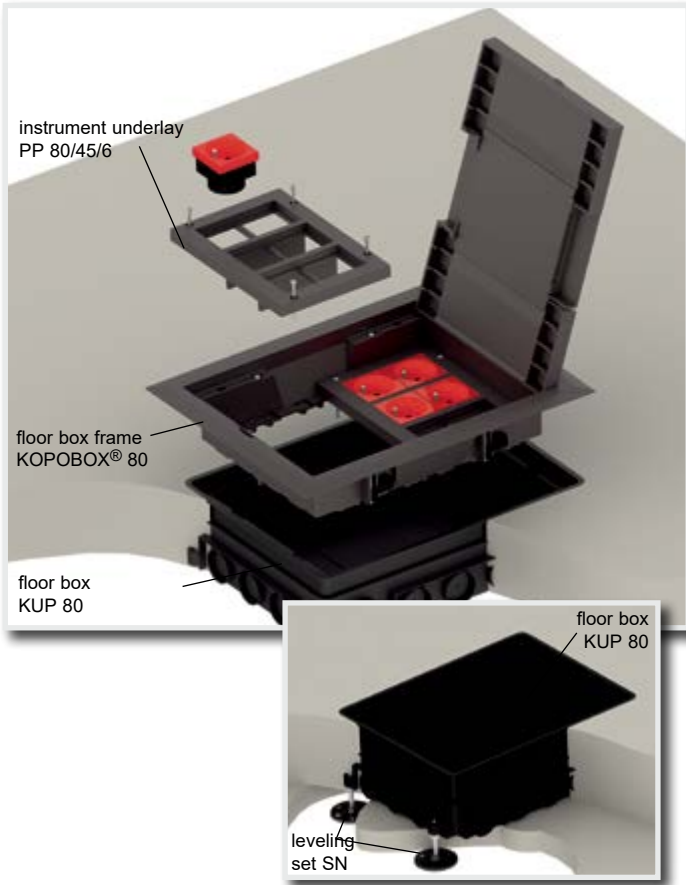
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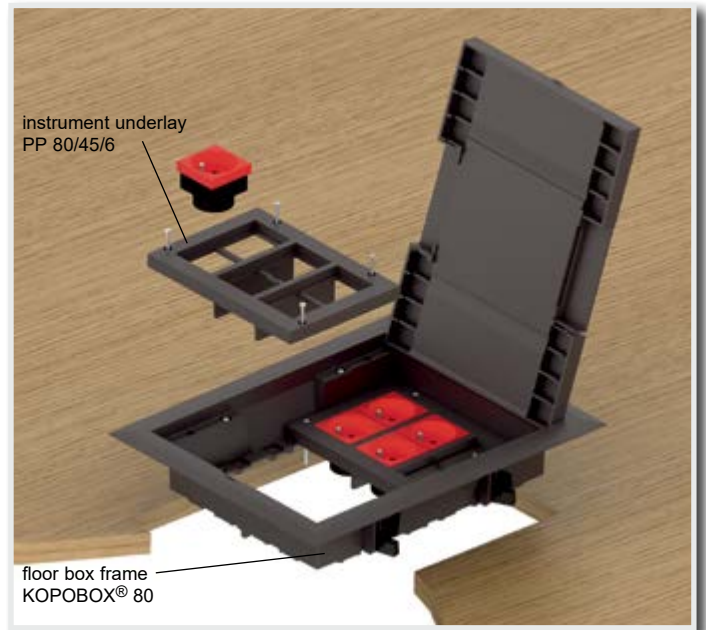
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index

**KOPOBOX® 80**  
 floor box assembly for 12 modular devices  
 - use in concrete floor



**KOPOBOX® 80**  
 floor box assembly for 12 modular devices  
 - use in double floor



The complete set of the floor box composed of KOPOBOX® 80 and KUP 80 is designated for the installation of classic and also modular devices 45x45. The mounting feet (designed for doubled floors) are not used during the installation of the box KOPOBOX® 80 into KUP 80.

**Instructions for the assembly of KOPOBOX® 80:**

Installation box KUP 80 is suitable for the concrete layers from 80 mm up to 95 mm. There is necessary to fix the installation box on the background surface. The height of the box can be adjusted by raising of insertion in range from 80 up to 95 mm with screws. In case of concrete layer higher than 95 mm there is necessary to use and levelling set SN (4 pcs) anchored to the surface. The leveling set enable to increase the height of the box for concreting by up to 35 mm.

Universal KUP boxes are designed for installation of electrical pipes or floor ducts PUK 38X150 S1. Every single input together with raising insertion for height setting must be sealed to avoid breaking the concrete into the box.

During placement of concrete it is necessary to use and cover board (included KUP 80) to prevent the box from being filled with concrete. After the concrete mix hardens and the cover board is removed the floor box KUP 80 is fitted with and frame of the floor box KOPOBOX® 80. Afterwards, the PP 80/45/6 (max. 2 pieces) instrument washers are installed in the frame for the installation of modular devices 45x45 (max. 12 modules).

KOPOBOX® 80 is mainly designed for cables with indirect plugs. Use of cables with direct plugs is limited and use of adapters and chargers is limited. It is possible to install QUADRO modular instruments in the system (pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

The cover of the frame is determined for floor covering with highest layer of 7 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors.

Floor boxes KOPOBOX® are designed for a maximum load of 1500 N.

See assembly video at [www.kopos.com](http://www.kopos.com)

The KOPOBOX® 80 floor box and PP 80/45/6 instrument washers are designed to install modular 45x45 devices. The assembly can be used from the floor depth of 78 mm.

The paper template in the frame package is used for the marking and subsequent cutting out of the opening in the floor. The inner perforated template enables the cutting out of the flooring into the frame cover.

The frame is inserted into the floor opening and secured by turning the flap screws until the flaps firmly press the frame to the floor. Afterwards, the PP 80/45/6 (max. 2 pieces) instrument washers are installed in the frame for the installation of modular devices 45x45 (max. 12 modules).

KOPOBOX® 80 is mainly designed for cables with indirect plugs. Use of cables with direct plugs is limited and use of adapters and chargers is limited. It is possible to install QUADRO modular instruments in the system (pg. 6-13), or instruments with compatible construction, e.g. those made by ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

The cover of the frame is determined for floor covering with highest layer of 7 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors.

The system are designed for distribution system with voltage 500 V.

Floor boxes KOPOBOX are designed for a maximum load of 1500 N.

