

# 2026 price list Structures/Facade

Valid from 1st February 2026





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# Sealing

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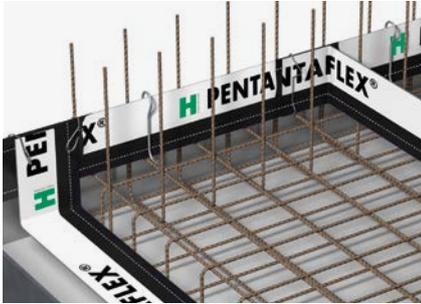
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# PENTAFLEX®

## PENTAFLEX KB® 167

With guide marking



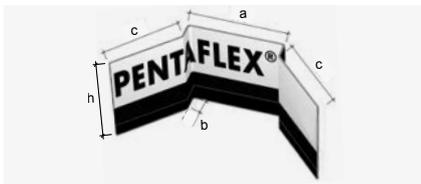
PENTAFLEX KB® elements are fully coated on both sides with a special coating. The bond between the special coating and the fresh concrete reliably prevents water from infiltrating the joint system. An anchoring depth of at least 30 mm is enough to withstand a tested water pressure of up to 5.0 bar (2.0 bar permitted in accordance with the German building code test certificate (**abP**)). The guide markings make it easy to check that the PENTAFLEX KB® elements are correctly positioned at their minimum embedding depth while pouring the concrete without constantly having to remeasure. The high elasticity of the coating maintains a reliable seal if concrete components shrink.

- ETA-15/0003
- **abP**
- Radon-proof
- Includes joint clips and cross clips

Article number	Height [mm]	Element length [mm]	Weight [kg/m]	PU [m]	PU [m/pal.]	Price per m [€]
110100005565	167	2,000	0.90	100 (box)	-	10.90
110100005567	167	25,000	0.90	25 (roll)	600	11.50

## PENTAFLEX KB® corner

With guide marking



PENTAFLEX KB® corner element for corner areas of construction joints. Waterproof - tested up to 5.0 bar, 2.0 bar permitted in accordance with **abP**.

- ETA-15/0003
- **abP**
- **Essential when using PENTAFLEX® FTS corner elements.**
- For a technical description, see PENTAFLEX KB®
- Includes joint clips

Article number	Dimensions [mm]				Weight [kg/pc.]	PU [pcs./box]	PU [pcs./pal.]	Price per piece [€]
	a	b	c	h				
110100013968	170	30	135	167	0.45	4	200	13.30
110100013969	170	30	135	80	0.20	4	200	19.90

## PENTAFLEX KB® 80

With guide marking



For waterproofing wall/ceiling construction joints. Waterproof up to 1.0 bar in accordance with **abP**.

- ETA-15/0003
- **abP**
- Includes joint clips

Article number	Height [mm]	Element length [mm]	Weight [kg/m]	PU [m/box]	Price per m [€]
110100005569	80	2,000	0.45	100	12.00
110100005572	80	25,000	0.45	Roll	12.60

## PENTAFLEX® tape



Special tape for additional protection, e.g. of intersection points in special constructions.

Article number	Width [mm]	Length [m/roll]	Weight [kg/roll]	PU [rolls/box]	Price per roll [€]
110300014851	40	10	0.30	14	43.50

## PENTAFLEX KB® 167 Agrar

With guide marking



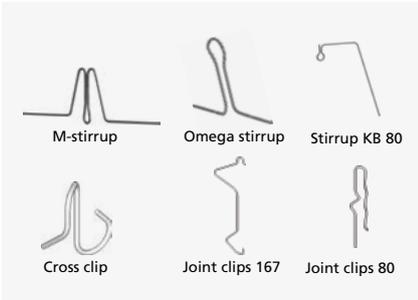
PENTAFLEX KB® 167 Agrar elements are metal joint sheets with a special coating on both sides. They are suitable for applications in contact with slurry, liquid manure, and silage effluent (JGS). The joint sheets are regulated by the German national technical approval (abZ) Z-74.101-175 concerning Pentaflex KB® 167 Agrar metal joint sheets for use in biogas and JGS storage and filling facilities. The joint sheets may be used in storage and filling facilities of JGS plants (as specified by section 2 (13) of the German Ordinance on Facilities for Handling Substances Hazardous to Water (AwSV)) and in biogas plants in which fermentation substrates of agricultural origin (as specified by section 2 (8) of the AwSV), except fermentation substrates containing vegetable oil, are stored or used.

**CAUTION: After the AwSV comes into force, only products approved by the building authorities may be used for this area of application.**

- National technical approval Z-74.101-175
- Includes 3 x joint clips, 20 x omega clips, 2 strips of PENTAFLEX® tape
- Tested up to 2.0 bar: DIBt approval to 0.8 bar (safety factor of 2.5).

Article number	Height [mm]	Element length [mm]	Weight [kg/m]	PU [rolls/box]	Price per m [€]
110100020287	167	Rolls, 10 m each	1.1	2	15.30

## PENTAFLEX® mounting brackets & clips



Mounting brackets and clips for fastening PENTAFLEX® elements.

Article number	Type	Weight [kg/pc.]	PU [pcs.]	Price per piece [€]
110300013976	M-clip	0.06	25	1.20
110300004791	Omega clip	0.12	25 <sup>1)</sup>	1.20
110300013973	Mounting bracket KB 80	0.08	25	1.20
110300013975	Cross clip	0.02	25	1.20
110300014104	Joint clip 167	0.02	25	1.20
110300014105	Joint clip 80	0.02	25	0.95

<sup>1)</sup> Or 4,200 pcs./pallet

## PENTAFLEX® module



PENTAFLEX® module for waterproofing construction joints with continuous formwork, e.g. between walls and underground car park ramps or between light wells and basement walls. The element consists of a protective box and integrated PENTAFLEX KB® joint sheet 60 mm wide. The structure of the module guarantees that the joint sheet is embedded 30 mm into the components being connected in accordance with the **abP**.

- Element can be installed with FERBOX® E types
- Element length: 800 mm or 1,200 mm; other lengths available on request
- Tested up to 0.75 bar

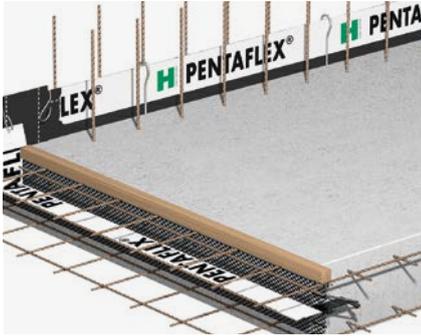


Article number	Type	Price per m [€]
110400022083	PENTAFLEX® module 1,200 mm	25.40
110400024200	PENTAFLEX® module 800 mm	25.40

Article number	Type	Price per piece [€]
110400024201	PENTAFLEX® module corner element 200x200	17.70

Extension products for module	Surcharge [€]
Surcharge for special lengths	10%

## PENTAFLEX® ABS

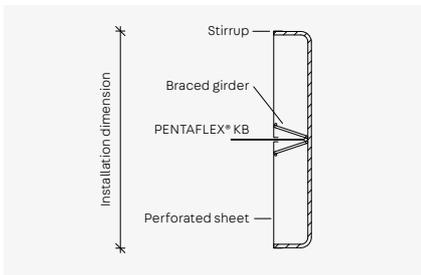


Formwork element for creating waterproof construction joints in reinforced concrete components. Please specify connection area (floor/floor, ceiling/ceiling, or wall/wall) when ordering. Version with bracing lattice beam structure available as rough (ABS R) or interlocking (ABS V) joint in line with DIN EN 1992-1-1/NA. The lattice beam structure is reinforced in the interlocking ABS V-S variant. Waterproofing is applied with the included PENTAFLEX KB® joint sheet. Waterproof - tested up to 5.0 bar (2.0 bar permitted in accordance with **abP**).

- ETA-15/0003
- **abP**
- E dimension = clearance between upper and lower reinforcement [mm]
- Element length: 2,400 mm; other dimensions and versions available on request

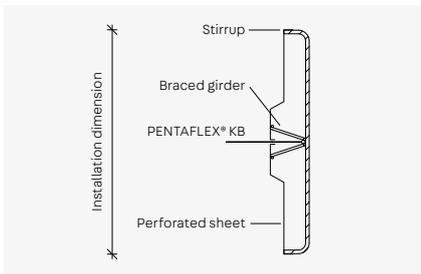
**Specify joint length, installation height (E dimension), and connection points when ordering.**

### PENTAFLEX® ABS R – rough joint in line with EC2 (wall/wall: version with shortened lattice beam)



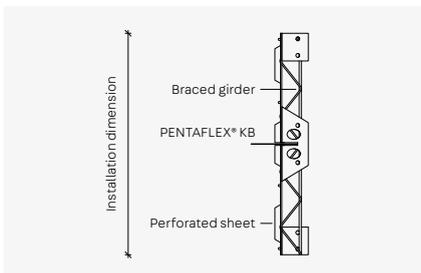
Article number Floor/floor	Article number Wall/wall	Installation height [mm]	Weight [kg/m]	Price per m [€]
111700022084	111900022862	80-200	2.37	47.00
111700022085	111900022863	210-250	2.60	48.60
111700022086	111900022864	260-300	2.82	49.90
111700022087	111900022865	310-350	3.26	56.60
111700022088	111900022866	360-400	3.50	58.10
111700022089	111900022867	410-500	3.99	64.10
111700022090	111900022868	510-590	4.92	74.70

### PENTAFLEX® ABS V – interlocking joint in line with EC2 (wall/wall: version with shortened lattice beam)



Article number Floor/floor	Article number Wall/wall	Installation height [mm]	Weight [kg/m]	Price per m [€]
111800022091	112000022869	120-200	2.61	57.90
111800022092	112000022870	210-250	2.74	59.70
111800022093	112000022871	260-300	2.96	61.40
111800022094	112000022872	310-350	3.34	68.20
111800022095	112000022873	360-400	3.59	69.70
111800022096	112000022874	410-500	4.08	75.80
111800022097	112000022875	510-590	5.46	86.40

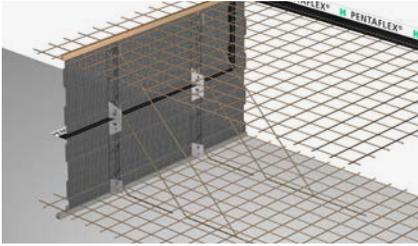
### PENTAFLEX® ABS V-S – interlocking joint in line with EC2, reinforced version



Article number Floor/floor & wall/wall	Installation height [mm]	Weight [kg/m]	Price per m [€]
112200022098	600-690	4.82	89.80
112200022099	700-790	5.21	92.70
112200022100	800-890	6.78	96.00
112200022101	900-990	7.15	99.10
112200022102	1,000-1,090	8.96	109.00
112200022103	1,100-1,190	9.40	119.80
112200022104	1,200-1,290	9.84	130.70
112200022105	1,300-1,390	10.94	141.60
112200022106	1,400-1,490	11.38	152.50
112200022107	1,500-1,590	11.82	163.30
112200022108	1,600-1,690	14.01	174.20
112200022109	1,700-1,790	14.49	185.10
112200022110	1,800-1,890	14.98	195.90
112200022111	1,900-1,990	16.81	206.90

Extension products for ABS			Surcharge [€]
Corner surcharge	Per piece		17.50
Surcharge for tapered cuts	Per m		9.70
Surcharge for notching in expanded metal	Per piece		17.50
Surcharge for short pieces			10%
Off-center joints			10%

## Retaining rebar



### Delivery variant

Set of 3 mounting brackets (top, center, bottom), diameter: 12, B500B

### Accessories for PENTAFLEX® ABS V-S and A V-S formwork elements.

#### Area of application

- Mounting bracket (B500B) in 3 different lengths for fastening the ABS V-S (page 8) or A V-S elements (page 153) to the on-site reinforcement.
- Mounting brackets must be welded to the top layer of the slab reinforcement
- Mounting bracket sets per element based on element length  $l = 2.40$  m

Article number	E dimension ABS [mm]	Mounting bracket sets per element <sup>1)</sup> [ea.]	Mounting bracket sets per m <sup>1)</sup> [ea.]	Weight kg	Price per set [€]
<a href="#">112200026033</a>	600-690	4	1.6		7.40
<a href="#">112200025718</a>	700-790	4	1.6		7.70
<a href="#">112200025719</a>	800-890	5	2.0		8.00
<a href="#">112200025720</a>	900-990	5	2.0		8.50
<a href="#">112200025721</a>	1,000-1,090	5	2.0		8.60
<a href="#">112200025722</a>	1,100-1,190	5	2.0		9.10
<a href="#">112200025723</a>	1,200-1,290	5	2.0		9.50
<a href="#">112200025724</a>	1,300-1,390	5	2.0		9.70
<a href="#">112200025725</a>	1,400-1,490	5	2.0		10.30
<a href="#">112200025726</a>	1,500-1,590	5	2.0		10.50
<a href="#">112200025727</a>	1,600-1,640	5	2.0		11.00
<a href="#">112200025727</a>	1,650-1,690	6	2.5		11.00
<a href="#">112200025728</a>	1,700-1,790	6	2.5		11.20
<a href="#">112200025729</a>	1,800-1,890	6	2.5		11.30
<a href="#">112200025730</a>	1,900-1,990	6	2.5		12.00
<a href="#">112200025731</a>	2,000-2,090	6	2.5		12.00

<sup>1)</sup> round up to determine the total quantity

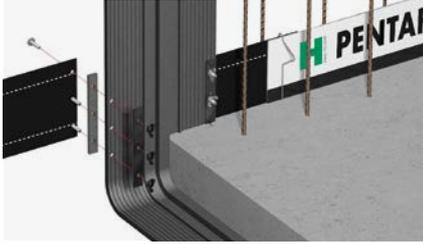


We recommend our spacers as accessories for the lower reinforcement layer. Formwork elements without PENTAFLEX® waterproofing elements can be found in the Formwork section starting on (page 151).



ABS elements can be individually customized to the needs of a project. Please feel free to contact us!

## PENTAFLEX® joint tape connection FBA



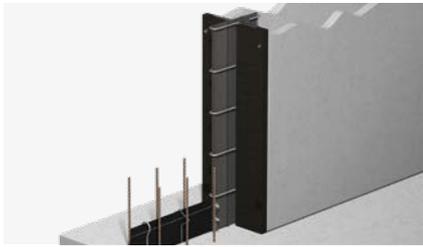
Element for connecting PENTAFLEX KB® with joint tapes.

**Waterproof – tested up to 5.0 bar.**

- Consumption per connection: 1 set (consisting of 2 pcs.)

Article number	Weight [kg/box]	PU [set/box]	Price per set [€]
110100005614	0.88	1	76.90

## PENTAFLEX® sound insulating cage STK



Prefabricated joint cage element for creating water-impermeable sound-insulation joints in double precast wall elements.

- Element length: 3,000 mm
- For walls 240 mm wide and above
- Joint width: 30 mm
- Includes knock-in fastening anchors (6 pcs./set)
- Please order sound-insulation joint tape separately
- Other dimensions and versions available on request

Article number	Wall thickness [mm]	Tape width [mm]	Weight [kg/set]	PU [set/pal.]	Price per set [€]
111500004774	240 / 250	240	8.68	20	171.10
111500004775	300	240	9.83	20	179.60
111500004776	365	240	10.86	10	188.30
111500019816	240 / 250	320	8.59	20	196.70
111500019818	300	320	9.60	20	206.60
111500019817	365	320	10.16	10	216.60

## PENTAFLEX® sound-insulation joint tape



For use with sound insulating cage STK with pre-assembled PENTAFLEX® joint tape connection for connecting to PENTAFLEX KB® 167.

- Element length: 3,000 mm
- Bitumen-compatible joint tape
- PENTAFLEX® coating in the area where the element is embedded into the floor slab

Article number	Tape width [mm]	Weight [kg/pc.]	PU [pcs./box]	Price per piece [€]
111600004788	240	4.72	1	215.60
111600004792	320	6.85	1	227.40

## PENTAFLEX® sound-insulation joint tape

For separation joints



For use with sound insulating cage STK. Includes PENTAFLEX® joint tape connection for connecting to PENTAFLEX KB® 167.

- Element length: depending on building
- Please use order form BK 02 for KUNEX welded constructions.
- The order forms can be found at [www.pohlcon.com](http://www.pohlcon.com)

**Price on request.**

## PENTAFLEX® FTS joint



The precast crack control element PENTAFLEX® FTS joint creates a predetermined breaking point at butt joints between precast walls and seals the resulting crack reliably. No further waterproofing measures are required. Waterproof - tested up to 5.0 bar (**2.0 bar permitted in accordance with abP**).

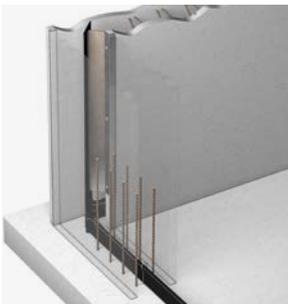
- ETA-15/0003
- abP
- Element length: 2,500, 2,750, or 3,000 mm
- Includes cross clips and knock-in fastening anchors

Article number	Wall width [mm]	Element length [mm]	Weight [kg/m]	PU [pcs./pal.]	Price per m [€]
110600004406	240-280	2,500	1.84	28	34.80
110600004407	240-280	2,750	1.84	28	34.80
110600004408	240-280	3,000	1.84	28	34.80
110600004409	290-340	2,500	2.00	28	34.80
110600004410	290-340	2,750	2.00	28	34.80
110600004411	290-340	3,000	2.00	28	34.80
110600004412	350-400	2,500	2.20	28	39.90
110600004413	350-400	2,750	2.20	28	39.90
110600004414	350-400	3,000	2.20	28	39.90

Extension products for FTS joint	Surcharge [€]
Cutting surcharge	Per piece 17.60
Wall width > 400 mm <sup>1)</sup>	Per 100 mm of width per m 5.30

<sup>1)</sup> Other wall widths available on request

## PENTAFLEX® FTS corner



The precast crack control element PENTAFLEX® FTS corner creates a predetermined breaking point at butt joints between double precast walls and seals the resulting crack reliably. No further waterproofing measures are required. Waterproof - tested up to 5.0 bar (**2.0 bar permitted in accordance with abP**).

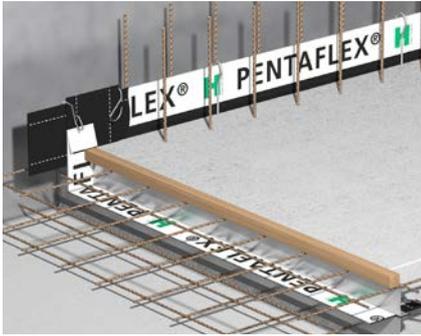
- ETA-15/0003
- abP
- **PENTAFLEX KB® corner (page 6) must be installed in the floor slab to connect the floor/wall joint.**
- Element length: 2,500, 2,750, or 3,000 mm
- Includes cross clips and knock-in fastening anchors

Article number	Wall width [mm]	Element length [mm]	Weight [kg/m]	PU [pcs./pal.]	Price per m [€]
110600004396	240-280	2,500	2.00	28	36.70
110600004397	240-280	2,750	2.00	28	36.70
110600004398	240-280	3,000	2.00	28	36.70
110600004399	290-340	2,500	2.15	28	36.70
110600004400	290-340	2,750	2.15	28	36.70
110600004401	290-340	3,000	2.15	28	36.70
110600004402	350-400	2,500	2.30	28	41.60
110600004403	350-400	2,750	2.30	28	41.60
110600004404	350-400	3,000	2.30	28	41.60

Extension products for FTS corner	Surcharge [€]
Cutting surcharge	Per piece 17.60
Wall width > 400 mm <sup>1)</sup>	Per 100 mm of width per m 5.30

<sup>1)</sup> Other wall widths available on request

## PENTAFLEX® OBS floor slab



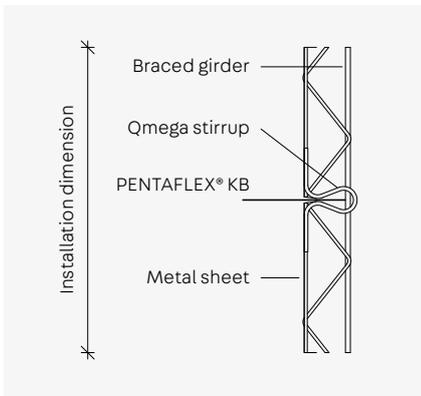
The cast-in-place crack control element PENTAFLEX® OBS floor slab creates a predetermined crack in floor slabs and simultaneously renders the crack waterproof. Versions available for very smooth or interlocking joints in line with DIN EN 1992-1-1/NA.

Waterproof – tested up to 5.0 bar (**2.0 bar permitted in accordance with abP**).

- **ETA-15/0003**
- **abP**
- **Surveyor report**
- E dimension = clearance between upper and lower reinforcement [mm]
- Element length: 2,500 mm; other dimensions and versions available on request

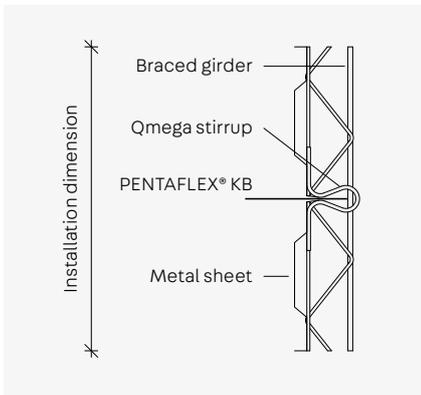
**Specify joint length, installation height (E dimension), and connection points when ordering.**

### PENTAFLEX® OBS G-S – very smooth joint in line with EC2



Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
<a href="#">110700020328</a>	80-200	2.37	45.70
<a href="#">110700020330</a>	210-250	2.60	47.10
<a href="#">110700020325</a>	260-300	2.82	48.60
<a href="#">110700020326</a>	310-350	3.26	55.10
<a href="#">110700020327</a>	360-400	3.50	56.30
<a href="#">110700020332</a>	410-500	3.99	62.40
<a href="#">110700020329</a>	510-600	4.92	72.50
<a href="#">110700020316</a>	610-700	5.41	75.50
<a href="#">110700020320</a>	710-800	9.87	78.30
<a href="#">110700020317</a>	810-900	10.39	81.30
<a href="#">110700020318</a>	910-1,000	10.92	84.00

### PENTAFLEX® OBS V-S – interlocking joint in line with EC2



Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
<a href="#">110700019961</a>	140-200	2.61	56.20
<a href="#">110700019962</a>	210-250	2.74	58.00
<a href="#">110700019963</a>	260-300	2.96	59.70
<a href="#">110700019964</a>	310-350	3.34	66.20
<a href="#">110700019965</a>	360-400	3.59	67.90
<a href="#">110700020319</a>	410-500	4.08	73.60
<a href="#">110700020331</a>	510-600	5.46	84.00
<a href="#">110700020322</a>	610-700	5.95	87.20
<a href="#">110700020321</a>	710-800	8.90	90.20
<a href="#">110700020323</a>	810-900	9.39	93.30
<a href="#">110700020324</a>	910-1,000	9.88	96.30

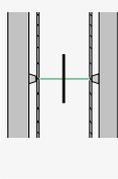
Extension products for OBS floor slab		Surcharge [€]
Corner surcharge	Per piece	17.30
Surcharge for tapered cuts	Per m	8.90
Surcharge for short pieces		10%
Off-center joints		10%



Formwork elements without PENTAFLEX® waterproofing elements can be found in the Formwork section starting on page 151.

To support the lower reinforcement layer, we recommend our spacers on page 154.

## PENTAFLEX® OBS



The cast-in-place crack control element PENTAFLEX® OBS creates a predetermined crack in cast-in-place walls and simultaneously renders the crack waterproof. Waterproof - tested up to 5.0 bar (**2.0 bar permitted in accordance with abP**).

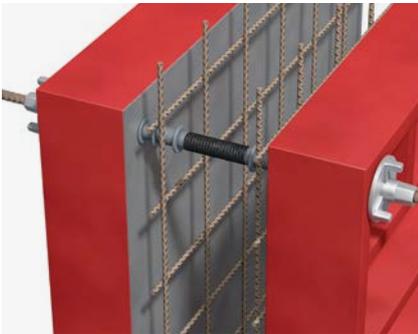
- **ETA-15/0003**
- **abP**
- **Surveyor report**
- Element length: 2,500, 2,750, or 3,000 mm
- E dimension = Clearance between inner and outer reinforcement [mm]
- Other E dimensions available on request
- Includes cross clips for fastening
- Max. E dimension = 320 mm, for larger E dimensions, use OBS G-S (page 12).

**Specify joint length and installation height (E dimension) when ordering.**

Article number [...]	E dimension [mm]	Weight [kg/m]	PU [pcs./pal.]	PU [pcs./pal.]	PU [pcs./pal.]	Price per m [€]
			l = 2,500 m	l = 2,750 m	l = 3,000 m	
1107...	140	2.45	28	28	28	39.90
1107...	180	2.60	28	28	28	39.90

Extension products for OBS			Surcharge [€]
Cutting surcharge		Per piece	21.30
E dimension 150–170 mm		Per m	5.30
E dimension ≥ 190–320 mm		Per 100 mm of width per m	5.30

## PENTAFLEX® OPTI wall strengtheners



Waterproof tie points. **Waterproof – tested up to 5.0 bar.**

- Includes sealing plugs and OPTI plugs
- Other lengths available on request

### PENTAFLEX® OPTI wall strengtheners

Article number	Inside diameter [mm]	Length [mm]	Weight [kg/pc.]	PU [pcs./box]	PU [box/pal.]	Price per piece [€]
111400002312	22	240	0.06	50	20	1.90
111400002313	22	250	0.06	50	20	1.90
111400002315	22	300	0.07	50	20	1.90
111400002317	22	350	0.08	50	20	2.00
111400002318	22	365	0.08	50	20	2.00
111400002319	22	400	0.09	50	20	2.00
111400002320	22	450 <sup>1)</sup>	0.10	50	20	2.10
111400002321	22	500 <sup>1)</sup>	0.10	50	20	2.50

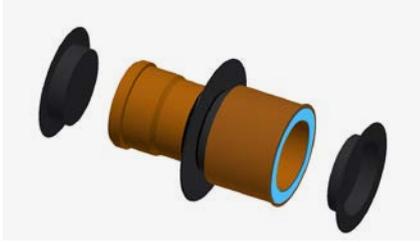
<sup>1)</sup> Connected version

### PENTAFLEX® OPTI wall strengtheners with agricultural coating

Article number	Inside diameter [mm]	Length [mm]	Weight [kg/pc.]	PU [pcs./box]	PU [box/pal.]	Price per piece [€]
111400026121	22	240 - 400	0.06	50	20	Prices on request

<sup>1)</sup> Connected version

## PENTAFLEX® wall lead-through KG



Waterproof wall lead-throughs for in cast-in-place or precast walls.

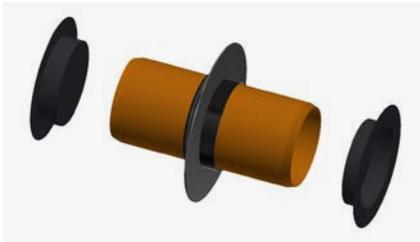
**Version with sleeve and pull-over sleeve.**

- Pipe material: PVC
- Waterproof version tested up to 5.0 bar
- Wall thickness 310-500 mm with polystyrene ring instead of pull-over sleeve
- Foam insert prevents fine particles from being embedded during concreting

**Specify DN and length [mm] when ordering.**

Article number [...]	DN [mm]	Wall thickness [mm]	PU [pcs./box]	PU [pcs./pal.]	Price per piece [€]
1109...	110	240-500	1	60	59.20
1109...	160	240-500	1	20	78.40

## PENTAFLEX® protective tube KG



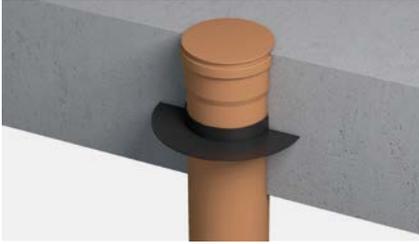
Waterproof protective tubes for cast-in-place or precast walls.

- Pipe material: PVC
- Waterproof version tested up to 5.0 bar

**Specify DN and length [mm] when ordering.**

Article number [...]	DN [mm]	Wall thickness [mm]	PU [pcs./box]	PU [pcs./pal.]	Price per piece [€]
1110...	110	240-500	1	60	40.10
1110...	160	240-500	1	20	50.00

## PENTAFLEX® floor lead-through PP



Waterproof floor lead-throughs.

- Pipe material: PP
- Waterproof version tested up to 5.0 bar

**Specify DN and length [mm] when ordering.**

Article number	DN [mm]	Length [mm]	PU [pcs./box]	PU [pcs./pal.]	Price per piece [€]
111100004295	110	500	1	40	55.90

## PENTAFLEX® floor drain



For use with waterproof reinforced concrete slabs (white tank construction).

Removable odour trap.

- Versions with R 90 or Multistop available on request
- Top section height-adjustable by 50 mm
- Other dimensions, versions, and load capacities available on request

Article number	DN [mm]	Dimensions of cover [mm]	Slotted grating version	Max. load [t]	PU [pcs./box]	Price per piece [€]
111200004236	110	138 x 138	ABS	0.3	1	92.80
111200004235	110	138 x 138	Stainless steel	1.5	1	249.20
111200004238	110	138 x 138	Stainless steel	0.3	1	125.60

## PENTAFLEX® extension

Article number	DN [mm]	Dimensions [mm]	PU [pcs./box]	Price per piece [€]
111200004255	110	100	1	33.20

# KUNEX®

## KUNEX® internal construction joint tape



KUNEX® internal construction joint tape made of PVC-P for waterproofing construction joints in concrete structures. Installed in the center of the concrete cross-section.

**Joint tapes in line with DIN 18541 or factory standard with German building code test certificate (abP).**

- Material: Soft, black PVC
- Version with eyelets available on request, eyelet spacing  $\geq 200$  mm

### Internal construction joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Width [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120100002662</a>	A240 DIN BV	240	15	80	3.5	25	500	1.40	11.00
<a href="#">120100002677</a>	A320 DIN BV	320	15	100	4.5	25	400	1.84	15.00

### Internal construction joint tape in line with DIN (not compatible with bitumen)

Article number	Type	Width [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120100002661</a>	A240 DIN	240	15	80	3.5	25	500	1.35	7.40
<a href="#">120100002676</a>	A320 DIN	320	15	100	4.5	25	400	1.86	9.90

### Internal construction joint tape in line with factory standard with abP (not compatible with bitumen)

Article number	Type	Width [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120100002634</a>	A100	100	8	47	2.0	25	1,000	0.37	2.90
<a href="#">120200002640</a>	A150	150	15	55	3.0	25	600	0.94	3.60
<a href="#">120100002647</a>	A190	190	15	70	3.0	25	500	1.10	3.90
<a href="#">120100002659</a>	A240	240	15	80	3.5	25	500	1.40	5.00
<a href="#">120100002674</a>	A320	320	15	100	4.5	25	400	2.10	8.00
<a href="#">120100002681</a>	A500	500	20	150	6.0	20	40	4.00	15.10

## KUNEX® construction joint tape, steel-reinforced



KUNEX® internal construction joint tape made from PVC-P with spring steel reinforcement for water-proofing construction joints in concrete structures.

**Joint tapes in line with factory standard with German building code test certificate (abP).**

- Material: Soft, black PVC
- Version with eyelets available on request, eyelet spacing  $\geq 200$  mm

Internal construction joint tape in line with factory standard with abP (not compatible with bitumen)

Article number	Type	Width [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	External thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120200002636	A100S	100	15	40	3.5	11	25	500	0.74	4.10
120200002637	A100SL	100	15	40	3.5	11	25	500	0.73	3.90
120200002642	A150S	150	15	58	3.5	11	25	600	0.99	4.30
120200002649	A190S	190	15	78	4.0	11	25	500	1.50	6.00
120200002650	A190SL	190	15	78	4.0	11	25	500	1.47	5.80
120200002656	A190SL7	190	15	78	4.0	11	25	500	1.46	5.40
120200002653	A190SL6	190	15	78	4.0	11	25	500	1.44	5.20
120200002651	A190SL5	190	15	78	4.0	11	25	500	1.43	4.90
120200002663	A240S	240	15	85	4.0	11	25	500	1.63	7.30
120200002664	A240SL	240	15	85	4.0	11	25	500	1.59	6.90
120200002670	A240SL7	240	15	85	4.0	11	25	500	1.62	6.80
120200002667	A240SL6	240	15	85	4.0	11	25	500	1.60	6.50
120200002665	A240SL5	240	15	85	4.0	11	25	500	1.59	6.20
120200002678	A320S	320	15	100	4.5	11	25	400	2.23	8.80
120200002679	A320SL	320	15	100	4.5	11	25	400	2.18	8.40

Bar spacing  
 100 mm (S) = 10 x spring steel insert/m (example type: A190S)  
 125 mm (SL) = 8 x spring steel insert/m (example type: A190SL)  
 150 mm (SL7) = 7 x spring steel insert/m (example type: A190SL7)  
 75 mm (SL6) = 6 x spring steel insert/m (example type: A190SL6)  
 200 mm (SL5) = 5 x spring steel insert/m (example type: A190SL5)

## KUNEX® external construction joint tape



KUNEX® external construction joint tape made from PVC-P for waterproofing construction joints in concrete structures. Installed flush with the surface of the concrete component.

**Joint tapes in line with DIN 18541 or factory standard with German building code test certificate (abP).**

- Material: Soft, black PVC

### External construction joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Width [mm]	Height of profile [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120400002698	AA240/20 DIN BV	240	20	4	80	4.0	25	100	1.90	15.80
120400002701	AA240/25 DIN BV	240	25	4	80	4.0	25	100	1.94	16.60
120400002705	AA240/35 DIN BV	240	35	4	84	4.0	25	100	2.90	23.20
120400002711	AA320/25 DIN BV	320	25	6	100	4.0	25	50	2.65	21.20
120400002715	AA320/35 DIN BV	320	35	6	100	4.0	25	50	3.91	30.60
120400002719	AA500/35 DIN BV	500	35	8	120	4.0	20	20	5.90	43.70

### External construction joint tape in line with factory standard with abP (not compatible with bitumen)

Article number	Type	Width [mm]	Height of profile [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120400002693	AA190/17	190	17	4	80	3.7	25	125	1.54	6.30
120400002695	AA240/20	240	20	4	80	4.0	25	100	2.06	7.90
120400002699	AA240/25	240	25	4	80	4.0	25	100	2.15	8.30
120400002702	AA240/35	240	35	4	85	4.0	25	100	2.90	10.50
120400002706	AA320/20	320	20	6	100	4.0	25	75	2.86	10.00
120400002708	AA320/25	320	25	6	100	4.0	25	75	2.80	10.40
120400002712	AA320/35	320	35	6	100	4.0	25	75	4.35	15.00
120400002716	AA500/35	500	35	8	120	4.0	20	40	5.48	20.30

## KUNEX® corner joint tape for construction joints



KUNEX® corner joint tape made from PVC-P for waterproofing construction joints in offset concrete components.

**Joint tapes in line with DIN 18541-2 or factory standard.**

- Material: Soft, black PVC

### Corner joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Height [mm]	Width [mm]	Height of profile [mm]	No. of stop anchors	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120400002688	AA120/120EA DIN BV	120	120	25	4	20	60	2.00	19.20
120400002692	AA165/165EA DIN BV	165	165	25	6	20	60	2.84	27.40

### Corner joint tape in line with factory standard (not compatible with bitumen)

Article number	Type	Height [mm]	Width [mm]	Height of profile [mm]	No. of stop anchors	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120400002689	AA165/165EA	165	165	25	6	20	60	3.03	12.30

## KUNEX® internal expansion joint tape



KUNEX® internal expansion joint tape made from PVC-P for waterproofing expansion joints in concrete structures. The joint tape absorbs expansions and shear movements. Installed in the center of the concrete cross-section.

**Joint tapes in line with DIN 18541 or factory standard with German building code test certificate (abP).**

- Material: Soft, black PVC
- Version with eyelets available on request, eyelet spacing  $\geq 200$  mm

### Internal expansion joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120500002738	D240 DIN BV	240	20	15	80	4.0	25	100	1.75	15.10
120500002744	D320 DIN BV	320	20	15	100	5.0	25	75	2.60	21.80
120500002753	D500 DIN BV	500	20	20	150	6.0	20	40	4.77	42.90

### Internal expansion joint tape in line with DIN (not compatible with bitumen)

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120500002737	D240 DIN	240	20	15	80	4.0	25	100	1.75	10.00
120500002743	D320 DIN	320	20	15	100	5.0	25	75	2.60	14.50
120500002752	D500 DIN	500	20	20	150	6.0	20	40	4.77	28.80

### Internal expansion joint tape in line with factory standard with abP (not compatible with bitumen)

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
120500002728	D150	150	10	15	55	3.5	25	150	1.12	5.70
120500002732	D190	190	10	15	70	3.5	25	125	1.25	6.70
120500002735	D240	240	20	15	80	4.0	25	100	1.70	7.60
120500002741	D320	320	20	15	100	5.0	25	75	2.80	11.70
120500002750	D500	500	20	20	150	6.0	20	40	4.77	22.00

## KUNEX® external expansion joint tape



KUNEX® external expansion joint tape made from PVC-P for waterproofing expansion joints in concrete structures. The joint tape absorbs expansions and shear movements. Installed flush with the surface of the concrete component.

**Joint tapes in line with DIN 18541-1 or factory standard with German building code test certificate (abP).**

- Material: Soft, black PVC

### External expansion joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of profile [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120600002768</a>	DA240/20 DIN BV	240	20	20	4	80	4.0	25	100	2.20	18.60
<a href="#">120600002772</a>	DA240/35 DIN BV	240	20	35	4	84	4.0	25	100	2.97	26.50
<a href="#">120600016747</a>	DA320/25 DIN BV	320	20	25	6	100	4.0	25	50	3.20	26.90
<a href="#">120600002778</a>	DA320/35 DIN BV	320	20	35	6	100	4.0	25	50	4.18	31.70
<a href="#">120600002786</a>	DA500/35 DIN BV	500	20	35	8	120	4.0	20	20	4.95	42.90

### External expansion joint tape in line with DIN (not compatible with bitumen)

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of profile [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120600002777</a>	DA320/35 DIN	320	20	35	6	100	4.0	25	50	4.18	21.10
<a href="#">120600002785</a>	DA500/35 DIN	500	20	35	8	120	4.0	20	20	4.85	28.80

### External expansion joint tape in line with factory standard with abP (not compatible with bitumen)

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of profile [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120600002764</a>	DA190/17	190	20	17	4	80	3.7	25	125	1.70	7.40
<a href="#">120600002766</a>	DA240/20	240	20	20	4	80	4.0	25	100	2.30	9.70
<a href="#">120600002769</a>	DA240/35	240	20	35	4	84	4.0	25	100	3.30	13.90
<a href="#">120600002773</a>	DA320/20	320	20	20	6	100	4.0	25	75	2.98	12.40
<a href="#">120600016745</a>	DA320/25	320	20	25	6	100	4.0	25	75	3.18	13.50
<a href="#">120600002775</a>	DA320/35	320	20	35	6	100	4.0	25	75	4.42	16.90
<a href="#">120600002783</a>	DA500/35	500	20	35	8	120	4.0	20	40	5.34	22.70

## KUNEX® corner joint tape for expansion joints



KUNEX® corner joint tape made from PVC-P for waterproofing expansion joints in offset concrete components.