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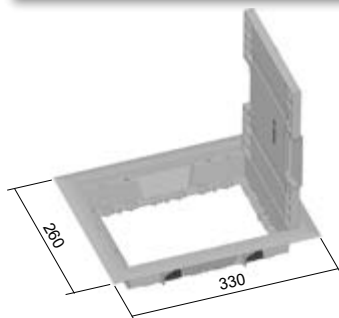
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index



**floor box frame**



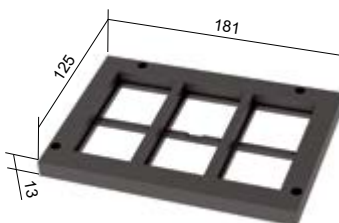
**MAT**

PA -5-+105°C 850°C A1 - F 30 sec. IP30

- ▶ Designed for installation into the universal floor box KUP 80.
- ▶ The use of PP 80/45/6 instrument pads (max. 2 pcs) allows the installation of modular QUADRO devices (max. 12 pcs) or devices of the same design, eg ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.
- ▶ Reinforcement of the lid by the sheet ensures its high mechanical strength while maintaining the possibility of inserting the final floor covering at a height of max. 7 mm.
- ▶ The lid has 2 tilt flaps enabling the outlet of the cables from the box.
- ▶ Included are screws for attaching the frame to the floor box KUP.
- ▶ KOPOBOX® comes in dark grey as a standard. For orders over 500 pieces we can supply different RAL colour (except for actual device carriers).
- ▶ The frame is separately applied for double floors with a thickness of 10-40 mm, the proposition of hole to insert the floor box is 218 x 288 mm.

item	⚙	⚖	EAN
● <b>KOPOBOX 80_LB</b>	grey RAL 7012	0,52	<a href="#">8595057690738</a>

**instrument underlay**



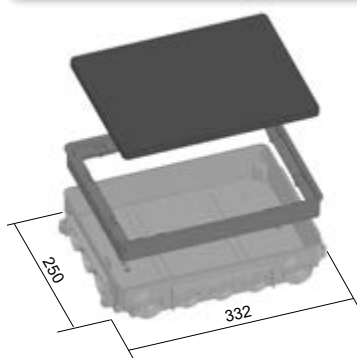
**MAT**

PA -5-+105°C 850°C A1 - F 30 sec.

- ▶ The PP 80/45/6 instrument washer is installed in the frame of the KOPOBOX® 80 floor box (max. 2 pieces).
- ▶ When installing double modular devices, it is advisable to remove the inner partition.
- ▶ The pack includes 1 PP 80/45/6 instrument pad, 2 separating partitions and 4 mounting screws.
- ▶ The washer is designed for the installation of 6 modular QUADRO devices (pg. 6-13), or devices of the same design, eg. ABB, PEHA, Legrand, OBO Bettermann, Schneider Electric Altira.

item	⚙	⚖	EAN
● <b>PP 80/45/6_LB</b>	grey RAL 7012	0,45	<a href="#">8595568930781</a>

**universal floor box**



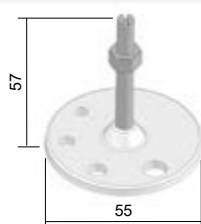
**MAT**

PA -5-+105°C 850°C A1 - F 30 sec.

- ▶ The box is designed for concrete floors. After hardening of the concrete mixture, the floor box KOPOBOX® is installed.
- ▶ KUP 80 is designed for concrete layer 80 - 95 mm. The desired height of the box is adjusted by raising the internal insert using screws in the corners of the box.
- ▶ With a SN-leveling set, it is possible to increase the height for concreting by up to 35 mm.
- ▶ The box is designed for wiring pipes grommets and PUK floor canal.
- ▶ The package includes a cover plate to prevent the box from being poured over with concrete.

item	⚙	⚖	EAN
● <b>KUP 80_FB</b>	black RAL 9011	0,7	<a href="#">8595057690752</a>

**leveling set**



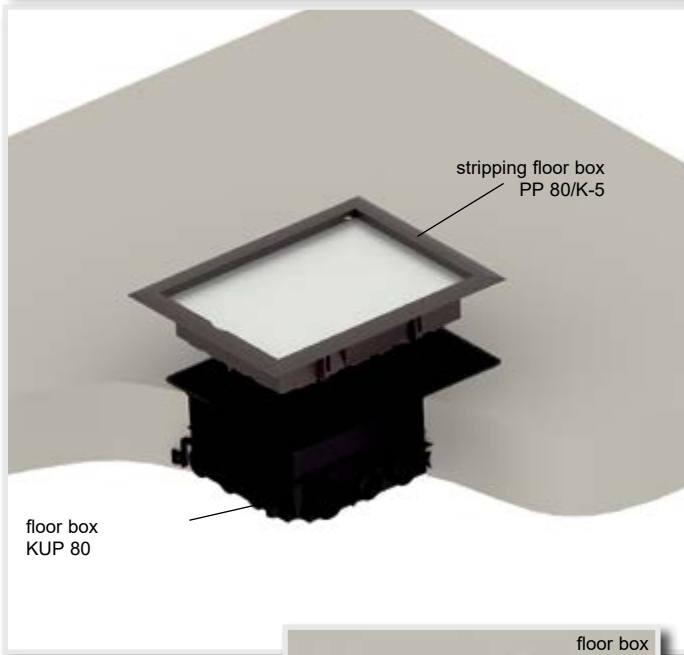
**MAT**

PE -5-+105°C 850°C A1 - F 30 sec.

- ▶ To set the exact height of the universal box KUP 57 or KUP 80 when pouring into concrete floors. It allows to raise the height of the concrete by up to 35 mm.
- ▶ To prevent wash-up with concrete, fix the box using M6 nuts - included in the package.
- ▶ The leveling set includes 4 adjustable elements (in each corner of the KUP box).
- ▶ Groove for screwing allowing comfortable and precise height adjustment.



item	⚙	⚖	EAN
● <b>SN_XX</b>	black RAL 9011	0,015	<a href="#">8595057690844</a>

**PP 80/K-5 - pulling floor box assembly (blind lid)**


The complete assembly of the PP 80/K-5 and KUP 80 pulling floor boxes is designed for concrete floors where there is a need for branching or crossing.

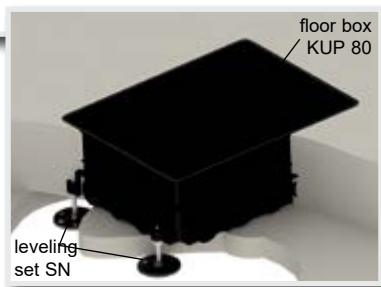
Instructions for the assembly of PP 80/K-5:

Installation box KUP 80 is suitable for the concrete layers from 80 mm up to 95 mm. There is necessary to fix the installation box on the background surface. The height of the box can be adjusted by raising of insertion in range from 80 up to 95 mm with screws.