**Joint tapes in line with DIN 18541-2 or factory standard.**

- Material: Soft, black PVC

### Corner joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Width/height [mm]	Width of hollow section [mm]	Height of stop anchors [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120600002757</a>	DA120/120EA DIN BV	120/120	20	25	4	50/50	4.0	20	60	2.40	23.00
<a href="#">120600002761</a>	DA165/165EA DIN BV	165/165	20	25	6	50/50	4.0	20	60	3.10	30.80

### Corner joint tape in line with factory standard (not compatible with bitumen)

Article number	Type	Width/height [mm]	Width of hollow section [mm]	Height of stop anchors [mm]	No. of stop anchors	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">120600002754</a>	DA120/120EA	120/120	20	25	4	50/50	4.0	20	60	2.40	11.10
<a href="#">120600002758</a>	DA165/165EA	165/165	20	25	6	50/50	4.0	20	60	3.25	16.50

## KUNEX® joint sealing strip



KUNEX® joint sealing strips made from PVC-P for closing the surfaces of movement joints. **Joint tapes in line with DIN 18541 or factory standard with German building code test certificate (abP).**

- Material: Soft, gray PVC

### Joint sealing strip in line with DIN BV (compatible with bitumen)

Article number	Type	Height [mm]	Height of stop anchors [mm]	No. of stop anchors	Width [mm]	Joint width [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">121100002796</a>	FA50/20 DIN BV	50	20	2	30	20	15	150	1.30	11.80
<a href="#">121100002799</a>	FA50/30 DIN BV	50	30	2	30	20	15	150	1.24	14.90
<a href="#">121100002808</a>	FA90/20 DIN BV	90	20	4	30	20	15	90	2.40	20.90
<a href="#">121100002812</a>	FA95/30 DIN BV	95	30	4	30	20	15	75	2.40	22.90
<a href="#">121100002792</a>	FA130/20 DIN BV	130	20	6	30	20	15	60	3.00	29.20

### Joint sealing strip in line with factory standard with abP (not compatible with bitumen)

Article number	Type	Height [mm]	Height of stop anchors [mm]	No. of stop anchors	Width [mm]	Joint width [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">121100002798</a>	FA50/20	50	20	2	30	20	15	150	1.30	6.20
<a href="#">121100002801</a>	FA50/30	50	30	2	30	20	15	150	1.22	7.10
<a href="#">121100002810</a>	FA90/20	90	20	4	30	20	15	90	2.20	10.10
<a href="#">121100002814</a>	FA95/30	95	30	4	30	20	15	75	2.40	11.30
<a href="#">121100002794</a>	FA130/20	130	20	6	30	20	15	60	3.04	14.00

## KUNEX® joint closure strip



KUNEX® joint closure strips made from PVC-P for closing the surfaces of movement joints.

- Material: Soft, gray PVC

Article number	Type	Height [mm]	Cover width [mm]	Joint width [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
121300002820	FV40/42	40	42	11	25	100	0.51	3.30

## KUNEX® star tube

With German building code test certificate (abP)



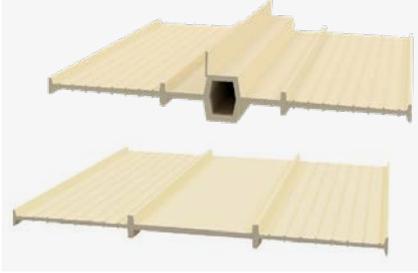
KUNEX® star tube for waterproofing crack control joints.

**With German building code test certificate (abP).**

- Casing with four stop anchors (soft PVC), dust gray

Article number	Type	Length [mm]	Diameter [mm]	For wall thickness [mm]	Total width [mm]	PU [pcs./pal.]	Weight [kg/m]	Price per m [€]
120300002901	Q60	2,500	60	≤ 240	100	50	1.90	12.10
120300002902	Q60	3,000	60	≤ 240	100	50	1.90	12.10
120300002903	Q60	4,000	60	≤ 240	100	50	1.90	12.10
120300002905	Q88	2,500	88	≤ 350	150	50	3.06	16.50
120300002906	Q88	3,000	88	≤ 350	150	50	3.06	16.50
120300002907	Q88	4,000	88	≤ 350	150	50	3.06	16.50
120300002898	Q175	2,500	175	350-500	235	25	7.30	32.00
120300002899	Q175	3,000	175	350-500	235	25	7.30	32.00
120300002900	Q175	4,000	175	350-500	235	25	7.30	32.00

## KUNEX® TPE joint tape



KUNEX® TPE joint tapes made from thermoplastic elastomers for waterproofing construction and expansion joints in concrete structures. **Joint tapes in line with factory standard with German building code test certificate (abP).**

- Material: thermoplastic elastomers (TPE), natural
- Compatible with bitumen
- PVC-free and halogen-free
- Completely recyclable

### Internal construction joint tape

Article number	Type	Width [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">123100019837</a>	A240 TPE	240	14	80	3.5	25	500	0.94	12.90

### Internal construction joint tape, steel-reinforced

Article number	Type <sup>1)</sup>	Width [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">123200019838</a>	A240SL7 TPE	240	15	85	4.0	25	500	1.25	17.10
<a href="#">123200019842</a>	A320SL7 TPE	320	15	100	4.0	25	400	1.54	20.90

<sup>1)</sup> Bar spacing  
150 mm (SL7) = 7 x spring steel insert/m (example type: A240SL7 TPE)

### Internal expansion joint tape

Article number	Type	Width [mm]	Width of hollow section [mm]	Height of anchor rib [mm]	Expansion element width [mm]	Expansion element thickness [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<a href="#">123500019829</a>	D240 TPE	240	20	15	80	4.0	25	100	1.30	17.10

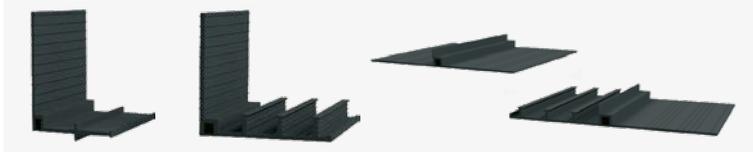
## KUNEX® clamp joint



KUNEX® clamp joints are the ideal solution to the complex problems posed by joining new buildings to old buildings. The system consists of primer, joint tapes according to DIN 18541-2, steel profiles, anchors, and a crepe rubber strip. The clamp joint works by pressing the joint tape onto the existing stock using clamp profiles and integrating the joint tape into the newly cast concrete components.

**With German building code test certificate (abP).**

## KUNEX® clamp joint tape



D180/170K DIN    DA180/170K DIN    DA320 KB DIN    DA320 KE DIN

KUNEX® clamp joint tape made from PVC-P for sealing strip the joints between new concrete components and existing buildings.

**Joint tapes in line with DIN 18541-2.**

- Material: Soft, black PVC

### Clamp joint tape in line with DIN BV (compatible with bitumen)

Article number	Type	Height/ width [mm]	Width of hol- low section [mm]	Height [mm]	No. of stop anchors	Expansion el- ement width [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<b>120500002731</b>	D180/170K DIN BV	180/170	25	26	-	95	20	40	3.20	34.20
<b>120600002763</b>	DA180/170K DIN BV	180/170	25	35	3	60	20	40	3.90	37.70
<b>120600002780</b>	DA320 KB DIN BV	320	20	4	-	100	20	40	1.99	23.30
<b>120600002782</b>	DA320 KE DIN BV	320	20	20	3	100	20	40	2.30	25.10

### Clamp joint tape in line with DIN (not compatible with bitumen)

Article number	Type	Height/ width [mm]	Width of hol- low section [mm]	Height [mm]	No. of stop anchors	Expansion el- ement width [mm]	PU [m/roll]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
<b>120500002730</b>	D180/170K DIN	180/170	25	26	-	95	20	40	3.10	22.70
<b>120600002762</b>	DA180/170K DIN	180/170	25	35	3	60	20	40	3.60	25.10

## KUNEX® clamp joint tape accessories

### Primer

Article number	Type	Consumption [kg/m <sup>2</sup> ]	PU [kg/bag]	Price per kg [€]
<b>121000002816</b>	Franko Pur <sup>1)</sup>	Approx. 0.3 - 0.5	1	56.50

<sup>1)</sup> The components marked with <sup>1)</sup> must be used if you are creating a KUNEX® clamp construction in accordance with the German building code test certificate P-5316/053/14 MPA-BS.

### Shear connector

Article number	Type [mm]	Bore dia. [mm]	PU [pcs./box]	Weight [kg/pc.]	Price per piece [€]
<b>121000002913</b>	M12	14	10	0.02	2.10
<b>121000002914</b>	M16 <sup>1)</sup>	18	10	0.04	2.60

<sup>1)</sup> The components marked with <sup>1)</sup> must be used if you are creating a KUNEX® clamp construction in accordance with the German building code test certificate P-5316/053/14 MPA-BS.

**Anchor rods with nut and U washer, galvanized or V4A (minimum purchase 1 PU)**

Article number	Type [mm]	Design	PU [pcs./box]	Weight [kg/pc.]	Price per piece [€]
121000002629	M12/160	Galvanized	10	0.13	2.10
121000002631	M16/190 <sup>1)</sup>	Galvanized	10	0.29	3.70
121000002628	M12/160	V4A	10	0.14	6.10
121000002630	M16/190 <sup>1)</sup>	V4A	10	0.29	12.40

<sup>1)</sup> The components marked with <sup>1)</sup> must be used if you are creating a KUNEX® clamp construction in accordance with the German building code test certificate P-5316/053/14 MPA-BS.

**Concrete bolt with nut and U washer, galvanized or V4A (minimum purchase 1 PU)**

Article number	Type [mm]	Design	PU [pcs./box]	Weight [kg/pc.]	Price per piece [€]
121000004053	TSM B14x165 M16x35 <sup>1)</sup>	Galvanized	25	0.30	7.10
121000019294	TSM 10x140 M12x35 <sup>1)</sup>	V4A	25	0.12	12.50

<sup>1)</sup> The components marked with <sup>1)</sup> must be used if you are creating a KUNEX® clamp construction in accordance with the German building code test certificate P-5316/053/14 MPA-BS.

**Crepe rubber strip**

Article number	Type [mm]	PU [m/roll]	Weight [kg/m]	Price per m [€]
121000002832	80 x 4 <sup>1)</sup>	10	0.37	10.50

<sup>1)</sup> The components marked with <sup>1)</sup> must be used if you are creating a KUNEX® clamp construction in accordance with the German building code test certificate P-5316/053/14 MPA-BS.

**Clamping rail with slot, galvanized or V4A**

Article number	Type [mm]	Design	Slot		PU [pcs.]	Weight [kg/m]	Price per m [€]
			Dia. [mm]	No./pcs.			
121000002826	1,450 x 80 x 8	Galvanized	16/30	10	1	6.80	59.70
121000002824	1,450 x 80 x 8 <sup>1)</sup>	Galvanized	20/30	10	1	6.80	59.70
121000002825	1,300 x 80 x 8	V4A	16/30	9	1	6.80	127.60
121000002823	1,300 x 80 x 8 <sup>1)</sup>	V4A	20/30	9	1	6.80	127.60

<sup>1)</sup> The components marked with <sup>1)</sup> must be used if you are creating a KUNEX® clamp construction in accordance with the German building code test certificate P-5316/053/14 MPA-BS.

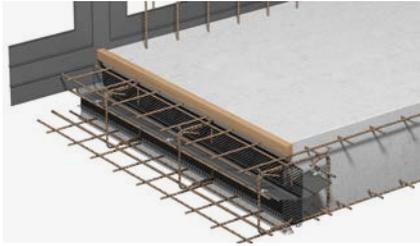
**Special profile, galvanized or VA4**

Article number	Type	Design	Dimensions [mm]	PU [pcs.]	Weight [kg/m]	Price per piece [€]
121000002837	Inner corner	Galvanized	80 x 10 x 80	1	1.20	97.80
121000002835	Outer corner	Galvanized	80 x 10 x 200	1	2.88	142.60
121000002836	Inner corner	V4A	80 x 10 x 80	1	1.20	166.10
121000002834	Outer corner	V4A	80 x 10 x 200	1	2.88	230.20

**Clamping protection profile made of galvanized sheet metal, comes with fastening accessories**

Article number	Profile length [mm]	PU [pcs.]	Weight [kg/pc.]	Price per piece [€]
121000002829	2,000	1	1.50	19.80

## KUNEX® ABS construction joints



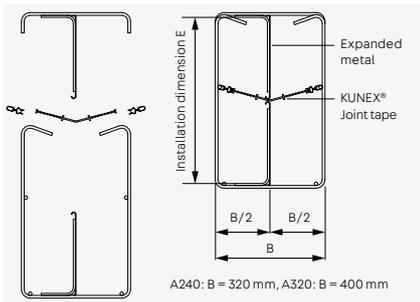
Formwork element for installing internal KUNEX® joint tapes in waterproof construction joints in reinforced concrete construction. Version for forming rough and interlocking joints in line with EC2.

**Please order the KUNEX® joint tape separately.**

- Element length: 2,400 mm

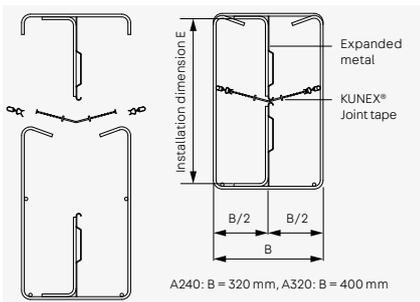
**Other dimensions and versions available on request.**

### KUNEX® ABS A-R / rough joint in line with EC2



Article number	For KUNEX® type	Installation height [mm]	Weight [kg/m]	Price per m [€]
<a href="#">121700013926</a>	A240	150-300	4.45	46.30
<a href="#">121700013927</a>	A240	310-500	6.32	57.20
<a href="#">121700013928</a>	A320	150-300	4.55	48.00
<a href="#">121700013929</a>	A320	310-500	6.42	58.90

### KUNEX® ABS A-V / interlocking joint in line with EC2



Article number	For KUNEX® type	Installation height [mm]	Weight [kg/m]	Price per m [€]
<a href="#">121800013932</a>	A240	150-300	4.65	56.40
<a href="#">121800013933</a>	A240	310-500	6.82	68.20
<a href="#">121800013934</a>	A320	150-300	4.75	58.30
<a href="#">121800013935</a>	A320	310-500	6.95	70.00

Extension products for ABS construction joints	Surcharge [€]
Surcharge for short pieces	10%
Surcharge for off-center joints	10%

## KUNEX® ABS expansion joints



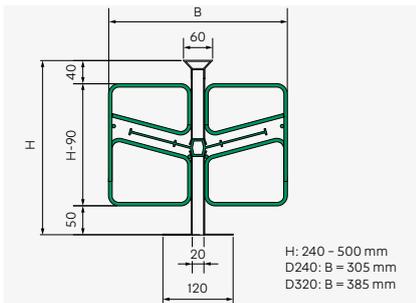
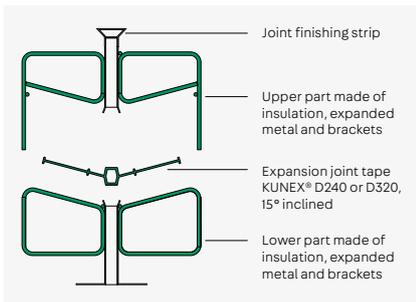
Two-part formwork element for easy installation of internal KUNEX® joint tapes in waterproof expansion joints with a width of 20 mm in reinforced concrete construction. The elements are suitable for KUNEX® D240 expansion joint tapes in combination with floor slabs from 240 mm to 500 mm thick.

**Please order the KUNEX® joint tape separately.**

- Element length: 2,400 mm

**Other dimensions and versions available on request.**

### KUNEX® ABS D



Article number	For KUNEX® type	Installation height [mm]	Weight [kg/m]	Price per m [€]
122200021901	D240	240-300	3.99	96.50
122200021902	D240	310-350	4.53	105.00
122200021903	D240	360-400	4.99	114.20
122200021904	D240	410-450	5.44	124.30
122200021905	D240	460-500	5.89	135.40

Article number	For KUNEX® type	Installation height [mm]	Weight [kg/m]	Price per m [€]
122200021906	D320	240-300	4.19	111.00
122200021907	D320	310-350	4.64	120.70
122200021908	D320	360-400	5.19	131.30
122200021909	D320	410-450	5.56	143.00
122200021910	D320	460-500	6.01	155.70

Extension products for ABS expansion joints	Surcharge [€]
Surcharge for short pieces	10%

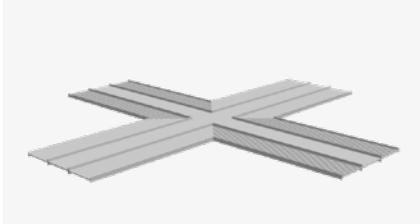
## KUNEX® welded constructions

In addition to standard shaped parts made of construction and expansion joint tapes, we also design and produce customized products according to customer requirements.

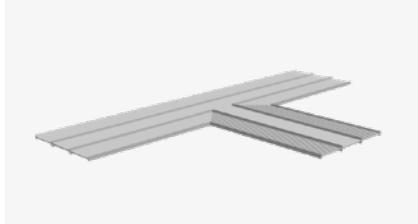
We can produce formwork according to your drawings and specifications. Please get in touch.

Article number	Type	Price [€]
12200002842	KUNEX® welded constructions, <b>indicative service price excluding material costs per welded joint</b>	40.20

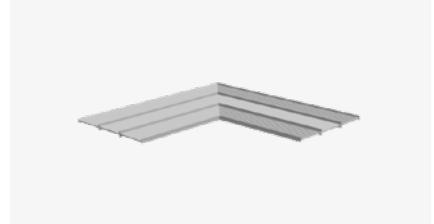
Shape 1 – flat cross



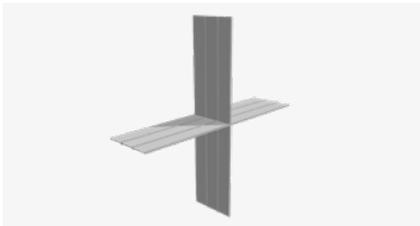
Shape 2 – flat T



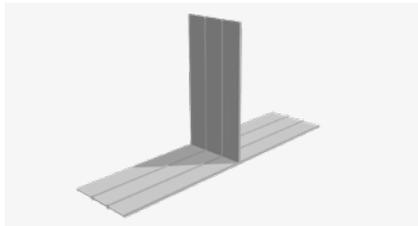
Shape 3 – flat corner



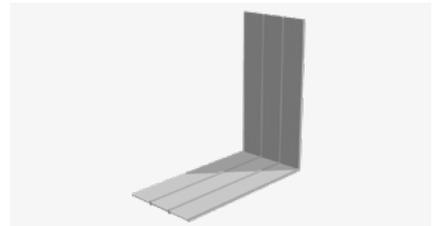
Shape 4 – vertical cross



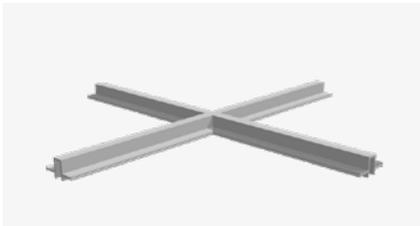
Shape 5 – vertical T



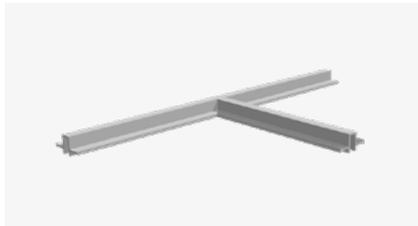
Shape 6 – vertical corner



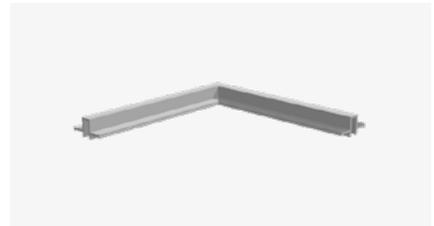
Shape 7 – vertical cross



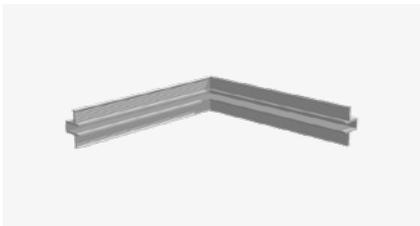
Shape 8 – vertical T



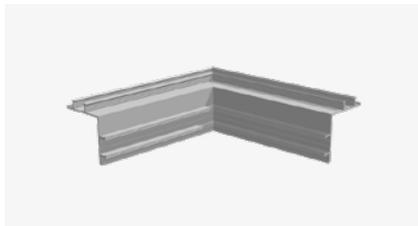
Shape 9 – vertical corner



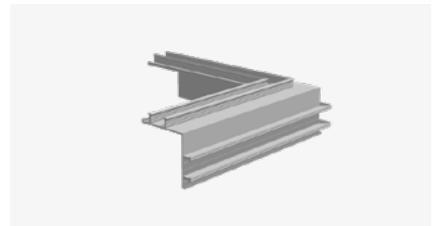
Shape 10 – flat corner



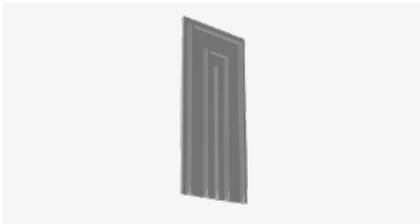
Shape 11 – mirrored corner



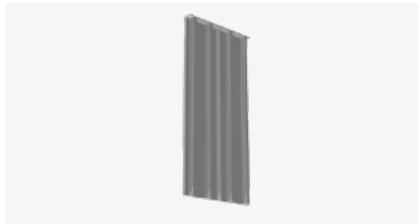
Shape 12 – double-angled corner



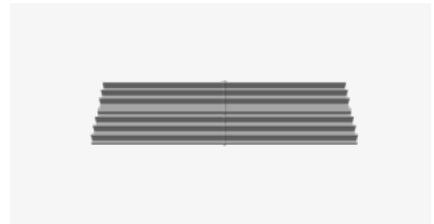
Shape 13 – joint tape lock



Shape 14 – joint tape closure



Shape 15 – butt joint



## KUNEX® pre-cut parts

Design	Price [€]
Cost per cut	20.10
Small quantity surcharge per cut	Prices on request

## KUNEX® welding tools

Article number	Type	PU [pcs.]	Weight [kg/pc.]	Price per piece [€]
121500002818	Quarter moon knife	1	0.09	61.00
121500002822	Hot air gun 1600 watts / 230 volts	1	1.30	622.70
121500004055	Tubular nozzle H 5 mm	1	0.10	90.50
121500020357	Wide slot nozzle 20 mm	1	0.30	90.50

## KUNEX® welding tape

KUNEX® welding tape made from PVC-P (compatible with bitumen) for reinforcing the weld seams of shaped parts.

Article number	Type	Width [mm]	Thickness [mm]	PU [m/roll]	Weight [kg/m]	Price per m [€]
121500002841	BV welding tape	25	3	30	0.1	1.00
121500002840	BV welding tape	30	2	30	0.1	1.00

## KUNEX® fastening accessories

Article number	Type	PU [pcs.]	Weight [kg/pc.]	Price per piece [€]
121500002817	Joint tape clips <sup>1)</sup>	100	0.01	0.40
121500002830	Omega clip	25	0.12	1.20

<sup>1)</sup> Joint tape clip consumption: 8 pcs./m when fastened on both sides

## KUNEX® joint tape connector



Joint tape connector for connecting PVC-P or TPE construction joint tapes.

- Waterproof - tested up to 1.0 bar water pressure
- No welding necessary
- Mount directly whilst installing the tape
- Material: Black steel, swelling strip

Article number	Type	Joint tape width [mm]	PU [pcs.]	Weight [kg/pc.]	Price per piece [€]
121500020044	FBV 100	100	1	0.305	29.40
121500020043	FBV 150	150	1	0.455	33.20
121500020041	FBV 190	190	1	0.575	37.20
121500020045	FBV 240	240	1	0.725	41.30
121500020042	FBV 320	320	1	0.975	45.30



Joint tape connections to PENTAFLEX® joint tape connection FBA siehe Seite 10.

## KUNEX® masonry collar MK



Masonry collar for waterproofing PVC, PP, and SML pipes.

- Installed before casting
- With 2 V2A clamps
- Waterproof – tested up to 5.0 bar water pressure
- Material: Black TPE



Installation example

Article number	Type	Clamping range [mm]	PU [pcs./sack]	Weight [kg/pc.]	Price per piece [€]
121600019859	MK 40	38 - 42	25	0.193	16.90
121600019865	MK 50	48 - 53	25	0.227	16.90
121600019860	MK 63	60 - 64	25	0.255	17.50
121600019861	MK 75	71 - 80	25	0.290	18.50
121600019862	MK 90	84 - 92	25	0.325	19.90
121600019767	MK 110	105 - 116	25	0.460	20.90
121600019771	MK 125	120 - 130	20	0.520	28.30
121600019772	MK 160	154 - 166	15	0.630	32.90
121600019773	MK 200	195 - 210	10	0.770	42.20

## KUNEX® masonry collar MK EF/ER



Masonry collar for waterproofing flat and round earthing strips.

- Installed before casting
- With 2 V2A clamps
- Material: Black TPE

Article number	Type	Clamping range [mm]	PU [pcs./sack]	Weight [kg/pc.]	Price per piece [€]
121600019863	MK EF	30x3 - 3.5	25	0.156	19.90
121600019864	MK ER	8 - 10	25	0.127	19.90

# PLURAFLEX®

## PLURAFLEX® C11



Injection hose for low-viscosity injection materials:  
PU resins, PU foams

- **abP**
- Filling quantity per meter of hose approx. 0.20 kg + 1-3 kg for injection (guidelines)
- Maximum injection length: 10 m
- Easy to inject
- Sold and delivered only in full packaging units

Article number	External dimensions [mm]	Internal dimensions [mm]	PU [roll/m]	Pallet [roll/m]	Weight [kg/roll]	Price per m [€]
130100005012	11	6	1 / 50	50 / 2,500	5.50	4.10

## PLURAFLEX® P11



Injection hose for injection glue, fine-grain cements, and low-viscosity injection materials:  
PU resins, PU foams

- **abP**
- Filling quantity per meter of hose approx. 0.20 kg + 1-3 kg for injection (guidelines)
- Maximum injection length: 10 m
- For multiple injection
- Sold and delivered only in full packaging units

Article number	External dimensions [mm]	Internal dimensions [mm]	PU [roll/m]	Pallet [roll/m]	Weight [kg/roll]	Price per m [€]
130100005014	11	6	1 / 100	25 / 2,500	11.00	9.30

## PLURAFLEX® P19



Injection hose for Portland cements, injection glues, fine-grain cements, and low-viscosity injection materials: PU resins, PU foams

- **abP**
- Filling quantity per meter of hose approx. 0.38 kg + 1-3 kg for injection (guidelines)
- Maximum injection length: 10 m
- For multiple injection
- Sold and delivered only in full packaging units

Article number	External dimensions [mm]	Internal dimensions [mm]	PU [roll/m]	Pallet [roll/m]	Weight [kg/roll]	Price per m [€]
130100005015	19	11	1 / 100	10 / 1,000	20.00	11.50

## PLURAFLEX® C11 active



Injection hose with rubber waterstop tape for low-viscosity injection materials:  
PU resins, PU foams

- Hose dimensions: external 11 mm / internal 6 mm
- Filling quantity per meter of hose approx. 0.20 kg + 1-3 kg for injection (guidelines)
- Delivery consists of injection hose and rubber waterstop tape
- Maximum injection length: 10 m
- Sold and delivered only in full packaging units

Article number	Hose PU [roll/m]	Tape PU [roll/m]	Complete PU Per [m]	Weight [kg/PU]	Price per m [€]
130100005013	1 / 50	10 / 5	50	21.50	19.20

## PLURAFLEX® plastic clips



For fastening PLURAFLEX® injection hoses and PLURAFLEX® C11 active to concrete.

- Bore: dia. 6 mm
- Consumption per m of PLURAFLEX® injection hose:  
Approx. 7 clips/m depending on nature of surface
- C11 active clip without fasteners

Article number	For hose dia. [mm]	PU [pcs./bag]	PU [bag/box]	Weight [kg/box]	Price per 100 pcs. [€]
130200005076	11	100	10 / 1,000	3.50	42.30
130200005078	19	100	10 / 1,000	3.50	48.90
130200005079	C11 active	100	6 / 600	0.80	35.70

## PLURAFLEX® joint sheet clip



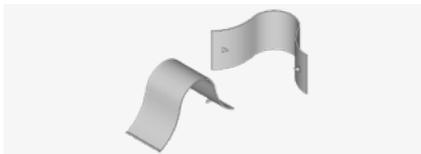
For fastening PLURAFLEX® injection hoses to joint sheets.

The PLURAFLEX® injection hose is clamped to the joint sheet using joint sheet clips.

- Consumption per meter: approx. 7 clips

Article number	For hose dia. [mm]	PU [pcs./box]	Weight [kg/box]	Price per 100 pcs. [€]
130200005061	11	100	1.50	49.10

## PLURAFLEX® joint tape clip



For fastening PLURAFLEX® injection hoses to joint tape.

The PLURAFLEX® injection hose is clamped to the joint tape using joint tape clips.

- Consumption per meter: approx. 7 clips

Article number	For hose dia. [mm]	PU [pcs./box]	Weight [kg/box]	Price per 100 pcs. [€]
130200005060	11	100	1.50	91.40

## PLURAFLEX® spider



Reinforcement mount for attaching 2 PLURAFLEX® 2-part packers.

Article number	PU [pcs./box]	Weight [kg/box]	Price per piece [€]
130200005047	25	3.00	5.60

## PLURAFLEX® 2-part packers

2-part



Packers for mounting injection hoses on the spider.

Article number	PU [pcs./bag]	Weight [kg/box]	Price per piece [€]
130200005090	25	2.00	4.10

## PLURAFLEX® hose clamp



For fastening the 2-part packers and injection nozzles to the hoses.

Article number	PU [pcs./box]	Weight [kg/box]	Price per 100 pcs. [€]
130100005033	100	1.00	259.80

## PLURAFLEX® foam rubber



Foam rubber with adhesive on one side for sticking to PLURAFLEX® 2-part packers.

Article number	Type	Color/thickness [mm]	PU [pcs./bag]	Weight [kg/box]	Price per 100 pcs. [€]
130200005082	MR 10	Red / 10	50	0.50	168.60
130200005084	MW 10	White / 10	50	0.50	168.60

## PLURAFLEX® injection fitting M8

For 2-part packers



Injection fitting for connecting to PLURAFLEX® 2-part packers.

Article number	Type	For injection material	PU [pcs./box]	Weight [kg/box]	Price per 100 pcs. [€]
130200005072	IVH	Resin	100	1.00	70.30

## PLURAFLEX® protective box



For protecting the filling and venting hoses in the concrete component.

Article number	Length [mm]	Width [mm]	Height [mm]	PU [pcs./box]	Weight [kg/box]	Price per piece [€]
130200005099	100	100	50	20	6.50	12.80

## PLURAFLEX® filling/venting hose



Textile-reinforced PVC-hose for filling and venting the injection hoses.

- Max. pressure: 120 bar

Article number	Color	External dimensions [mm]	Internal dimensions [mm]	PU [roll/m]	Pallet [roll/m]	Weight [kg/roll]	Price per m [€]
130200005051	Red	11	7	1 / 50	48 / 2400	6.50	2.80
130200005052	White	11	7	1 / 50	48 / 2400	6.50	2.80

## PLURAFLEX® plugs



For closing the filling and venting hoses.

Article number	PU [pcs./bag]	Box [bag/pcs.]	Weight [kg/box]	Price per 100 pcs. [€]
130200005048	100	10 / 1,000	1.00	21.10

## PLURAFLEX® coupling C11



For connecting PLURAFLEX® C11 with filling and venting hoses.

Article number	PU [pcs./bag]	Weight [kg/box]	Price per piece [€]
130200005080	100	1.00	1.40

## PLURAFLEX® spout



Plastic hose for connecting PLURAFLEX® P11 with filling and venting hose (PVC red/white).

Article number	External dimensions [mm]	Internal dimensions [mm]	PU [roll/m]	Box [roll/m]	Weight [kg/roll]	Price per m [€]
130200005049	6	4	1 / 50	10 / 500	2.00	3.20

## PLURAFLEX® heat-shrink tube



Heat-shrink tube for securing the connection between PLURAFLEX® P11 and P19 and the filling and venting hose (PVC red/white).

Article number	Type	Dia. [mm]	PU [roll/m]	Box [roll/m]	Weight [kg/roll]	Price per m [€]
130200005063	HSS 11	12	1 / 50	10 / 500	2.00	6.00
130200005064	HSS 19	21	1 / 30	10 / 300	2.00	7.70

## PLURAFLEX® injection nozzle



For connecting to the filling and venting hose.

Article number	PU [pcs.]	Weight [kg/box]	Price per piece [€]
130200005095	100	1.00	2.70

## PLURAFLEX® injection fitting M6

For injection nozzles



Injection fitting for connecting to PLURAFLEX® injection nozzle.

Article number	Type	For injection material	PU [pcs./box]	Weight [kg/box]	Price per 100 pcs. [€]
130200005067	IVH	Resin	100	1.00	70.30
130200005068	IVZ	Cement	100	1.00	70.30

## PLURAFLEX® set XL C11



Service pack, set consisting of:

- PLURAFLEX® C11 injection hose 50 m
- Plastic clips 200 pcs., 2-part packer 12 pcs., foam rubber 12 pcs., hose clamp 36 pcs., coupling C11 12 pcs., yellow plug 12 pcs.
- Filling hose red 6 x 40 cm, venting hose white 6 x 40 cm

**Delivery within 24 hours on request (plus express delivery fee)**

Article number	For injection hose type	PU [box]	Weight [kg/box]	Price per set [€]
130200024504	C11	1	13.69	454.80

## PLURAFLEX® set S C11/P11



Service pack:

Package of packers and spider fittings for PLURAFLEX® C11 and P11.

Set consisting of:

- 1 pc. spider II, 2 pcs. 2-part packer, 2 pcs. hose clamp, 1 pc. Foam rubber black / 10 mm,
- 1 pc. foam rubber gray / 10 mm

Article number	For injection hose type	PU [box]	Weight [kg/box]	Price per set [€]
130200026828	C11/P11	1	1.00	35.60

## PLURAFLEX® set V C11



Service pack:

package of PVC hose and protective box for PLURAFLEX® C11.

Set consisting of:

- 1 pc. protective box, 1 pc. filling hose red / 500 mm, 1 pc. venting hose white / 500 mm, 2 pcs. coupling C11, 2 pcs. yellow plug

Article number	For injection hose type	PU [box]	Weight [kg/box]	Price per set [€]
130200026829	C11	1	1.00	35.60

## PLURAFLEX® set V P11



Service pack:

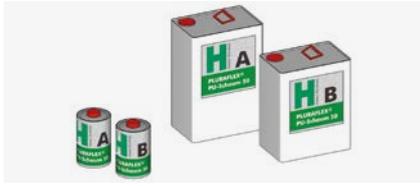
package of PVC hose and protective box for PLURAFLEX® C11.

Set consisting of:

- 1 pc. protective box, 1 pc. filling hose red / 500 mm, 1 pc. venting hose white / 500 mm, 2 pcs. yellow plug, 1 pc. spout, 1 pc. heat-shrink tube HSS11, 1 pc. superglue

Article number	For injection hose type	PU [box]	Weight [kg/box]	Price per set [€]
130200026830	P11	1	1.00	35.70

## PLURAFLEX® PUR injection foam resin 50



### WEBAC® 150

Moisture-reactive 2-component injection foam resin for sealing water-bearing cracks and leaks. Quick-foaming.

- Suitable for use in drinking water areas (KTW)
- Combination product: **abP** in line with Rili-SIB and ZTV-ING (RISS) (concrete construction and repair guidelines); on the BAST list of tested materials and systems.

Article number	PU	Comp. A [kg]	Comp. B [kg]	Total weight [kg]	Price per kg [€]
130300005024	Can	0.45	0.55	1.00	43.30
130300019087	Canister	5.00	6.20	11.20	35.10
130300005025	Canister	10.50	13.00	23.50	32.50

## PLURAFLEX® PUR injection resin 05



### WEBAC® 1405

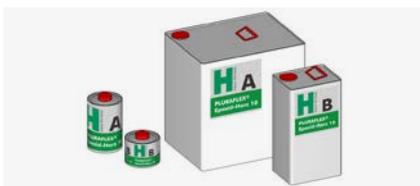
Highly effective 2-component injection resin for sealing cracks and injection of injection hoses. For sealing cracks with a specific level of elasticity.

Low foam formation on contact with moisture. Pre-inject with PLURAFLEX® PU foam 50 in the presence of flowing water under hydrostatic pressure.

- Suitable for use in drinking water areas (KTW). Fulfills the requirements of DIN EN 1504-5 (conformity assessment procedure 2+)
- Combination product: **abP** in line with Rili-SIB and ZTV-ING (RISS) (concrete construction and repair guidelines); on the BAST list of tested materials and systems.

Article number	PU	Comp. A [kg]	Comp. B [kg]	Total weight [kg]	Price per kg [€]
130300005019	Can	0.65	0.355	1.00	42.00
130300005023	Canister	5.00	2.75	7.75	31.10
130300005020	Canister	10.00	5.50	15.50	29.00

## PLURAFLEX® EP injection resin



### WEBAC® 4110

Two-component EP injection resin for friction-locked bonds.

Combination product: **abP** in line with Rili-SIB and ZTV-ING (RISS) (concrete construction and repair guidelines); on the BAST list of tested materials and systems.

External inspection: fulfills the requirements of DIN EN 1504-5 (conformity assessment procedure 2+)

Article number	PU	Comp. A [kg]	Comp. B [kg]	Total weight [kg]	Price per kg [€]
130300005053	Can	0.71	0.29	1.00	47.00
130300005054	Canister	1.00	0.40	1.40	38.70
130300019547	Canister	5.00	2.00	7.00	33.10

# SWELLFLEX®

## SWELLFLEX® BS



Bentonite waterstop tape

- **abP**
- Sold and delivered only in full boxes.

Article number	Type	Width [mm]	Height [mm]	PU [m/roll]	PU [m/box]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
140100021827	BS 16/21	21	16	6	30	900	0.60	5.00
140100021828	BS 18/24	24	18	6	30	900	0.90	5.90

## SWELLFLEX® BT



Bentonite waterstop tape with anti-moisture protective coating

- **abP**
- Sold and delivered only in full boxes.

Article number	Type	Width [mm]	Height [mm]	PU [m/roll]	PU [m/box]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
140100021829	BT 16/21	21	16	6	30	900	0.60	8.20
140100021830	BT 18/24	24	18	6	30	900	0.90	9.10

## SWELLFLEX® RB



Rubber waterstop tape

- **abP**
- Sold and delivered only in full boxes.

Article number	Type	Width [mm]	Height [mm]	PU [m/roll]	PU [m/box]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
140100005105	RB 18/7	18	7	12	72	2,592	0.19	8.80
140100005107	RB 23/15	23	15	6	30	540	0.22	17.50
140100005108	RB round	Dia. 23	Dia. 23	5	20	500	0.28	21.80

## SWELLFLEX® mounting channel

Metal



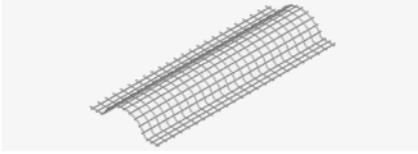
For fastening SWELLFLEX® bentonite waterstop tape to concrete. The rail is fixed in place using conventional fasteners.

- Consumption per m of SWELLFLEX® mounting channel: approx. 5 nails

Mounting channel with waterstop tape

Article number	Element length [mm]	PU [m/bundle]	PU [m/pal.]	Weight [kg/m]	Price per m [€]
140200005113	1,000	30	360	0.50	2.20

## SWELLFLEX® mesh



For fastening SWELLFLEX® bentonite and rubber waterstop tapes.

Article number	Mesh length [mm]	PU [pcs./bundle]	PU [pcs./pal.]	Weight [kg/bundle]	Price per m [€]
140200005110	1,000	30	720	1.80	2.10

## M-Flex assembly adhesive and sealing compound



For fastening SWELLFLEX® bentonite and rubber waterstop tapes.

- High yield of approx. 10 m depending on nature of surface

Article number	PU [ml/pc.]	PU [pcs./box]	Weight [kg/pc.]	Price per piece [€]
140200018575	290	20	0.53	16.30

# SECUFLEX®



SECUFLEX® pre-applied waterproofing system is a full-surface sealing system consisting of HDPE waterproofing membranes and various waterproofing tapes. It is used in combination with a waterstop system (e.g. PENTAFLEX®) in watertight structures as an additional measure to keep out water under hydrostatic pressure. An adhesive layer combined with a special granulate creates an anti-tracking bond between the waterproofing layer and the concrete so that any cracks that occur in the water-tight concrete construction are reliably bridged and remain permanently dry.

**With general suitability certification according to DBV fact sheet (5 bar, performance class 3) and ETA.**

## SECUFLEX® SMT



HDPE waterproofing membrane as pre-applied waterproofing membrane with adhesive layer and special granulate.