In case of concrete layer higher than 95 mm there is necessary to use and levelling set SN (4 pcs) anchored to the surface. The leveling set enable to increase the height of the box for concreting by up to 35 mm.

Universal KUP boxes are designed for installation of electrical pipes or floor ducts PUK 38X150 S1. Every single input together with raising insertion for height setting must be sealed to avoid breaking the concrete into the box. During placement of concrete it is necessary to use and cover board (included KUP 80) to prevent the box from being filled with concrete. After hardening the concrete mixture and removing the cover plate, the floor box KUP 80 is fitted with a PP 80/K-5 stretch floor box.

The pulling floor box is designed for floor coverings with a maximum height of 8 mm. Considering IP30, the box is not suitable to be moistened with the floor cleaning machines. Recommended floor covering are carpets or floating wooden floors. Floor boxes KOPOBOX are designed for a maximum load of 1500 N.


**stripping floor box**

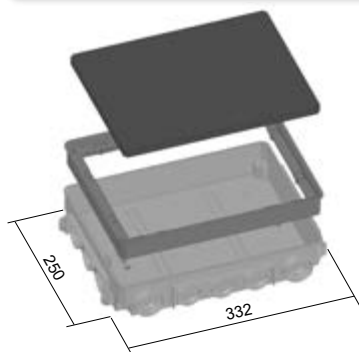

<b>MAT</b>					
PA	-5-+105°C	850°C	A1 - F	30 sec.	IP30

- ▶ Use as a blind lid for pulling, branching or crossing the box cables is not intended for installation of devices.
- ▶ Designed for installation into the floor box KUP 80.
- ▶ The frame is separately applied for double floors with a thickness of 10-40 mm, the proposition of hole to insert th floor box is 218 x 288 mm.
- ▶ After installing the box, the final floor covering of a maximum height of 8 mm is laid on the support plate.
- ▶ Additional installation of the devices is only possible when replacing the junction box behind the KOPOBOX® floor box.

item	⚙	‡	EAN
● <b>PP 80/K-5_LB</b>	grey RAL 7012	1,6	<a href="https://www.ean.com/8595057699571">8595057699571</a>



universal floor box



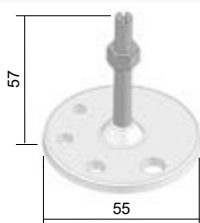
**MAT**

PA -5- +105°C 850°C A1 - F 30 sec.

- ▶ The box is designed for concrete floors. After hardening of the concrete mixture, the floor box KOPOBOX is installed.
- ▶ KUP 80 is designed for concrete layer 80 - 95 mm. The desired height of the box is adjusted by raising the internal insert using screws in the corners of the box.
- ▶ With a SN-leveling set, it is possible to increase the height for concreting by up to 35 mm.
- ▶ The box is designed for wiring pipes grommets and PUK floor canal.
- ▶ The package includes a cover plate to prevent the box from being poured over with concrete.

item	⚙	‡	EAN
● <b>KUP 80_FB</b>	black RAL 9011	0,7	<a href="https://www.ean.com/8595057690752">8595057690752</a>

leveling set



**MAT**

PE -5- +105°C 850°C A1 - F 30 sec.

- ▶ To set the exact height of the universal box KUP 57 or KUP 80 when pouring into concrete floors. It allows to raise the height of the concrete by up to 35 mm.
- ▶ To prevent wash-up with concrete, fix the box using M6 nuts - included in the package.
- ▶ The leveling set includes 4 adjustable elements (in each corner of the KUP box).
- ▶ Groove for screwing allowing comfortable and precise height adjustment.



item	⚙	‡	EAN
● <b>SN_XX</b>	black RAL 9011	0,015	<a href="https://www.ean.com/8595057690844">8595057690844</a>

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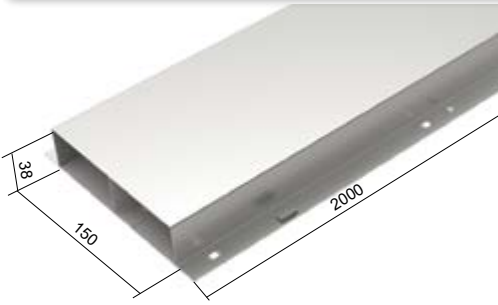
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index

**floor trunking**


- ▶ The floor canal is designed to connect individual boxes of KUP 57 or KUP 80.
- ▶ Canal outputs are prepared to provide conductive coupling via the PLUK or PLUK1 connecting cable.

item	t	EAN
● PUK 38X150 S1_S	0,7	<a href="#">8595568904416</a>

inner usable cross-section of the channel

Type number	mm <sup>2</sup>	utilization 50% (crosssection mm <sup>2</sup> )	data cables		CYKY	CYKY	CYKY	CYKY
			Ø 5,5	Ø 7	3x1,5	5x1,5	3x2,5	5x2,5
PUK 38X150 S1_S	5700	2850	94	58	Ø 8,6	Ø 10,1	Ø 9,5	Ø 11,2
					39	28	32	23

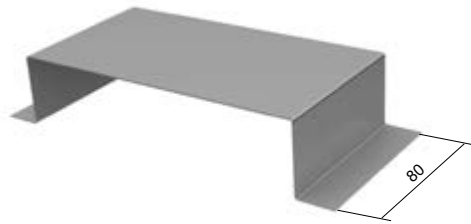
Find in the table quantity of cables for whole canals profile.

It is necessary to divide by 2 for each canals chamber.

The values state the number of cables with the tray at 50% full. Orientation diameters of the cables CYKY.

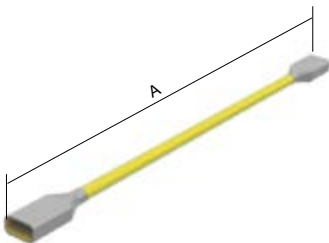
The values are mathematically calculated.

The limit values (small tray x big cable or contrariwise) it is necessary to consider combination of the tray and diameter of the cable and used them with reference to technical conditions.

**coupling floor trunking**


- ▶ The overlap joints of floor channels.
- ▶ Prevents ingress of concrete into channels.
- ▶ Attached to the floor with screws or gun nails.

item	t	EAN
● SPUK_S	0,7	<a href="#">8595568904423</a>

**connecting string**


- ▶ Provides a conductive bonding of floor channels.

item	profile	A	EAN
● PLUK_XX	1,5	250	<a href="#">8595568904430</a>
● PLUK 1_XX	1,5	550	<a href="#">8595568904447</a>







**QUADRO socket module with protective pin**



**MAT**   
 PC-ABS IP 20

- ▶ For 1.5-2.5 mm<sup>2</sup> Cu wires. The fixing of the conductor is performed by means of screws.
- ▶ Rated voltage 250 V AC, rated current 16 A. Recommended tightening torque - 0.6 Nm.
- ▶ Installation by snap-on movement only.
- ▶ The socket modules can continuously connect, max. is determined by the parapet trunkings or boxes series KOPOBOX<sup>®</sup>.
- ▶ The use of the PIN system (with pin) and the SCHUKO system (with spring contacts) sockets should be according to the standards of each particular country.

item	⚙	⤵	EAN
QP 45X45_HB	white	1; 20	<a href="https://www.ean.com/8595568919175">8595568919175</a>
QP 45X45_BB	red	1; 20	<a href="https://www.ean.com/8595568919168">8595568919168</a>

**QUADRO socket module with protective pin and screens**

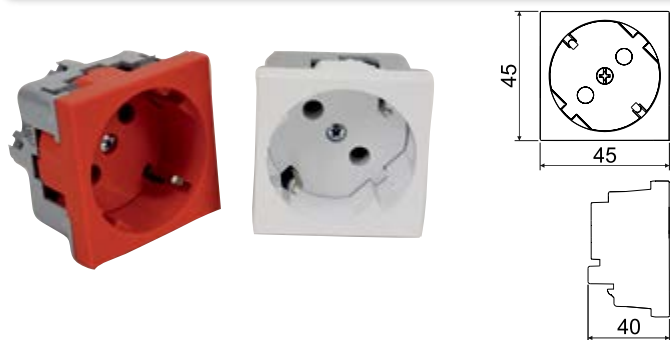



**MAT**   
 PC-ABS IP 20

- ▶ For 1.5-2.5 mm<sup>2</sup> Cu wires. The fixing of the conductor is performed by means of screws.
- ▶ Rated voltage 250 V AC, rated current 16 A. Recommended tightening torque - 0.6 Nm.
- ▶ Installation by snap-on movement only.
- ▶ The socket modules can continuously connect, max. is determined by the parapet trunkings or boxes series KOPOBOX<sup>®</sup>.
- ▶ The use of the PIN system (with pin) and the SCHUKO system (with spring contacts) sockets should be according to the standards of each particular country.

item	⚙	⤵	EAN
QP 45X45 C_HB	white	1; 20	<a href="https://www.ean.com/8595568919199">8595568919199</a>
QP 45X45 C_BB	red	1; 20	<a href="https://www.ean.com/8595568919182">8595568919182</a>

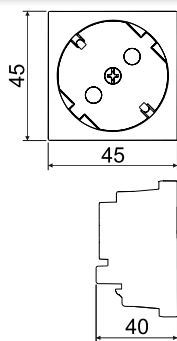
**QUADRO socket module with protective contacts (SCHUKO)**



**MAT**   
 PC-ABS IP 20

- ▶ For 1.5-2.5 mm<sup>2</sup> Cu wires. The fixing of the conductor is performed by means of screws.
- ▶ Rated voltage 250 V AC, rated current 16 A. Recommended tightening torque - 0.6 Nm.
- ▶ Installation by snap-on movement only.
- ▶ The socket modules can continuously connect, max. is determined by the parapet trunkings or boxes series KOPOBOX<sup>®</sup>.
- ▶ The use of the PIN system (with pin) and the SCHUKO system (with spring contacts) sockets should be according to the standards of each particular country.

item	⚙	⤵	EAN
QS 45X45_HB	white	1; 20	<a href="https://www.ean.com/8595568925558">8595568925558</a>
QS 45X45_BB	red	1; 20	<a href="https://www.ean.com/8595568925565">8595568925565</a>

**QUADRO socket module with protective contacts (SCHUKO) and screens**


PC-ABS IP 20

- ▶ For 1.5-2.5 mm<sup>2</sup> Cu wires. The fixing of the conductor is performed by means of screws.
- ▶ Rated voltage 250 V AC, rated current 16 A. Recommended tightening torque - 0.6 Nm.
- ▶ Installation by snap-on movement only.
- ▶ The socket modules can continuously connect, max. is determined by the parapet trunkings or boxes series KOPOBOX<sup>®</sup>.
- ▶ The use of the PIN system (with pin) and the SCHUKO system (with spring contacts) sockets should be according to the standards of each particular country.

item	⚙	⤴	EAN
QS 45X45 C_HB	white	1; 20	<a href="https://www.ean.com/8595568919502">8595568919502</a>
QS 45X45 C_BB	red	1; 20	<a href="https://www.ean.com/8595568919519">8595568919519</a>