- **With 75 mm wide integrated longitudinal adhesive strip**
- Highly flexible, crack-bridging, and with anti-tracking properties
- Quick, easy, and reliable installation of pre-applied waterproofing membranes
- Radon-proof

Article number	Type	Length [m]	Width [mm]	Thickness [mm]	PU [m <sup>2</sup> /roll]	PU [rolls/pal.]	Weight [kg/m <sup>2</sup> ]	Price per m <sup>2</sup> [€]
160100019586	SMT 1212	20	1,200	1.2	24	16	1.70	27.30

## SECUFLEX® ST roll



HDPE sealing strips with an adhesive layer, without special granulate, for subsequent covering of joints or for retroactive application on precast elements, such as shafts.

- Highly flexible, crack-bridging, and with anti-tracking properties
- Radon-proof

Article number	Type	Length [m]	Width [mm]	Thickness [mm]	PU [m <sup>2</sup> /roll]	PU [rolls/pal.]	Weight [kg/m <sup>2</sup> ]	Price per m <sup>2</sup> [€]
160100019867	ST 600	20	600	1.2	12	24	0.85	33.00
160100022299	ST 1200	20	1,200	1.2	24	12	0.85	33.00

## SECUFLEX® ST patch



One-sided self-adhesive patches for retroactive repairs on the positive (water) side, e.g., where water has penetrated tie points, and for application on precast elements, such as shafts.

- **Self-adhesive**
- Highly flexible, crack-bridging, and with anti-tracking properties
- Radon-proof

Article number	Type	Length [mm]	Width [mm]	Thickness [mm]	PU [pcs./box]	Weight [kg/m]	Price per m <sup>2</sup> [€]
160100020289	ST 150x150	150	150	1.2	50	1.35	65.80

## SECUFLEX® MT



One-sided self-adhesive sealing tape with laminated HDPE film for joining of butt joints on the positive (water) side, correcting defects, or sealing leaks at tie points.

Article number	Type	Length [m]	Width [mm]	Thickness [mm]	PU [rolls/box]	Weight [kg/m]	Price per m [€]
160100025675	MT 160	20	160	1.2	1	0.20	7.00

## SECUFLEX® PT



Single-sided adhesive sealing tape with special granulate for application on the negative (concrete) side, e.g. to protect butt joints or for securing corners.

Article number	Type	Length [m]	Width [mm]	Thickness [mm]	PU [rolls/box]	Weight [kg/m]	Price per m [€]
160100019825	PT 150	20	150	1.0	1	0.20	6.30

## SECUFLEX® DT



Double-sided self-adhesive sealing tape for bonding membrane to membrane as a replacement or supplement for the adhesive strips of the SMT waterproofing membrane.

Article number	Type	Length [m]	Width [mm]	Thickness [mm]	PU [rolls/box]	Weight [kg/m]	Price per m [€]
160100019819	DT 75	30	75	1.0	4	0.12	3.90

## SECUFLEX® PR



Roller for pressing down adhesive seams.

Article number	Type	Width [mm]	PU [pcs./box]	Weight [kg/pc.]	Price per piece [€]
160100019822	PR 50	50	1.0	0.80	58.40
160100019823	PR 100	100	1.0	1.70	96.50
160100019824	PR 120 L	120	1.0	3.20	290.10

## SECUFLEX® accessories

1-component, solvent-free liquid applied waterproofing for surfaces and connections, e.g. floor slab overhang or pipe lead-throughs.

Tested watertight to 5 bar in the system.

Article number	Type	PU	Weight/run. m.	Price per piece [€]
<a href="#">160100019821</a>	Frankosil® 1K FBV	14 kg bucket	14.00	Prices on request
<a href="#">160100026832</a>	TH 610 (cleaner)	1 liter metal canister	0.90	Prices on request
<a href="#">160100026833</a>	PR 115 (multi plastic primer)	0.5 liter in carton	0.45	Prices on request
<a href="#">160100026835</a>	PR 130 (SL adhesion promoter)	250 ml	0.20	Prices on request
<a href="#">160100026836</a>	Fabric mat	60 m roll	2.00	Prices on request
<a href="#">160100026837</a>	Frankosil Speedfix	2 kg bucket	2.20	Prices on request
<a href="#">160100026838</a>	Silica sand	25 kg sack	25.00	Prices on request





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# Anchor channels

## Anchor channel JTA K, cold-formed

ETA (European Technical Assessment ETA-09/0338)

Profile	JTA K 28/15-CE			JTA K 38/17-CE <sup>1)</sup>			JTA K 40/25-CE <sup>1)</sup>		
Suitable bolts	JD M6-M12			JH M10-M16			JC M10-M16		
Channel length <sup>3)</sup> [mm]	Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]	
		fv	A4/L4		fv	A4/L4		fv	A4
100	2	6.60	18.70	2	8.10	23.00	2	9.60	-
150	2	7.30	20.90	2	8.90	26.70	2	10.70	30.10
200	2	7.90	23.10	2	9.70	30.10	2	11.70	33.90
250	2	8.60	25.40	2	10.70	33.40	2	12.60	40.00
250	3	-	-	3	-	38.50	3	15.10	43.50
300	2	-	-	2	-	-	2	13.50	45.40
300	3	12.90	32.70	3	13.00	41.60	3	16.00	48.90
350	3	13.80	34.90	3	14.40	45.50	3	17.00	54.00
400	3	14.60	37.40	3	15.60	49.40	3	18.10	59.20
550	4	17.70	45.20	4	20.40	64.60	3	21.30	75.90
800	5	22.40	63.00	5	26.10	85.90	4	29.30	107.80
1,050	6	27.00	82.30	6	34.20	116.30	5	37.70	138.10
3,000	16	72.80	219.60	16	85.10	330.80	13	97.70	376.10
6,000	31	138.60	418.20	31	162.00	630.00	25	186.00	716.40
Per running m <sup>2)</sup>	5/m	23.10	69.70	5/m	27.00	105.00	4/m	31.00	119.40
Weight [kg/m] <sup>2)</sup>		1.30	1.21		2.22	2.05		2.48	2.11
Standard cutting surcharge		10%	10%		10%	10%		10%	10%

<sup>1)</sup> Hot-dip galvanized (fv) version also available with shortened anchors (installation height of JTA K 38/17 approx. 55 mm; JTA K 40/25 approx. 65 mm; not part of the ETA). Prices on request.

<sup>2)</sup> Calculated based on a channel that is 6,000 mm long.

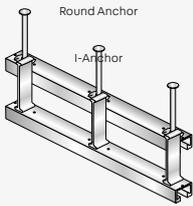
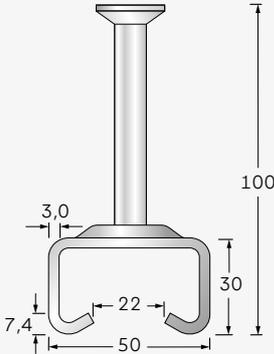
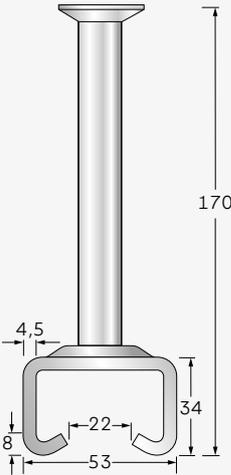
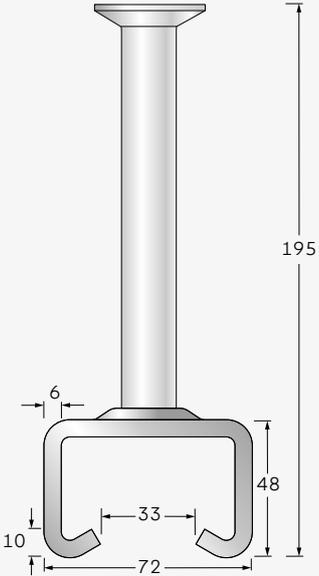
<sup>3)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

### Further information

- All prices include foam filling and nail holes
- Manufactured lengths: 6,000 mm (-0/+50 mm)
- Anchor edge clearances: 25-35 mm
- Cut lengths: 1,050 mm <L <6,000 mm (+/- 5 mm)
- Special lengths: Special lengths are subject to a 20% surcharge due to increased production costs
- Special length 6,070 mm available on request

### Anchor type

- Round anchor = Standard version
- I-anchor = Delivery subject to confirmation

Profile	JTA K 50/30-CE			JTA K 53/34-CE			JTA K 72/48-CE		
Suitable bolts	JB M10-M20			JB M10-M20			JA M20-M30		
									
Channel length <sup>2)</sup> [mm]	Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]	
		fv	A4		fv	A4		fv	A4
150	2	13.50	35.40	2	21.70	58.30	2	34.20	111.40
200	2	14.80	41.50	2	24.40	71.30	2	38.20	126.80
250	2	15.90	48.00	2	27.30	82.90	2	42.30	142.00
250	3	19.60	53.40	3	-	-	3	-	-
300	2	17.10	55.50	2	30.00	96.80	2	46.30	157.10
300	3	20.80	-	3	35.10	-	3	-	-
350	3	22.10	67.30	3	37.80	117.50	2	50.40	172.30
400	3	23.80	74.50	3	40.40	130.50	3	63.70	217.20
550	3	27.50	96.10	3	47.80	167.40	3	78.80	262.60
800	4	37.90	135.90	4	68.70	240.10	4	110.40	366.50
1,050	5	46.70	177.20	5	90.00	308.70	5	142.10	465.00
3,000	13	129.20	496.80	13	214.20	776.80	11	397.80	1,245.80
6,000	25	246.00	946.20	25	408.00	1,479.60	21	757.80	2,373.00
Per running m <sup>3)</sup>	4/m	41.00	157.70	4/m	68.00	246.60	3.5/m	126.30	395.50
Weight [kg/m] <sup>3)</sup>		3.62	3.17		5.61	5.10		9.97	9.24
Standard cutting surcharge		10%	10%		10%	10%		10%	10%

<sup>2)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

<sup>3)</sup> Calculated based on a channel 6,000 mm long.

**Version and material**

- K = Cold-formed
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

**Example order for short anchor channel pieces**

Type	Profile size	Channel length	Anchor	Design	ETA-compliant
JTA	K 50/30	250	2A	fv	CE

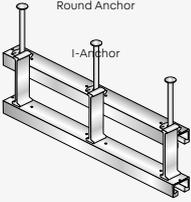
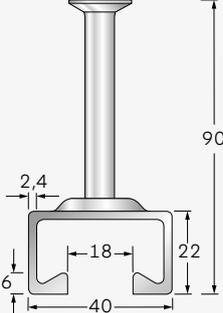
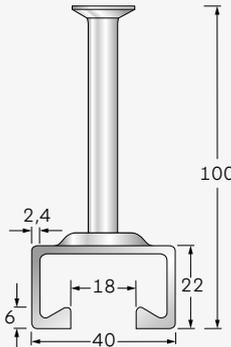
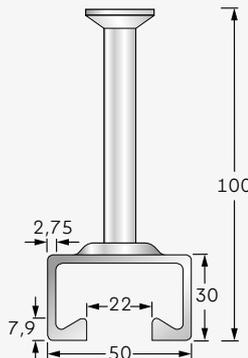
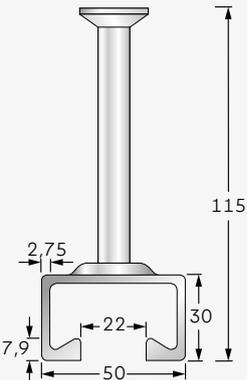


Suitable bolts and various accessories for all channels can be found starting on page 65.

For sample calculations of regular lengths and custom lengths, see page 64.

## Anchor channels JTA W, hot-rolled

ETA (European Technical Assessment ETA-09/0338)

Profile	JTA W 40/22-CE <sup>1)</sup>		JTA W 40+CE		JTA W 50/30-CE <sup>1)</sup>		JTA W 50+CE		
Suitable bolts	JC M10-M16		JC M10-M16		JB M10-M20		JB M10-M20		
									
Channel length <sup>3)</sup> [mm]	Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]	
		Design			Design			Design	
		fv	A4		fv	A4		fv	A4
150	2	11.90	37.20	2	13.30	41.40	2	15.80	55.00
200	2	12.20	45.50	2	14.90	49.50	2	18.70	66.30
250	2	14.30	53.90	2	16.20	57.90	2	21.30	77.60
250	3	18.00	POR	3	-	-	3	-	-
300	2	16.40	59.90	2	17.60	66.90	2	24.10	89.00
300	3	19.60	POR	3	-	-	3	27.70	99.30
350	3	20.10	72.90	3	23.00	80.90	3	29.00	110.70
400	3	22.10	81.10	3	24.40	89.90	3	31.50	122.00
450	3	28.40	107.50	3	28.80	115.90	3	39.10	156.00
550	4	38.60	157.50	4	39.80	164.70	4	54.30	223.00
800	5	48.20	205.20	5	50.10	213.60	5	70.00	289.90
1300	6	56.30	-	6	POR	-	6	-	-
1550	7	67.20	-	7	POR	-	7	94.50	-
1800	8	78.00	-	8	POR	-	8	109.70	-
2050	9	88.90	-	9	POR	-	9	124.90	-
2300	10	99.70	-	10	POR	-	10	140.20	-
3000	13	124.10	567.90	13	132.90	608.30	13	174.50	797.00
6000	25	236.40	1,081.80	25	253.20	1,158.60	25	332.40	1,518.00
Per running m <sup>2)</sup>	4/m	39.40	180.30	4/m	42.20	193.10	4/m	55.40	253.00
Weight [kg/m] <sup>2)</sup>		2.53	2.32		2.76	2.40		3.90	3.53
Standard cutting surcharge		10%	10%		10%	10%		10%	10%

<sup>1)</sup> Hot-dip galvanized version also available with shortened anchors (part of the ETA). Prices on request.

<sup>2)</sup> Calculated based on a channel that is 6,000 mm long.

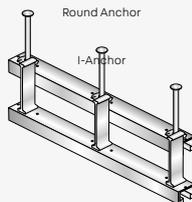
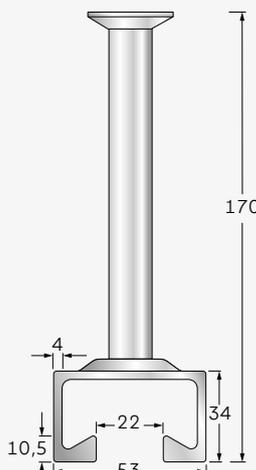
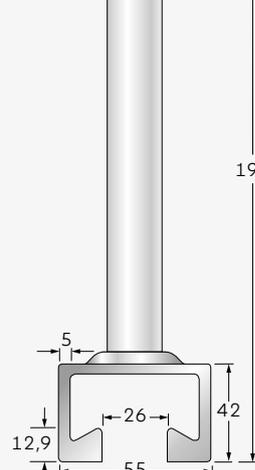
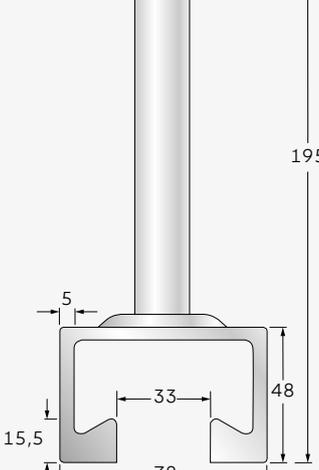
<sup>3)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

### Further information

- All prices include foam filling and nail holes
- Manufactured lengths: 6,000 mm (-0/+50 mm)
- Anchor edge clearances: 25-35 mm
- Cut lengths: 1,050 mm <L <6,000 mm (+/- 5 mm)
- Special lengths: Special lengths are subject to a 20% surcharge due to increased production costs
- Special length 6,070 mm available on request

### Anchor type

- Round anchor = Standard version
- I-anchor = Delivery subject to confirmation

Profile	JTA W 53/34-CE <sup>1)</sup>			JTA W 55/42-CE			JTA W 72/48-CE		
Suitable bolts	JB M10-M20			JB M16-M24			JA M20-M30		
									
Channel length <sup>3)</sup> [mm]	Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]		Number of anchors	Price per piece [€]	
		fv	A4		fv	A4		fv	A4
150	2	22.30	70.80	2	26.10	-	2	35.90	141.90
200	2	25.20	86.10	2	29.50	-	2	40.10	170.00
250	2	28.40	101.20	2	32.80	-	2	44.40	196.70
300	2	31.20	116.30	2	36.40	-	2	48.60	225.00
300	3	36.80	-	3	-	-	3	-	-
350	3	39.60	139.70	2	40.00	-	2	52.80	260.70
400	3	42.50	154.70	3	52.50	-	3	66.70	321.20
550	3	52.60	201.20	3	66.30	-	3	82.50	428.90
800	4	73.50	284.50	4	81.10	-	4	115.70	519.20
1,050	5	94.90	369.80	5	105.10	-	5	148.80	609.30
1,550	7	142.00	-	-	-	-	-	-	-
2,300	10	210.80	-	-	-	-	-	-	-
3,000	13	262.40	1,074.50	11	308.10	-	11	416.70	1,793.90
6,000	25	499.80	2,046.60	21	586.80	-	21	793.80	3,417.00
Per running m <sup>2)</sup>	4/m	83.30	341.10	3.5/m	97.80	-	3.5/m	132.30	569.50
Weight [kg/m] <sup>2)</sup>		6.15	5.60		8.47	-		10.78	9.99
Standard cutting surcharge		10%	10%		10%	-		10%	10%

<sup>1)</sup> Hot-dip galvanized version also available with shortened anchors (part of the ETA). Prices on request.

<sup>2)</sup> Calculated based on a channel that is 6,000 mm long.

<sup>3)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

**Version and material**

- W = Hot-rolled
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

**Example order for short anchor channel pieces**

Type	Profile size	Channel length	Anchor	Design	ETA-compliant
JTA	W 50/30	250	2A	fv	CE

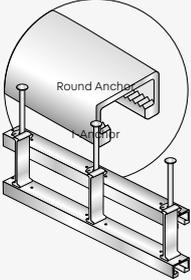
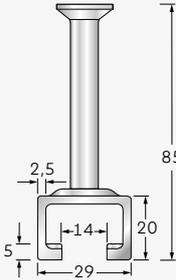
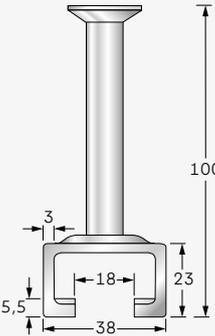
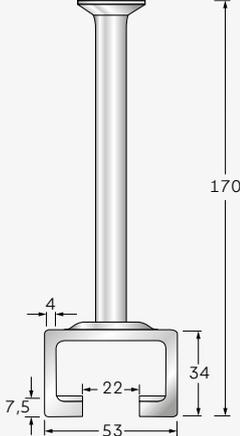
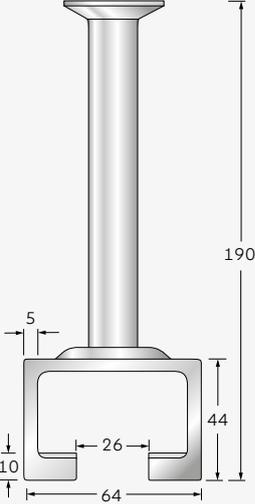


Suitable bolts and various accessories for all channels can be found starting on page 65.

For sample calculations of regular lengths and custom lengths, see page 64.

## Anchor channels JXA W, hot-rolled, toothed

ETA (European Technical Assessment ETA-09/0338)

Profile	JXA W 29/20-CE <sup>3)</sup>		JXA W 38/23-CE <sup>1)</sup>		JXA W 53/34-CE <sup>1)</sup>		JXA W 64/44 <sup>4)</sup>	
Suitable bolts	JXD M10-M12		JXH M12-M16		JXB M16-M20		JXE M20-M24	
								
Channel length <sup>3)</sup> [mm]	Number of anchors	Price per piece [€] Design fv	Number of anchors	Price per piece [€] Design fv A4		Number of anchors	Price per piece [€] Design fv A4	
150	2	11.60	2	15.60	50.90	2	23.40	141.20
200	2	13.10	2	17.60	63.60	2	35.20	169.10
250	2	14.30	2	19.40	76.20	2	43.20	197.30
300	3	18.70	2	21.40	88.10	2	47.10	225.80
350	3	20.10	3	26.80	104.20	3	60.60	265.80
400	3	21.40	3	28.80	117.70	3	65.10	293.30
550	4	25.50	3	34.60	153.50	3	80.70	376.40
800	5	34.20	4	47.70	219.40	4	112.90	528.40
1,050	6	43.90	5	61.20	285.30	5	145.10	680.30
3,000	16	115.60	13	158.10	795.70	13	409.20	1,799.00
6,000	31	220.20	25	301.20	1,515.60	25	779.40	3,426.60
Per running m <sup>2)</sup>	5/m	36.70	4/m	50.20	252.60	4/m	129.90	571.10
Weight [kg/m] <sup>2)</sup>		1.94		2.98	2.76		5.88	5.26
Standard cutting surcharge		10%		10%	10%		10%	10%

<sup>1)</sup> Hot-dip galvanized version also available with shortened anchors (part of the ETA). Prices on request.

<sup>2)</sup> Calculated based on a channel that is 6,000 mm long.

<sup>3)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm

<sup>4)</sup> CE profile for fv with I-anchors

<sup>5)</sup> CE profile for fv with round anchors

### Further information

- All prices include foam filling and nail holes
- Manufactured lengths: 6,000 mm (-0/+50 mm)
- Anchor edge clearances: 25 - 35 mm
- Cut lengths: 1,050 mm <L <6,000 mm (+/- 5 mm)
- Special lengths: Special lengths are subject to a 20% surcharge due to increased production costs
- Special length 6,070 mm available on request

### Version and material

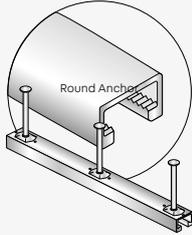
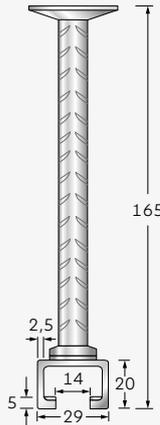
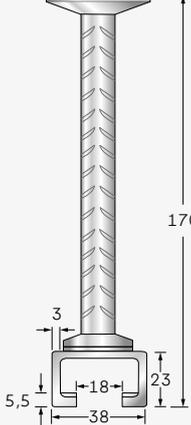
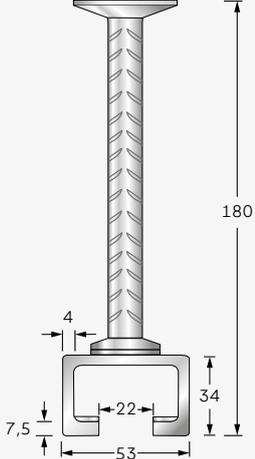
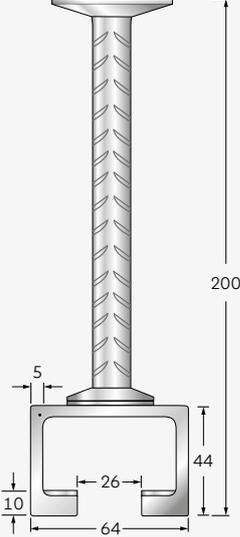
- W = Hot-rolled
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

### Anchor type

- Round anchor = Standard version (except JXA W 64/44)
- I-anchor = Delivery subject to confirmation
- Weights per meter for mill finish, average anchor weight (for galvanized profiles: +10%; for stainless steel profiles: +2%)

## Anchor channels JXA-PC W, hot-rolled, toothed

ETA (European Technical Assessment ETA-09/0338)

Profile	JXA-PC W 29/20	JXA-PC W 38/23	JXA-PC W 53/34 <sup>3)</sup>	JXA-PC W 64/44				
Suitable bolts	JXD M10-M12	JXH M12-M16	JXB M16-M20	JXE M20-M24				
								
Channel length <sup>2)</sup> [mm]	Number of anchors	Price per piece [€] Design fv	Number of anchors	Price per piece [€] Design fv	Number of anchors	Price per piece [€] Design fv	Number of anchors	Price per piece [€] Design fv
150	2	70.60	2	78.10	2	96.60	2	104.60
200	2	76.40	2	84.90	2	105.50	2	116.30
250	2	82.20	2	91.70	2	117.30	2	128.20
300	3	88.00	2	98.40	2	129.20	2	140.00
350	3	97.20	3	109.70	3	139.00	3	178.40
400	3	108.80	3	116.50	3	147.80	3	189.40
550	4	143.70	3	136.80	3	174.10	3	223.40
800	5	164.30	4	167.70	4	218.20	4	310.30
1,050	6	199.30	5	183.20	5	251.00	5	441.70
3,000	16	490.10	13	504.30	13	697.40	13	1,071.30
6,000	31	933.60	25	960.60	25	1,328.40	25	2,040.60
Per running m <sup>1)</sup>	5/m	155.60	4/m	160.10	4/m	221.40	4/m	340.10
Weight [kg/m] <sup>1)</sup>		2.53		3.88		6.33		9.66
Standard cutting surcharge	10%	10%	10%	10%	10%	10%	10%	10%

<sup>1)</sup> Calculated based on a channel 6,000 mm long.  
<sup>2)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm  
<sup>3)</sup> Part of the ETA

### Version and material

- W = Hot-rolled
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

### Example order for toothed anchor channels JXA/JXA-PC

Type	Profile size	-	Channel length	-	Design
JXA	W 38/23	-	6,000	-	fv
JXA-PC	W 38/23	-	6,000	-	fv



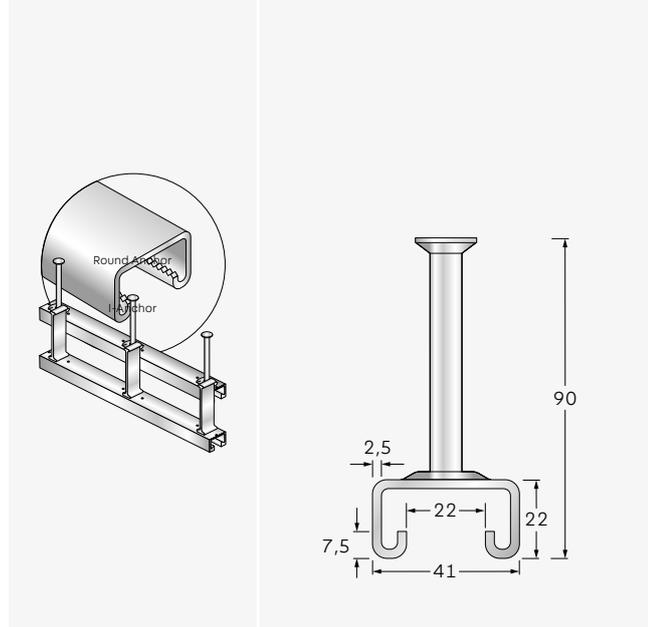
Suitable bolts and various accessories for all channels can be found starting on page 65.

For sample calculations of regular lengths and custom lengths, see page 64.

## Anchor channels JZA K, cold-formed, toothed

ETA (European Technical Assessment ETA-09/0338)

<b>Profile</b>	<b>JZA K 41/22-CE<sup>1)4)</sup></b>
<b>Suitable bolts</b>	JZS M12 - M16



Channel length <sup>3)</sup> [mm]	Num- ber of an- chors	Price per piece [€]	
		fv	Design A4
100	2	11.70	33.00
150	2	13.30	38.50
200	2	14.60	44.10
250	2	15.80	49.70
300	2	17.20	55.10
350	3	21.60	69.00
400	3	23.00	74.90
550	3	27.30	90.90
800	4	37.10	127.50
1,050	5	47.40	164.10
3,000	13	124.10	444.20
6,000	25	236.40	846.00
<b>Per running m<sup>2)</sup></b>	4/m	39.40	141.00
<b>Weight [kg/m]<sup>2)</sup></b>		2.25	2.08
<b>Standard cutting surcharge</b>		10%	10%

<sup>1)</sup> Hot-dip galvanized version also available with shortened anchors (installation height approx. 60 mm; not part of the ETA). Prices on request

<sup>2)</sup> Calculated based on a channel that is 6,000 mm long.

<sup>3)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

<sup>4)</sup> CE profile for fv with round anchors

### Version and material

- K = Cold-formed
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

### Example order for toothed anchor channels JZA

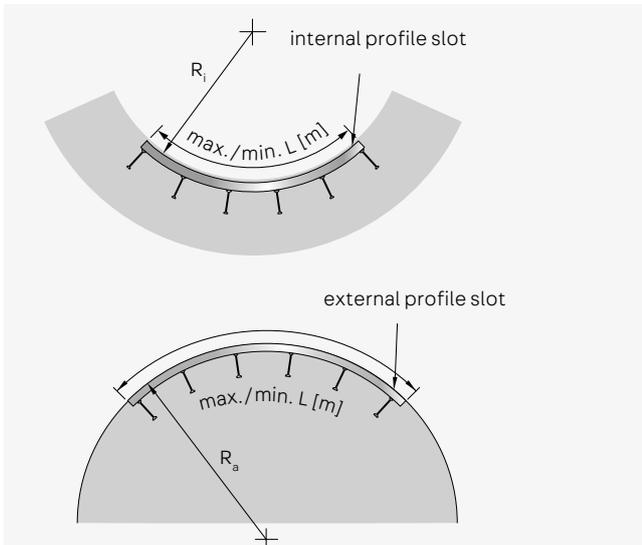
Type	Profile size	- Channel length	- Design
JZA	K 41/22	- 6,000	- fv



Suitable bolts and various accessories for all channels can be found starting on page 65.

All information concerning cut lengths, anchor version etc. can be found on page 64.

## Curved anchor channels JTA, JXA



$R_i$  = interior profile slot;  $R_a$  = exterior profile slot

### Version and material

- K = Cold-formed
- W = Hot-rolled
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

Profile JTA	Design
K 28/15	fv, A4/L4
K 38/17	fv, A4/L4
K 40/25	fv, A4
W 40/22	fv, A4
W 40+	fv, A4
K 50/30	fv, A4
W 50/30	fv, A4
W 50+	fv, A4
K 53/34	fv, A4
W 53/34	fv, A4
W 55/42	fv
K 72/48	fv, A4
W 72/48	fv, A4

Profile JXA	Design
W 29/20	fv
W 38/23	fv, A4

Price per piece [€] on request.

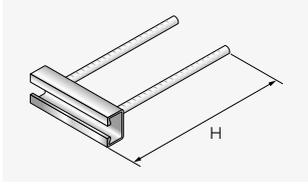
### Example order for curved anchor channels JTA

Type	Profile size	Channel length	Design	Bending radius [mm]
JTA	K 38/17	1,050	fv	$R_i = 1,000$



Suitable bolts and various accessories for all channels can be found starting on page 65.

## Facade fastening channels JTA-RF and JXA-RF



Profile	Profile length <sup>1)</sup> [mm]	Anchor diameter [mm]	Installation height H [mm]	Design	Price per piece [€]
JTA-RF W 40/22	150 - 350	Dia. 10	330	fv, A4	Prices on request
JTA-RF W 50/30	150 - 350	Dia. 12	340	fv, A4	Prices on request
JTA-RF W 53/34	175 - 575	Dia. 14	420	fv, A4	Prices on request
JTA-RF W 55/42	175 - 675	Dia. 16	480	fv, A4	Prices on request
JXA-RF W 38/23	150 - 550	Dia. 12	305	fv, A4	Prices on request
JXA-RF W 53/34	175 - 575	Dia. 16	405	fv, A4	Prices on request

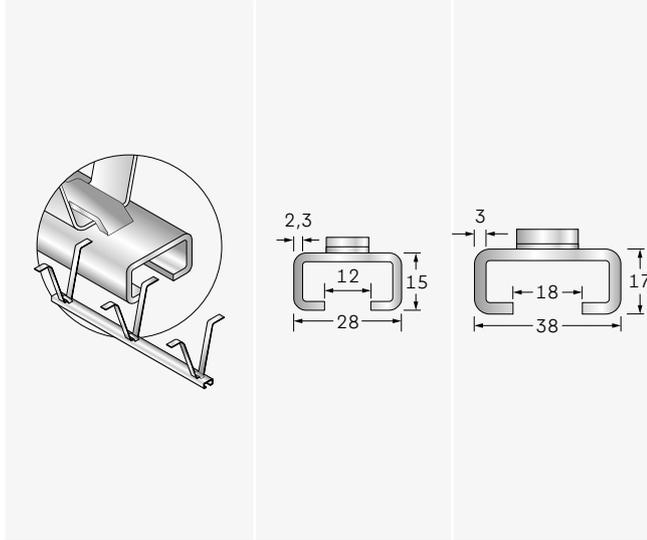
<sup>1)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

### Example order for facade fastening channels JTA-RF

Type	Profile size	Length l	Design
JTA-RF	W 40/22	200	fv

## Anchor channels JSA K

Profile	JSA K 28/15	JSA K 38/17
Suitable bolts	JD M6-M12	JH M10-M16
Mounting bracket type	1.5 × 15 × 320	2 × 20 × 400



Price per piece [€]		Price per piece [€]	
Design		Design	
fv		fv	
With mounting bracket	Without mounting bracket	With mounting bracket	Without mounting bracket

Per running m <sup>2)</sup>	18.00	15.80	35.70	27.30
Weight [kg/m] <sup>2)</sup>	1.35	-	2.30	-
Standard cutting surcharge	10%		10%	

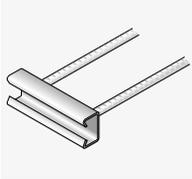


Suitable bolts and various accessories for all channels can be found starting on page 65.

# Railing fastening channels

## Railing fastenings JGB

Straight short pieces, National technical approval (abZ Z.-21.4-1913)

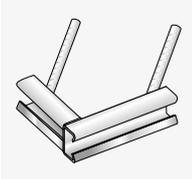
	Profile <sup>2)</sup>	Anchor diameter [mm]	Design	Price per piece [€]					
				Profile length <sup>1)</sup> [mm]					
				100	120	150	200	220	250
 JGB ... G	JGB K 38/17 G-...	Dia. 10 Installation height H = 165 mm	fv	29.30	29.70	30.00	31.00	31.30	32.00
			A4	55.10	56.60	61.00	63.80	65.00	67.80
	JGB K 40/25 G-...	Dia. 12 Installation height H = 200 mm	fv	31.30	31.90	32.20	33.50	33.80	34.40
			A4	57.60	59.00	62.90	67.70	68.90	72.20
 JGB ... DA	JGB K 50/30 G-...	Dia. 12 Installation height H = 225 mm	fv	35.30	35.90	36.70	38.40	39.10	39.90
			A4	64.60	66.30	71.10	78.10	80.30	83.00
	JGB K 53/34 G-...	Dia. 14 Installation height H = 320 mm	fv	42.20	43.60	44.90	47.70	48.70	50.10
			A4	71.10	75.30	81.50	90.80	94.90	100.60
	JGB K 38/17 DA-...	Dia. 10 Installation height H = 120 mm	fv	32.20	32.50	32.90	33.80	34.20	35.00
			A4	-	-	-	-	-	-
	JGB K 40/25 DA-...	Dia. 10 Installation height H = 125 mm	fv	32.60	33.50	33.80	35.30	35.70	36.20
			A4	60.50	62.00	64.10	67.90	69.50	71.10
	JGB K 50/30 DA-...	Dia. 12 Installation height H = 150 mm	fv	36.60	37.20	38.30	40.00	40.70	41.50
			A4	66.60	68.40	71.80	80.40	85.20	85.50
	JGB K 53/34 DA-...	Dia. 14 Installation height H = 250 mm	fv	43.60	44.80	46.40	49.20	50.10	51.80
			A4	73.30	77.60	83.80	93.70	97.80	103.60

<sup>1)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

<sup>2)</sup> W profiles on request.

## Railing fastenings JGB

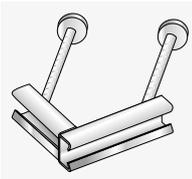
Corner pieces with rebar

	Profile	Anchor diameter [mm]	Design	Price per piece [€]
 JGB ... G	Profile dimensions <sup>1)</sup> l = 170 x 170 mm	Dia. 10	fv	57.90
			A4	116.10
	JGB K 38/17 G-170 x 170	Dia. 12	fv	61.40
			A4	126.30
	JGB K 40/25 G-170 x 170	Dia. 12	fv	65.90
			A4	134.70
	JGB K 50/30 G-170 x 170	Dia. 14	fv	73.00
			A4	165.40

<sup>1)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

## Railing fastenings JGB

Corner pieces with headed anchors

	Profile	Anchor diameter [mm]	Design	Price per piece
 JGB ... DA	Profile dimensions <sup>1)</sup> l = 170 x 170 mm	Dia. 12	fv	Prices on request
			fv, A4	Prices on request
			fv, A4	Prices on request
			fv, A4	Prices on request
			fv, A4	Prices on request

<sup>1)</sup> Tolerance +/- 5 mm for channel lengths <6,000 mm.

### Version and material

- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

### Further information

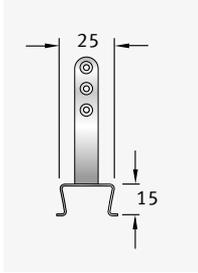
All prices including foam filling and 2 anchors

### Example order for handrail connection channels JGB

Type	Profile size	-	Type	-	Design	-	Length l
JGB	K 38/17	-	G	-	fv	-	200

# Brick tie channels

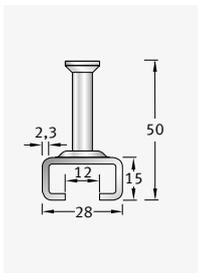
## Brick tie channel Kt



- For brick tie anchors JMA: Series 12
- Weight: 0.34 kg/m
- Manufactured lengths: 2,500 and 5,000 mm (-0/+50 mm)
- Not available in cut lengths

Type	Anchor [pcs./m]	PU [bundle]	Price per m [€]	
			Design	sv
<b>Kt 25/15-D</b>	6/m	100 pcs.	5.50	23.90

## Brick tie channel JTA K 28/15

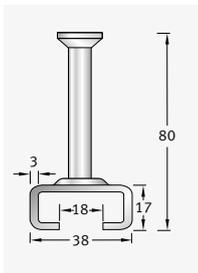


- For brick tie anchors JMA: Series 12
- Weight: 1.20 kg/m

Type	Anchor [pcs./m]	Price per m [€]	
		fv	A4/L4
<b>JTA K 28/15</b>	5/m	23.10	69.70
<b>Cutting surcharge</b>		10%	10%

Manufactured lengths: see page 46

## Brick tie channel JTA K 38/17



- For brick tie anchors JMA: Series 18
- Weight: 2.05 kg/m

Type	Anchor [pcs./m]	Price per m [€]	
		fv	A4/L4
<b>JTA K 38/17</b>	5/m	27.00	105.00
<b>Cutting surcharge</b>		10%	10%

Manufactured lengths: see page 46

### For further information and anchor designs

- For details of lengths, weights, K 38/17 with shortened anchors, and much more, see page 46
- All prices include foam filling and nail holes

### Version and material

- K = Cold-formed
- sv = Sendzimir galvanized
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

### Example order for brick tie channels Kt

Type	Profile size	-	Channel length	Design
Kt	25/15-D	-	2500	sv

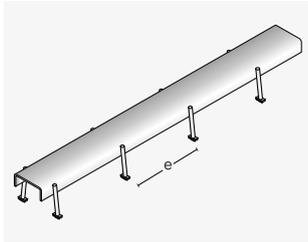


Suitable nail- and brick tie anchors and various accessories for all channels can be found starting on page 79.