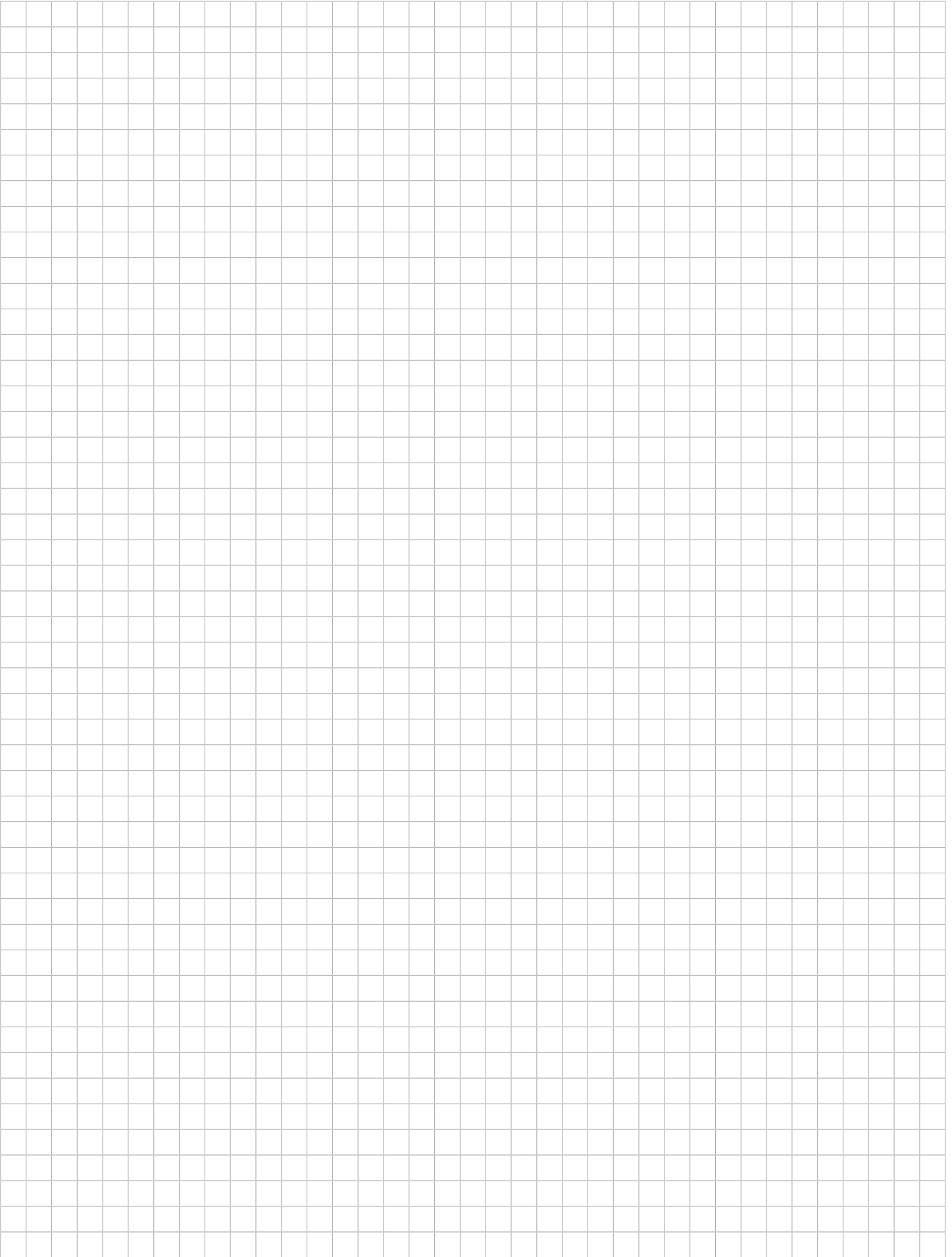
**modular sockets QUADRO - data**

- ▶ Installation by click only.



PC-ABS IP 20

	item	description	⚙	⤴	EAN
	QD 45X22.5-COVER_HB	Dimensions: 45 x 22,5 x 17 mm	white	1; 20	<a href="https://www.ean.com/8595568927231">8595568927231</a>
	QD 45X22.5-HOLDER_HB	Dimensions: 45 x 22,5 x 17 mm	white	1; 20; 200	<a href="https://www.ean.com/8595568932051">8595568932051</a>
	QD 45X22.5-RJ-45_HB	Dimensions: 45 x 22,5 x 36 mm Cat5E	white	1; 20; 200	<a href="https://www.ean.com/8595568927279">8595568927279</a>
	QD 45X22.5-RJ45/6_HB	Dimensions: 45 x 22,5 x 30 mm Cat6	white	1; 20; 200	<a href="https://www.ean.com/8595568931542">8595568931542</a>



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index

A close-up photograph of a red, glossy surface, likely a car's body panel. The surface features a white, embossed logo consisting of a stylized 'K' inside a circle, followed by the word 'KOPOS' in a rounded, sans-serif font enclosed within a double-lined rectangular border. The background is dark and out of focus, showing parts of a car's interior or exterior.

The logo is embossed in white on a red surface. It features a stylized 'K' inside a circle, followed by the word 'KOPOS' in a rounded, sans-serif font enclosed within a double-lined rectangular border.



**7**

**TECHNICAL  
INFORMATION**

**standards and regulations**

The entire system of cable trays, cable ladders and accessories is tested in EZÚ (Electrotechnical Testing Institute) and meets the requirements of the standard ČSN EN 61537:02 – Cable management – cable ladder systems and cable grid systems.  
All products comply with EU requirements.

**surface treatments and protection against corrosion**

One of the important criteria in the selection of cable bearing systems is the choice of the correct surface treatment of the products and thus the prevention of corrosion. A common method of protecting steel against corrosion is to create protective coatings that provide a barrier between the steel and the corrosive environment. The most frequently used metal, which is able to ensure the long-term life of a steel part in protection against atmospheric corrosion, is zinc. Depending on the environment in which the system will be used, it is necessary to choose the correct method of applying the zinc protective layer. If anti-corrosion surface treatments are not sufficient for the requirements, stainless steel products are available. The requirements for surface treatment are not always only protective, for aesthetic or distinguishing reasons, it is possible to paint the products.

S PO	<p><b>Continuous galvanizing by the Sendzimir method – ČSN EN 10346, ČSN EN 10143</b></p> <p>A method of galvanizing, where a cold-rolled steel strip passes through a zinc bath after degreasing, pickling and annealing. The zinc layer is leveled and smoothed with scraper knives and the sheet is wound into coils.</p> <p>The products are therefore made from coils or sheets already protected with a layer of zinc. Factory cuts are protected by cathodic protection. This means that the zinc ions will move to the damaged part of the steel sheet.</p> <p>The sheet metal used for KOPOS products has a coating designation of Z275, which corresponds to a zinc layer of 13-27 µm.</p> <p>The surface treatment is used on cable trays, cable ladders, fittings and accessories for cable routes.</p> <p>Suitable for indoor environments.</p>
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ZNCR BZNCR	<p><b>Electrolytic (galvanic) galvanizing - ČSN EN ISO 2081, ČSN EN 12329, DIN 50961</b></p> <p>Galvanic galvanizing is an electrolytic process in which a zinc coating is precipitated on the finished steel product in an electrolytic bath. The zinc coating layer is 8-12 µm thick. To increase corrosion resistance, the zinc layer is passivated with chrome as standard. The resulting surface is smooth and shiny.</p> <p>The surface treatment is used on wire cable trays and fixing and connecting material.</p> <p>Suitable for indoor environments.</p>
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ZM	<p><b>Continuous galvanizing with addition of magnesium and aluminium - EN 10346, EN 10143</b></p> <p>The material is produced on a conventional hot-dip galvanizing line, the molten bath has a unique chemical composition with the addition of magnesium and aluminium.</p> <p>The products are manufactured from coils or sheets of sheet metal that has already been coated. The coating has a self-repairing capability that will provide progressive protection to the cuts in the material. In the first phase, visible signs of corrosion are possible at the cutting points, which, over time, due to the chemical composition, are covered by the protective layer.</p> <p>The sheet metal used for KOPOS products has a coating designation of ZM310, which corresponds to 18-31 µm.</p> <p>The coating is used on cable trays, cable ladders, fittings and cable route accessories. Suitable for indoor and outdoor environments. The surface treatment is suitable to replace hot-dip galvanized products.</p>
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F BF POF	<p><b>Hot dip galvanizing – ČSN EN ISO 1461</b></p> <p>Finished steel products are chemically prepared to a metallic clean surface through several processes and then immersed in a bath of molten zinc. In the bath, a metallurgical reaction will occur between zinc and iron, during which several protective layers of iron and zinc alloys are formed on the surface of the product.</p> <p>The thickness of the protective coating depends on the chemical composition of the steel and the thickness of the material.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">thickness of the material – t (mm)</th> <th style="text-align: center;">average coating thickness (µm)</th> <th style="text-align: center;">minimum thickness from a single measurement (µm)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">t &lt; 1,5</td> <td style="text-align: center;">45</td> <td style="text-align: center;">35</td> </tr> <tr> <td style="text-align: center;">1,5 ≤ t ≤ 3</td> <td style="text-align: center;">55</td> <td style="text-align: center;">45</td> </tr> <tr> <td style="text-align: center;">3 &lt; t ≤ 6</td> <td style="text-align: center;">70</td> <td style="text-align: center;">55</td> </tr> <tr> <td style="text-align: center;">t &gt; 6</td> <td style="text-align: center;">85</td> <td style="text-align: center;">70</td> </tr> </tbody> </table>	thickness of the material – t (mm)	average coating thickness (µm)	minimum thickness from a single measurement (µm)	t < 1,5	45	35	1,5 ≤ t ≤ 3	55	45	3 < t ≤ 6	70	55	t > 6	85	70
thickness of the material – t (mm)	average coating thickness (µm)	minimum thickness from a single measurement (µm)														
t < 1,5	45	35														
1,5 ≤ t ≤ 3	55	45														
3 < t ≤ 6	70	55														
t > 6	85	70														

Directly after the hot-dip galvanizing process, the appearance of the product is glossy with a typical zinc bloom. Due to air humidity and the passage of time, an oxidized layer begins to form on the surface, thanks to which the appearance gets a dull and darker color. It is a natural stabilization process of surface treatment.

Hot-dip galvanized products may have various indentations or imperfections after being removed from the zinc bath. Most of these "defects" are only aesthetic and conform to the norm. In order to preserve the functionality of the products, some imperfections are adjusted, for example by sanding, or some places are coated with zinc paint. Everything is in accordance with the standard and with regard to the functionality and corrosion resistance of the product.

Due to hanging, non-perforated or inappropriately perforated parts are supplemented with a technological hole.

The surface treatment is used on cable trays, cable ladders, wire cable trays and accessories for cable routes.  
Suitable for external environments, or for internal environments with higher humidity.



surface treatments and protection against corrosion

GMT	<p><b>GEOMET</b></p> <p>The surface treatment was developed for the automotive industry, but thanks to its thin, yet very protective layer, it is mainly used for connecting material and smaller components.</p> <p>Steel products chemically freed of impurities are immersed in a bath with zinc-aluminum microlamellas, after removing excess material, the surface is hardened in an oven. The protective layer is 5-15 µm thin and has a matte gray surface.</p> <p>Salt fog test results show better resistance than hot-dip galvanized products, therefore this surface treatment is suitable as an alternative and supplement for hot-dip galvanized products.</p> <p>Surface treatment is used on connecting material and smaller accessories.</p> <p>Suitable for external environments, or for internal environments with higher humidity.</p>
IX BX BIX	<p><b>Stainless steel – A2, AISI 304, DIN 1.4301, ČSN 17 240</b></p> <p>Chromium-nickel austenitic steel (food grade steel) is ideal for use in the chemical or food industry. Steel is resistant to water, water vapor, air humidity, edible acids and weak organic and inorganic acids. It resists weather effects except of coastal areas or environments where there is a higher concentration of aggressive chemicals.</p> <p>Most parts are outside covered with a protective film.</p> <p>It is also possible production from AISI 316 steel on request too.</p>
EO EC	<p><b>Powder varnish</b></p> <p>Epoxy-polyester powder paint is applied in an electrostatic field to the galvanized product and then the paint is hardened in an oven. In this way, a smooth uniform surface with high corrosion resistance is created.</p> <p>The main reason for painting products is aesthetic requirements or the possibility of color differentiation of routes. Painting has also very good resistance to corrosion, during tests in salt fog it showed better resistance than hot-dip galvanizing.</p> <p>Considering the price, most parts will be painted only from the visible side (EO) - cable trays, fittings. Supporting products and products that cannot be painted only from visible side are painted all over the entire surface (EC). Threaded products cannot be painted.</p> <p>To determine the price, it is necessary to state the desired color according to the RAL sample. The colors are divided into several price groups and the price is determined directly for the given order. If the RAL color is not specified, the price is calculated for the basic white color RAL 9010 in a matte finish.</p> <p>Painted products are not in stock as standard, the painting process is made on request.</p> <p>The surface treatment can be used for most continuously or electrolytically galvanized products from the system. Hot-dip galvanized products can only be painted only under specific conditions.</p>

Areas of cable trays, accessories or support systems that have been damaged by cutting, drilling or otherwise should be treated with zinc spray or zinc paint.

corrosive aggressiveness of the environment

The protective coating of the material decreases over time and its rate of decreasing depends on the corrosive aggressiveness of the environment. The corrosion rate of zinc depending on the environment is given in the table according to ČSN EN ISO 9223.

level of corrosion aggressiveness		description of the environment	average corrosion depletion of the zinc thickness (µm / year)	recommended surface finish
C1	very low	<b>Interior:</b> dry, ventilated, air-conditioned spaces - offices, residential spaces, shops, schools, hotels	<0,1	S, PO, BZNCR, ZNCR EO, EC
C2	low	<b>Interior:</b> ventilated spaces with unstable temperature and possible occasional humidity - sports, production and storage halls, garages <b>Exterior:</b> dry, unpolluted places with very moderate occasional humidity - free landscape	0,1 - 0,7	S, PO, BZNCR, ZNCR - limited ZM, F, POF, BF, BEZN, GMT IX, BX, BIX EO, EC
C3	medium	<b>Interior:</b> production areas with higher humidity and medium pollution - food areas, dairies, breweries, laundries <b>Exterior:</b> urban and industrial areas with low to medium air pollution, coastal areas with low salinity	0,7 - 2,1	ZM, F, POF, BF, BEZN, GMT IX, BX, BIX EO, EC
C4	high	<b>Interior:</b> areas with higher condensation and heavy pollution - swimming pools, chemical areas <b>Exterior:</b> industrial areas, coastal areas with medium salinity	2,1 - 4,2	ZM, F, POF, BF, BEZN, GMT IX, BX, BIX EO, EC
C5	very high	<b>Interior:</b> areas with very high condensation or heavy pollution from production processes and mines <b>Exterior:</b> industrial areas with high pollution and humidity, seaside areas with high salinity	4,2 - 8,4	ZM, F, POF, BF, BEZN, GMT - limited IX, BX, BIX EO, EC

**mechanical resistance**

Cable trays are designed, constructed and type tested according to ČSN EN 61537 so they provide, where it is required, a reliable mechanical protection for insulated wires, cables, cords and possibly other electrical devices contained in them. Furthermore, these trays will withstand the stresses which will probably occur during the classified minimal temperature for storage, transport, installation and application. The screwed connections and other mechanical connections will withstand the mechanical stressing during installation and normal use.