# Trapezoidal metal sheet channels

## Trapezoidal metal sheet channels JTB-uni

National technical approval (abZ Z-21.4-161)

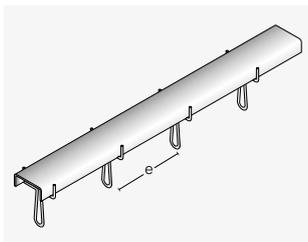


Profile	Material thickness [mm]	Anchor spacing e [mm]	Anchor per 3 m	Weight [kg/m]	Price per m [€]	
					fv	A4
JTB 60/22/3.0-uni <sup>1)</sup>	3	450	8	2.38	POR	POR
	3	150	20	2.51	POR	POR
JTB 60/22/6.0-uni	6	450	8	3.97	POR	-
	6	150	20	4.10	POR	-

Accessories	Price per set [€]	
	fv	A4
End anchor JTB-EB	With 4 drilling screws dia. 4.8 × 16 mm	Prices on request

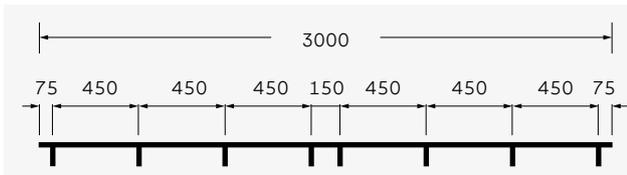
## Trapezoidal metal sheet channels JTB-AR

National technical approval (abZ Z-21.4-161)

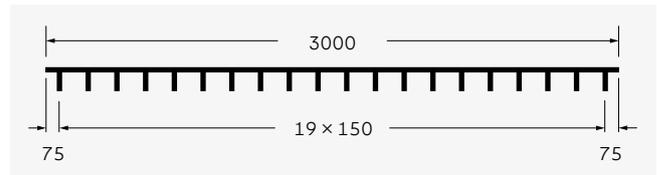


Profile	Material thickness [mm]	Anchor spacing e [mm]	Anchor per 3 m	Weight [kg/m]	Price per m [€]	
					fv	A4
JTB 60/22/3.0-AR <sup>1)</sup>	3	450	8	2.40	POR	POR
	3	150	20	2.51	POR	POR
JTB 60/22/6.0-AR	6	450	8	3.99	POR	-
	6	150	20	4.30	POR	-

### Anchor arrangement



If the anchor spacing is not stated, e = 450 mm will be delivered



Alternative anchor spacing e = 150 mm

## Trapezoidal metal sheet channels JTB-LA

National technical approval (abZ Z.-21.4-2148)

NEW



Profile	Material thickness [mm]	Weight [kg/m]	Price per m [€]	
			fv	A4
JTB 60/24/2.5-LA	2.5	2.13	Prices on request	
JTB 100/24/3.0-LA	3.0	2.96	Prices on request	

### Further information

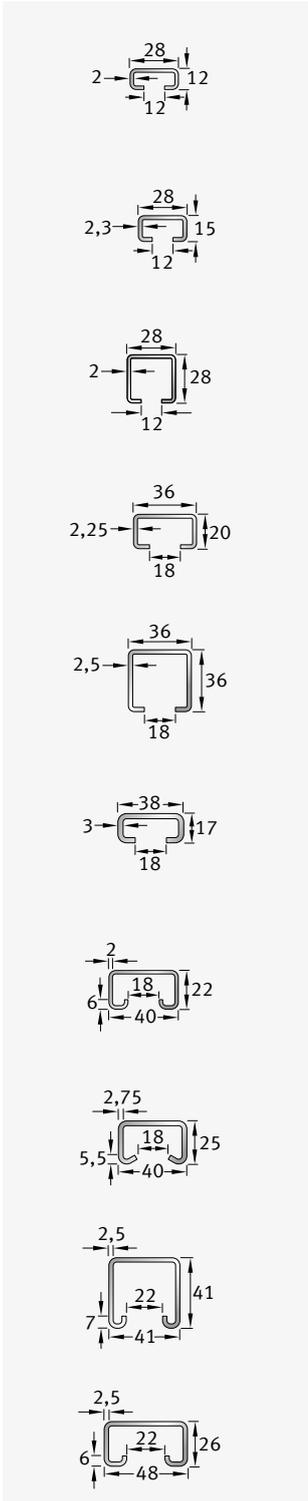
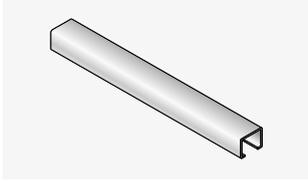
- Prices include foam filling
- Manufactured lengths: 3,000 mm (-0/+50 mm)
- Weights per meter for mill finish version (for galvanized profiles: +10%; for stainless steel profiles: +2%)

### Example order for trapezoidal metal sheet channels JTB

Type	Profile size	Anchor spacing	Anchor shape	Design
JTB	60/22/3.0	450	uni	fv
JTB	60/24/2.5	-	-	fv

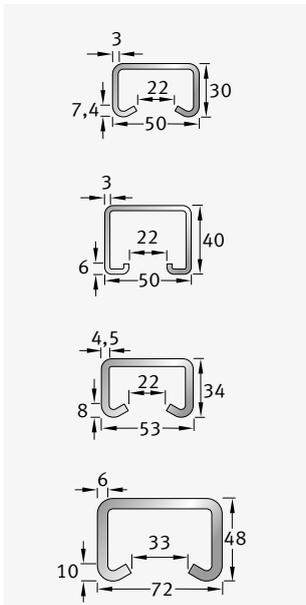
# Mounting channels

## Mounting channels JM K, cold-formed



Profile	Bolt	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JM K 28/12 <sup>1)</sup>	JD M6-M10	0.89	wb	5.40	-
			fv	9.00	-
			A2	33.60	-
			A4	52.80	-
JM K 28/15	JD M6-M12	1.08	wb	6.70	4.80
			fv	10.80	4.80
			A4/L4	52.90	7.20
JM K 28/28 <sup>1)</sup>	JD M6-M12	1.39	wb	7.90	-
			fv	13.90	-
			A4	65.10	-
JM K 36/20 <sup>1)</sup>	JH M10-M16	1.44	wb	8.40	-
			fv	14.60	-
JM K 36/36 <sup>1)</sup>	JH M10-M16	2.20	wb	12.50	-
			fv	21.10	-
			A4	99.60	-
JM K 38/17	JH M10-M16	1.77	wb	10.70	4.80
			fv	17.40	4.80
			A4/L4	84.20	7.20
JM K 40/22	JC M10-M16	1.53	wb	9.00	6.70
			fv	16.10	6.70
JM K 40/25	JC M10-M16	2.01	wb	12.30	6.70
			fv	21.00	6.70
			A2	77.80	10.40
JM K 41/41 <sup>1)</sup>	JAM(F) 22 M6-M12 (channel nuts)	2.61	wb	15.20	-
			fv	25.20	-
			A4	101.50	10.40
JM K 48/26 <sup>1)</sup>	JB M10-M20	2.25	wb	15.90	-
			fv	25.70	-

<sup>1)</sup> Only available in 6,000 mm



Profile	Bolt	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JM K 50/30	JB M10-M20	3.04	wb	17.20	6.70
			fv	30.00	6.70
			A4	150.50	10.40
JM K 50/40 <sup>1)</sup>	JB M10-M20	3.41	wb	20.60	-
			fv	36.30	-
JM K 53/34	JB M10-M20	4.47	wb	22.90	10.60
			fv	38.30	10.60
			A4	188.30	16.30
JM K 72/48	JA M20-M30	8.09	wb	61.10	16.70
			fv	88.70	16.70
			A4	373.90	19.10

<sup>1)</sup> Only available in 6,000 mm

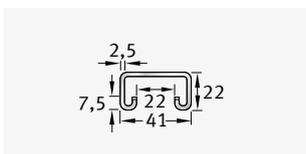
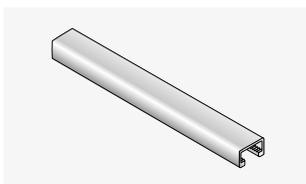
**Further information**

- Manufactured lengths: 6,000 mm (-0/+50 mm)
- Cut lengths: L < 6,000 mm (+/- 5 mm)
- Short pieces < 1,000 mm on request (+/- 5 mm)
- Cut ends not deburred
- Weights per meter for mill finish version (for galvanized profiles: +10%; for stainless steel profiles: +2%)

**Example order for mounting channels JM**

Type	Profile size	Channel length	Design
JM	K 50/30	6,000	fv

**Mounting channels JZM K, cold-formed, toothed**



Profile	Bolt/ channel nuts	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JZM K 41/22	JZS M12-M16	1.88	wb	19.90	6.70
			fv	29.80	6.70
			A4	119.50	10.40

**Version and material**

- K = Cold-formed
- wb = mill finish
- fv = Hot-dip galvanized
- A2 = Stainless steel, corrosion resistance class II (CRC II)
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

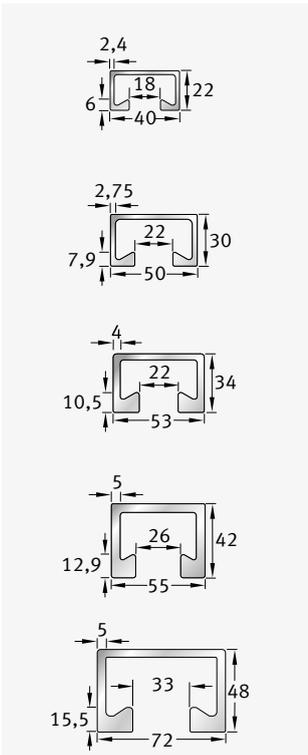
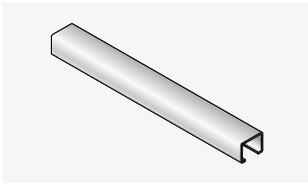


Suitable bolts and various accessories for all channels can be found starting on page 65.

Information on price calculations and cut lengths can be found on page 64.

## Mounting channels JM W, hot-rolled

ETA (European Technical Assessment ETA-15/0386)



Profile	Bolt	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JM W 40/22-CE	JC M10-M16	2.12	wb	17.00	6.40
			fv	26.10	6.40
			A4	150.10	10.10
JM W 50/30-CE	JB M10-M20	3.25	wb	25.10	10.30
			fv	39.60	10.30
			A4	228.20	13.10
JM W 53/34-CE	JB M10-M20	4.96	wb	37.40	16.30
			fv	56.60	16.30
			A4	326.50	18.40
JM W 55/42-CE	JB M10-M24	6.57	wb	51.40	16.30
			fv	58.90	16.30
			A4	513.00	32.60
JM W 72/48-CE	JA M20-M30	8.85	wb	66.30	16.30
			fv	98.70	16.30
			A4	513.00	32.60

### Further information

- Manufactured lengths: 6,000 mm (-0/+50 mm)
- Cut lengths: L < 6,000 mm (+/- 5 mm)
- Short pieces < 1,000 mm on request (+/- 5 mm)
- Cut ends not deburred
- Weights per meter for mill finish version (for galvanized profiles: +10%; for stainless steel profiles: +2%)

### Version and material

- W = Hot-rolled
- wb = mill finish
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

### Example order for mounting channels JM

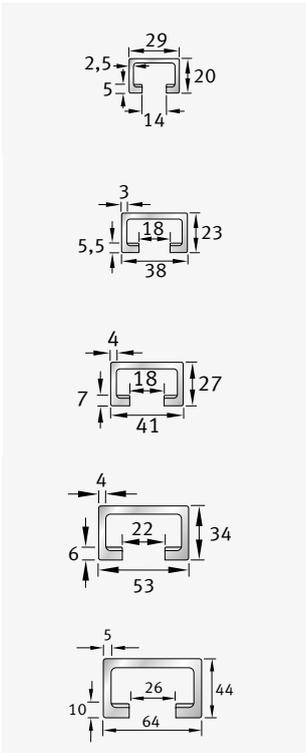
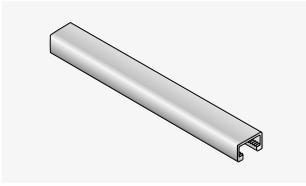
Type	Profile size	Channel length	Design	ETA-compliant
JM	W 50/30	6,000	fv	CE



Suitable bolts and various accessories for all channels can be found starting on page 65.

Information on price calculations and cut lengths can be found on page 64.

## Mounting channels JXM W, hot-rolled, toothed



Profile	Bolt	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JXM W 29/20	JXD M12, JD M6-M12	1.55	wb	17.00	6.40
			fv	26.10	6.40
JXM W 38/23	JXH M12-M16, JH M10-M16	2.42	wb	25.10	10.30
			fv	39.60	10.30
			A4	222.70	13.10
JXM W 41/27 <sup>1)</sup>	JXH M12-M16, JH M10-M16	3.38	wb	37.30	-
			fv	41.40	-
JXM W 53/34	JXB M16-M20	4.65	wb	65.40	16.30
			fv	97.20	16.30
			A4	525.60	32.60
JXM W 64/44	JXE M20-M24	7.19	wb	95.90	23.60
			fv	143.10	23.60

<sup>1)</sup> Only available in 6,000 mm

### Version and material

- K = Cold-formed
- W = Hot-rolled
- wb = mill finish
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)

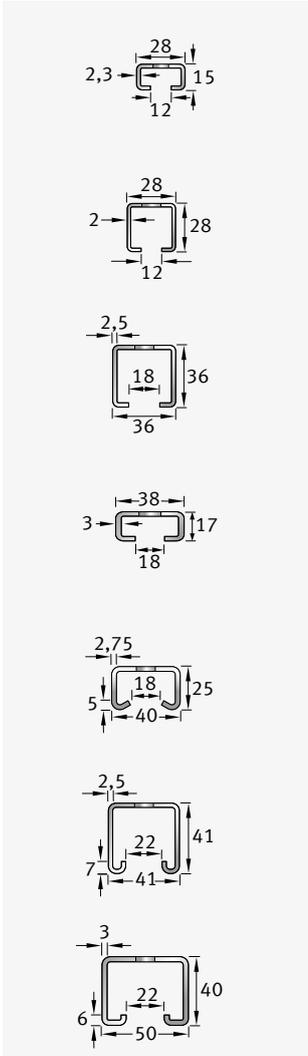
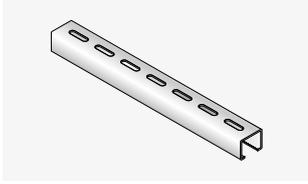
### Example order for toothed mounting channels JXM W

Type	Profile size	-	Channel length	-	Design
JXM	W 53/34	-	6,000	-	fv



Information on price calculations and cut lengths can be found on page 64.

## Mounting channel JML K, cold-formed, perforated



Profile	Bolt	Slot [mm]	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JML K 28/15	JD M6-M12	9 × 25	1.02	wb	7.90	4.80
				fv	12.10	4.80
				A4/L4	57.30	7.20
JML K 28/28 <sup>1)</sup>	JD M6-M12	11 × 40	1.28	wb	9.10	-
				fv	15.20	-
				A4	69.30	-
JML K 36/36 <sup>1)</sup>	JH M10-M16	11 × 40	2.09	wb	14.40	-
				fv	22.40	-
				A4	102.50	-
JML K 38/17	JH M10-M16	11 × 40	1.55	fv	19.80	4.80
				A4/L4	89.00	7.20
				wb	15.20	6.70
JML K 40/25	JC M10-M16	11 × 40	1.86	fv	24.00	6.70
				A4	103.00	10.40
				wb	16.60	-
JML K 41/41 <sup>1)</sup>	JAM (F) 22 M6-M12 (Channel nuts)	11 × 40	2.47	fv	27.10	-
				wb	22.40	-
JML K 50/40 <sup>1)</sup>	JB M10-M20	11 × 40	3.25	fv	37.00	-
				wb	22.40	-

<sup>1)</sup> Only available in 6,000 mm

### Further information

- Slot center distance: 60 mm (other spacings and slots available on request)

### Version and material

- W = Hot-rolled
- K = Cold-formed
- wb = mill finish
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

### Example order for perforated mounting channels JML

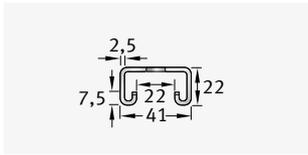
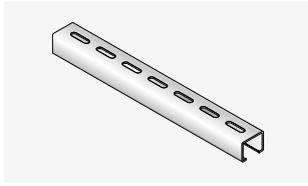
Type	Profile size	Channel length	Design
JML	K 40/25	6,000	fv



Suitable bolts and various accessories for all channels can be found starting on page 65.

Information on price calculations and cut lengths can be found on page 64.

## Mounting channel JZML K, cold-formed, toothed, perforated



Profile	Bolt	Slot [mm]	Weight [kg/m]	Design	Price per m [€]	Cutting surcharge per piece [€]
JZML K 41/22	JZS M12-M16	11 × 40	1.74	wb	21.20	6.70
				fv	31.40	6.70
				A4	124.40	10.40

### Further information

- Slot center distance: 60 mm  
(other spacings and slots available on request)



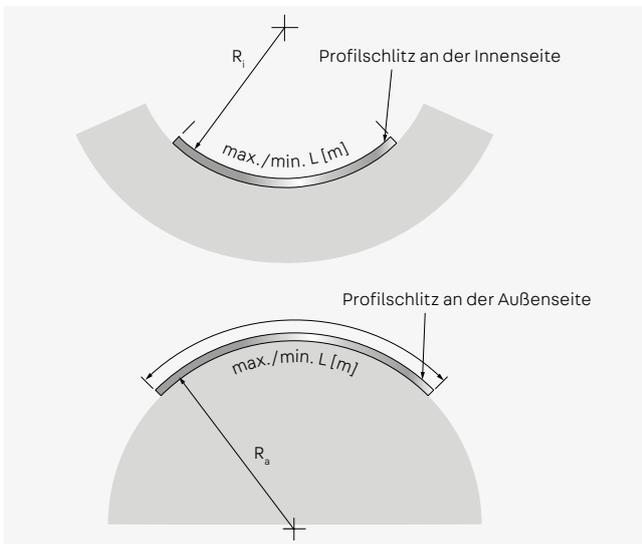
Suitable bolts and various accessories for all channels can be found starting on page 65.

Information on price calculations and cut lengths can be found on page 64.

### Example order for perforated toothed mounting channel JZML

Type	Profile size	Channel length	Design
JZML	K 41/22	6,000	fv

## Curved mounting channels JM, JML, JXM



$R_i$  = interior profile slot;  $R_a$  = exterior profile slot

Profiles JM, JML	Design	Profile JXM	Design
W 72/48	fv, A4	W 38/23	fv, A4
K 72/48	fv, A4	W 29/20	fv
W 55/42	fv		
W 53/34	fv, A4		
K 53/34	fv, A4		
W 50/30	fv, A4		
K 50/30	fv, A4		
W 40/22	fv, A4		
K 40/25	fv, A4		
K 38/17	fv, A4, L4		
K 28/15	fv, A4, L4		

Price per piece [€] on request.

### Version and material

- W = Hot-rolled
- K = Cold-formed
- fv = Hot-dip galvanized
- A2 = Stainless steel, corrosion resistance class II (CRC II)
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

### Example order for curved mounting channel JM

Type	Profile size	Channel length	Design	Bending radius [mm]
JM	K 38/17	1,050	fv	$R_i = 1,000$

## Price calculation for channels

All prices are gross prices.

### Price calculation

#### Version: mill finish/galvanized

	Gross price
+	Steel surcharge
-	Discount
=	<u>Net total</u>

#### Design: Stainless steel A2 or A4

	Gross price
+	Steel surcharge
+	Alloy surcharge
-	Discount
=	<u>Net total</u>

Lengths up to 1,050 mm are short pieces.  
Lengths over 1,050 mm are cut lengths.

### Price calculation for cut lengths (based on the price per meter)

	Price per meter €/m
x	Length
x	Surcharge, alloy surcharge
x	Cutting surcharge %
-	Discount
=	<u>Net total</u>

### Standard cut lengths for anchor channels

The standard cut length surcharge is 10%

#### Anchor channels with max. anchor spacing of 200 mm:

JTA K 38/17, JTA K 28/15,  
JXA W 29/20, JXA-PC W 29/20

#### Standard cut lengths [mm]

1,250	2,250	3,250	4,250	5,250
1,450	2,450	3,450	4,450	5,450
1,650	2,650	3,650	4,650	5,650
1,850	2,850	3,850	4,850	5,850
2,050	3,050	4,050	5,050	

#### Anchor channels with max. anchor spacing of 250 mm:

JTA W 53/34, JTA W 50/30, JTA W 40/22, JTA W 40+, JTA W 50+,  
JTA K 53/34, JTA K 50/30, JTA K 40/25,  
JXA W 64/44, JXA W 53/34, JXA W 38/23,  
JXA-PC W 64/44, JXA-PC W 53/34, JXA-PC W 38/23,  
JZA K 41/22

#### Standard cut lengths [mm]

1,300	2,300	3,300	4,300	5,300
1,550	2,550	3,550	4,550	5,550
1,800	2,800	3,800	4,800	5,800
2,050	3,050	4,050	5,050	

#### Anchor channels with max. anchor spacing of 300 mm:

JTA W 72/48, JTA W 55/42,  
JTA K 72/48

#### Standard cut lengths [mm]

1,250	2,450	3,650	4,850
1,550	2,750	3,950	5,150
1,850	3,050	4,250	5,450
2,150	3,350	4,550	5,750

### Special lengths

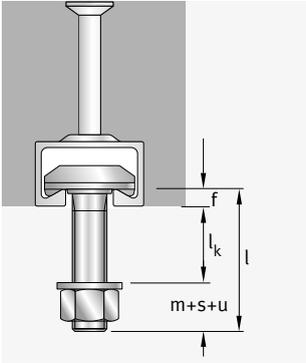
All other cut lengths are special lengths. This calculation is based on a cutting surcharge of 20% (increased production costs).

### Mounting channels

The cutting surcharge stated in the price list is charged per piece for mounting channels. There are no standard cut lengths of mounting channels.

# Special bolts

## Determining the bolt length



- l = T-bolt length
- $l_k$  = Clamping length (thickness of the attached part)
- f = Profile lip, see profile pages
- m = Nut height  
EN ISO 4032
- s = Washer thickness  
EN ISO 7093-1
- u = T-bolt projection  
EN ISO 4753

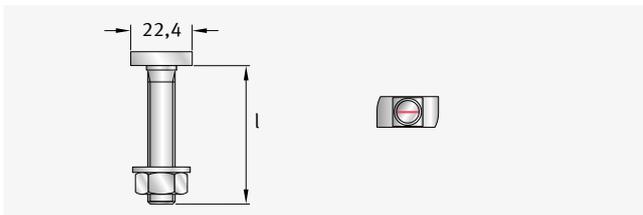
Bolt	Sum m+s+u [mm]
M6	8.8
M8	11.3
M10	13.9
M12	17.3
M16	21.8
M20	27.0
M24	32.5
M27	35.8
M30	38.6

**Req. l [mm] =  $l_k + f + (m+s+u)$**

Example  
 Anchor channel JTA K 53/34,  
 f = 8 mm, avail. clamping length  
 $l_k = 65$  mm, T-bolt JB M16 gv  
 Req. l = 65 + 8 + 21.8 = 94.8 mm  
 Selected:  
 JB M16 x 100 4.6 gv

## T-head bolts JD

ETA (European Technical Assessment ETA-09/0338)



For profiles JTA- and JM K 28/28, K 28/15, K 28/12, W 29/20<sup>1)</sup>

<sup>1)</sup> JD bolts in combination with profile W 29/20 are not suitable for supporting longitudinal loads

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 4.6			
JD M6 × 15	4.6 gv	500	100.00
JD M6 × 20	4.6 gv	500	101.80
JD M6 × 25	4.6 gv	500	103.20
JD M6 × 30	4.6 gv	500	108.20
JD M6 × 40	4.6 gv	500	110.30
JD M6 × 50	4.6 gv	500	113.60
JD M6 × 60	4.6 gv	500	116.90
JD M8 × 15	4.6 gv	500	81.10
JD M8 × 20	4.6 gv	500	82.90
JD M8 × 25	4.6 gv	500	84.20
JD M8 × 30	4.6 gv	500	87.80
JD M8 × 40	4.6 gv	500	93.10
JD M8 × 50	4.6 gv	500	96.40
JD M8 × 60	4.6 gv	500	118.90
JD M8 × 80	4.6 gv	500	207.40
JD M8 × 100	4.6 gv	100	280.60
JD M8 × 150	4.6 gv	100	514.90
JD M10 × 15	4.6 gv	500	107.90
JD M10 × 20	4.6 gv	500	112.00
JD M10 × 25	4.6 gv	500	115.30
JD M10 × 30	4.6 gv	500	119.30
JD M10 × 40	4.6 gv	100	136.20
JD M10 × 50	4.6 gv	100	148.00
JD M10 × 60	4.6 gv	100	154.80
JD M10 × 80	4.6 gv	50	223.90
JD M10 × 100	4.6 gv	50	299.50

<sup>2)</sup> JD M12 not suitable for profile K 28/12

<sup>3)</sup> Delivery subject to confirmation

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
JD M10 × 125	4.6 gv	50	459.60
JD M10 × 150	4.6 gv	100	559.70
JD M10 × 200	4.6 gv	50	Prices on request
JD M12 × 30	4.6 gv <sup>2)</sup>	200	208.40
JD M12 × 40	4.6 gv <sup>2)</sup>	100	215.40
JD M12 × 50	4.6 gv <sup>2)</sup>	100	227.30
JD M12 × 80	4.6 gv <sup>2)</sup>	100	247.90
Hot-dip galvanized (fv), strength class 4.6			
JD M10 × 30	4.6 fv	500	119.30
JD M10 × 40	4.6 fv	100	136.20
JD M10 × 60	4.6 fv	100	154.80
JD M10 × 80	4.6 fv	50	223.90
JD M10 × 100	4.6 fv	50	299.50
JD M12 × 50	4.6 fv <sup>2)</sup>	100	227.30
Stainless steel grade A4-50 / A4-70 / FA-70 <sup>3)</sup>			
JD M8 × 30	A4-50	100	785.50
JD M10 × 20	A4-50	100	805.90
JD M10 × 25	A4-70	100	841.60
JD M10 × 30	A4-70	100	878.20
JD M10 × 40	A4-70	100	947.40
JD M10 × 50	A4-70	100	1,030.00
JD M10 × 60	A4-70	100	1,094.10
JD M10 × 80	A4-50	100	1,346.50
JD M10 × 100	A4-50	50	1,779.50
JD M10 × 125	A4-50	50	Prices on request
JD M10 × 150	A4-50	50	Prices on request
JD M10 × 200	A4-50	50	Prices on request

<sup>2)</sup> JD M12 not suitable for profile K 28/12

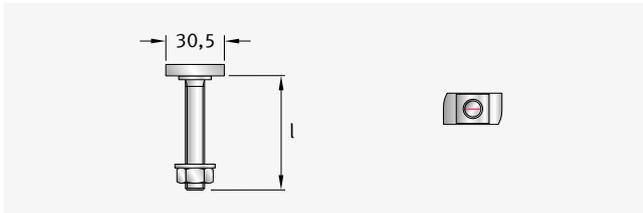
<sup>3)</sup> Delivery subject to confirmation



Information on how to determine the bolt length can be found on page 65.

## T-head bolts JH

ETA (European Technical Assessment ETA-09/0338)



For profiles JTA- and JM K 38/17, K 36/36, K 36/20, W 38/23<sup>1)</sup>

<sup>1)</sup> JH bolts in combination with profile W 38/23 are not suitable for supporting longitudinal loads

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 4.6			
JH M10 × 20	4.6 gv	100	161.80
JH M10 × 30	4.6 gv	100	163.40
JH M10 × 40	4.6 gv	100	173.70
JH M10 × 50	4.6 gv	100	181.40
JH M10 × 60	4.6 gv	100	186.00
JH M10 × 80	4.6 gv	50	249.80
JH M10 × 100	4.6 gv	50	332.20
JH M10 × 150	4.6 gv	50	559.70
JH M12 × 20	4.6 gv	100	172.20
JH M12 × 30	4.6 gv	100	181.80
JH M12 × 40	4.6 gv	100	187.50
JH M12 × 50	4.6 gv	100	200.70
JH M12 × 60	4.6 gv	50	227.00
JH M12 × 80	4.6 gv	50	245.30
JH M12 × 100	4.6 gv	25	366.50
JH M12 × 125	4.6 gv	25	468.80
JH M12 × 150	4.6 gv	25	567.90
JH M12 × 200	4.6 gv	25	937.40
JH M16 × 30	4.6 gv	50	253.10
JH M16 × 40	4.6 gv	50	256.50
JH M16 × 50	4.6 gv	50	280.60
JH M16 × 60	4.6 gv	50	306.40
JH M16 × 80	4.6 gv	50	375.90
JH M16 × 100	4.6 gv	25	448.70
JH M16 × 125	4.6 gv	25	635.20
JH M16 × 150	4.6 gv	25	744.10
JH M16 × 200	4.6 gv	25	1,091.50

<sup>2)</sup> The designation FA also corresponds to F4 (1.4462)

<sup>3)</sup> Delivery subject to confirmation

### Further information

- All prices include nuts
- Please order washers separately

### Example order for bolts

Type	Thread	x	Length l	-	Design
JH	M12	x	80	-	4.6 fv

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 4.6			
JH M10 × 50	4.6 fv	50	181.40
JH M10 × 60	4.6 fv	50	186.00
JH M10 × 80	4.6 fv	50	249.80
JH M12 × 30	4.6 fv	100	181.80
JH M12 × 40	4.6 fv	100	187.50
JH M12 × 50	4.6 fv	50	200.70
JH M12 × 60	4.6 fv	50	227.00
JH M12 × 80	4.6 fv	50	245.30
JH M12 × 100	4.6 fv	25	366.50
JH M12 × 125	4.6 fv	25	468.80
JH M16 × 50	4.6 fv	50	280.60
JH M16 × 60	4.6 fv	50	306.40
Hot-dip galvanized (fv), strength class 8.8			
JH M12 × 100	8.8 fv	25	459.70
JH M16 × 60	8.8 fv	50	568.70
Stainless steel grade A4-50 / A4-70 / FA-70 <sup>2) 3)</sup>			
JH M10 × 30	A4-70	100	1,367.50
JH M10 × 40	A4-70	100	1,534.40
JH M10 × 50	A4-70	100	1,588.60
JH M10 × 60	A4-70	100	1,671.20
JH M12 × 30	A4-70	100	1,341.50
JH M12 × 40	A4-70	100	1,426.00
JH M12 × 50	A4-70	100	1,534.40
JH M12 × 60	A4-70	100	1,696.70
JH M12 × 80	A4-70	100	1,750.50
JH M12 × 100	A4-50	100	2,575.30
JH M12 × 150	A4-50	25	3,735.80
JH M12 × 200	A4-50	50	4,206.60
JH M16 × 40	A4-50	50	1,951.30
JH M16 × 50	A4-50	25	2,157.60
JH M16 × 60	A4-50	25	2,294.10
JH M16 × 80	A4-50	25	2,636.40
JH M16 × 100	A4-50	25	3,313.10
JH M16 × 150	A4-50	25	4,606.00

<sup>2)</sup> The designation FA also corresponds to F4 (1.4462)

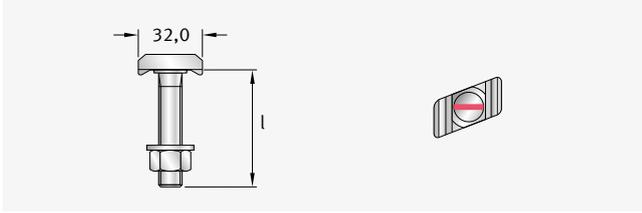
<sup>3)</sup> Delivery subject to confirmation



Information on how to determine the bolt length can be found on page 65.

## Hook-head T-bolts JC

ETA (European Technical Assessment)  
ETA-09/0338, ETA-15/0386)



For profiles JTA- and JM W 40+, W 40/22, K 40/25, K 40/22

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 4.6			
JC M10 × 20	4.6 gv	100	175.60
JC M10 × 30	4.6 gv	100	177.20
JC M10 × 40	4.6 gv	100	187.50
JC M10 × 50	4.6 gv	100	191.10
JC M10 × 60	4.6 gv	100	209.90
JC M10 × 65	4.6 gv	100	237.90
JC M10 × 80	4.6 gv	100	344.10
JC M10 × 100	4.6 gv	100	352.70
JC M12 × 20	4.6 gv	100	218.60
JC M12 × 30	4.6 gv	100	221.70
JC M12 × 40	4.6 gv	100	224.50
JC M12 × 50	4.6 gv	100	235.80
JC M12 × 60	4.6 gv	50	247.40
JC M12 × 80	4.6 gv	50	304.10
JC M12 × 100	4.6 gv	50	356.60
JC M12 × 125	4.6 gv	50	489.00
JC M12 × 150	4.6 gv	25	755.70
JC M12 × 200	4.6 gv	25	Prices on request
JC M16 × 30	4.6 gv	50	292.60
JC M16 × 40	4.6 gv	50	316.70
JC M16 × 50	4.6 gv	50	340.90
JC M16 × 60	4.6 gv	50	346.10
JC M16 × 80	4.6 gv	50	406.20
JC M16 × 100	4.6 gv	25	490.90
JC M16 × 125	4.6 gv	25	738.20
JC M16 × 150	4.6 gv	25	844.60
JC M16 × 200	4.6 gv	25	953.50
JC M16 × 250	4.6 gv	25	1,068.70
Galvanized (gv), strength class 8.8			
JC M12 × 30	8.8 gv	100	331.20
JC M12 × 40	8.8 gv	50	324.00
JC M12 × 50	8.8 gv	50	335.80
JC M12 × 60	8.8 gv	50	351.30
JC M12 × 100	8.8 gv	50	529.30
JC M16 × 40	8.8 gv	25	480.20
JC M16 × 50	8.8 gv	25	560.50
JC M16 × 60	8.8 gv	25	572.80
JC M16 × 80	8.8 gv	25	638.70
JC M16 × 100	8.8 gv	25	703.50
JC M16 × 125	8.8 gv	25	991.40
JC M16 × 150	8.8 gv	25	1,269.20

<sup>1)</sup> The designation FA also corresponds to F4 (1.4462).

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 4.6			
JC M10 × 30	4.6 fv	100	177.20
JC M10 × 40	4.6 fv	100	187.50
JC M10 × 60	4.6 fv	100	209.90
JC M12 × 40	4.6 fv	100	224.50
JC M12 × 50	4.6 fv	100	235.80
JC M12 × 60	4.6 fv	100	247.40
JC M12 × 80	4.6 fv	50	304.10
JC M12 × 100	4.6 fv	50	356.60
JC M16 × 40	4.6 fv	50	316.70
JC M16 × 50	4.6 fv	50	340.90
JC M16 × 60	4.6 fv	50	346.10
JC M16 × 80	4.6 fv	50	406.20
JC M16 × 100	4.6 fv	25	490.90
Hot-dip galvanized (fv), strength class 8.8			
JC M12 × 40	8.8 fv	100	324.00
JC M12 × 50	8.8 fv	100	335.80
JC M12 × 60	8.8 fv	100	351.30
JC M12 × 80	8.8 fv	50	428.80
JC M12 × 100	8.8 fv	50	529.30
JC M16 × 40	8.8 fv	50	480.20
JC M16 × 50	8.8 fv	50	560.50
JC M16 × 60	8.8 fv	50	572.80
JC M16 × 80	8.8 fv	50	638.70
JC M16 × 100	8.8 fv	25	703.50
JC M16 × 125	8.8 fv	25	991.40
Stainless steel grade A4-50			
JC M10 × 30	A4-50	50	2,878.10
JC M10 × 40	A4-50	100	2,940.10
JC M10 × 50	A4-50	50	3,303.50
JC M12 × 30	A4-50	100	2,057.70
JC M12 × 40	A4-50	50	2,361.70
JC M12 × 50	A4-50	50	2,480.80
JC M12 × 60	A4-50	50	2,605.60
JC M12 × 80	A4-50	50	2,873.20
JC M12 × 100	A4-50	50	3,225.10
JC M16 × 30	A4-50	50	2,374.70
JC M16 × 40	A4-50	50	2,638.60
JC M16 × 50	A4-50	50	2,857.30
JC M16 × 60	A4-50	25	2,874.90
JC M16 × 80	A4-50	25	3,117.00
JC M16 × 100	A4-50	25	3,648.30
JC M16 × 150	A4-50	25	4,783.40
JC M16 × 200	A4-50	25	5,877.60
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JC M12 × 40	FA-70	50	2,592.60
JC M12 × 60	FA-70	50	3,021.40
JC M16 × 50	FA-70	50	3,061.50

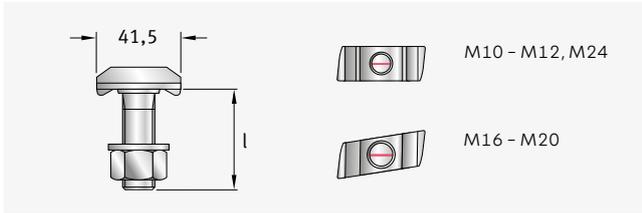
<sup>1)</sup> The designation FA also corresponds to F4 (1.4462).



Information on how to determine the bolt length can be found on page 65.

## Hook-head T-bolts JB

ETA (European Technical Assessment)  
ETA-09/0338, ETA-15/0386)



For profiles JTA- and JM W 55/42, W 53/34, K 53/34, W 50+, K 50/40,  
W 50/30, K 50/30, K 48/26

Thread × length l [mm]	PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 4.6		
JB M10 × 30	4.6 gv 100	373.60
JB M10 × 40	4.6 gv 100	375.40
JB M10 × 50	4.6 gv 100	380.50
JB M10 × 60	4.6 gv 100	393.90
JB M10 × 80	4.6 gv 100	461.70
JB M10 × 100	4.6 gv 100	544.60
JB M12 × 30	4.6 gv 100	316.70
JB M12 × 40	4.6 gv 100	330.70
JB M12 × 50	4.6 gv 100	343.60
JB M12 × 60	4.6 gv 50	355.10
JB M12 × 80	4.6 gv 50	427.50
JB M12 × 100	4.6 gv 50	543.50
JB M12 × 125	4.6 gv 50	738.40
JB M12 × 150	4.6 gv 25	872.90
JB M16 × 30	4.6 gv 50	383.80
JB M16 × 40	4.6 gv 50	399.20
JB M16 × 50	4.6 gv 50	414.80
JB M16 × 60	4.6 gv 50	426.20
JB M16 × 80	4.6 gv 50	524.50
JB M16 × 100	4.6 gv 50	573.30
JB M16 × 125	4.6 gv 25	795.90
JB M16 × 150	4.6 gv 25	914.70
JB M16 × 200	4.6 gv 25	1,008.60
JB M20 × 35	4.6 gv <sup>1)</sup>	487.20
JB M20 × 45	4.6 gv <sup>1)</sup>	541.50
JB M20 × 55	4.6 gv <sup>1)</sup>	577.70
JB M20 × 65	4.6 gv <sup>1)</sup>	604.50
JB M20 × 75	4.6 gv <sup>1)</sup>	631.00
JB M20 × 100	4.6 gv <sup>1)</sup>	664.60
JB M20 × 125	4.6 gv <sup>1)</sup>	879.80
JB M20 × 150	4.6 gv <sup>1)</sup>	1,126.60
JB M20 × 200	4.6 gv <sup>1)</sup>	1,316.90
JB M20 × 300	4.6 gv <sup>1)</sup>	1,735.30

<sup>1)</sup> The designation FA also corresponds to F4 (1.4462).

Thread × length l [mm]	PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 8.8		
JB M16 × 40	8.8 gv 25	672.40
JB M16 × 50	8.8 gv 25	726.10
JB M16 × 60	8.8 gv 25	781.20
JB M16 × 80	8.8 gv 25	911.00
JB M16 × 100	8.8 gv 25	1,078.10
JB M16 × 125	8.8 gv 25	1,383.70
JB M16 × 150	8.8 gv 25	Prices on request
JB M20 × 45	8.8 gv 25	822.80
JB M20 × 55	8.8 gv 25	960.60
JB M20 × 65	8.8 gv 25	1,010.10
JB M20 × 80	8.8 gv 25	1,072.30
JB M20 × 100	8.8 gv 25	1,161.30
JB M20 × 125	8.8 gv 25	1,463.80
JB M20 × 150	8.8 gv 25	1,795.60
Hot-dip galvanized (fv), strength class 4.6		
JB M10 × 80	4.6 fv 100	461.70
JB M12 × 30	4.6 fv 100	316.70
JB M12 × 40	4.6 fv 100	330.70
JB M12 × 50	4.6 fv 100	343.60
JB M12 × 60	4.6 fv 50	355.10
JB M12 × 80	4.6 fv 50	427.50
JB M12 × 100	4.6 fv 50	543.50
JB M12 × 125	4.6 fv 50	738.40
JB M16 × 40	4.6 fv 50	399.20
JB M16 × 50	4.6 fv 50	414.80
JB M16 × 60	4.6 fv 50	426.20
JB M16 × 80	4.6 fv 50	524.50
JB M16 × 100	4.6 fv 25	573.30
JB M20 × 55	4.6 fv <sup>1)</sup>	577.70
JB M20 × 65	4.6 fv <sup>1)</sup>	604.50
JB M20 × 75	4.6 fv <sup>1)</sup>	631.00
JB M20 × 100	4.6 fv <sup>1)</sup>	664.60
JB M20 × 125	4.6 fv <sup>1)</sup>	879.80
JB M20 × 150	4.6 fv <sup>1)</sup>	1,126.60

<sup>1)</sup> The designation FA also corresponds to F4 (1.4462).