**1 Load carrying capacity - loading of the tray**

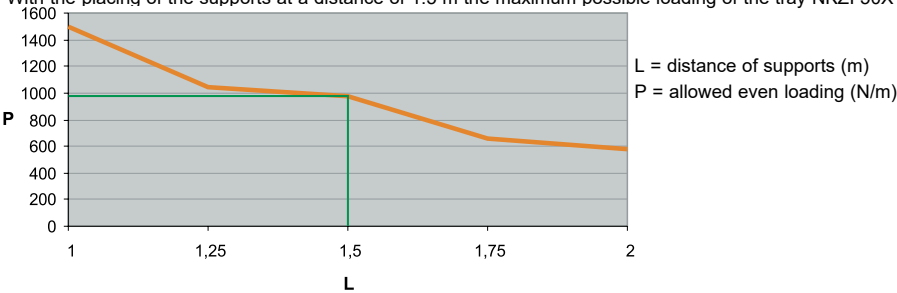
The loading of cable trays must be adequate with regards to the expected weight of the cables.

The trays are not designed to be walked on. The loading of the trays is effected by the distance of the load bearing supports and also the width of the supports for the wall and the length of the hanger.

- the loading decreases with the increased span of the supports
- the shorter the wall support the lesser the tray bend

**2 Example of a display of a loading graph (NKZI 50X125)**

With the placing of the supports at a distance of 1.5 m the maximum possible loading of the tray NKZI 50X125 is 1000 N/m.

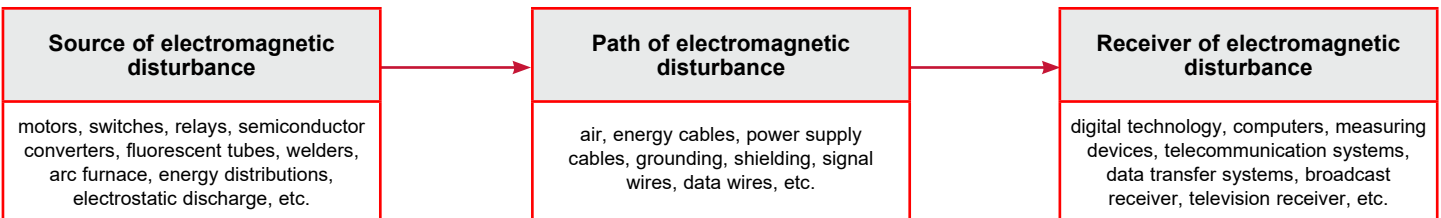


**3 electromagnetic compatibility**

The cable tray systems are frequently operated in an industrial environment which exhibits a high level of external electromagnetic effects. Due to this reason it is necessary to maintain certain rules which will secure a perfect function of the system.

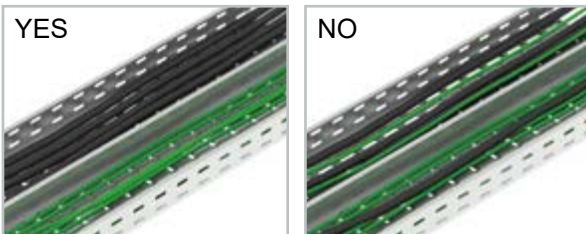
Electromagnetic compatibility (from the English Electromagnetic Compatibility, abbreviation EMC) is the capability for a device or system to exhibit the proper function also in an environment where sources of electromagnetic signals or acting. At the same time this device or system should not be the source of non-permissible electromagnetic disturbance.

Relation between the source of the disturbance and the disturbed equipment.



In order to reach a good level of electromagnetic compatibility it is necessary to remove or to lessen as much as possible one of these elements.

A properly connected and grounded system of cable trays "MARS" is properly secured against external electromagnetic discharge. The trays which are closed with a cover then act as shielding channels. It is necessary to only maintain certain rules inside the tray, where individual cables can act as a source and others as receivers of electromagnetic disturbance.



For the limiting or complete removal of the effect of electromagnetic compatibility the basic condition is the separation of the power and data cables in the scope of a single tray. This can be achieved by several ways:

1. Separate individual lines using a metal partition NPZ 50 or NPZ 100
2. Do not place the data and power distributions together in one tray
3. If within the scope of a single sheet metal tray there occurs the placing of various types of lines, which could mutually effect each other, then it is necessary to maintain between them a minimum space of 20 cm.

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**electrical conductivity and grounding**

The system of cable trays and ladders is designed in such a way that a high-quality connection is ensured when the individual parts are connected. This is achieved by a solid connection using special NSM 6X10 screws. The claim is based on the test report concerning cable routes and cable ladders classed under the ČSN EN 61357 standard pursuant to Article 6.3.2 as cable routes with the characteristics of electrical continuity to ensure protective bonding and ground connection. Under Article 11.1.2 25A + - 1A alternating current at a frequency of 50 Hz to 60 Hz is fed along the length of the test samples. The test performed under this article was compliant. Impedance on the circuit board is less than 50 mΩ. The cable trays and cable ladders were also found to be compliant during this test. When using the KSV clamp it is necessary to connect individual parts (trays, accessories) by an additional protective wire with the corresponding cross section. Wire cable trays connected by integrated coupling or firmly connected by the DZS/B connection set or possibly DZSP/B connection reinforcement also meet the above requirements.

**electrical conductivity and grounding**

For safety reasons, the system of trays bonded in this way shall be on both ends connected to a ground clamp. This connection must meet the requirements of the standard ČSN 33 2000-4-54 ed.3 art.543.1. (The minimum cross-section of the protective conductor must either be calculated in accordance with Article 543.1.2 or must be selected according to Table 54.2).

**cables - recommendation for their installation**



The metal cable trays are a universal carrier for all types of cables, from high-current to low-current.