### Further information

- All prices include nuts
- Please order washers separately

### Example order for bolts

Type	Thread	x	Length l	-	Design
JB	M16	x	80	-	4.6 gv



Information on how to determine the bolt length can be found on page 65.

## Hook-head T-bolts JB

ETA (European Technical Assessment)  
ETA-09/0338, ETA-15/0386)

Thread × length l [mm]	PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 8.8		
JB M12 × 40	8.8 fv 100	476.60
JB M12 × 50	8.8 fv 100	559.40
JB M12 × 60	8.8 fv 50	633.40
JB M12 × 80	8.8 fv 50	673.90
JB M12 × 100	8.8 fv 50	774.70
JB M12 × 125	8.8 fv 50	938.50
JB M16 × 40	8.8 fv 50	672.40
JB M16 × 50	8.8 fv 50	726.10
JB M16 × 60	8.8 fv 50	781.20
JB M16 × 80	8.8 fv 50	911.00
JB M16 × 100	8.8 fv 50	1,078.10
JB M16 × 125	8.8 fv 50	1,383.70
JB M20 × 55	8.8 fv <sup>1)</sup> 25	960.60
JB M20 × 60	8.8 fv <sup>1)</sup> 25	982.40
JB M20 × 65	8.8 fv <sup>1)</sup> 25	1,010.10
JB M20 × 75	8.8 fv <sup>1)</sup> 25	1,047.40
JB M20 × 80	8.8 fv <sup>1)</sup> 25	1,072.30
JB M20 × 100	8.8 fv <sup>1)</sup> 25	1,161.30
JB M20 × 125	8.8 fv <sup>1)</sup> 25	1,463.80
JB M24 × 75	8.8 fv <sup>1)3)</sup> 25	Prices on request
JB M24 × 100	8.8 fv <sup>1)3)</sup> 25	Prices on request
Stainless steel grade A4-50		
JB M10 × 30	A4-50 50	2,155.20
JB M10 × 80	A4-50 50	3,105.60
JB M12 × 30	A4-50 50	2,469.30
JB M12 × 40	A4-50 50	2,537.60
JB M12 × 50	A4-50 50	2,750.50
JB M12 × 60	A4-50 50	2,916.10
JB M12 × 80	A4-50 50	3,529.70
JB M12 × 100	A4-50 50	4,143.40
JB M12 × 125	A4-50 25	4,893.60
JB M16 × 30	A4-50 50	3,591.50
JB M16 × 40	A4-50 50	3,968.50
JB M16 × 50	A4-50 25	4,229.10
JB M16 × 60	A4-50 25	4,297.00
JB M16 × 80	A4-50 25	5,340.60
JB M16 × 125	A4-50 25	6,074.80
JB M16 × 150	A4-50 25	6,827.30
JB M16 × 200	A4-50 25	7,529.60
JB M20 × 45	A4-50 25	4,297.00
JB M20 × 55	A4-50 25	4,618.40
JB M20 × 65	A4-50 25	4,947.40
JB M20 × 75	A4-50 25	5,267.60
JB M20 × 100	A4-50 25	5,884.40
JB M20 × 125	A4-50 25	6,508.60
JB M20 × 150	A4-50 25	Prices on request
Stainless steel grade FA-70 (1.4462) <sup>2)</sup>		
JB M12 × 40	FA-70 50	2,639.10
JB M12 × 50	FA-70 50	2,860.40
JB M12 × 100	FA-70 25	4,309.00
JB M16 × 50	FA-70 25	4,401.10
JB M16 × 80	FA-70 25	5,595.90
JB M20 × 55	FA-70 25	5,481.20
JB M20 × 100	FA-70 25	6,349.10
JB M20 × 150	FA-70 25	8,823.20

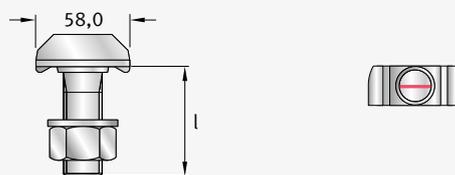
<sup>1)</sup> Not for profile K 48/26,

<sup>2)</sup> The designation FA corresponds to F4 (1.4462)

<sup>3)</sup> JB M24 only for profile W 55/42.

## Hook-head T-bolts JA

ETA (European Technical Assessment)  
ETA-09/0338, ETA-15/0386)



For profiles JTA- and JM W 72/48, K 72/48

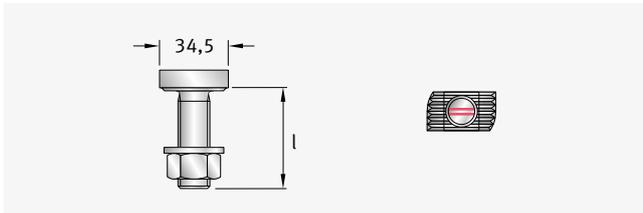
Thread × length l [mm]	PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 4.6		
JA M20 × 50	4.6 fv 50	1,029.50
JA M20 × 75	4.6 fv 50	1,120.60
JA M20 × 100	4.6 fv 25	1,150.10
JA M20 × 150	4.6 fv 25	1,487.20
JA M20 × 200	4.6 fv 25	1,699.00
JA M24 × 75	4.6 fv 25	1,082.30
JA M24 × 100	4.6 fv 25	1,361.60
JA M24 × 200	4.6 fv 10	1,819.30
JA M27 × 75	4.6 fv 10	1,408.80
JA M27 × 100	4.6 fv 10	1,573.80
JA M30 × 75	4.6 fv 25	1,571.50
JA M30 × 100	4.6 fv 10	1,896.90
JA M30 × 200	4.6 fv 5	2,871.30
Hot-dip galvanized (fv), strength class 8.8		
JA M20 × 50	8.8 fv 50	1,226.10
JA M20 × 60	8.8 fv 50	1,307.10
JA M20 × 75	8.8 fv 50	1,561.30
JA M20 × 100	8.8 fv 25	1,696.70
JA M20 × 125	8.8 fv 25	1,921.10
JA M24 × 75	8.8 fv 25	Prices on request
JA M24 × 100	8.8 fv 25	Prices on request
JA M24 × 150	8.8 fv 20	Prices on request
JA M24 × 200	8.8 fv 10	Prices on request
Stainless steel grade A4-50		
JA M24 × 50	A4-50 20	Prices on request
JA M24 × 100	A4-50 15	Prices on request
JA M24 × 150	A4-50 15	Prices on request



Information on how to determine the bolt length can be found on page 65.

## Toothed T-bolts JZS

ETA (European Technical Assessment ETA-09/0338)



For profiles JZA- and JZM K 41/22

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 8.8			
JZS M10 × 40 <sup>1)</sup>	8.8 fv	50	466.00
JZS M12 × 35	8.8 fv	50	518.20
JZS M12 × 50	8.8 fv	50	564.60
JZS M12 × 80	8.8 fv	50	835.60
JZS M16 × 50	8.8 fv	50	864.00
JZS M16 × 80	8.8 fv	50	1,016.40
JZS M16 × 100	8.8 fv	50	1,201.70
Stainless steel grade A4-50			
JZS M12 × 35	A4-50	50	3,364.80
JZS M12 × 50	A4-50	50	3,662.20
JZS M12 × 80	A4-50	50	3,888.40
JZS M16 × 35	A4-50	25	2,888.70
JZS M16 × 50	A4-50	25	3,434.60
JZS M16 × 80	A4-50	25	4,356.40
JZS M16 × 100	A4-50	25	4,660.80

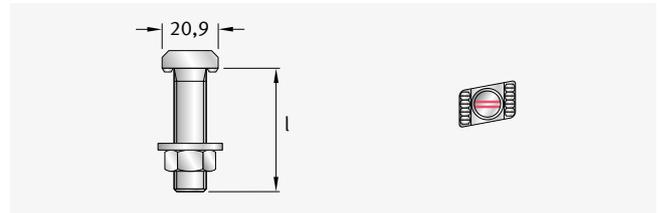
<sup>1)</sup> Not part of the ETA

### Further information

- All prices include nuts
- Please order washers separately

## Toothed T-bolts JXD

ETA (European Technical Assessment ETA-09/0338)



For profiles JXA- and JXM W 29/20

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 8.8			
JXD M12 × 30	8.8 gv	100	331.80
JXD M12 × 50	8.8 gv	100	386.20
JXD M12 × 100	8.8 gv	50	558.20
Hot-dip galvanized (fv), strength class 8.8			
JXD M10 × 40	8.8 fv	100	302.00
JXD M12 × 30	8.8 fv	100	331.80
JXD M12 × 40	8.8 fv	100	359.00
JXD M12 × 50	8.8 fv	100	386.20
JXD M12 × 60	8.8 fv	100	439.70
JXD M12 × 80	8.8 fv	100	506.30
JXD M12 × 100	8.8 fv	50	558.20
JXD M12 × 150	8.8 fv	25	1,470.20
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JXD M12 × 40	FA-70	50	2,417.00
JXD M12 × 60	FA-70	50	2,641.80
JXD M12 × 80	FA-70	50	2,866.50

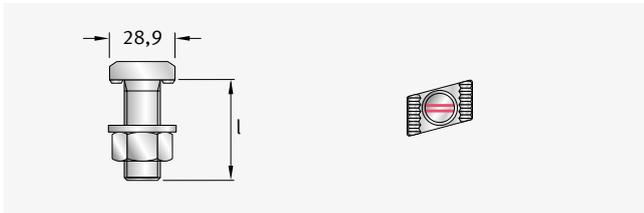
<sup>1)</sup> The designation FA corresponds to F4 (1.4462)



Information on how to determine the bolt length can be found on page 65.

## Toothed T-bolts JXH

ETA (European Technical Assessment ETA-09/0338)



For profiles JXA- and JXM W 38/23

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Galvanized (gv), strength class 8.8			
JXH M12 × 30	8.8 gv	100	435.60
JXH M12 × 50	8.8 gv	100	468.50
JXH M12 × 100	8.8 gv	25	997.20
JXH M16 × 40	8.8 gv	50	598.20
JXH M16 × 60	8.8 gv	50	652.70
JXH M16 × 125	8.8 gv	25	1,117.10
Hot-dip galvanized (fv), strength class 8.8			
JXH M12 × 30	8.8 fv	100	435.60
JXH M12 × 40	8.8 fv	100	447.10
JXH M12 × 50	8.8 fv	100	468.50
JXH M12 × 60	8.8 fv	50	518.70
JXH M12 × 80	8.8 fv	50	753.60
JXH M12 × 100	8.8 fv	25	997.20
JXH M16 × 30	8.8 fv	50	550.50
JXH M16 × 40	8.8 fv	50	598.20
JXH M16 × 50	8.8 fv	50	620.80
JXH M16 × 60	8.8 fv	50	652.70
JXH M16 × 80	8.8 fv	50	776.70
JXH M16 × 100	8.8 fv	25	828.90
JXH M16 × 125	8.8 fv	25	1,117.10
JXH M16 × 150	8.8 fv	25	1,879.20
JXH M16 × 200	8.8 fv	25	2,185.70
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JXH M12 × 40	FA-70	50	Prices on request
JXH M12 × 60	FA-70	50	Prices on request
JXH M12 × 80	FA-70	50	Prices on request
JXH M16 × 60	FA-70	25	Prices on request
JXH M16 × 80	FA-70	25	Prices on request
JXH M16 × 100	FA-70	25	Prices on request
JXH M16 × 150	FA-70	25	Prices on request

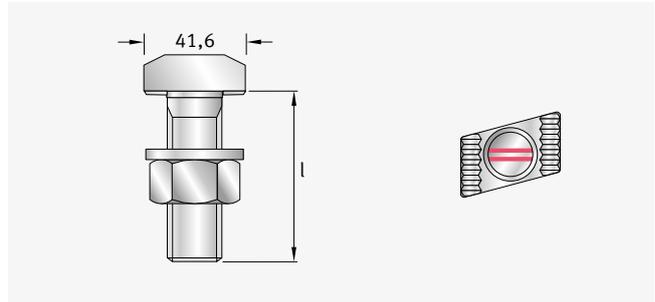
<sup>1)</sup> The designation FA corresponds to F4 (1.4462)

### Example order for bolts

Type	Thread	x	Length l	-	Design
JXH	M16	x	60	-	8.8 gv

## Toothed T-bolts JXB

ETA (European Technical Assessment ETA-09/0338)



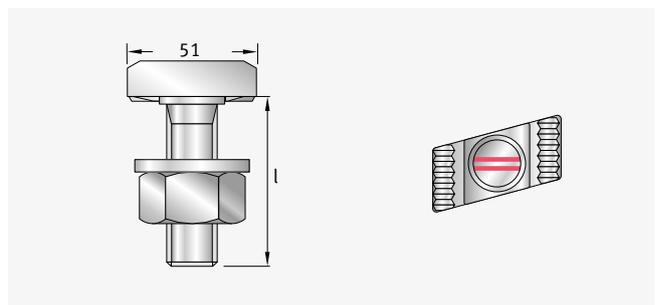
For profiles JXA- and JXM W 53/34

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 8.8			
JXB M16 × 60	8.8 fv	50	1,758.30
JXB M16 × 80	8.8 fv	25	1,812.70
JXB M16 × 100	8.8 fv	25	1,868.80
JXB M20 × 55	8.8 fv	25	1,936.30
JXB M20 × 65	8.8 fv	25	2,035.90
JXB M20 × 80	8.8 fv	25	2,092.50
JXB M20 × 100	8.8 fv	25	2,157.40
JXB M20 × 150	8.8 fv	25	Prices on request
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JXB M16 × 60	FA-70	25	Prices on request
JXB M16 × 100	FA-70	25	Prices on request
JXB M20 × 80	FA-70	25	Prices on request
JXB M20 × 100	FA-70	25	Prices on request
JXB M20 × 125	FA-70	25	Prices on request

<sup>1)</sup> The designation FA corresponds to F4 (1.4462)

## Toothed T-bolts JXE

ETA (European Technical Assessment ETA-09/0338)



For profiles JXA- and JXM W 64/44

Thread × length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 8.8			
JXE M20 × 60	8.8 fv	50	2,326.40
JXE M20 × 100	8.8 fv	25	2,758.70
JXE M20 × 150	8.8 fv	25	3,384.60
JXE M24 × 75	8.8 fv	25	Prices on request
JXE M24 × 100	8.8 fv	25	Prices on request
JXE M24 × 150	8.8 fv	25	Prices on request
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JXE M20 × 50	FA-70	50	Prices on request
JXE M20 × 100	FA-70	25	Prices on request

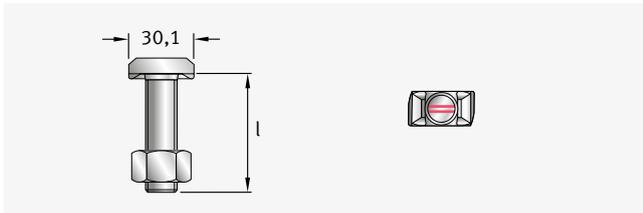
<sup>1)</sup> The designation FA corresponds to F4 (1.4462)



Information on how to determine the bolt length can be found on page 65.

## Double-notch toothed T-bolt JKC

ETA (European Technical Assessment ETA-09/0338)



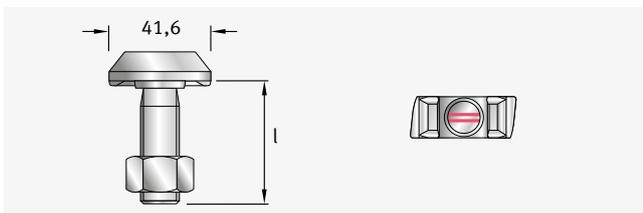
For profiles JTA- and JTM W 40+, W 40/22

Thread x length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 8.8			
JKC M16 x 40	8.8 fv	50	556.30
JKC M16 x 50	8.8 fv	50	574.70
JKC M16 x 60	8.8 fv	50	629.90
JKC M16 x 80	8.8 fv	25	735.40
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JKC M16 x 50	FA-70	50	Prices on request
JKC M16 x 60	FA-70	25	Prices on request

<sup>1)</sup> The designation FA corresponds to F4 (1.4462)

## Double-notch toothed T-bolt JKB

ETA (European Technical Assessment ETA-09/0338)

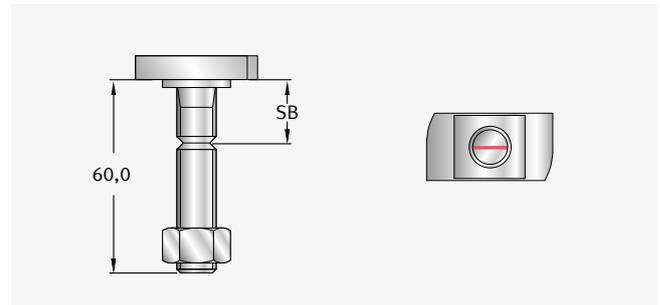


For profiles JTA- and JTM W 50/30, W 50+, W 53/34

Thread x length l [mm]		PU [pcs.]	Price per 100 pcs. [€]
Hot-dip galvanized (fv), strength class 8.8			
JKB M16 x 40	8.8 fv	50	785.20
JKB M16 x 50	8.8 fv	50	804.80
JKB M16 x 60	8.8 fv	50	824.20
JKB M16 x 80	8.8 fv	25	886.60
JKB M16 x 100	8.8 fv	25	919.50
JKB M20 x 45	8.8 fv	25	900.20
JKB M20 x 60	8.8 fv	25	915.60
JKB M20 x 70	8.8 fv	25	965.90
JKB M20 x 80	8.8 fv	25	1,077.90
Stainless steel grade FA-70 (1.4462) <sup>1)</sup>			
JKB M16 x 50	FA-70	25	Prices on request
JKB M16 x 80	FA-70	25	Prices on request

<sup>1)</sup> The designation FA corresponds to F4 (1.4462)

## Breaking point bolts JH-SB

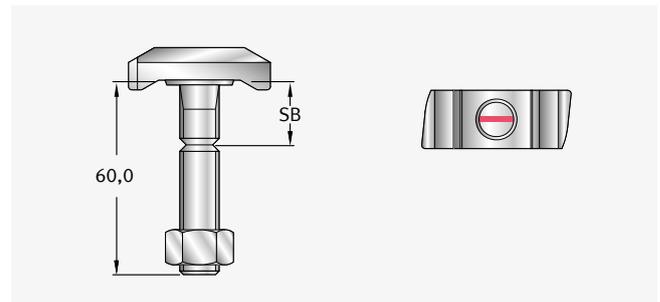


For profiles JTA K 38/17, K 36/36, K 36/20, W 38/23

Thread x length l [mm]		Price per 100 pcs. [€]
Galvanized (gv), strength class 4.6		
JH M12 x 60 - SB 20	4.6 gv	Prices on request
JH M12 x 60 - SB 25	4.6 gv	Prices on request

With breaking point (SB) for concrete formwork, e.g. for formwork carriages used in tunnel construction

## Breaking point bolts JB-SB



For profiles JTA W 55/42, W 53/34, K 53/34, K 50/40, W 50+, W 50/30, K 50/30, K 48/26

Thread x length l [mm]		Price per 100 pcs. [€]
Galvanized (gv), strength class 4.6		
JB M12 x 60 - SB 20	4.6 gv	Prices on request
JB M12 x 60 - SB 25	4.6 gv	Prices on request
JB M12 x 100 - SB 20	4.6 gv	Prices on request

With breaking point (SB) for concrete formwork, e.g. for formwork carriages used in tunnel construction

### Example order for bolts

Type	Thread	x	Length l	-	Design
JH	M12	x	60 - SB 20	-	4.6 fv

### Further information

- All prices include nuts
- Please order washers separately



Information on how to determine the bolt length can be found on page 65.

# Stop fastenings

## Lift shaft anchor JLF

ETA (European Technical Assessment ETA-21/1071)



Type	Color	Load-bearing capacity [kN]	Shackle diameter [mm]	PU [pcs.]	Price per piece [€]
JLF 20-1	Blue	20	10	1	POR
JLF 20-3	Blue	20	10	3	POR
JLF 40-1	Red	40	13	1	POR

### Version and material

- Shackle, mounting bracket, bolt - steel
- Housing - plastic

### Example order for lift shaft anchors JLF

Type	Load-bearing capacity	PU
JLF	20	- 1

## Lift shaft sling JLS

NEW



Type	Load-bearing capacity [kN]	PU [pcs.]	Price per piece [€]
JLS 25-1	25	1	Prices on request
JLS 40-1	40	1	Prices on request

### Version and material

- Steel, galvanized

### Example order for lift shaft anchor JLS

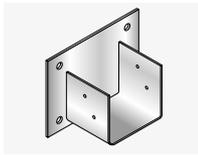
Type	Load-bearing capacity	PU
JLS	25	- 1

# Scaffold shoes

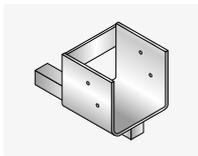
## Scaffold shoes JG

(Tested in line with EN 1090)

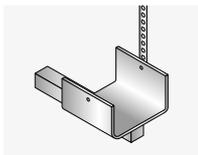
Scaffold shoes for square timber width: 10 cm (12 cm price on request).



Type	Color	Fastening hole [mm]	Price per piece [€]
JG-K 4-CE	Yellow	2 × dia. 11	31.90
JG-K 9-CE	Blue	4 × dia. 14	36.70
JG-K 12-CE	Red	4 × dia. 14	53.80

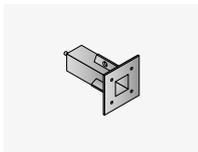


Type	Color	Matching sleeve	Price per piece [€]
JG-H 2.5-CE	Gray	GHK 25	36.80
JG-H 5/9-CE	Blue	GHK 30, GHS 30	47.50
JG-H 5/9-CE	Blue	GHK 25	47.50



Type	Color	Matching sleeve	Price per piece [€]
JG-L 2.5-CE <sup>1)</sup>	Gray	GHK 25	32.10

<sup>1)</sup> Scaffold shoe for square timber width: 12 cm  
(10 cm price on request)



Sleeve	Dimensions [mm]	Design	Price per piece [€]
GHK 25	25 × 25 × 95	PE	3.80
GHK 30	30 × 30 × 95	PE	4.10
GHS 30	30 × 30 × 105	fv	14.20

### Version and material

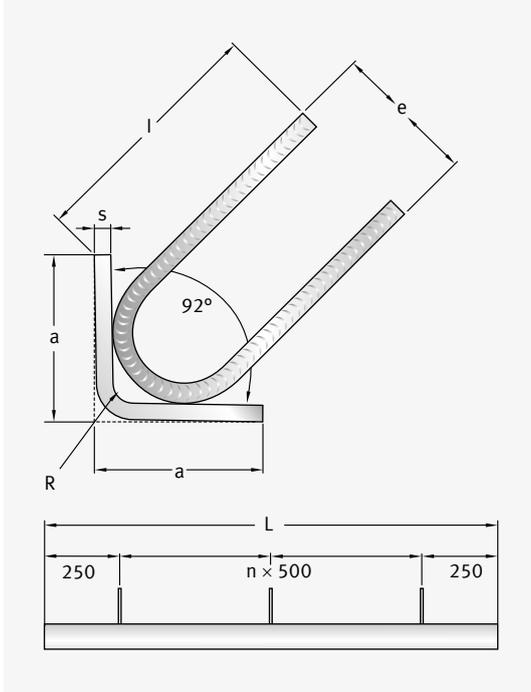
- Scaffold shoe – paint-coated steel
- Sleeve - fv: Hot-dip galvanized
- Sleeve - PE: Plastic

### Example order for scaffold shoes JG

Type
JG-K 4-CE

# Edge protection angles

## Edge protection angles JKW



Type	a/s	Length L [mm]	No. of an- chors	Price per piece [€]	
				fv	Design A4/L4
JKW	50/5	500	2		
JKW	50/5	750	2		
JKW	50/5	1,000	2	Prices on request	Prices on request
JKW	50/5	1,500	3		
JKW	50/5	2,000	4		
JKW	80/6	500	2		
JKW	80/6	750	2	Prices on request	Prices on request
JKW	80/6	1,000	2		
JKW	80/6	1,500	3		
JKW	80/6	2,000	4		
JKW	100/6	500	2		
JKW	100/6	750	2		
JKW	100/6	1,000	2	Prices on request	Prices on request
JKW	100/6	1,500	3		
JKW	100/6	2,000	4		
JKW	100/8	500	2		
JKW	100/8	750	2		
JKW	100/8	1,000	2	Prices on request	Prices on request
JKW	100/8	1,500	3		
JKW	100/8	2,000	4		

### Version and material

- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

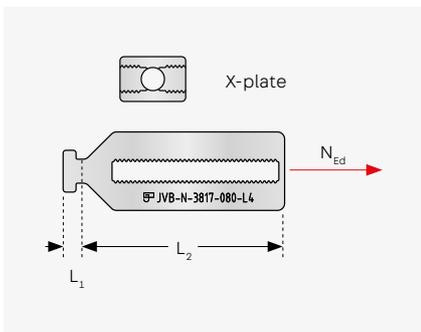
### Example order for edge protection angles JKW

Type	-	a/s	-	Length L	-	Design
JKW	-	50/5	-	2,000	-	fv

# Connection straps

## Connection straps JVB-N

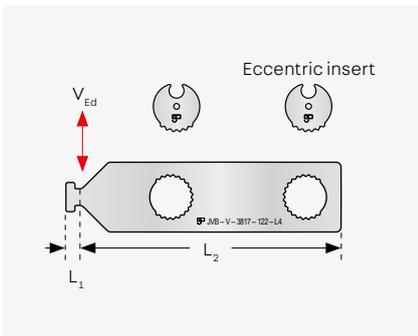
(for longitudinal tension loads)



Type	Length L <sub>1</sub> [mm]	Length L <sub>2</sub> [mm]	Price per piece [€]	
			gv	Design L4
JVB-N-2815-55	10	92	20.90	61.00
JVB-N-2815-60	10	104	21.20	62.90
JVB-N-2815-80	10	143	23.00	69.80
JVB-N-3817-55	12	88	22.60	64.70
JVB-N-3817-65	12	112	24.70	70.50
JVB-N-3817-80	12	142	27.00	76.70
JVB-N-5030-60	22	104	27.60	100.40
JVB-N-5030-70	22	122	30.00	105.40
JVB-N-5030-80	22	143	32.50	110.90

Prices include X-plate

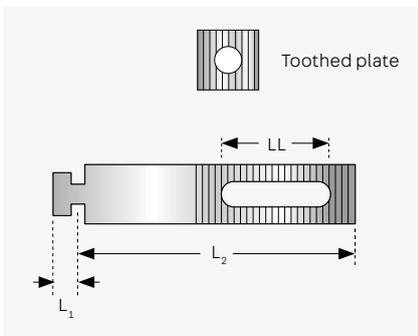
## Connection straps JVB-V (for transverse shear loads)



Type	Length L <sub>1</sub> [mm]	Length L <sub>2</sub> [mm]	Price per piece [€]	
			gv	L4
JVB-V-2815-108	10	273	31.40	58.50
JVB-V-3817-122	12	327	49.30	92.20
JVB-V-5030-152	22	392	67.00	137.70

Prices include 2x eccentric inserts

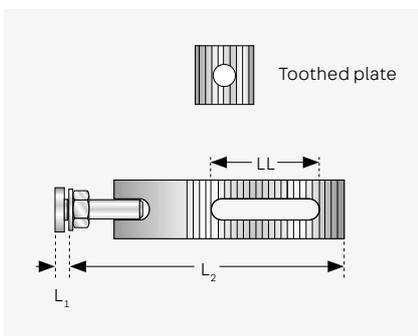
## Connection straps JVB-Z (toothed)



Type	Series/ slot	Length L <sub>1</sub> [mm]	Length L <sub>2</sub> [mm]	Price per 100 pcs. [€]	
				gv	A4
JVB-90-Z/12	For profile K 28/15	10	90	1215.60	1815.40
JVB-115-Z/12		10	115	1242.60	2084.00
JVB-140-Z/12		10	140	1255.80	2160.70
JVB-165-Z/12		10	165	1269.40	2230.90
JVB-190-Z/12		10	190	1289.50	2243.70
JVB-215-Z/12		10	215	1302.80	2339.80
JVB-240-Z/12	10	240	1316.20	2441.90	
JVB-115-Z/18	For profile K 38/17	12	115	1410.40	2537.80
JVB-140-Z/18		12	140	1417.10	2595.40
JVB-165-Z/18		12	165	1423.80	2652.80
JVB-190-Z/18		12	190	1437.30	2774.30
JVB-215-Z/18		12	215	1484.30	2851.00
JVB-240-Z/18		12	240	1511.30	2991.80

Prices include toothed plate 30 × 30 mm

## Connection straps JVB-ZS (toothed with bolt)



Type	Series Series/slot	Length L <sub>1</sub> [mm]	Length L <sub>2</sub> [mm]	Price per 100 pcs. [€]	
				gv	A4
JVB-115-ZS/12	For profile K 28/15	7	115	2108.90	3937.70
JVB-140-ZS/12		7	140	2122.30	4027.20
JVB-165-ZS/12		7	165	2128.90	4135.90
JVB-190-ZS/12		7	190	2176.00	4180.60
JVB-215-ZS/12		7	215	2182.80	4308.50
JVB-140-ZS/18		For profile K 38/17	10	140	2424.50
JVB-165-ZS/18	10		165	2464.90	5312.20
JVB-190-ZS/18	10		190	2538.70	5523.20
JVB-215-ZS/18	10		215	2545.30	5586.90
JVB-215-ZS/18	10		215	2545.30	5586.90

Prices include toothed plate 30 × 30 mm

### Version and material

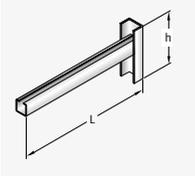
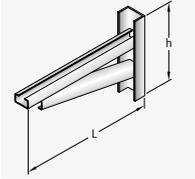
- gv = Galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

### Example order for connection straps JVB-N

Type	-	Design
JVB-N-3817-55	-	L4

# Channel brackets

## Channel brackets JKO

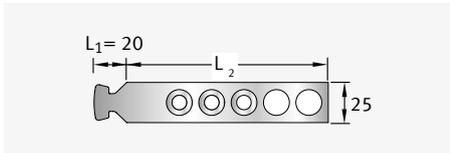
	Bracket type	Profile	Suitable bolts	Vertical profile for bolts	Cantilever length L [mm]	Total height h [mm]	Price per piece [€]	
							fv	A4
							Design	
	JKO 28/28-1	K 28/28	Type JD, M6-M12	U 36/24 M12	100	120	34.70	POR
					200	120	35.60	POR
					300	120	36.80	POR
					400	120	37.60	POR
	JKO 36/36-1	K 36/36	Type JH, M10-M16	U 45/27 M12	300	180	47.10	POR
					400	180	50.10	POR
					500	180	55.20	POR
					600	180	60.90	POR
	JKO 36/36-2	K 36/36	Type JH, M10-M16	U 45/27 M12	300	208	66.00	POR
					400	238	72.20	POR
					500	269	78.90	POR
					600	300	84.80	POR
					700	330	91.90	POR

### Example order for profile brackets JKO

Type	Profile	-	Cantilever length L	-	Design
JKO	K 28/28-1	-	100	-	fv

# Accessories

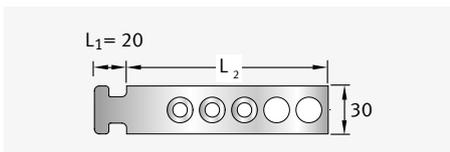
## Brick tie anchors JMA



**Series: 12**

For profiles: Kt 25/15-D, K 28/15

Length L <sub>2</sub> [mm]	PU [pcs.]	Price per 100 pcs. [€]	
		fv	A4
85	100	87.40	390.50
120	100	99.80	476.80
180	100	139.60	587.90
300	100	258.50	864.50

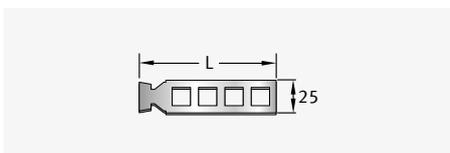


**Series: 18**

For profile: K 38/17

Length L <sub>2</sub> [mm]	PU [pcs.]	Price per 100 pcs. [€]	
		fv	A4
85	100	104.60	484.20
120	100	126.80	537.10
180	100	169.80	633.80
300	100	301.40	959.00

## Thin-bed brick tie anchors JMA-D



**Series: D/12**

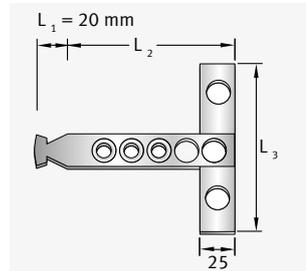
For profiles: Kt 25/15-D, K 28/15

Length L [mm]	PU [pcs.]	Price per 100 pcs. [€]	
		Design	
125	100	A2 260.50	
185	100	298.20	
245	100	336.60	

**Example order for brick tie anchors JMA**

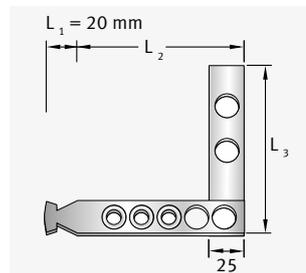
Type	-	Length L <sub>2</sub>	-	Series	-	Design
JMA	-	180	-	12	-	A4

## Transverse brick tie anchors JMA-Q / JMA-QE



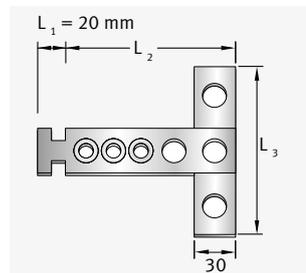
**Series: Q/12**

For profiles: Kt 25/15-D, K 28/15



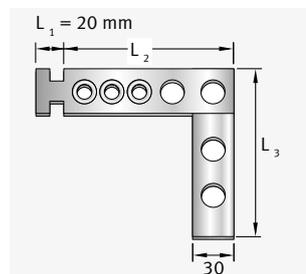
**Series: QE/12**

For profiles: Kt 25/15-D, K 28/15



**Series: Q/18**

For profile: K 38/17



**Series: QE/18**

For profile: K 38/17

Series 12		Price per 100 pcs. [€]	
Length L <sub>2</sub> [mm]	Length L <sub>3</sub> [mm]	Design	
		fv	A4
85	120	1,072.90	1,646.70
120	120	1,100.30	1,734.70
180	120	1,148.10	1,895.80
300	120	1,340.20	2,577.60
85	180	1,127.50	1,815.00
120	180	1,148.10	1,895.80
180	180	1,202.80	2,056.70
300	180	1,368.60	2,692.30
85	300	1,325.10	2,508.50
120	300	1,340.20	2,577.60
180	300	1,368.60	2,679.10
300	300	1,578.30	3,403.20

Series 18		Price per 100 pcs. [€]	
Length L <sub>2</sub> [mm]	Length L <sub>3</sub> [mm]	Design	
		fv	A4
85	120	1,150.20	1,866.40
120	120	1,182.50	1,990.40
180	120	1,260.30	2,263.20
300	120	1,405.70	2,738.10
85	180	1,221.30	2,139.10
120	180	1,260.30	2,263.20
180	180	1,338.30	2,529.70
300	180	1,440.80	2,878.50
85	300	1,385.50	2,656.60
120	300	1,405.70	2,738.10
180	300	1,440.80	2,878.30
300	300	1,624.10	3,435.10

**Example order for transverse brick tie anchors JMA-Q/-QE**

Type	-	Length L <sub>2</sub>	x	Length L <sub>3</sub>	-	Series	-	Design
JMA	-	85	x	120	-	QE/12	-	fv

## Sliding sleeves JMA-G

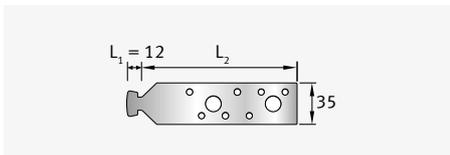


Can be used with brick tie anchors: JMA 85-120/12

Type	Price per 100 pcs. [€]
JMA-G 150/12	176.50

## Nail anchors JNA

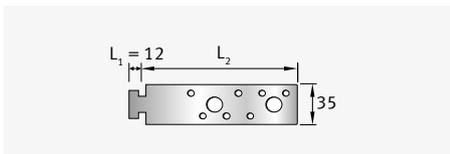
For connecting timber components to adjacent reinforced concrete components



Series: 12

For profiles: Kt 25/15-D, K 28/15

Length L <sub>2</sub> [mm]	PU [pcs.]	Price per 100 pcs. [€]
		Design
		fv
100	100	196.50
130	100	228.40
200	100	300.60

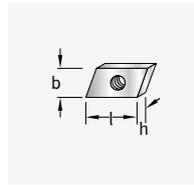


Series: 18

For profile: K 38/17

Length L <sub>2</sub> [mm]	PU [pcs.]	Price per 100 pcs. [€]
		Design
		fv
100	100	196.50
130	100	228.40
200	100	300.60

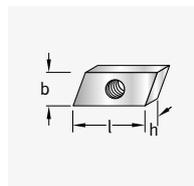
## Hammer-head locking plates JGM D (flat steel)



For profiles: K 28/15, K 28/28, K 28/12

Thread	l x w x h [mm]	PU [gv/A4]	Price per 100 pcs. [€]	
			Design gv	A4
M4	22x12x4	1,000/400	58.50	698.60
M5	22x12x4	1,000/400	58.50	698.60
M6	22x12x4	1,000/400	58.50	698.60
M8	22x12x6	1,000/400	58.50	698.60
M10	19x14x6	1,000/1,000	58.50	698.60

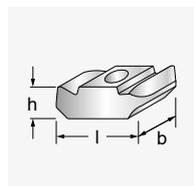
## Hammer-head locking plates JGM H (flat steel)



For profiles: K 38/17, K 36/36, K 36/20

Thread	l x w x h [mm]	PU	Price per 100 pcs. [€]	
			Design gv	A4
M5	32x14x6	500	122.10	-
M6	32x14x6	500	122.10	1,058.30
M8	32x14x6	500	122.10	1,058.30
M10	32x18x8	300	122.10	1,058.30
M12	32x18x8	300	122.10	1,058.30

## Hook-head locking plates JGM C (forged) <sup>1)</sup>

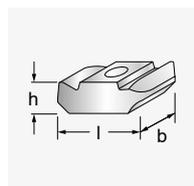


For profiles: W 40+, W 40/22, K 40/25, K 40/22

Thread	l x w x h [mm]	PU	Price per 100 pcs. [€]	
			Design gv	A4
M6	32x17x11	250	271.30	1,970.10
M8	32x17x11	250	271.30	1,970.10
M10	32x17x11	250	271.30	1,970.10
M12	32x17x11	250	299.60	2,003.90
M16	32x23x13	250	421.40	2,003.90

<sup>1)</sup> Locking plates for mounting channels on request

## Hook-head locking plates JGM B (forged) <sup>1)</sup>

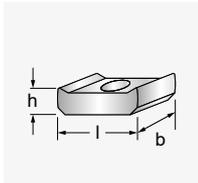


For profiles: W 55/42, W 53/34, W 50+, W 50/30, K 53/34, K 50/40, K 50/30, K 48/26

Thread	l x w x h [mm]	PU	Price per 100 pcs. [€]	
			Design gv	A4
M6	41x21x16	100	341.70	2,037.80
M8	41x21x16	100	341.70	2,037.80
M10	41x21x16	100	341.70	2,037.80
M12	41x21x16	100	341.70	2,037.80
M16	41x26x16	100	515.50	2,037.80

<sup>1)</sup> Locking plates for mounting channels on request

## Hook-head locking plates JGM A (forged) <sup>1)</sup>

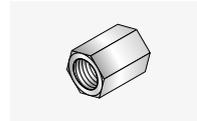


For profiles: W 72/48,  
K 72/48

Thread	l x w x h [mm]	PU	Price per 100 pcs. [€]	
			Design	
			gv	A4
M10	-	-	Prices on request	
M12	57x31x22	50	1,277.70	
M16	57x31x22	50	1,277.70	
M20	57x31x22	50	1,277.70	