- **for high-current cables** it is necessary to pay attention to the resistance of the cable and the subsequent development of heat, for these cables a wider tray with a lower sidewall is more suitable.
- **for data cables** it is necessary to prevent the effect of electromagnetic waves by shielding. For these cables the narrower trays with a higher sidewall are suitable. The design of certain types of data cables secures by itself a partial resistance against electromagnetic disturbance (for example the shielded double line STP, coaxial cables etc)
- **for optic cables**, which by their principle are resistant to electromagnetic disturbance, it is necessary to maintain the minimum bending ratio in order to maintain their correct function.

When laying cables into cable supporting trays "MARS" it is necessary to consider the method of placing and to consider the requirements of the standards ČSN 33 2000-4-43, ČSN 33 2000-4-473 during the installation. According to these standards, permanent wire and cable current-carrying capacity can be determined with respect to their installation, mutual position and the ambient temperature.

In order to prevent the mutual interference of the installed cables, it is recommended to observe the principles described in the chapter Electromagnetic Compatibility (separate data and power lines etc.). It is also recommendable to band individual cables or cable bundles and to attach them to the cable tray proper. In particular, cables are attached inside the cable tray if the system of cable trays is not only horizontal but the route also rises or descends. Furthermore, the power cables for which high current loading and current surges are expected shall also be fixed.



**packaging and storage**

Straight parts are fixed on pallets by elastic polypropylene band; other material is stored in crates.

**Scope of applicability**

These terms apply to the storage of metal products manufactured by KOPOS KOLÍN a.s. company and comply with the standard ČSN EN 60721-3-1 (Classification of environmental conditions, Part 3: classification of groups of environmental parameters and their severities, Section 1: Product storage).

**General**

1. The products shall be protected from harmful effects, such as mechanical damage, climatic or chemical influences.
2. Preferentially, the products stored for the longest time shall be taken first (FIFO system).
3. The products stored shall be duly and visibly marked in the warehouse so that they are not confused.

**Storage requirements**

Products shall be stored in dry, dustless environment to prevent damage.

Storehouse specification:

- A place fully protected from climatic influences, i.e. at a closed place where direct weather influence is completely eliminated.
- Water from sources other than rain shall be completely removed: dripping water, spouting water, condensates.
- Complete elimination of chemical influences arising from particles of salts.

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References

- ČVUT building - technical university - Prague
- Sewage treatment plant - Kellihers, Ireland
- Sewage treatment plant - Želivka
- DEZA, a. s. - Valašské Meziříčí
- Draslovka Kolín
- DUBAL Dubai aluminium, SAE
- Power plant Chvaletice Sev.en EC
- Ethanol Energy - Vrdy
- ETIHAD sugar factory - Babylon, Iraq
- Nuclear power plant - Jaslovské Bohunice, Slovakia
- Nuclear power plant Pyhäjoki, Finland
- Nuclear power plant Temelín
- KFK - Zagreb, Chorvatsko
- Kiekert-CS, s.r.o. - Přelouč
- Komerční banka - Prague
- Compression station Lakšárska Nová Ves, Slovakia
- Kronospan woodworking production - Jihlava
- Airport Dublin, Ireland
- Airport Pardubice - Jan Kašpar Terminal
- Airport Záhřeb - Franjo Tuđman, Croatia
- NAFTA Gbely reservoir Gajary, Slovakia
- Shopping gallery Harfa - Prague
- Hospital Třebíč
- Sv. Anna Hospital - Brno
- Shopping centre NOVUM - Prešov, Slovakia
- IKEA Centrum Černý most - Prague
- OC Atrium - Hradec Králové
- Ostrovská teplárenská a.s. - Ostrov
- Parkview Pankrác - Prague
- Pepperl+Fuchs Manufacturing s.r.o. - Trutnov
- Praga Studios - Prague
- Prefa Hodonín
- Precheza - Přerov
- Retail Park Štěrboholy - Prague
- Air traffic control of Mošnov - Ostrava airport
- Saint-Gobain Adfors CZ s.r.o. - Litomyšl
- Slovnaft Bratislava, Slovakia
- Sports hall RATES - Zvolen, Slovakia
- Synthesia, a.s. Pardubice
- ŠKODA Motorsport - Mladá Boleslav
- České Budějovice heating plant
- Trelleborg Bohemia a.s. - Hradec Králové
- Ejpovice tunnel
- Istralandia Water Park - Novigrad, Croatia



Power plant Chvaletice



Ethanol Energy - Vrdy



Airport Pardubice



Airport Dublin



Praga Studios - Prague



Air traffic control of Mošnov - Ostrava airport



Kiekert-CS, s.r.o. - Přelouč



Ejpovice tunel



DUBAL Dubai aluminium

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Returnable packages



**IP1 - pipe pallet**  
dimension: 120 x 80 x 63 cm  
EAN: [8595057687660](#)



**IP3-1 - wooden pallet EUR**  
dimension: 120 x 80 cm  
EAN: [8595057687684](#)



**IP3-3 - wooden pallet**  
dimension: 160 x 240 cm  
EAN: [8595057687677](#)



**IP3-4 - wooden pallet**  
dimension: 120 x 183 cm  
EAN: [8595568926906](#)



**IP3-5 - wooden base**  
dimension: 205 x 112 cm  
EAN: [8595568931696](#)



**IP5 - wooden base**  
dimension: 300 x 65 cm  
EAN: [8595057687714](#)



**IP7 - wooden base**  
dimension: 200 x 65 cm  
EAN: [8595057687738](#)



**IP9 - pallet extension**  
dimension: 120 x 80 x 20 cm  
EAN: [8595568925923](#)



**IP10 - metal pallet**  
dimension: 180 x 120 x 82 cm  
EAN: [8595057688230](#)



**M6500 - drum M220**  
dimension: 225 x 116 cm  
EAN: [8595057687769](#)



**M6502 - metal drum**  
dimension: 230 x 116 cm  
EAN: [8595568910639](#)

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BSKH 85 K	<a href="#">4-9</a>	DT 300	<a href="#">1-26, 4-14</a>	DZDS 150/B	<a href="#">3-8</a>	INOXBSKH 110 K	<a href="#">5-21</a>	INOXKLOBH 60X400	<a href="#">5-20</a>
CTS 100	<a href="#">1-24</a>	DT 400	<a href="#">1-26, 4-14</a>	DZDS 200/B	<a href="#">3-8</a>	INOXBSKH 60 D	<a href="#">5-21</a>	INOXKLSU	<a href="#">5-22</a>
CTS 200	<a href="#">1-24, 4-13</a>	DT 500	<a href="#">1-26, 4-14</a>	DZDS 300/B	<a href="#">3-8</a>	INOXBSKH 60 K	<a href="#">5-21</a>	INOXKLT 110X200	<a href="#">5-20</a>
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