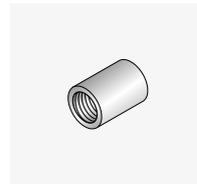
<sup>1)</sup> Locking plates for mounting channels on request

## Hexagonal connecting sleeves VMSK



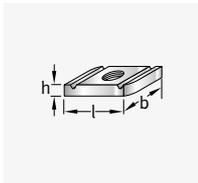
Thread x length [mm]	Shape	Price per 100 pcs. [€]	
		Design	
		gv	A4
M10x25	B6	275.40	POR
M12x30	B8	320.10	POR
M16x40	B10	487.20	POR
M20x50	B12	710.90	POR

## Round connecting sleeves VM



Thread x length [mm]	Price per 100 pcs. [€]	
	Design	
	gv	A4
M6 x 20	60.30	-
M8 x 20	82.90	-
M10 x 25	134.40	POR
M12 x 30	213.70	POR
M16 x 40	342.70	POR
M20 x 50	600.70	POR

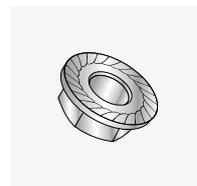
## Channel nuts JAM 22



For profiles: K 41/41

Thread	l x w x h [mm]	PU	Price per 100 pcs. [€]	
			Design	
			gv	fv
M6	35x20x6	500	108.20	139.50
M8	35x20x6	500	118.30	149.50
M10	35x20x8	500	136.20	169.30
M12	35x20x9.5	500	151.10	-

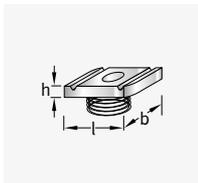
## Flange nuts SKF



Thread	Price per 100 pcs. [€]	
	Design	
	gv	A4
M12	21.50	
M16	51.60	

## Channel nuts JAM F 22

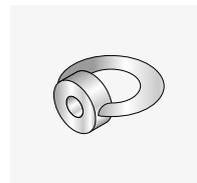
with spring



For profiles: K 41/41

Thread	l x w x h [mm]	PU	Price per 100 pcs. [€]	
			Design	
			gv	fv
M6	35x20x6	500	131.70	158.00
M8	35x20x6	500	141.50	167.70
M10	35x20x8	500	152.60	182.00
M12	35x20x9.5	500	172.50	209.80

## Ring nuts RM (DIN 582)



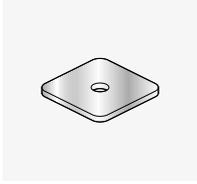
Thread	Price per 100 pcs. [€]	
	Design	
	Untreated	gv
M8	256.50	359.90
M10	406.20	476.70
M12	554.40	623.20
M16	748.90	872.90
M20	1,047.90	1,253.20

## Hex nuts SK (DIN EN ISO 4032, DIN 934)



Thread	Price per 100 pcs. [€]		
	Design		
	gv	fv	A4
M6	3.80	-	13.30
M8	7.10	-	25.00
M10	14.20	15.80	57.50
M12	23.00	23.00	88.30
M16	44.90	45.60	160.50
M20	91.10	93.10	310.80
M24	160.50	160.50	764.80

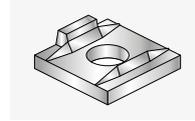
## Square bearing plates JVL



Article	Material	Height × width × dia. [mm]	Price per piece [€]
JVL4003-08	A4	3 × 40 × 8	2.10
JVL6504-08	A4	4 × 65 × 8	5.80
JVL8008-08	A4	8 × 80 × 8	19.60
JVL4006-08	A4	6 × 40 × 8	5.30
JVL6503-08	A4	3 × 65 × 8	4.60
JVL6506-08	A4	6 × 65 × 8	10.30
JVL8003-08	A4	3 × 80 × 8	6.50
JVL8006-08	A4	6 × 80 × 8	14.20

Other sizes available on request

## Toothed washers JKZS



Type	For bolts	Price per 100 pcs. [€]	
		Design	fv
16	M16 8.8	749.50	

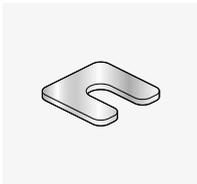
## Spring washers FR

(in line with former DIN 127)



Type	Shape	Price per 100 pcs. [€]	
		gv	A4
6	B6	3.80	13.80
8	B8	4.30	27.10
10	B10	6.30	42.70
12	B12	9.70	59.10
16	B16	22.00	143.80
20	B20	35.30	204.30
24	B24	69.50	-

## Horseshoe shims JVS

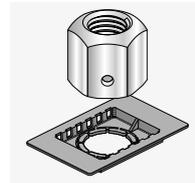


Article	Material	Height × width × dia. [mm]	Price per piece [€]
JVS4003-13	A4	3 × 40 × 13	2.10
JVS6504-17	A4	4 × 65 × 17	5.90
JVS8008-21	A4	8 × 80 × 21	20.20
JVS4006-13	A4	6 × 40 × 13	5.30
JVS6503-17	A4	3 × 65 × 17	4.70
JVS6506-17	A4	6 × 65 × 17	10.40
JVS8003-21	A4	3 × 80 × 21	6.80
JVS8006-21	A4	6 × 80 × 21	14.50

Other sizes available on request

## Gap fillers JGF

With utility model protection



Consisting of: special nut and injection insert (ABS)

Type	Price per piece [€]	
	Design	fv
JXH12	POR	POR
JXH16	POR	POR
JXB16	POR	POR
JXB20	POR	POR
JXE20	POR	POR
JXE24	POR	POR

## Washers

(DIN EN ISO 7089, without chamfer)



Matching bolt thread	HV <sup>1)</sup>	Price per 100 pcs. [€]		
		Design		
		gv	fv	A4
M6 <sup>2)</sup>	140	-	-	16.10
M8 <sup>2)</sup>		-	-	26.40
M10		10.20	15.20	45.40
M12	200	12.00	18.10	76.50
M16		21.90	32.80	139.30
M20		42.80	64.30	205.20
M24		61.90	92.90	289.10
M27		96.50	130.60	430.60
M30		104.40	160.70	516.40

<sup>1)</sup> Vickers hardness. <sup>2)</sup> In line with DIN 125

## Installation cones JIC



Thread	Price per 100 pcs. [€]	
	Design	
	8.8 steel	
M16	Prices on request	

## Washers

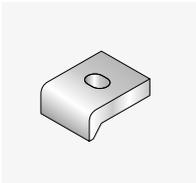
(DIN EN ISO 7093-1, DIN 9021)



Matching bolt thread	Price per 100 pcs. [€]		
	Design		
	gv	fv	A4
M6	9.90	-	41.40
M8	13.10	-	54.90
M10	18.10	18.10	73.80
M12	31.60	31.60	147.60
M16	53.40	53.40	187.50
M20	160.80	160.80	526.60

## Clamping plates KP

DIN 3568



Type	Slot LL	Price per 100 pcs. [€]	
		Design	
		gv	A4
KP 50/7	14 × 20	1,119.90	
KP 60/10	18 × 24	1,139.30	
KP 60/11	18 × 24	1,149.00	
KP 60/12	18 × 24	1,253.10	
KP 60/14	18 × 24	1,276.10	
KP 60/16	18 × 24	1,299.40	
KP 60/18	18 × 24	1,323.00	
KP 60/20	18 × 24	1,347.80	

Other diameters available on request

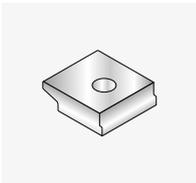
## Threaded rods GS

(length l = 1,000 mm)



Thread	Price per 100 pcs. [€]	
	gv	A4
M6	167.00	1,129.50
M8	193.10	1,748.90
M10	299.50	2,743.20
M12	426.90	4,135.40
M16	881.40	6,779.10
M20	1,297.70	10,985.10

## Clamping plates KPA for crane rails



Type	Diameter [mm]	Price per 100 pcs. [€]	
		Design	
		gv	A4
KPA 45	22	1,192.90	
KPA 55	18 / 22	1,265.10	
KPA 65	22	1,337.50	
KPA 75	22	1,392.30	

Other diameters available on request

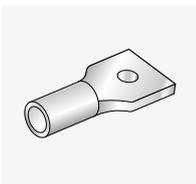
## Clamping claws SPKU

with washers



Article	Price per 100 pcs. [€]	
	Design	
	gv	A4
SPKU	1,096.20	

## Eye sockets ÖM



Thread × length [mm]	Price per 100 pcs. [€]	
	Design	
	gv	A4
M8 × 40	151.60	POR
M10 × 50	156.50	POR
M12 × 60	170.50	POR
M16 × 80	366.90	POR



# Reinforcement

## Punching shear reinforcement

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# Punching shear reinforcement

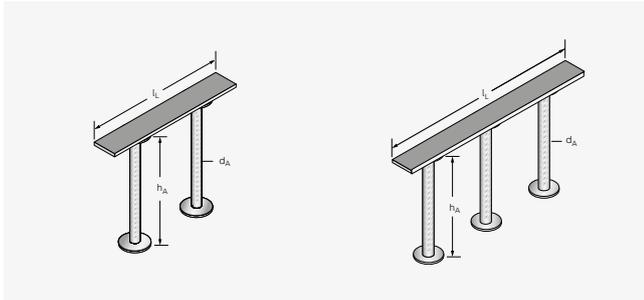
## Punching shear reinforcement JDA

ETA (European Technical Assessment ETA-13/0136)

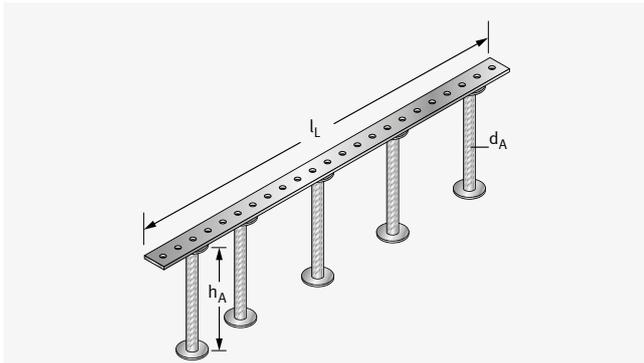
## Transverse force reinforcement JDA-S

National technical approval (abZ Z-15.1-268)

JDA-S (transverse force reinforcement) and JDA (punching shear reinforcement) use the same standard components.



Standard element with 2 or 3 anchors



Continuous elements with 4 or more anchors

### Example order for punching shear reinforcement JDA

Type	No. of anchors	/	Anchor diameter $d_A$	/	Anchor length $h_A$	-	Strip length $l_L$
JDA	2	/	14	/	225	-	320

Grid: 80/160/80

### Example order for punching shear reinforcement JDA

Type	No. of anchors	/	Anchor diameter $d_A$	/	Anchor length $h_A$	-	Strip length $l_L$
JDA	5	/	14	/	205	-	725

Grid: 90/110/150/150/150/75

### Version and material

- Strips made from perforated or smooth structural steel
- Double-headed anchors made from ribbed reinforcing steel



**Combinations of other strip and anchor lengths as well as variants with different numbers of anchors are available on request.**

An overview of strip lengths can be found in the JDA technical information. The table detailing the range of welded JDA elements can be found in the standard element product range.



Suitable accessories can be found on page 91.

Diameter d <sub>s</sub> : 10					
Anchor length h <sub>A</sub> [mm]	Price per piece [€]				
	No. of anchors				
	2	3	4	5	6
125	10.40	15.40	20.40	25.25	29.95
135	10.50	15.60	20.60	25.50	30.30
145	10.55	15.65	20.70	25.60	30.45
155	10.65	15.85	20.90	25.85	30.75
165	10.75	16.00	21.10	26.10	31.05
175	10.80	16.05	21.20	26.20	31.15
185	10.90	16.20	21.40	26.50	31.45
195	11.00	16.40	21.65	26.80	31.80
205	11.10	16.55	21.85	27.05	32.10
215	11.20	16.65	21.95	27.15	32.25
225	11.30	16.80	22.10	27.40	32.50
235	11.40	16.95	22.30	27.65	32.80
245	11.45	17.00	22.40	27.75	32.95
255	11.55	17.15	22.60	28.00	33.25
265	11.60	17.25	22.75	28.20	33.55
275	11.65	17.35	22.90	28.40	33.75
285	11.70	17.45	23.05	28.55	33.95
295	11.85	17.60	23.30	28.85	34.25
305	11.90	17.70	23.45	28.95	34.40
315	12.00	17.85	23.65	29.20	34.70
325	12.10	18.05	23.85	29.45	34.95
335	12.20	18.25	24.05	29.70	35.30
345	12.25	18.30	24.15	29.80	35.45
355	12.40	18.45	24.35	30.15	35.75
365	12.50	18.60	24.55	30.40	36.05
375	12.55	18.65	24.60	30.50	36.15
385	12.65	18.80	24.80	30.75	36.45
395	12.75	18.95	25.05	31.00	36.75
405	12.80	19.05	25.15	31.10	37.00
415	21.80	32.35	42.70	52.90	62.80
425	21.95	32.60	43.00	53.25	63.25
435	22.05	32.75	43.20	53.50	63.55
445	22.25	33.05	43.60	53.95	64.10
455	22.35	33.20	43.85	54.25	64.45
465	22.50	33.50	44.25	54.70	64.90
475	22.65	33.75	44.55	55.10	65.40
485	22.80	34.00	44.85	55.45	65.85
495	22.95	34.15	45.05	55.70	66.20
505	23.05	34.30	45.25	56.00	66.50
515	23.20	34.45	45.40	56.25	66.75
525	23.30	34.60	45.65	56.45	67.05
535	23.45	34.75	45.85	56.70	67.35
545	23.55	34.90	46.05	56.95	67.65
555	23.65	35.05	46.25	57.20	67.95
565	23.75	35.25	46.45	57.45	68.25
575	23.85	35.40	46.65	57.75	68.55
585	23.95	35.55	46.85	58.00	68.90
595	24.05	35.70	47.05	58.25	69.15
605	24.15	35.85	47.30	58.50	69.45
615	24.25	36.00	47.55	58.75	69.80
625	24.35	36.15	47.75	59.00	70.10
635	24.45	36.30	47.90	59.30	70.40
645	24.55	36.45	48.10	59.55	70.70
655	24.65	36.55	48.30	59.75	71.00
665	24.75	36.70	48.50	60.05	71.35
675	24.85	36.85	48.70	60.30	71.60
685	25.00	37.10	48.95	60.55	71.90
695	25.10	37.25	49.15	60.80	72.25

Diameter d <sub>s</sub> : 12					
Anchor length h <sub>A</sub> [mm]	Price per piece [€]				
	No. of anchors				
	2	3	4	5	6
125	11.20	16.65	21.95	27.15	32.25
135	11.30	16.80	22.10	27.40	32.50
145	11.35	16.85	22.20	27.50	32.65
155	11.45	17.00	22.40	27.75	32.95
165	11.55	17.15	22.60	28.00	33.25
175	11.60	17.25	22.70	28.15	33.50
185	11.70	17.40	22.95	28.40	33.75
195	11.80	17.55	23.20	28.70	34.10
205	11.85	17.60	23.30	28.85	34.25
215	11.95	17.75	23.55	29.05	34.55
225	12.05	17.90	23.75	29.30	34.85
235	12.10	18.05	23.85	29.45	34.95
245	12.20	18.25	24.05	29.70	35.30
255	12.35	18.35	24.25	29.95	35.60
265	12.40	18.45	24.35	30.15	35.75
275	12.50	18.60	24.55	30.40	36.05
285	12.60	18.75	24.70	30.65	36.30
295	12.65	18.80	24.80	30.75	36.45
305	12.75	18.95	25.05	31.00	36.75
315	12.90	19.10	25.25	31.25	37.15
325	12.95	19.20	25.35	31.35	37.30
335	13.10	19.40	25.55	31.60	37.55
345	13.20	19.55	25.75	31.90	37.85
355	13.25	19.60	25.85	32.00	38.00
365	13.35	19.80	26.05	32.25	38.30
375	13.40	19.90	26.15	32.40	38.45
385	13.50	20.05	26.40	32.60	38.75
395	13.60	20.20	26.65	32.85	39.10
405	13.65	20.25	26.75	33.00	39.25
415	23.85	35.40	46.65	57.75	68.55
425	24.05	35.70	47.05	58.25	69.15
435	24.15	35.85	47.30	58.50	69.45
445	24.30	36.05	47.65	58.90	69.95
455	24.45	36.30	47.90	59.30	70.40
465	24.60	36.50	48.20	59.65	70.85
475	24.75	36.70	48.50	60.05	71.35
485	24.95	37.05	48.80	60.45	71.75
495	25.10	37.25	49.15	60.80	72.25
505	25.25	37.50	49.50	61.20	72.70
515	25.40	37.70	49.80	61.55	73.15
525	25.55	37.95	50.10	62.00	73.60
535	25.70	38.15	50.40	62.35	74.05
545	25.85	38.40	50.70	62.75	74.45
555	26.00	38.65	51.00	63.15	74.95
565	26.15	38.90	51.35	63.50	75.35
575	26.30	39.15	51.65	63.85	75.90
585	26.50	39.35	51.95	64.20	76.35
595	26.70	39.60	52.25	64.65	76.80
605	26.85	39.80	52.60	65.05	77.25
615	27.00	40.05	52.90	65.45	77.70
625	27.15	40.25	53.15	65.80	78.15
635	27.30	40.60	53.45	66.25	78.60
645	27.45	40.80	53.75	66.60	79.05
655	27.60	41.05	54.10	66.95	79.50
665	27.75	41.25	54.40	67.35	80.00
675	27.90	41.50	54.80	67.70	80.45
685	28.05	41.70	55.10	68.10	80.90
695	28.20	41.90	55.40	68.45	81.35

Diameter d <sub>s</sub> : 14					
Anchor length h <sub>A</sub> [mm]	Price per piece [€]				
	No. of anchors				
	2	3	4	5	6
125	-	-	-	-	-
135	-	-	-	-	-
145	12.45	18.50	24.45	30.25	35.90
155	12.55	18.65	24.60	30.50	36.15
165	12.65	18.80	24.80	30.75	36.45
175	12.75	18.95	25.05	31.00	36.75
185	12.90	19.10	25.25	31.25	37.15
195	13.05	19.25	25.45	31.50	37.40
205	13.20	19.55	25.75	31.90	37.85
215	13.25	19.60	25.85	32.00	38.00
225	13.35	19.80	26.05	32.25	38.30
235	13.50	20.05	26.40	32.60	38.75
245	13.60	20.20	26.65	32.85	39.10
255	13.65	20.25	26.75	33.00	39.25
265	13.80	20.50	27.05	33.35	39.70
275	13.90	20.65	27.20	33.70	39.95
285	13.95	20.70	27.30	33.85	40.10
295	14.10	20.90	27.60	34.20	40.65
305	14.20	21.05	27.80	34.45	40.95
315	14.30	21.20	28.00	34.70	41.20
325	14.40	21.35	28.20	34.95	41.50
335	14.50	21.55	28.45	35.25	41.80
345	14.65	21.70	28.70	35.50	42.15
355	14.75	21.85	28.90	35.75	42.45
365	14.85	22.00	29.10	35.95	42.70
375	14.95	22.15	29.30	36.20	43.00
385	15.05	22.30	29.50	36.45	43.30
395	15.15	22.45	29.70	36.70	43.60
405	15.25	22.60	29.85	37.05	43.90
415	24.75	36.70	48.50	60.05	71.35
425	24.95	37.05	48.80	60.45	71.75
435	25.10	37.25	49.15	60.80	72.25
445	25.30	37.55	49.60	61.35	72.85
455	25.45	37.80	49.90	61.75	73.30
465	25.60	38.00	50.20	62.10	73.75
475	25.75	38.25	50.45	62.45	74.15
485	25.90	38.45	50.80	62.90	74.60
495	26.05	38.75	51.15	63.25	75.10
505	26.20	38.95	51.45	63.60	75.55
515	26.40	39.25	51.75	64.00	76.05
525	26.55	39.45	52.05	64.40	76.55
535	26.75	39.65	52.40	64.75	76.95
545	26.90	39.90	52.70	65.20	77.40
555	27.05	40.10	53.00	65.60	77.85
565	27.20	40.40	53.25	65.95	78.30
575	27.35	40.65	53.55	66.35	78.75
585	27.50	40.90	53.85	66.70	79.20
595	27.65	41.10	54.20	67.10	79.65
605	27.80	41.35	54.50	67.45	80.15
615	27.95	41.55	54.90	67.85	80.55
625	28.10	41.80	55.20	68.25	81.05
635	28.25	42.00	55.50	68.65	81.50
645	28.45	42.25	55.75	69.00	81.95
655	28.65	42.50	56.10	69.35	82.40
665	28.80	42.70	56.40	69.80	82.90
675	28.95	42.95	56.70	70.15	83.35
685	29.10	43.15	57.00	70.55	83.80
695	29.25	43.40	57.30	70.90	84.25

Diameter d <sub>s</sub> : 16					
Anchor length h <sub>A</sub> [mm]	Price per piece [€]				
	No. of anchors				
	2	3	4	5	6
125	-	-	-	-	-
135	-	-	-	-	-
145	-	-	-	-	-
155	13.45	19.95	26.25	32.50	38.65
165	13.60	20.20	26.65	32.85	39.10
175	13.70	20.35	26.85	33.10	39.40
185	13.85	20.55	27.15	33.55	39.85
195	13.95	20.70	27.30	33.85	40.10
205	14.10	20.90	27.60	34.20	40.65
215	14.20	21.05	27.80	34.45	40.95
225	14.30	21.20	28.00	34.70	41.20
235	14.45	21.50	28.35	35.05	41.65
245	14.55	21.65	28.55	35.35	41.95
255	14.75	21.85	28.90	35.75	42.45
265	14.85	22.00	29.10	35.95	42.70
275	15.00	22.25	29.40	36.35	43.15
285	15.10	22.40	29.60	36.60	43.45
295	15.25	22.60	29.85	37.05	43.90
305	15.35	22.75	30.15	37.30	44.30
315	15.50	23.05	30.45	37.65	44.75
325	15.60	23.25	30.65	37.90	45.00
335	15.70	23.45	30.85	38.15	45.30
345	15.90	23.65	31.15	38.50	45.80
355	16.00	23.80	31.35	38.80	46.10
365	16.15	24.00	31.65	39.20	46.50
375	16.25	24.15	31.90	39.45	46.80
385	16.45	24.40	32.20	39.80	47.30
395	16.55	24.55	32.35	40.05	47.60
405	16.70	24.75	32.65	40.45	48.05
415	25.75	38.25	50.45	62.45	74.15
425	25.90	38.45	50.80	62.90	74.60
435	26.10	38.80	51.25	63.35	75.25
445	26.30	39.15	51.65	63.85	75.90
455	26.55	39.45	52.05	64.40	76.55
465	26.80	39.75	52.50	64.85	77.10
475	26.95	39.95	52.80	65.35	77.55
485	27.15	40.25	53.15	65.80	78.15
495	27.35	40.65	53.55	66.35	78.75
505	27.55	40.95	53.95	66.85	79.35
515	27.75	41.25	54.40	67.35	80.00
525	27.95	41.55	54.90	67.85	80.55
535	28.15	41.85	55.30	68.35	81.20
545	28.40	42.20	55.65	68.90	81.80
555	28.65	42.50	56.10	69.35	82.40
565	28.85	42.80	56.50	69.90	83.00
575	29.05	43.10	56.90	70.45	83.65
585	29.25	43.40	57.30	70.90	84.25
595	29.45	43.70	57.75	71.45	84.80
605	29.65	44.10	58.20	71.95	85.45
615	29.85	44.45	58.55	72.50	86.05
625	30.15	44.70	58.95	73.00	86.75
635	30.35	45.00	59.40	73.50	87.30
645	30.55	45.30	59.85	74.00	87.90
655	30.75	45.65	60.25	74.45	88.50
665	30.95	45.95	60.65	75.00	89.10
675	31.15	46.25	61.05	75.55	89.65
685	31.35	46.55	61.45	76.05	90.35
695	31.55	46.85	61.90	76.60	90.90

Sealing

Fastening

Reinforcement

Facade fastening

Sound insulation

Formwork

Connection

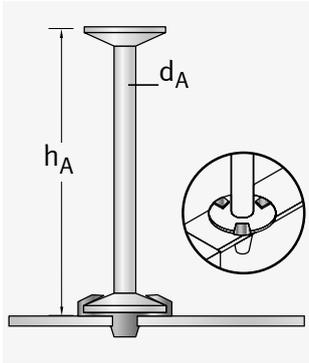
Thermal insulation

Diameter d <sub>s</sub> : 20						
Anchor length h <sub>A</sub> [mm]	Price per piece [€]					
	No. of anchors					
	2	3	4	5	6	
125	-	-	-	-	-	
135	-	-	-	-	-	
145	-	-	-	-	-	
155	-	-	-	-	-	
165	-	-	-	-	-	
175	-	-	-	-	-	
185	16.05	23.85	31.45	38.90	46.25	
195	16.25	24.15	31.90	39.45	46.80	
205	16.45	24.40	32.20	39.80	47.30	
215	16.65	24.70	32.55	40.30	47.90	
225	16.80	24.95	32.85	40.75	48.35	
235	17.00	25.25	33.25	41.25	48.95	
245	17.20	25.55	33.75	41.75	49.60	
255	17.35	25.80	34.10	42.15	50.05	
265	17.55	26.10	34.50	42.65	50.60	
275	17.70	26.30	34.80	43.00	51.15	
285	17.90	26.70	35.15	43.50	51.70	
295	18.10	26.90	35.50	43.90	52.15	
305	18.35	27.20	35.90	44.45	52.75	
315	18.50	27.45	36.20	44.85	53.20	
325	18.70	27.75	36.60	45.30	53.80	
335	18.85	27.95	37.00	45.75	54.25	
345	19.05	28.25	37.40	46.20	54.95	
355	19.20	28.55	37.65	46.60	55.35	
365	19.45	28.85	38.05	47.05	56.00	
375	19.60	29.10	38.35	47.55	56.40	
385	19.85	29.40	38.80	48.00	57.00	
395	20.05	29.70	39.25	48.50	57.65	
405	20.20	29.95	39.55	48.85	58.10	
415	30.70	45.60	60.15	74.35	88.30	
425	31.00	46.05	60.75	75.10	89.25	
435	31.25	46.40	61.25	75.85	90.00	
445	31.50	46.80	61.80	76.50	90.75	
455	31.85	47.25	62.40	77.20	91.70	
465	32.10	47.70	62.95	77.80	92.45	
475	32.35	48.05	63.40	78.50	93.15	
485	32.65	48.50	64.00	79.25	94.15	
495	32.90	48.95	64.55	79.90	94.85	
505	33.15	49.30	65.10	80.50	95.65	
515	33.30	49.60	65.45	80.95	96.05	
525	33.55	49.80	65.75	81.30	96.55	
535	33.70	50.00	66.00	81.70	97.05	
545	33.90	50.25	66.35	82.05	97.50	
555	34.05	50.45	66.65	82.45	97.95	
565	34.20	50.75	66.95	82.85	98.35	
575	34.35	50.95	67.25	83.20	98.85	
585	34.50	51.25	67.55	83.65	99.30	
595	34.65	51.45	67.90	84.00	99.70	
605	34.80	51.70	68.20	84.35	100.15	
615	34.95	51.90	68.50	84.70	100.70	
625	35.10	52.15	68.80	85.15	101.10	
635	35.30	52.40	69.10	85.50	101.60	
645	35.45	52.60	69.40	85.90	102.00	
655	35.60	52.85	69.75	86.30	102.50	
665	35.75	53.05	70.05	86.75	102.95	
675	35.90	53.30	70.40	87.10	103.35	
685	36.05	53.50	70.70	87.45	103.90	
695	36.20	53.75	71.00	87.85	104.35	

Diameter d <sub>s</sub> : 25						
Anchor length h <sub>A</sub> [mm]	Price per piece [€]					
	No. of anchors					
	2	3	4	5	6	
125	-	-	-	-	-	
135	-	-	-	-	-	
145	-	-	-	-	-	
155	-	-	-	-	-	
165	-	-	-	-	-	
175	-	-	-	-	-	
185	-	-	-	-	-	
195	-	-	-	-	-	
205	-	-	-	-	-	
215	-	-	-	-	-	
225	-	-	-	-	-	
235	-	-	-	-	-	
245	30.90	45.90	60.55	74.90	88.95	
255	31.30	46.50	61.35	75.95	90.20	
265	31.70	47.05	62.20	76.95	91.40	
275	32.15	47.75	63.05	77.95	92.60	
285	32.55	48.35	63.80	78.95	93.85	
295	32.95	49.00	64.65	80.05	95.00	
305	33.35	49.65	65.55	81.05	96.25	
315	33.90	50.25	66.35	82.05	97.50	
325	34.30	50.90	67.15	83.10	98.65	
335	34.70	51.55	68.00	84.10	99.85	
345	35.10	52.15	68.80	85.15	101.10	
355	35.55	52.75	69.65	86.15	102.35	
365	35.95	53.35	70.50	87.20	103.50	
375	36.35	53.95	71.30	88.20	104.75	
385	36.75	54.70	72.10	89.20	105.95	
395	37.25	55.30	73.00	90.30	107.15	
405	37.65	55.95	73.75	91.30	108.40	
415	38.05	56.55	74.55	92.30	109.60	
425	38.50	57.20	75.55	93.45	111.00	
435	39.05	57.90	76.50	94.60	112.35	
445	39.55	58.70	77.50	95.85	113.85	
455	39.95	59.35	78.35	96.95	115.10	
465	40.45	60.10	79.25	98.10	116.45	
475	41.00	60.80	80.30	99.35	118.05	
485	41.45	61.55	81.25	100.55	119.40	
495	41.90	62.25	82.15	101.65	120.70	
505	42.40	62.95	83.10	102.80	122.10	
515	42.80	63.55	83.95	103.90	123.35	
525	43.20	64.15	84.70	104.85	124.55	
535	43.60	64.80	85.55	105.85	125.75	
545	44.10	65.50	86.45	106.90	126.95	
555	44.55	66.15	87.25	107.95	128.20	
565	44.95	66.75	88.05	108.95	129.40	
575	45.35	67.35	88.90	109.95	130.60	
585	45.80	67.95	89.65	111.00	131.80	
595	46.20	68.55	90.55	112.05	133.10	
605	46.60	69.20	91.40	113.05	134.25	
615	47.00	69.85	92.20	114.05	135.45	
625	47.45	70.50	93.00	115.10	136.70	
635	47.90	71.10	93.90	116.10	137.90	
645	48.30	71.75	94.65	117.15	139.15	
655	48.70	72.40	95.50	118.20	140.35	
665	49.15	73.05	96.35	119.20	141.50	
675	49.60	73.60	97.20	120.20	142.75	
685	50.00	74.20	98.00	121.20	144.00	
695	50.40	74.85	98.85	122.30	145.20	

## Punching shear reinforcement JDA-FT-KL

ETA (European Technical Assessment ETA-13/0136)



Anchor length $h_A$ [mm]	Price per piece [€]			
	Anchor diameter $d_A$ [mm]			
	Dia. 10	Dia. 12	Dia. 14	Dia. 16
125–695, In steps of 10 mm	Prices on request	Prices on request	Prices on request	Prices on request

### Example order for punching shear reinforcement JDA-FT-KL

Type	No. of anchors	/	Anchor diameter $d_A$	/	Anchor length $h_A$	-	Strip length $l_1$
JDA-FT-KL	2	/	10	/	145	-	200

Grid: 50/100/50



### Further lengths available on request.

Delivered with pre-assembled clip on the anchor. Only available to qualified precast concrete plants.

### Version and material

- Strip made from perforated structural steel
- Double-headed anchors made from ribbed and smooth reinforcing steel
- Plastic clip (patented fastener)



Suitable accessories can be found on page 91.

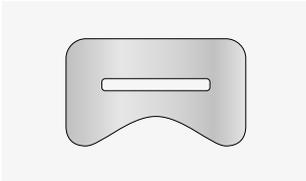
# Accessories for punching shear reinforcement

## Spacers AH-DA



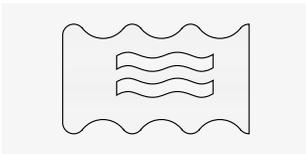
Type	Concrete covers [mm]	Design	Price per piece [€] net
AH-DA 20	20	Plastic (for use in cast-in-place elements)	0.40
AH-DA 25	25		0.40
AH-DA 30	30		0.40
AH-DA 35	35		0.40

## Spacers AH-FBA



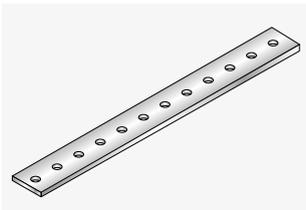
Type	Concrete covers [mm]	Design	Price per piece [€] net
AH-FBA 20	20	Fibre concrete (for use in precast ceilings)	0.50
AH-FBA 25	25		0.50
AH-FBA 30	30		0.50

## Spacers AH-FT



Type	Concrete covers [mm]	Design	Price per piece [€] net
AH-FT	15 / 20 / 25 / 30	Plastic (for use in precast ceilings)	0.35

## Assembly aids JDA-Q



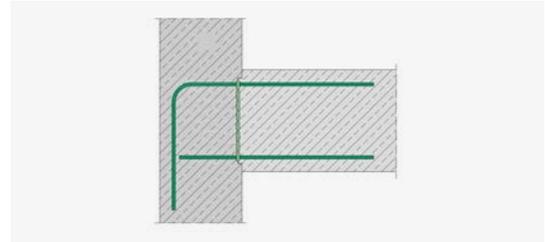
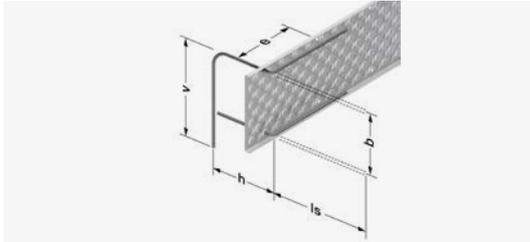
Type	Price per piece [€]
JDA-Q	Prices on request

# FERBOX®

When used with FERBOX® types B04, B06, B07, B08, and B09, the fold-out mounting bracket (ls) must be bent into a conical shape in situations that combine closely spaced rebar and large ls dimensions. This is due to production constraints. This situation can make it more difficult to configure the rebar and can complicate the structural design. Mounting brackets can be closely spaced without having to bend the mounting brackets into conical shapes by using the S version. To do so, the rods are all bent in one direction and the last stirrups protrude beyond the end of the box.

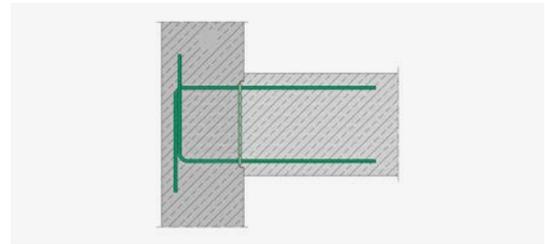
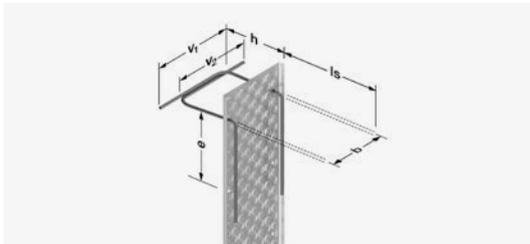
## FERBOX® B01

Bend diameter h/v:  
10 ds

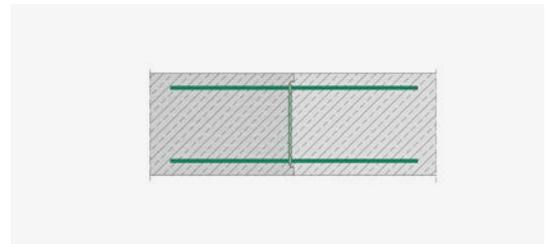
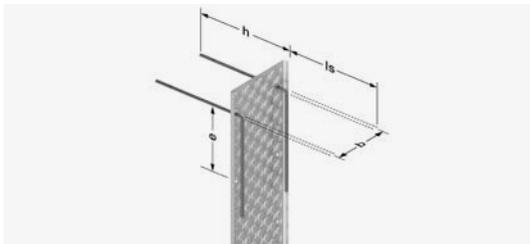


## FERBOX® B02

Bend diameter h/v:  
4ds (also available  
with h/v = 10 ds)

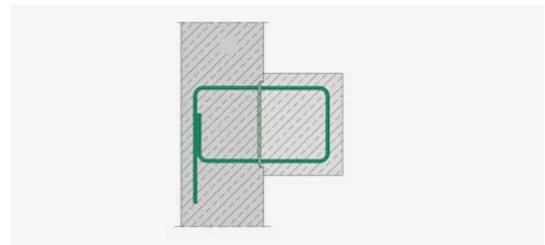
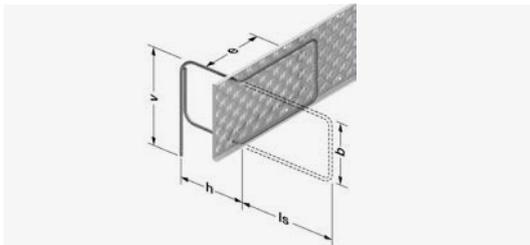


## FERBOX® B03

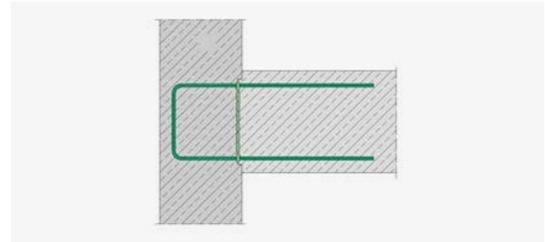
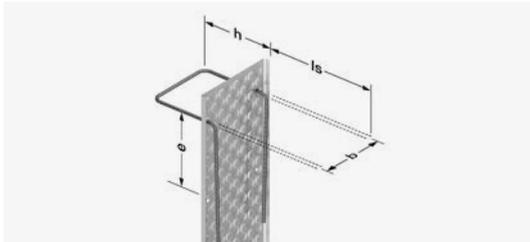


## FERBOX® B04/ B04S

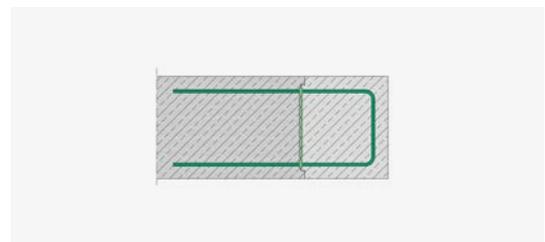
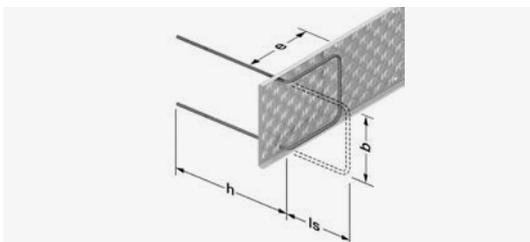
Bend diameter h/v:  
4 ds



## FERBOX® B05

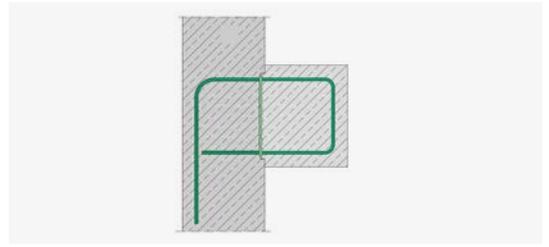
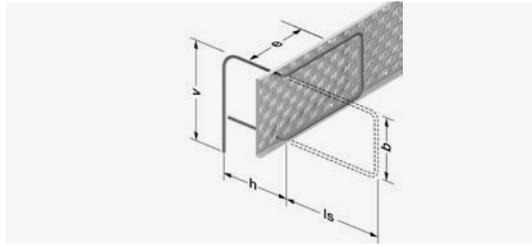


## FERBOX® B06/ B06S

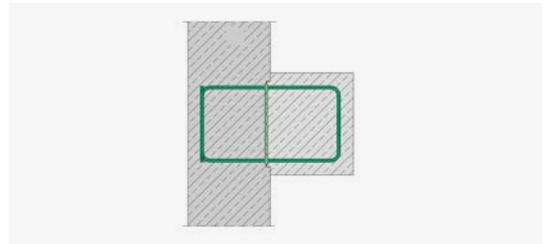
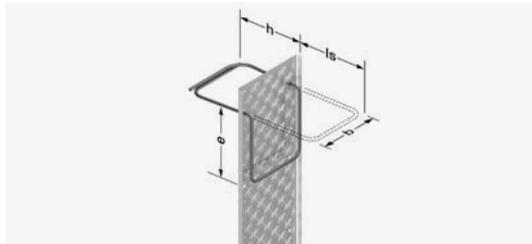


**FERBOX® B07/  
 B07S**

Bend diameter h/v: 10  
 ds (also available with  
 h/v = 4 ds)

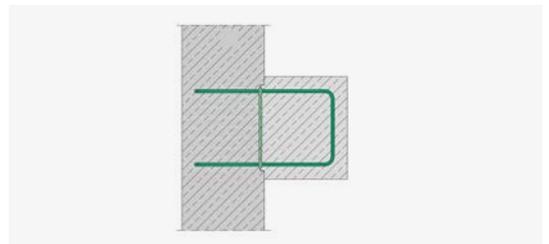
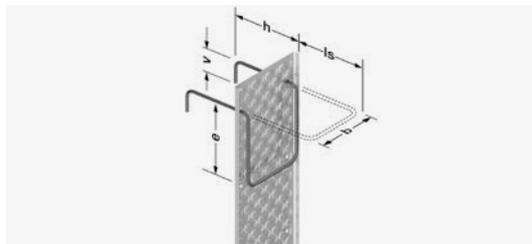


**FERBOX® B08/  
 B08S**



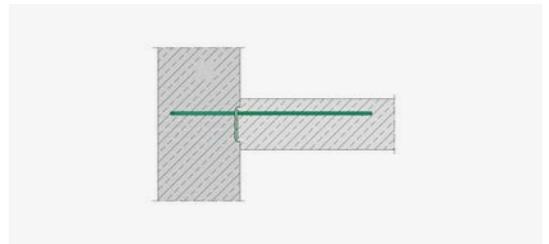
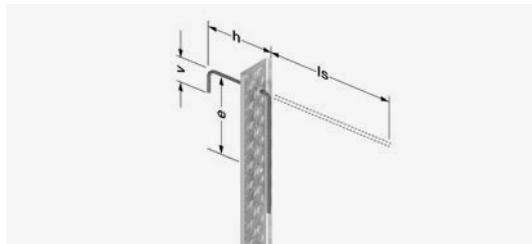
**FERBOX® B09/  
 B09S**

Bend diameter h/v:  
 4 ds



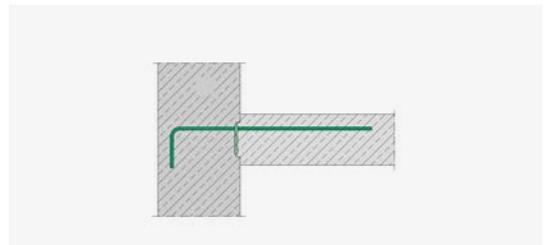
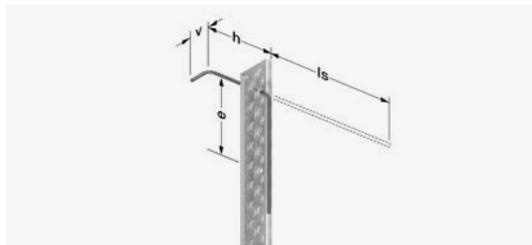
**FERBOX® E01**

Bend diameter h/v:  
 4 ds

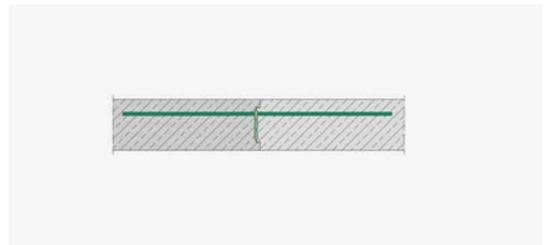
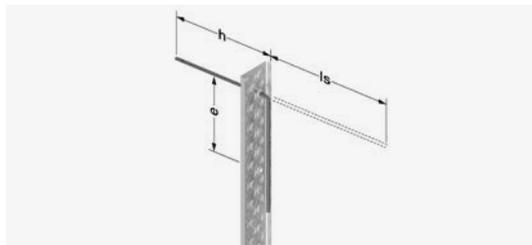


**FERBOX® E02**

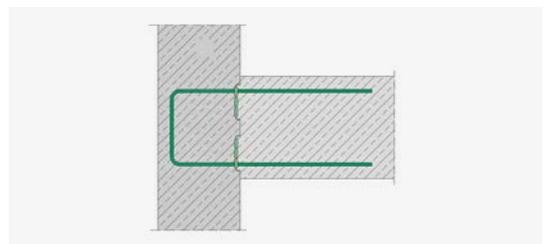
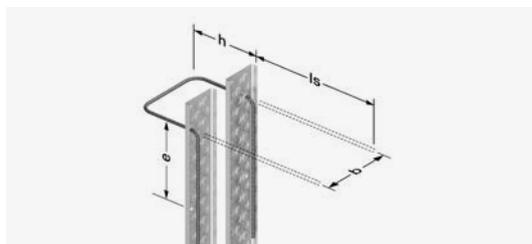
Bend diameter h/v:  
 4ds (also available  
 with h/v = 10 ds)



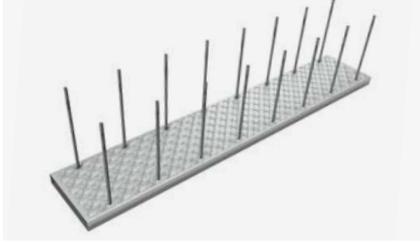
**FERBOX® E03**



**FERBOX® EE**

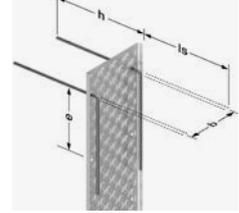


## FERBOX® B03



Double-row rebend connector, box and cover made from galvanized sheet steel, straight rebar, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Type-tested in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



Article number	Type	Dimensions [mm]						From wall width <sup>1)</sup> [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	b	h	ls				
512700026611	B03 85 08 150	85	8	150	60	320	320	120	4.42	54	29.90
512700026613	B03 85 10 150	85	10	150	60	390	320	120	6.32	54	34.90
512700026615	B03 110 08 100	110	8	100	85	320	320	145	6.39	42	39.70
512700026617	B03 110 08 150	110	8	150	85	320	320	145	4.69	42	31.10
512700026619	B03 110 08 200	110	8	200	85	320	320	145	3.85	42	26.90
512700026621	B03 110 10 150	110	10	150	85	390	390	145	7.75	42	36.20
512700026623	B03 110 10 200	110	10	200	85	390	390	145	6.14	42	30.70
512700026625	B03 110 12 150	110	12	150	85	460	390	145	11.55	42	43.40
512700026627	B03 110 12 200	110	12	200	85	460	460	145	9.65	42	36.30
512700026629	B03 135 08 100	135	8	100	110	320	320	170	6.70	36	41.10
512700026631	B03 135 08 150	135	8	150	110	320	320	170	5.01	36	32.60
512700026633	B03 135 08 200	135	8	200	110	320	320	170	4.16	36	28.40
512700026635	B03 135 10 100	135	10	100	110	390	380	170	11.17	36	53.70
512700026637	B03 135 10 150	135	10	150	110	390	390	170	8.07	36	41.10
512700026639	B03 135 10 200	135	10	200	110	390	390	170	6.45	36	34.60
512700026641	B03 135 12 100	135	12	100	110	460	360	170	16.44	24	73.90
512700026643	B03 135 12 150	135	12	150	110	460	460	170	12.76	24	54.80
512700026645	B03 135 12 200	135	12	200	110	460	460	170	10.03	24	45.20
512700026647	B03 160 08 100	160	8	100	135	320	320	195	7.01	30	42.50
512700026649	B03 160 08 150	160	8	150	135	320	320	195	5.32	30	34.00
512700026651	B03 160 08 200	160	8	200	135	320	320	195	4.47	30	29.80
512700026653	B03 160 10 100	160	10	100	135	390	390	195	11.06	30	55.40
512700026655	B03 160 10 150	160	10	150	135	390	390	195	8.38	30	42.80
512700026657	B03 160 10 200	160	10	200	135	390	390	195	6.77	30	36.50
512700026659	B03 160 12 100	160	12	100	135	460	460	195	18.22	20	75.40
512700026661	B03 160 12 150	160	12	150	135	460	460	195	12.76	20	56.30
512700026663	B03 160 12 200	160	12	200	135	460	460	195	10.03	20	46.70
512700026665	B03 185 08 100	185	8	100	160	320	320	220	6.98	24	43.70
512700026667	B03 185 08 150	185	8	150	160	320	320	220	5.28	24	35.20
512700026669	B03 185 08 200	185	8	200	160	320	320	220	4.43	24	31.00
512700026671	B03 185 10 100	185	10	100	160	390	390	220	11.57	24	56.70
512700026673	B03 185 10 150	185	10	150	160	390	390	220	8.34	24	43.90
512700026675	B03 185 10 200	185	10	200	160	390	390	220	6.37	24	37.70
512700026677	B03 185 12 100	185	12	100	160	460	460	220	18.38	16	77.00
512700026679	B03 185 12 150	185	12	150	160	460	460	220	12.92	16	57.80
512700026681	B03 185 12 200	185	12	200	160	460	460	220	10.19	16	48.30

<sup>1)</sup> With concrete cover (cv) 30 mm

Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

## FERBOX® B03

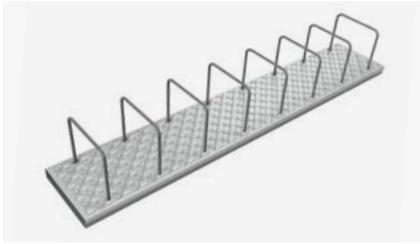
Article number	Type	Dimensions [mm]						From wall width <sup>1)</sup> [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	b	h	ls				
512700026683	B03 210 08 100	210	8	100	185	320	320	245	7.10	24	45.50
512700026685	B03 210 08 150	210	8	150	185	320	320	245	5.40	24	37.00
512700026687	B03 210 08 200	210	8	200	185	320	320	245	4.55	24	32.70
512700026689	B03 210 10 100	210	10	100	185	390	390	245	11.69	24	58.10
512700026691	B03 210 10 150	210	10	150	185	390	390	245	8.46	24	45.50
512700026693	B03 210 10 200	210	10	200	185	390	390	245	6.85	24	39.00
512700026695	B03 210 12 100	210	12	100	185	460	460	245	18.51	16	78.60
512700026697	B03 210 12 150	210	12	150	185	460	460	245	13.05	16	59.50
512700026699	B03 210 12 200	210	12	200	185	460	460	245	10.32	16	49.90
512700026701	B03 235 08 100	235	8	100	210	320	320	270	7.22	18	46.60
512700026703	B03 235 08 150	235	8	150	210	320	320	270	5.52	18	38.10
512700026705	B03 235 08 200	235	8	200	210	320	320	270	4.67	18	33.90
512700026707	B03 235 10 100	235	10	100	210	390	390	270	11.81	18	59.90
512700026709	B03 235 10 150	235	10	150	210	390	390	270	8.58	18	47.20
512700026711	B03 235 10 200	235	10	200	210	390	390	270	6.97	18	40.90
512700026713	B03 235 12 100	235	12	100	210	460	460	270	18.63	12	79.80
512700026715	B03 235 12 150	235	12	150	210	460	460	270	13.17	12	60.60
512700026717	B03 235 12 200	235	12	200	210	460	460	270	10.44	12	51.10
512700026719	B03 260 08 100	260	8	100	235	320	320	295	7.35	12	48.40
512700026721	B03 260 08 150	260	8	150	235	320	320	295	5.66	12	39.90
512700026723	B03 260 08 200	260	8	200	235	320	320	295	4.81	12	35.70
512700026725	B03 260 10 100	260	10	100	235	390	390	295	11.94	12	61.10
512700026727	B03 260 10 150	260	10	150	235	390	390	295	8.72	12	48.40
512700026729	B03 260 10 200	260	10	200	235	390	390	295	7.11	12	42.00
512700026731	B03 260 12 100	260	12	100	235	460	460	295	18.77	12	81.30
512700026733	B03 260 12 150	260	12	150	235	460	460	295	13.31	12	62.20
512700026735	B03 260 12 200	260	12	200	235	460	460	295	10.58	12	52.60

<sup>1)</sup> With concrete cover (cv) 30 mm  
Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® B03

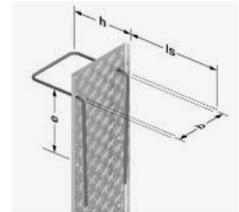
Type	Box width B	Bar diameter Dia.	Bar spacing e	Mounting bracket width b	Anchoring length h	Overlap length ls	Element length L
B03	235	10	150	210	170	390	1,200

## FERBOX® B05



Double-row rebend connector, box and cover made from galvanized sheet steel, U-shaped rebar, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Type-tested in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



Article number	Type	Dimensions [mm]						From wall width <sup>1)</sup> [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	b	h	ls				
512100026598	B05 85 08 150	85	8	150	60	170	320	120	3.78	108	29.50
512100026599	B05 85 08 200	85	8	200	60	170	320	120	3.09	108	25.30
512100026600	B05 85 08 250	85	8	250	60	170	320	120	2.75	108	23.10
512100026601	B05 85 10 150	85	10	150	60	170	320	120	5.33	108	33.50
512100026602	B05 85 10 200	85	10	200	60	170	390	120	4.25	108	28.40
512100026603	B05 85 10 250	85	10	250	60	170	390	120	3.72	108	25.70
512100026538	B05 110 08 150	110	8	150	85	170	320	145	4.12	129.6	30.90
512100021970	B05 110 08 200	110	8	200	85	170	320	145	3.29	129.6	27.60
512100021971	B05 110 10 150	110	10	150	85	170	390	145	5.88	129.6	37.70
512100026539	B05 110 10 200	110	10	200	85	170	390	145	4.73	129.6	30.90
512100026540	B05 110 12 150	110	12	150	85	170	390	145	8.77	129.6	47.50
512100021974	B05 110 12 200	110	12	200	85	170	460	145	6.94	129.6	39.60
512100026541	B05 135 08 100	135	8	100	110	170	320	170	5.95	115.2	43.20
512100026542	B05 135 08 150	135	8	150	110	170	320	170	4.34	115.2	32.60
512100021977	B05 135 08 200	135	8	200	110	170	320	170	3.66	115.2	28.00
512100026543	B05 135 10 100	135	10	100	110	170	380	170	8.65	115.2	56.50
512100021979	B05 135 10 150	135	10	150	110	170	390	170	6.30	115.2	39.30
512100021980	B05 135 10 200	135	10	200	110	170	390	170	5.13	115.2	32.80
512100026544	B05 135 12 100	135	12	100	110	170	360	170	12.39	115.2	72.50
512100026545	B05 135 12 150	135	12	150	110	170	460	170	9.37	115.2	50.70
512100021983	B05 135 12 200	135	12	200	110	170	460	170	7.44	115.2	43.20
512100021984	B05 160 08 100	160	8	100	135	170	320	195	6.36	96	44.30
512100026546	B05 160 08 150	160	8	150	135	170	320	195	4.53	96	33.80
512100021986	B05 160 08 200	160	8	200	135	170	320	195	3.83	96	30.90
512100021987	B05 160 10 100	160	10	100	135	170	390	195	8.91	96	54.60
512100026547	B05 160 10 150	160	10	150	135	170	390	195	6.52	96	41.30
512100021989	B05 160 10 200	160	10	200	135	170	390	195	5.33	96	34.80
512100026548	B05 160 12 100	160	12	100	135	170	460	195	13.56	96	74.70
512100026549	B05 160 12 150	160	12	150	135	170	460	195	9.65	96	53.00
512100021992	B05 160 12 200	160	12	200	135	170	460	195	7.69	96	45.10
512100026550	B05 185 08 100	185	8	100	160	170	320	210	6.42	96	45.70
512100026551	B05 185 08 150	185	8	150	160	170	320	210	4.71	96	36.90
512100026552	B05 185 08 200	185	8	200	160	170	320	210	4.00	96	30.90
512100026553	B05 185 10 100	185	10	100	160	170	390	210	9.15	96	56.40
512100026554	B05 185 10 150	185	10	150	160	170	390	210	6.73	96	42.00
512100021998	B05 185 10 200	185	10	200	160	170	390	210	5.52	96	35.00
512100026555	B05 185 12 100	185	12	100	160	170	460	210	13.89	96	76.50
512100026557	B05 185 12 150	185	12	150	160	170	460	210	9.92	96	53.90
512100022001	B05 185 12 200	185	12	200	160	170	460	210	7.94	96	46.60
512100022002	B05 210 08 100	210	8	100	185	170	320	245	6.64	72	48.00
512100026558	B05 210 08 150	210	8	150	185	170	320	245	4.88	72	38.40
512100022004	B05 210 08 200	210	8	200	185	170	320	245	4.16	72	32.20
512100026559	B05 210 10 100	210	10	100	185	170	390	245	9.38	72	58.80
512100022006	B05 210 10 150	210	10	150	185	170	390	245	6.92	72	43.30
512100026560	B05 210 10 200	210	10	200	185	170	390	245	5.69	72	37.30
512100026561	B05 210 12 100	210	12	100	185	170	460	245	14.18	72	79.10
512100026562	B05 210 12 150	210	12	150	185	170	460	245	10.15	72	55.60
512100022010	B05 210 12 200	210	12	200	185	170	460	245	8.14	72	48.70

<sup>1)</sup> With concrete cover (cv) 30 mm

Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

## FERBOX® B05

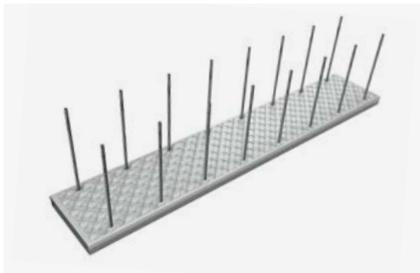
Article number	Type	Dimensions [mm]						From wall width <sup>1)</sup> [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	b	h	ls				
512100022011	B05 235 08 100	235	8	100	210	170	320	270	6.86	57.6	49.80
512100022012	B05 235 08 150	235	8	150	210	170	320	270	5.05	57.6	41.20
512100022013	B05 235 08 200	235	8	200	210	170	320	270	4.31	57.6	37.90
512100022014	B05 235 10 100	235	10	100	210	170	390	270	9.62	57.6	68.10
512100026563	B05 235 10 150	235	10	150	210	170	390	270	7.11	57.6	49.80
512100022016	B05 235 10 200	235	10	200	210	170	390	270	5.87	57.6	42.80
512100022017	B05 235 12 100	235	12	100	210	170	460	270	14.46	57.6	79.60
512100026564	B05 235 12 150	235	12	150	210	170	460	270	10.39	57.6	63.40
512100022019	B05 235 12 200	235	12	200	210	170	460	270	8.35	57.6	56.20
512100022020	B05 260 08 100	260	8	100	235	170	320	295	8.03	43.2	49.50
512100022021	B05 260 08 150	260	8	150	235	170	320	295	6.48	43.2	39.30
512100022022	B05 260 08 200	260	8	200	235	170	320	295	5.70	43.2	36.30
512100022023	B05 260 10 100	260	10	100	235	170	390	295	11.47	43.2	60.70
512100022024	B05 260 10 150	260	10	150	235	170	390	295	8.78	43.2	47.60
512100022025	B05 260 10 200	260	10	200	235	170	390	295	7.43	43.2	41.00
512100026565	B05 260 12 100	260	12	100	235	170	460	295	16.49	43.2	80.60
512100022027	B05 260 12 150	260	12	150	235	170	460	295	12.22	43.2	56.60
512100022028	B05 260 12 200	260	12	200	235	170	460	295	10.08	43.2	50.20

<sup>1)</sup> With concrete cover (cv) 30 mm  
Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® B05

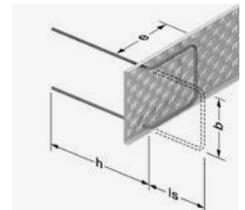
Type	Box width B	Bar diameter Dia.	Bar spacing e	Mounting bracket width b	Anchoring length h	Overlap length ls	Element length L
B05	225	10	150	185	170	390	1,200

## FERBOX® B06



Double-row rebend connector, box and cover made from galvanized sheet steel, U-shaped rebar, foldable mounting bracket, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Approved in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



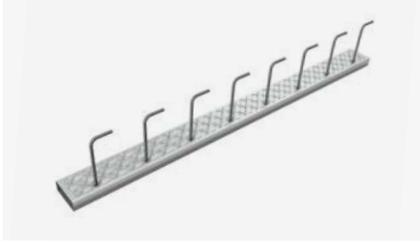
Article number	Type	Dimensions [mm]						From wall width <sup>1)</sup> [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	b	h	ls				
512500022071	B06 85 08 150	85	8	150	60	330	83	120	3.22	96	29.50
512500022072	B06 85 08 200	85	8	200	60	330	83	120	2.67	96	25.30
512500022073	B06 85 08 250	85	8	250	60	330	83	120	2.05	96	24.00
512500026574	B06 85 10 150	85	10	150	60	400	83	120	5.03	96	34.50
512500022075	B06 85 10 200	85	10	200	60	400	83	120	4.02	96	30.40
512500022076	B06 85 10 250	85	10	250	60	400	83	120	2.89	96	28.80

<sup>1)</sup> With concrete cover (cv) 30 mm  
Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® B06

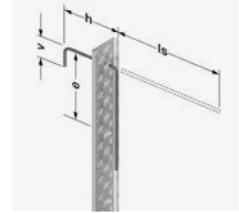
Type	Box width B	Bar diameter Dia.	Bar spacing e	Mounting bracket width b	Anchoring length h	Overlap length ls	Element length L
B06	85	10	150	60	400	83	1,200

## FERBOX® E01



Single-row rebend connector, box and cover made from galvanized sheet steel, angled hook reinforcement **parallel** to the box, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Type-tested in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



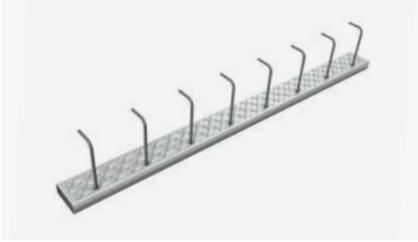
Article number	Type	Dimensions [mm]						Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	h	ls	v			
512200026566	E01 60 08 150	60	8	150	170	320	75	2.18	240	18.00
512200022040	E01 60 08 200	60	8	200	170	320	75	1.80	240	16.70
512200022041	E01 60 08 250	60	8	250	170	320	75	1.62	240	16.40
512200022043	E01 60 10 150	60	10	150	170	390	95	3.39	240	21.20
512200022044	E01 60 10 200	60	10	200	170	390	95	2.71	240	19.80
512200022045	E01 60 10 250	60	10	250	170	390	95	2.37	240	18.70
512200022038	E01 85 08 100	85	8	100	170	320	75	3.55	192	24.00
512200026567	E01 85 10 100	85	10	100	170	390	95	5.09	144	28.70
512200026737	E01 85 10 150	85	10	150	170	390	95	3.74	144	25.60
512200026739	E01 85 10 200	85	10	200	170	390	95	3.06	144	22.20
512200026741	E01 85 10 250	85	10	250	170	390	95	2.72	144	20.60
512200022046	E01 85 12 100	85	12	100	170	430	110	7.54	144	36.60
512200026568	E01 85 12 150	85	12	150	170	460	110	5.43	144	29.90
512200022048	E01 85 12 200	85	12	200	170	460	110	4.38	144	25.40
512200022049	E01 85 12 250	85	12	250	170	460	110	3.85	144	23.70
512200026743	E01 110 12 100	110	12	100	170	460	110	8.05	144	40.90

Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® E01

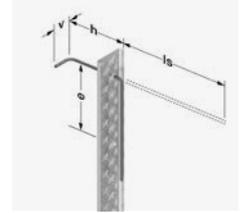
Type	Box width B	Bar diameter Dia.	Bar spacing e	Anchoring length h	Overlap length ls	Element length L	Hook length v
E01	60	8	150	170	320	1,200	75

## FERBOX® E02



Single-row rebend connector, box and cover made from galvanized sheet steel, angled hook reinforcement **perpendicular** to the box, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Type-tested in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



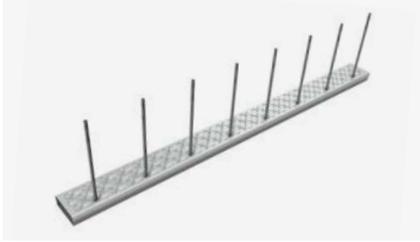
Article number	Type	Dimensions [mm]						Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	h	ls	v			
512300022051	E02 60 08 150	60	8	150	170	320	95	1.92	240	18.90
512300022052	E02 60 08 200	60	8	200	170	320	95	1.68	240	17.00
512300022053	E02 60 08 250	60	8	250	170	320	95	1.44	240	16.80
512300022055	E02 60 10 150	60	10	150	170	390	95	2.96	240	22.20
512300026571	E02 60 10 200	60	10	200	170	390	95	2.40	240	20.80
512300022057	E02 60 10 250	60	10	250	170	390	95	2.30	240	19.30
512300022050	E02 85 08 100	85	8	100	170	320	95	2.90	192	25.80
512300026570	E02 85 10 100	85	10	100	170	390	95	4.23	144	32.20
512300026745	E02 85 10 150	85	10	150	170	390	95	3.74	144	25.90
512300026747	E02 85 10 200	85	10	200	170	390	95	3.06	144	22.60
512300026749	E02 85 10 250	85	10	250	170	390	95	2.72	144	21.00
512300022058	E02 85 12 100	85	12	100	170	430	110	6.48	144	42.40
512300022059	E02 85 12 150	85	12	150	170	460	110	4.64	144	30.50
512300022060	E02 85 12 200	85	12	200	170	460	110	3.44	144	26.30
512300022061	E02 85 12 250	85	12	250	170	460	110	3.34	144	22.10
512300026751	E02 110 12 100	110	12	100	170	460	110	8.05	100	41.20

Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® E02

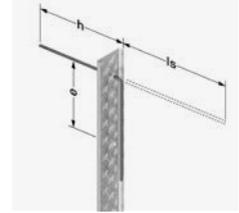
Type	Box width B	Bar diameter Dia.	Bar spacing e	Anchoring length h	Overlap length ls	Element length L	Hook length v
E02	60	8	150	170	320	1,200	95

## FERBOX® E03



Single-row rebend connector, box and cover made from galvanized sheet steel, straight rebar, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Type-tested in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



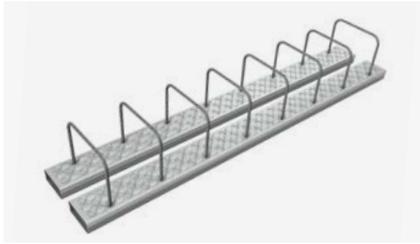
Article number	Type	Dimensions [mm]					Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	h	ls			
512400026597	E03 60 08 150	60	8	150	320	320	2.17	168	19.00
512400022063	E03 60 08 200	60	8	200	320	320	1.76	168	16.80
512400026755	E03 60 08 250	60	8	250	320	320	1.56	168	16.00
512400026572	E03 60 10 150	60	10	150	390	390	3.64	144	20.40
512400022066	E03 60 10 200	60	10	200	390	390	2.86	144	19.60
512400022067	E03 60 10 250	60	10	250	390	390	2.48	144	18.30
512400026753	E03 85 08 100	85	8	100	320	320	3.57	120	27.60
512400026839	E03 85 08 150	85	8	150	320	320	5.02	120	22.60
512400026841	E03 85 08 200	85	8	200	320	320	4.07	120	20.10
512400026843	E03 85 08 250	85	8	250	320	320	3.59	120	18.80
512400026757	E03 85 10 150	85	10	150	390	390	3.68	120	24.20
512400026759	E03 85 10 200	85	10	200	390	390	3.01	120	21.30
512400026761	E03 85 10 250	85	10	250	390	390	2.68	120	19.90
512400026763	E03 85 12 100	85	12	100	460	460	6.92	120	36.30
512400026573	E03 85 12 150	85	12	150	460	460	6.46	120	28.60
512400022069	E03 85 12 200	85	12	200	460	460	5.15	120	24.50
512400022070	E03 85 12 250	85	12	250	460	460	4.50	120	22.60
512400026765	E03 110 12 100	110	12	100	460	460	4.50	120	38.30

Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® E03

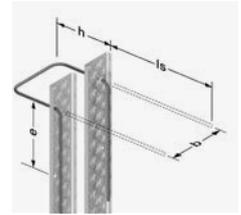
Type	Box width B	Bar diameter Dia.	Bar spacing e	Anchoring length h	Overlap length ls	Element length L
E03	85	12	150	460	460	1,200

## FERBOX® EE



Double-row rebend connector in two separate boxes, box and cover made from galvanized sheet steel, U-shaped rebar, reinforcing steel B 500 B

- Highest category of **toothed** joints in transverse and longitudinal directions
- Type-tested in line with ETA and DIN EN 1992-1-1
- ETA (European Technical Assessment ETA-20/0842)
- Standard length: 1,200 mm
- Surcharge for element length 800 mm + 15%
- Other lengths available on request



Article number	Type	Dimensions [mm]						Weight [kg/m]	PU [m/pal.]	Price per m [€]
		B	Dia.	e	b	h	ls			
512600022077	EE 60 08 150	60	8	150	240	170	320	4.84	43.2	34.10
512600022078	EE 60 08 200	60	8	200	240	170	320	4.13	43.2	29.20
512600026575	EE 60 10 150	60	10	150	240	170	390	6.98	43.2	40.50
512600022080	EE 60 10 200	60	10	200	240	170	390	5.73	43.2	37.50
512600026767	EE 85 08 100	85	8	100	240	170	320	6.90	43.2	42.90
512600026773	EE 85 10 100	85	10	100	240	170	390	10.49	43.2	54.80
512600026775	EE 85 10 150	85	10	150	240	170	390	7.68	43.2	41.20
512600026777	EE 85 10 200	85	10	200	240	170	390	6.27	43.2	34.50
512600026779	EE 85 12 100	85	12	100	240	170	430	15.25	43.2	70.20
512600026576	EE 85 12 150	85	12	150	240	170	460	9.96	43.2	60.80
512600022082	EE 85 12 200	85	12	200	240	170	460	7.63	43.2	42.90
512600026781	EE 110 12 100	110	12	100	240	170	460	16.26	43.2	73.00

Prices are for full packaging units. Surcharges will be added for smaller purchase quantities.

### Example order for FERBOX® EE

Type	Box width B	Bar diameter Dia.	Bar spacing e	Anchoring length h	Overlap length ls	Element length L
EE	60	8	200	170	320	1,200

# PENTAFLEX® module

## PENTAFLEX® module



PENTAFLEX® module for waterproofing construction joints with continuous formwork, e.g. between walls and underground car park ramps or between light wells and basement walls. The element consists of a protective box and integrated PENTAFLEX KB® joint sheet 60 mm wide. The structure of the module guarantees that the joint sheet is embedded 30 mm into the components being connected in accordance with the **abP**.

- **Element for all FERBOX® E types**
- Element length: 800 mm or 1,200 mm; other lengths available on request
- Surcharge for special lengths + 10%
- Tested up to 0.75 bar



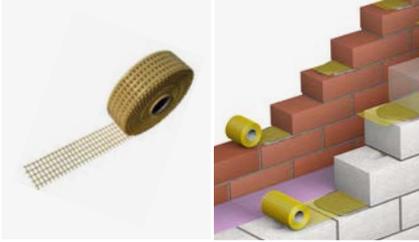
Installed element after casting

Article number	Design	Price per m [€]
<a href="#">110400022083</a>	PENTAFLEX® module 1,200 mm	25.40
<a href="#">110400024200</a>	PENTAFLEX® module 800 mm	25.40

Article number	Design	Price per piece [€]
<a href="#">110400024201</a>	PENTAFLEX® module corner element 200x200	17.70

# GRIPRIP®

## GRIPRIP®-A

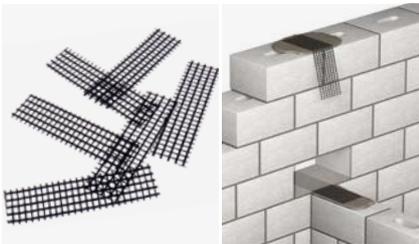


Structural masonry reinforcement made from aramid fabric. Can be used with any mortar.

- Other widths available on request

Article number	Type	Width [mm]	Weight [kg/100 m]	PU [m/roll]	Price per m [€]
540100002399	A 1	85	2.10	100	3.50
540100002393	A 1.1	150	3.60	100	6.20
540100002394	A 2	170	4.00	100	6.80
540100002395	A 2.1	200	4.40	100	8.10
540100002396	A 3	240	5.60	100	9.70
540100002397	A 3.1	300	6.90	100	12.10
540100002398	A 4	340	8.25	100	13.80

## GRIPRIP®-S



Structural butt joint anchoring made from aramid fabric. Can be used with any mortar.

- Other lengths available on request

Article number	Element length [mm]	Width [mm]	Weight [kg/100 pcs.]	PU [pcs./pack]	PU [pcs./box]	Price per 100 pcs. [€]
540200002402	300	85	0.27	100	2,000	73.40

# Stainless steel rebar

## Rebar, stainless steel

Material no. 1.4571 with approval



Stainless steel material number 1.4571, antimagnetic, weldable

The weight depends on the particular batch. The actual weight of the delivered quantity is calculated individually.

- The alloy surcharge applicable on the day of delivery is added to the price

Article number	Dia. [mm]	Weight approx. [kg/m]	Price per kg [€]
520100014941	6	0.229	12.00
520100014944	8	0.418	12.00
520100014947	10	0.626	12.00
520100014950	12	0.894	12.00
520100014953	14	1.215	12.00

## Rebar, stainless steel

Material no. 1.4482 with approval



The weight depends on the particular batch. The actual weight of the delivered quantity is calculated individually.

- The alloy surcharge applicable on the day of delivery is added to the price

Article number	Dia. [mm]	Weight approx. [kg/m]	Price per kg [€]
520700014943	6	0.222	Prices on request
520700014946	8	0.395	Prices on request
520700014949	10	0.617	Prices on request
520700014952	12	0.888	Prices on request

## Rebar, stainless steel

Material no. 1.4362 / 1.4462



The weight depends on the particular batch. The actual weight of the delivered quantity is calculated individually.

- The alloy surcharge applicable on the day of delivery is added to the price
- Other material nos. available on request
- Without approval

Article number	Dia. [mm]	Material no.	Weight approx. [kg/m]	Price per kg [€]
520700014954	16	1.4362	1.584	Prices on request
520700014955	20	1.4362	2.472	Prices on request
520700014956	25	1.4362	3.825	Prices on request
520100014933	32	1.4462	6.312	Prices on request
520100014934	40	1.4462	9.924	Prices on request



Special shapes & structural components  
We can produce virtually any shapes or structures.  
Almost all forms and constructions are possible.  
We can produce rebar according to your drawings.  
Approved bending service

Externally monitored by MPA NRW



Please send us your enquiry.

**Application technology in Klettgau**

T +49 7742 - 9215 300

# FIBERNOX® V-ROD

## FIBERNOX® V-ROD



FIBERNOX® V-ROD is a high-quality reinforcement rod made of fiber-reinforced composite designed for maximum strength and durability. The glass fiber reinforcement is resistant to corrosion and alkalis, has very high tensile strength, is low in weight, resistant to magnetic influences, and has electrical and thermal insulation properties.

- Modulus of elasticity 60,000 N/mm<sup>2</sup>
- Guaranteed tensile strength 1,000 N/mm<sup>2</sup>
- Other diameters and lengths available on request

Article number	Type	Dia. [mm]	Stock length [mm]	Weight [kg/m]	Nominal cross-sectional area [mm <sup>2</sup> ]	Price per m [€]
530100019551	V-ROD 60	6	11,900	0.08	28.3	Prices on request
530100019553	V-ROD 60	8	11,900	0.14	50.3	Prices on request
530100019554	V-ROD 60	10	11,900	0.21	78.5	Prices on request
530100019555	V-ROD 60	12	11,900	0.30	113.1	Prices on request
530100019556	V-ROD 60	16	11,900	0.53	201.1	Prices on request
530100019557	V-ROD 60	20	11,900	0.81	314.2	Prices on request
530100019559	V-ROD 60	25	11,900	1.24	490.9	Prices on request
530100019560	V-ROD 60	32	11,900	2.03	804.2	Prices on request

## FIBERNOX® V-ROD bending forms



We can produce rebar according to your drawings.

- We can produce a variety of shapes of mounting brackets and coils
- Modulus of elasticity 50,000 N/mm<sup>2</sup>
- Guaranteed tensile strength 450 N/mm<sup>2</sup> (in the bent section)
- Guaranteed tensile strength 1,000 N/mm<sup>2</sup> (in the straight section)
- Curved rods are available in diameters 6, 10, 12, 16, 20, 25, and 32 mm

## FIBERNOX® V-ROD end anchors



Reinforcement rods with end anchors are available in diameters 12, 16, and 20 mm.

## FIBERNOX® V-ROD shear dowels



- Smooth surface for shear force transmission
- Available in diameters 25 to 45 mm

## FIBERNOX® V-ROD rockbolts

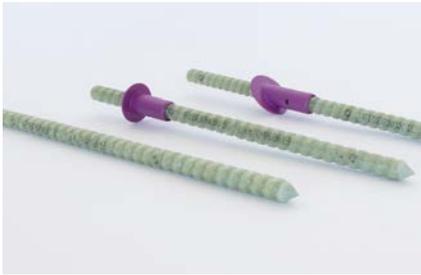


Glass fibre rockbolt anchors for tunnel construction and rock stabilisation. Available in diameters 20, 22, 25, 29, and 32 mm.

- Complete system available with pressure plates and nuts

# FIBERNOX® IC

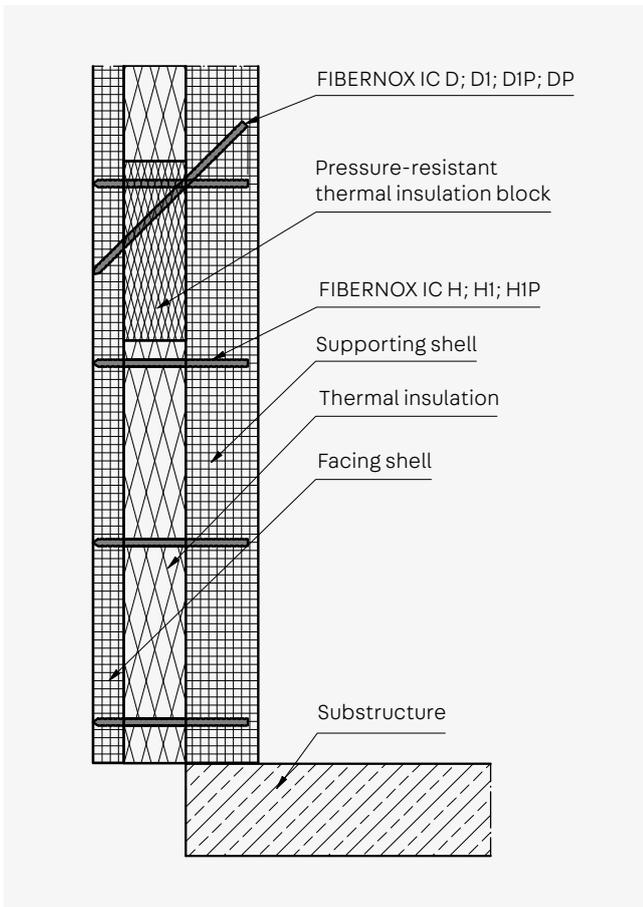
NEW



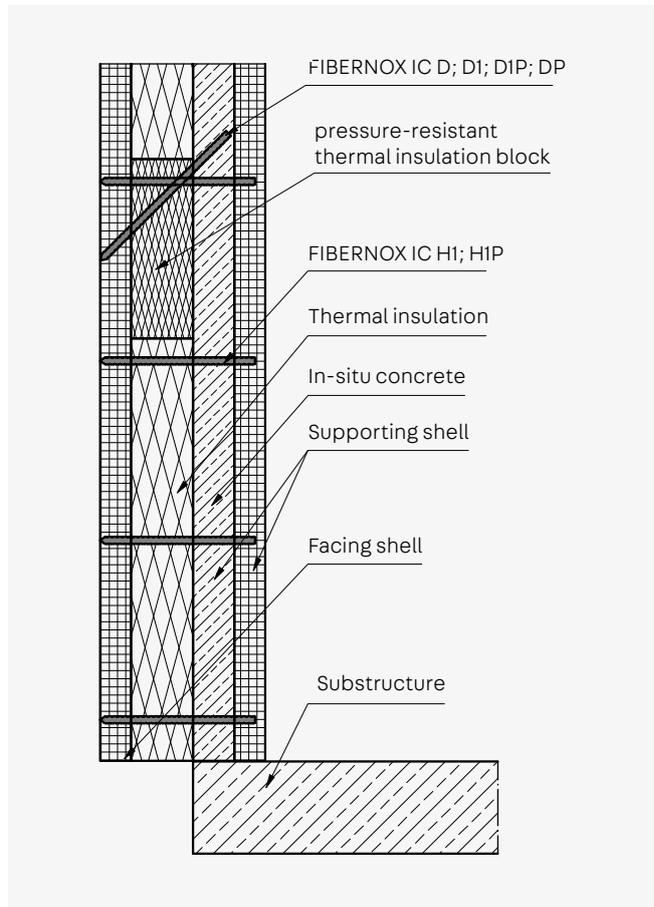
FIBERNOX® IC is a connector made of glass fibre-reinforced composite material (GFRP) designed for use in precast construction. It is used in thermally insulated sandwich and element walls, where it connects the load-bearing shell to the facing shell through the insulation layer. The anchor is designed for maximum strength and durability and is characterized by minimal thermal conductivity.

**Our FIBERNOX® IC connectors are approved by the German Institute for Construction Technology (DIBt) under approval number Z-21.8-2174.**

## Sandwich wall



## Element wall



## FIBERNOX® IC, types H, H1, D, D1

NEW

GFRP connector suitable for walls with a facing shell



GFRP connector for insulated walls with a facing shell

The tapered anchor head allows easy installation into fresh concrete and reduces visibility on the facade.

- DIBt-approved (Z-21.8-2174)
- Lengths available on request

Article number	Type	Application	Tip	Dia. [mm]	Available length [mm]	Weight [kg/m]	Nominal cross-sectional area [mm²]	Price per m [€]
530400027128	IC-H	Horizontal	-	14	160 - 500	0.3	133.5	POR
530400026848	IC-H1	Horizontal	Yes	14	160 - 500	0.3	133.5	POR
530400027127	IC-D	Diagonal	-	14	160 - 500	0.3	133.5	POR
530400026917	IC-D1	Diagonal	Yes	14	160 - 500	0.3	133.5	POR

## FIBERNOX® IC, types H1P, DP, D1P

NEW

GFRP connector with positioner, suitable for exposed concrete facades



GFRP connector with positioner for exposed concrete facades

The tapered anchor head and the positioner enable precise adherence to the installation depth and the production of high-quality facades.

- Positioner available as a spacer for high-quality exposed concrete facades
- DIBt-approved (Z-21.8-2174)
- Lengths available on request

Article number	Type	Application	Tip	Dia. [mm]	Available length [mm]	Weight [kg/m]	Nominal cross-sectional area [mm²]	Price per m [€]
530400026989	IC-H1P	Horizontal	Yes	14	160 - 500	0.3	133.5	POR
530400027196	IC-DP	Diagonal	-	14	160 - 500	0.3	133.5	POR
530400027058	IC-D1P	Diagonal	Yes	14	160 - 500	0.3	133.5	POR



Our software allows for user-friendly and safe verification for the planning of sandwich and element walls with the FIBERNOX® IC fastener made of GFRP.

The calculations are adapted to your particular design situation.

The distribution of the FIBERNOX® IC connectors over the wall surface is technically and economically optimized. The program is based on national technical approval no. Z-21.8-2174 and compatibility with Eurocode 2 (EC2).



# Reinforcement accessories

## Fibre concrete surface spacers

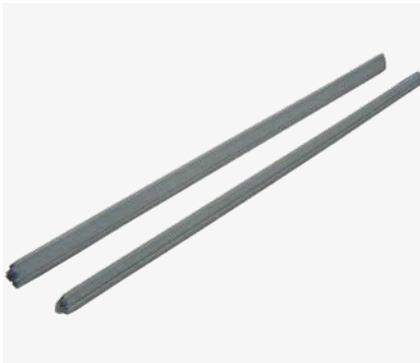
Triangular



Triangular surface spacers made from fibre concrete for horizontal mesh and round steel rebar. Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

- Other dimensions available on request

Triangular type, element length approx. 1,000 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">62010003489</a>	20	0.70	1,300	107.00
<a href="#">62010003490</a>	25	0.80	1,000	107.00
<a href="#">62010003491</a>	30	1.00	800	130.80
<a href="#">62010003492</a>	35	1.50	700	154.60
<a href="#">62010003493</a>	40	1.90	500	178.20
<a href="#">62010003494</a>	45	2.20	450	213.90
<a href="#">62010003495</a>	50	3.00	350	237.60
<a href="#">62010003496</a>	55	3.50	300	285.20
<a href="#">62010003497</a>	60	4.40	280	321.00
<a href="#">620100022994</a>	65	5.20	240	368.40
<a href="#">62010003498</a>	70	6.00	200	404.10
<a href="#">620100022995</a>	75	7.00	180	451.60

## Fibre concrete surface spacers

### Triangular snake-shaped spacers



Snake-shaped, triangular surface spacers made from fibre concrete for horizontal mesh and round steel rebar.

Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

- Other dimensions available on request

### Triangular type, snake-shaped spacers, element length approx. 1,000 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100003581</a>	20	0.70	1,100	107.00
<a href="#">620100003584</a>	25	0.70	1,000	130.80
<a href="#">620100003587</a>	30	0.90	900	130.80
<a href="#">620100003590</a>	35	1.10	850	154.60
<a href="#">620100003594</a>	40	1.20	600	166.40
<a href="#">620100003597</a>	45	1.60	500	202.00
<a href="#">620100003601</a>	50	2.20	400	225.80
<a href="#">620100003604</a>	55	2.30	350	249.60
<a href="#">620100003607</a>	60	2.60	350	285.20
<a href="#">620100022996</a>	65	2.90	300	320.80
<a href="#">620100003610</a>	70	3.40	280	404.10
<a href="#">620100022997</a>	75	3.90	250	439.70

### Triangular type, snake-shaped spacers, element length approx. 800 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100003583</a>	25	0.60	1,400	95.00
<a href="#">620100003586</a>	30	0.70	1,250	107.00
<a href="#">620100003589</a>	35	0.80	1,100	118.80
<a href="#">620100003593</a>	40	1.00	800	130.80
<a href="#">620100003596</a>	45	1.30	700	166.40
<a href="#">620100003600</a>	50	1.70	600	178.20
<a href="#">620100003603</a>	55	1.80	500	202.00
<a href="#">620100022998</a>	60	1.90	500	225.80
<a href="#">620100022999</a>	65	2.30	400	261.40
<a href="#">620100023000</a>	70	2.70	350	320.80
<a href="#">620100023001</a>	75	3.10	300	356.50

## Fibre concrete surface spacers

Triangular snake-shaped spacers with nubs



Snake-shaped, triangular surface spacers with low contact area made from fibre concrete for horizontal mesh and round steel rebar.

Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

- Other dimensions available on request

Triangular type, snake-shaped spacers with nubs, element length approx. 1,000 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100003612</a>	20	0.70	1,100	107.00
<a href="#">620100003614</a>	25	0.70	1,000	130.80
<a href="#">620100003616</a>	30	0.90	900	130.80
<a href="#">620100003619</a>	35	1.10	850	154.60
<a href="#">620100003621</a>	40	1.20	600	166.40
<a href="#">620100003624</a>	45	1.60	500	202.00
<a href="#">620100003627</a>	50	2.20	400	225.80
<a href="#">620100003630</a>	55	2.30	350	249.60
<a href="#">620100003633</a>	60	2.60	350	285.20
<a href="#">620100023002</a>	65	2.90	300	320.80
<a href="#">620100003636</a>	70	3.40	280	404.10
<a href="#">620100003638</a>	75	3.90	250	439.70

Triangular type, snake-shaped spacers with nubs, element length approx. 800 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100023003</a>	25	0.60	1,400	95.00
<a href="#">620100018865</a>	30	0.70	1,250	107.00
<a href="#">620100018866</a>	35	0.80	1,100	118.80
<a href="#">620100018867</a>	40	1.00	800	130.80
<a href="#">620100023004</a>	45	1.30	700	166.40
<a href="#">620100018604</a>	50	1.70	600	178.20
<a href="#">620100023005</a>	55	1.80	500	202.00
<a href="#">620100023006</a>	60	1.90	500	225.80
<a href="#">620100023007</a>	65	2.30	400	261.40
<a href="#">620100023008</a>	70	2.70	350	320.80
<a href="#">620100023009</a>	75	3.10	300	356.50

## Fibre concrete surface spacers

### Triangular curves



Curved, triangular surface spacers made from fibre concrete for horizontal mesh and round steel rebar.

Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

- Other dimensions available on request

### Triangular type, curved, element length approx. 330 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
620100003464	20	0.23	3,300	47.60
620100003465	25	0.24	3,000	49.20
620100003466	30	0.30	2,700	59.50
620100003467	35	0.37	2,250	64.00
620100003468	40	0.40	1,800	71.30
620100003469	45	0.53	1,500	83.20
620100003470	50	0.74	1,200	83.20
620100003471	55	0.77	1,000	95.00
620100003472	60	0.87	1,050	107.00

### Triangular type, curved with nubs, element length approx. 330 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
620100003474	20	0.23	3,300	47.60
620100003476	25	0.24	3,000	49.20
620100003478	30	0.30	2,700	59.50
620100003480	35	0.37	2,250	64.00
620100003482	40	0.40	1,800	71.30
620100003484	45	0.53	1,500	83.20
620100003486	50	0.74	1,200	83.20
620100003487	55	0.77	1,000	95.00
620100003488	60	0.87	1,050	107.00

## Fibre concrete surface spacers

### Triangular hook



Triangular-surface spacers made from fibre concrete with hook for vertical rebar.

Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

- Other dimensions available on request

#### Triangular type with hook, element length approx. 330 mm



Article number	Concrete cover [mm]	Clamping range [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100003507</a>	25	6-12	0.25	3,000	71.30
<a href="#">620100003511</a>	30	6-12	0.28	3,000	76.10
<a href="#">620100003515</a>	35	6-12	0.38	2,400	83.20
<a href="#">620100003519</a>	40	6-12	0.45	2,000	84.60
<a href="#">620100003523</a>	45	6-12	0.50	1,600	95.00
<a href="#">620100003527</a>	50	6-12	0.70	1,280	107.00
<a href="#">620100003531</a>	55	6-12	0.90	1,000	118.80
<a href="#">620100003535</a>	60	6-12	1.00	1,000	142.60
<a href="#">620100023010</a>	65	6-12	1.10	800	154.60
<a href="#">620100003539</a>	70	6-12	1.15	800	158.20
<a href="#">620100023011</a>	75	6-12	1.25	700	178.20

#### Triangular type with hook, element length approx. 180 mm



Article number	Concrete cover [mm]	Clamping range [mm]	Weight [kg/pc.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100003500</a>	20	6-12	0.15	125	5,000	59.50
<a href="#">620100003505</a>	25	6-12	0.16	125	5,000	61.90
<a href="#">620100003509</a>	30	6-12	0.18	125	5,000	64.70
<a href="#">620100003513</a>	35	6-12	0.20	100	4,000	71.30
<a href="#">620100003517</a>	40	6-12	0.30	100	4,000	73.00
<a href="#">620100003521</a>	45	6-12	0.32	80	3,200	74.60
<a href="#">620100003525</a>	50	6-12	0.43	50	2,000	83.20
<a href="#">620100003529</a>	55	6-12	0.45	45	1,800	95.00
<a href="#">620100003533</a>	60	6-12	0.50	40	1,600	95.00
<a href="#">620100023012</a>	65	6-12	0.55	40	1,500	107.00
<a href="#">620100003537</a>	70	6-12	0.60	30	1,200	118.80
<a href="#">620100023013</a>	75	6-12	0.70	25	1,000	130.80

## Fibre concrete surface spacers

### Square



Square surface spacers made from fibre concrete for heavy horizontal mesh and round steel rebar.

Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

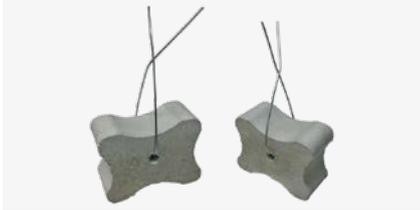
- Other dimensions available on request

Square type, element length approx. 1,000 mm



Article number	Concrete cover [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per 100 pcs. [€]
<a href="#">620100003647</a>	25	1.20	1,000	166.40
<a href="#">620100003650</a>	30	1.80	750	202.00
<a href="#">620100003653</a>	35	2.50	500	261.40
<a href="#">620100003656</a>	40	3.70	400	320.80
<a href="#">620100003661</a>	45	4.30	350	380.20
<a href="#">620100003663</a>	50	5.00	300	439.70
<a href="#">620100003667</a>	55	6.00	200	523.00
<a href="#">620100003669</a>	60	7.00	150	629.80
<a href="#">620100023014</a>	65	7.50	150	677.30
<a href="#">620100003671</a>	70	10.00	100	855.60
<a href="#">620100003673</a>	75	11.50	100	879.30
<a href="#">620100003675</a>	80	15.00	80	1,057.70
<a href="#">620100023015</a>	85	17.50	65	1,224.00
<a href="#">620100023016</a>	90	18.50	60	1,307.20
<a href="#">620100023017</a>	95	19.40	55	1,437.90
<a href="#">620100003642</a>	100	21.50	50	1,592.40

## Concrete spacers type KD



Single spacers with low contact area made from fibre concrete with wire for fastening to horizontal and vertical rebar.

Can be used for concrete covers of three different depths.

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
620200003726	20/25/30	40.00	500	25,000	126.40
620200003727	35/40/50	100.00	250	10,000	187.70
620200003729	45/55/60	180.00	125	5,000	286.30

## Concrete spacers type KO



Single spacers with low contact area made from fibre concrete for horizontal rebar layers. Can be used for concrete covers of three different depths.

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
620200003730	20/25/30	40.00	500	25,000	76.40
620200003731	35/40/50	100.00	250	10,000	144.10
620200003733	45/55/60	170.00	125	5,000	239.90

## Concrete spacers type TFD



Single spacers made from cast concrete with galvanized wire for fastening to horizontal and vertical rebar.

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
620200003763	20	51.25	240	8,640	95.00
620200003764	25	66.70	240	8,640	100.30
620200003765	30	88.00	240	8,640	111.30
620200003766	35	97.50	160	5,760	139.80
620200003767	40	121.00	160	5,760	149.30
620200003769	45	131.25	160	5,760	169.70
620200003770	50	148.00	160	4,800	176.70
620200003771	60	186.00	128	3,840	225.50

## Concrete spacers type PRT



Single spacers with low contact area made from cast concrete with plastic clips for fastening to the rebar. No metal or wire parts in the concrete cover.

Tested for resistance to freeze and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
620200019868	15	25.00	800	32,000	174.90
620200019869	20	42.00	500	20,000	182.80
620200019870	25	62.00	400	16,000	197.40
620200019871	30	78.00	300	12,000	218.50
620200019872	35	94.00	250	10,000	245.20
620200019873	40	110.00	200	8,000	258.30

## Concrete spacers type PT/X



Single spacers with low contact area made from cast concrete with plastic clips for fastening to the rebar. No metal or wire parts in the concrete cover.

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
620200019079	20	42.50	480	14,400	128.50
620200019080	25	45.00	480	14,400	149.70
620200019081	30	53.00	360	12,960	160.30
620200019082	35	63.00	360	12,960	181.60
620200019083	40	74.00	240	8,640	210.50
620200019084	45	92.00	240	8,640	236.00
620200019085	50	104.00	192	6,912	257.10
620200023019	55	124.00	192	6,912	270.90

## Concrete spacers type PT/S



Single spacers with low contact area made from cast concrete with plastic clips for fastening to the rebar. No metal or wire parts in the concrete cover.

Tested for resistance of frost and thaw cycles, water ingress depth, tilt stability, and compressive strength in accordance with DBV sheet concerning spacers.

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
620200019874	15	34.00	800	20,000	174.90
620200019875	20	46.00	500	20,000	182.80
620200019876	25	54.00	400	16,000	197.40
620200019877	30	73.00	325	13,000	218.50
620200019878	35	90.00	250	10,000	245.10
620200019879	40	111.00	200	8,000	258.30
620200019880	45	131.00	175	7,000	278.30
620200019881	50	130.00	175	7,000	298.10
620200019882	55	143.00	150	6,000	320.70
620200019883	60	152.00	150	6,000	344.40

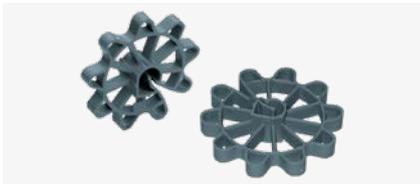
## Clipping spacers type DR



Plastic spacers with low contact area for fastening to horizontal rebar with various bar diameters. Good concrete flow.

Article number	Concrete cover [mm]	Clamping range [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
630200005187	15	5-14	3.60	1,000	5,000	200,000	31.30
630200005188	20	5-14	4.00	500	2,500	100,000	32.70
630200005189	25	5-14	4.40	500	2,500	100,000	37.20
630200005190	30	5-14	4.80	500	2,000	80,000	47.50
630200005191	35	5-14	5.20	250	1,500	60,000	54.90
630200005192	40	5-14	6.00	250	1,250	50,000	61.00
630200005193	50	5-14	6.40	125	1,000	40,000	89.20

## Clipping spacers type DI



Single plastic spacers for fastening to horizontal and vertical rebar with various bar diameters. Good concrete flow.

- Other dimensions and clamping ranges available on request

Article number	Concrete cover [mm]	Clamping range [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
630300005202	15	6-12	3.40	1,000	5,000	100,000	23.80
630300005203	20	6-12	3.40	500	5,000	100,000	23.80
630300005204	25	6-12	5.60	500	4,000	48,000	28.10
630300005205	30	6-12	7.80	500	2,500	35,000	35.70
630300005206	35	6-12	11.00	200	1,000	20,000	69.90
630300005207	40	6-12	16.00	125	1,000	20,000	100.90
630300005208	50	6-14	22.00	100	500	10,000	163.40

## Clipping spacers type MS II



Single plastic spacers for fastening to horizontal and vertical rebar with various bar diameters. For mounting spacers semi-automatically or fully automatically in precast concrete plants.

Article number	Concrete cover [mm]	Clamping range [mm]	Weight [kg/1,000 pcs.]	PU [pcs./box]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
630400005222	15	6-8	4.00	2,500	100,000	25.20
630400005223	20	6-8	4.80	2,000	80,000	29.70
630400005224	25	6-8	7.25	1,300	52,000	43.20
630400005225	30	6-8	8.00	450	28,800	58.10

## Rectangular spacers



Plastic surface spacers supported at specific points for horizontal mesh and round steel rebar.

- Size approx. 200 x 100 mm

Article number	Concrete cover [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bundle]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
630500005234	15	26.40	60	9,240	155.90
630500005235	20	28.00	60	9,240	167.90
630500005236	25	32.00	60	9,240	178.40
630500005237	30	33.60	60	9,240	190.10
630500005238	35	35.00	60	7,920	206.50
630500005239	40	38.50	60	7,920	221.50

## Rundfix spacers

Six rings



Large plastic spacers supported at specific points for horizontal mesh and round steel rebar. Consisting of six easily separable rings.

- Outer diameter 300 mm, inner diameter 150 mm

Article number	Concrete cover [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
630100005241	15	2.20	50 x 6 rings	14,400	15.80
630100005242	20	2.30	50 x 6 rings	10,800	16.50
630100005243	25	2.35	50 x 6 rings	10,800	17.20
630100005244	30	2.50	50 x 6 rings	7,200	18.60

## Drunterfix spacers

with cutout



Linear plastic surface spacers with cutouts in the side for large horizontal rebar layers. Good concrete flow.

- Element length: 2,000 mm
- Special lengths available on request

Article number	Concrete cover [mm]	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
630600017074	15	13.00	100	7,000	62.40
630600016912	20	15.00	100	6,300	66.40
630600005248	25	17.00	100	4,900	83.00
630600005250	30	18.50	100	4,200	95.40
630600016913	35	21.00	60	3,780	127.20
630600016914	40	24.00	60	2,400	139.90
630600016915	50	35.00	60	1,680	202.10

## Drunterfix spacers

no cutouts



Linear plastic spacers for large horizontal rebar layers. Ideal for use on soft surfaces, such as insulation plates. Good concrete flow.

- Element length: 2,000 mm
- Special lengths available on request

Article number	Concrete cover [mm]	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
630700005257	15	14.50	100	7,000	69.10
630700005258	20	16.60	100	6,300	72.30
630700005259	25	19.00	100	4,900	88.90
630700005260	30	20.30	100	4,200	102.40
630700005261	35	27.00	60	3,780	137.40
630700005262	40	32.00	60	2,400	151.10
630700005263	50	34.00	60	1,680	219.30

## Steckfix spacers



Linear plastic spacers supported at specific points for horizontal mesh and round steel rebar. Ideal for use in precast concrete plants. Good concrete flow.

- Element length: 2,000 mm
- Can be connected and separated in a 500 mm grid

Article number	Concrete cover [mm]	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
630900005284	15	9.20	100	6,000	43.20
630900005286	20	9.80	100	4,800	44.50
630900005290	25	10.20	100	4,200	49.10
630900005294	30	10.60	100	3,600	52.00
630900005296	35	11.00	100	3,000	59.40
630900005297	40	12.00	80	2,400	66.70
630900005298	45	12.75	80	2,400	71.30
630900005299	50	13.50	80	1,920	78.70

## Linear spacers



Linear plastic spacers supported at specific points for horizontal mesh and round steel rebar. Ideal for use in precast concrete plants. The upward-pointing nubs prevent the rebar from slipping out of place. Good concrete flow.

- Element length: 2,000 mm
- Can be connected and separated in a 500 mm grid

Article number	Concrete cover [mm]	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
631000005309	15	9.60	100	6,000	44.60
631000005310	20	10.50	100	4,800	47.40
631000005301	25	10.80	100	4,200	50.60
631000005303	30	11.00	100	3,600	53.50
631000005305	35	12.00	80	2,880	61.00
631000005306	40	13.00	80	2,400	68.40
631000005307	45	14.00	60	1,800	77.30
631000005308	50	14.50	60	1,800	80.10





# Facade fastening

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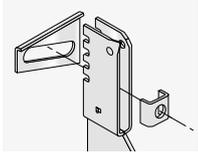
## Systems for parapet slabs

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# Systems for facing masonry

## Facade brackets

National technical approval (abZ Z-21.8-1868), type approval (TP-12-009)  
Applies to all products with bracket heads and bracket bodies

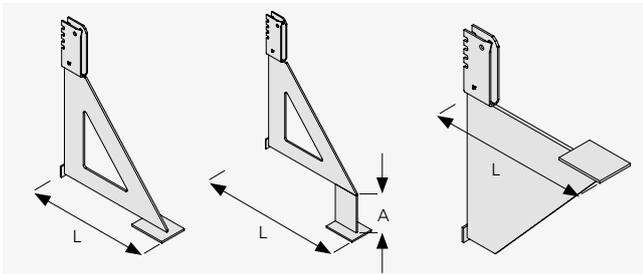


System consisting of:

- Facade bracket
- For angled hole plate, see page 128
- For clamping discs, see page 128

## Facade brackets JVAeco+

### Variant JVAeco+ N

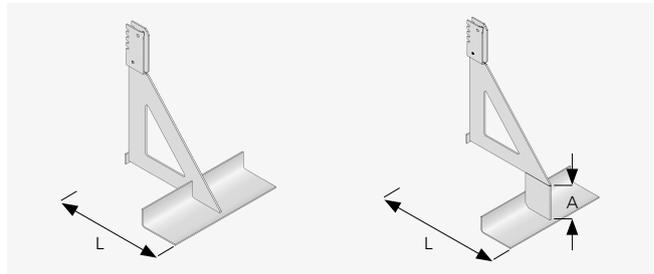


JVAeco+ N

JVAeco+ NA

JVAeco+ NU

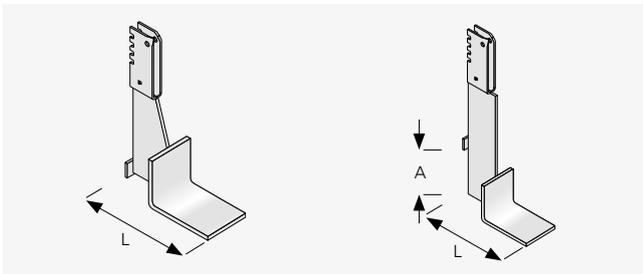
### Variant JVAeco+ P



JVAeco+ P

JVAeco+ PAR

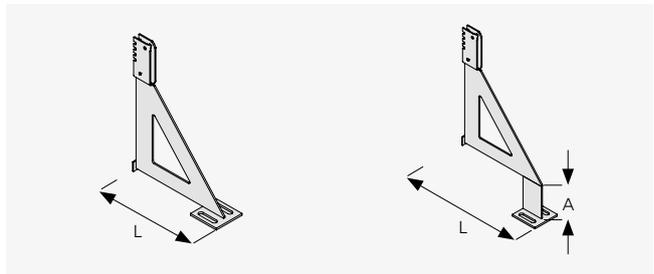
### Variant JVAeco+ E



JVAeco+ E

JVAeco+ EA

### Variant JVAeco+ NFT



JVAeco+ NFT

JVAeco+ NAFTA

Variant	Cantilever length L [mm]	Load level [kN]	Price per piece [€]
N			Prices on request
NA	130-390	4.5 / 7.0 / 9.0 / 10.5 / 13.5	
NU			
P			Prices on request
PAR	130-390	4.5 / 7.0 / 9.0 / 10.5 / 13.5	
E			Prices on request
EA	130-390	2.5 / 3.5 / 5.0 / 7.5	
NFT			Prices on request
NAFT	130-390	4.5 / 7.0 / 9.0 / 10.5 / 13.5	

Intermediate and special sizes are available on request

### Example order for facade brackets JVAeco+ NA

Type	Cantilever length	-	Variant	/	Load level	Offset A
JVAeco+	230	-	NA	/	4.5	100

Selected offset A: 100 mm

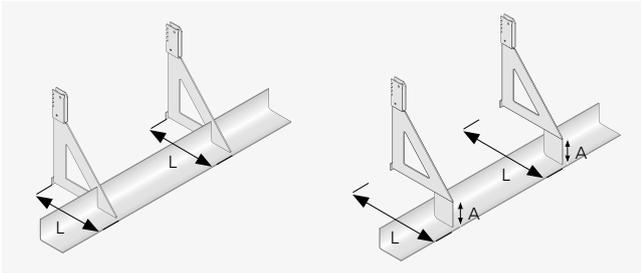
### Material

- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)



Suitable accessories can be found in the section concerning accessories for facing masonry starting from page 126.

**Variant JVAeco+ F**



JVAeco+ F

JVAeco+ FAR

Variant	Cantilever length L [mm]	Bracket length L <sub>w</sub> [mm]	Load level [kN]	Price per piece [€]
<b>F</b>	130-390	490-2,740	4.5 / 7.0 / 9.0 /	POR
<b>FAR</b>			10.5 / 13.5	

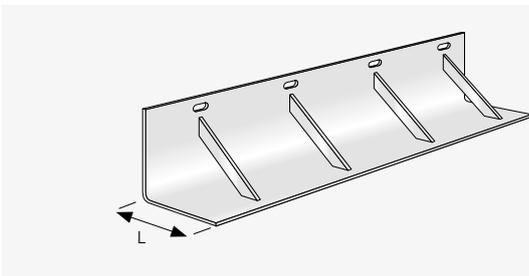
Intermediate and special sizes are available on request

**Example order for facade brackets JVAeco+ F**

Type	Cantilever length	-	Bracket length	-	Variant	/	Load level	Angled bracket dimensions
JVAeco+	190	-	1,240	-	F	/	7.0	(L 70 × 100 × 3)

Selected angled support bracket: L 70 × 100 × 3

**Angled brackets L-DF+**



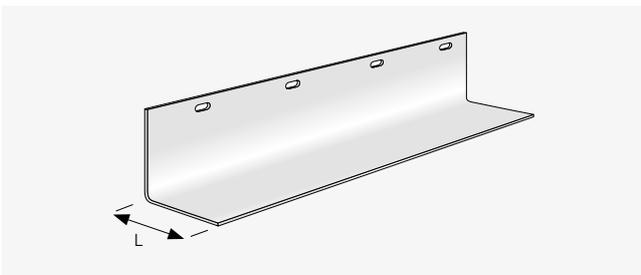
Type	Cantilever length L [mm]	Bracket length <sup>1)</sup> L <sub>w</sub> [mm]	Load level [kN]	Price per piece [€]
<b>L-DF+</b>	130-330	490-2,740	1.5 / 3.2	POR

<sup>1)</sup> Standard bracket length in 250-mm steps beginning at 490 mm  
Intermediate and special sizes are available on request

**Example order for angled brackets L-DF+**

Type	Cantilever length	-	Bracket length	/	Load level
L-DF+	190	-	990	/	3.2

**Angled brackets L-F+**



Type	Cantilever length L [mm]	Bracket length <sup>1)</sup> L <sub>w</sub> [mm]	Load level [kN]	Price per piece [€]
<b>L-F+</b>	110-130	500-2,750	1.2 / 2.1 / 3.2	POR

<sup>1)</sup> Standard bracket length in 250-mm steps beginning at 500 mm  
Intermediate and special sizes are available on request

**Example order for angled brackets L-F+**

Type	Cantilever length	-	Bracket length	/	Load level
L-F+	120	-	1,000	/	3.2

**Material**

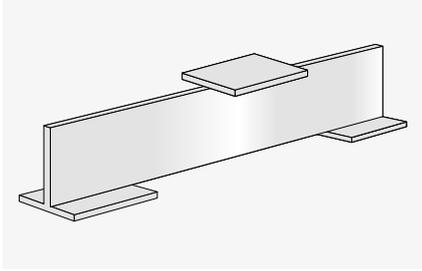
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)



Suitable accessories can be found in the section concerning accessories for facing masonry starting from page 126.

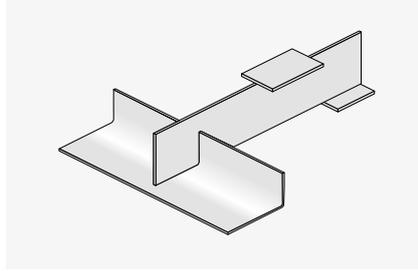
## Grout-in brackets JMK+

Variant JMK+ N



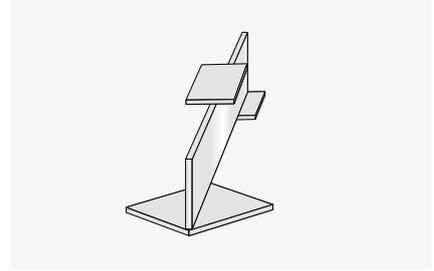
JMK+ N / JMK+ NA  
(A dimension not shown)

Variant JMK+ P



JMK+ P / JMK+ PAR  
(A dimension not shown)

Variant JMK+ E



JMK+ E / JMK+ EA corner grout-in brackets  
(A dimension not shown)

Variant	Cantilever length L [mm]	Load level [kN]	Price per piece [€]
N	110-330	3.5 / 7.0	Prices on request
NA			
P			
PAR			
E			
EA	Other dimensions and types available on request.		

Example order for grout-in bracket JMK+ N

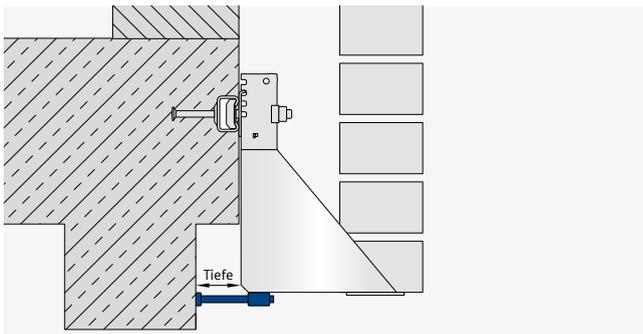
Type	Cantilever length	-	Variant	/	Load level
JMK+	140	-	N	/	3.5

### Material

- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

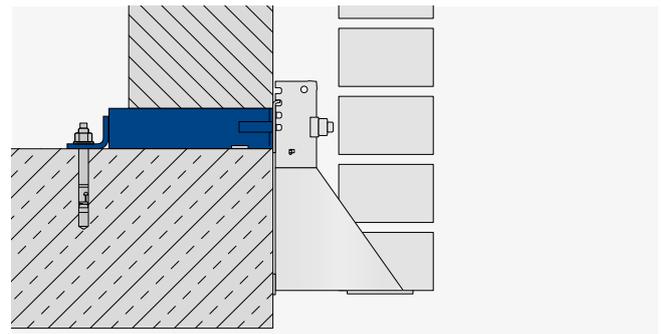
 Suitable intermediate brackets can be found on page 126.

## Adjustment foot



Load level [kN]	Price per piece [€]
4.5 / 7.0 / 9.0 / 10.5 / 13.5	Prices on request

## Additional component JVA+ ZB



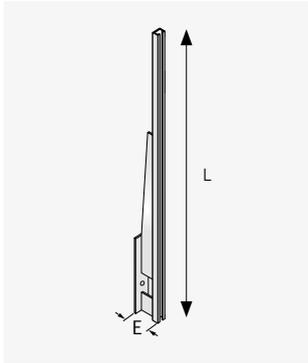
Variant	Wall thickness [mm]	Load level [kN]	Price per piece [€]
ZB	175 / 240 / 365	7.0 / 9.0	Prices on request

Example order for additional component JVA+ZB

Type	Cantilever length	-	Variant	/	Load level
JVA+	175	-	ZB	/	7.0

 Suitable accessories can be found in the section concerning accessories for facing masonry starting from page 126.

## Parapet brick anchors JAV



Length L [mm]	Wall spacing a [mm]	Installation depth E [mm]	Brick tie anchors <sup>1)2)</sup>		Price per piece [€]
			Quant.	Type	
600	65-205	75	3	JMA 85/12, JMA 120/12, JMA 180/12	Prices on request
600	215-355	225	3		Prices on request
850	65-205	75	4		Prices on request
850	215-355	225	4		Prices on request
1,100	65-205	75	5		Prices on request
1,100	215-355	225	5		Prices on request

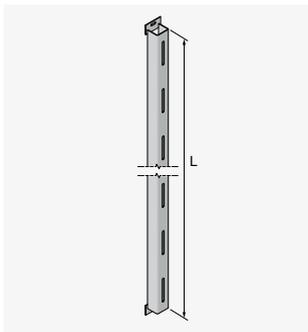
<sup>1)</sup> Please order brick tie anchors separately; see page 79

<sup>2)</sup> For brickwork t = 115 mm thick; other wall spacings and heights available on request

Type	Installation depth E	/	Length L
JAV	75	/	600

## Windposts JWP

### JWP standard version

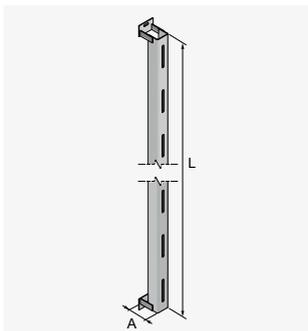


Length L [mm]	Profile dimensions w x h x s [mm]	Wall spacing a [mm]	Brick tie anchors <sup>1)2)</sup>		Price per piece [€]
			Quant.	Type	
2,000	75 x 65 x 3	65-205	8	JMA 85/12, JMA 120/12, JMA 180/12	Prices on request
2,500	75 x 65 x 4		10		Prices on request
2,750	85 x 75 x 4		11		Prices on request
3,000	95 x 85 x 4		12		Prices on request
3,250	85 x 85 x 5		13		Prices on request
3,500	85 x 85 x 5		14		Prices on request
3,750	85 x 85 x 5		15	Prices on request	
4,000	95 x 100 x 5		16	Prices on request	
4,500	105 x 105 x 6		18	Prices on request	

<sup>1)</sup> Please order brick tie anchors separately; see page 79

<sup>2)</sup> For brickwork t = 115 mm thick; other heights available on request

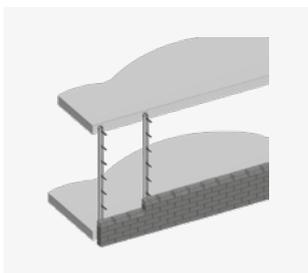
### JWP standard version, offset



Length L [mm]	Profile dimensions w x h x s [mm]	Wall spacing a [mm]	Brick tie anchors <sup>1)2)</sup>		Price per piece [€]
			Quant.	Type	
2,000	75 x 65 x 3	205-400	8	JMA 85/12, JMA 120/12, JMA 180/12	Prices on request
2,500	75 x 65 x 4		10		Prices on request
2,750	85 x 75 x 4		11		Prices on request
3,000	95 x 85 x 4		12		Prices on request
3,250	85 x 85 x 5		13		Prices on request
3,500	85 x 85 x 5		14		Prices on request
3,750	85 x 85 x 5		15	Prices on request	
4,000	95 x 100 x 5		16	Prices on request	
4,500	105 x 105 x 6		18	Prices on request	

<sup>1)</sup> Please order brick tie anchors separately; see page 79

<sup>2)</sup> For brickwork t = 115 mm thick; other wall spacings and heights available on request



### Example order for windpost JWP

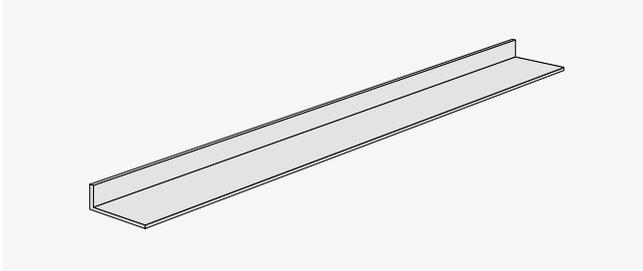
Type	Profile dimensions	-	Length L
JWP	95 x 85 x 4	-	3,000

### Material

- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

# Accessories for facing masonry

## Angles JW



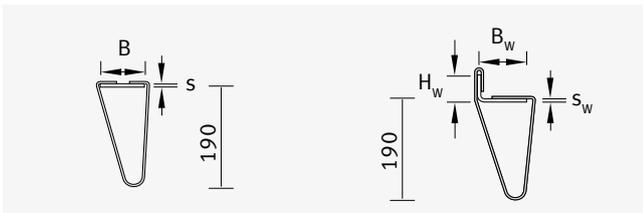
Type	Bracket length [mm]	Angled bracket dimensions $H_w \times B_w \times s_w$ [mm]	Price per piece [€]
JW	480	25 × 90 × 2	POR
JW	730	30 × 90 × 3	POR
JW	980	50 × 90 × 3	POR

Other lengths and bracket dimensions available on request

### Example order for angle JW

Type	Bracket length	Angled bracket dimensions
JW	980	50 × 90 × 3

## Roll layer holders JRH



JRH 0

JRH 1-7

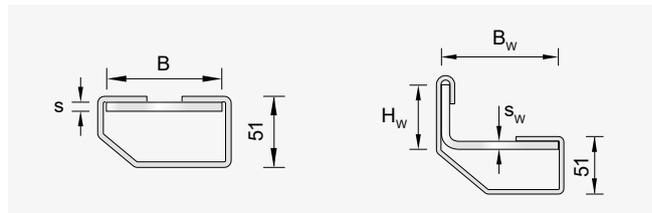
Type	Brick-on-edge course thickness [mm]	For bracket dimensions $H_w \times B_w \times s_w$ [mm]	Price per piece [€]
JRH 0	11.5	For JVAeco+ N, NA, NU	POR
JRH 1	11.5	30-35 × 80-100 × 3-8	POR
JRH 2	11.5	40-45 × 80-100 × 3-8	POR
JRH 3	11.5	50-55 × 80-100 × 3-8	POR
JRH 4	11.5	60-65 × 80-100 × 3-8	POR
JRH 5	11.5	70-75 × 80-100 × 3-8	POR
JRH 6	11.5	80-85 × 80-100 × 3-8	POR
JRH 7	11.5	90-95 × 80-100 × 3-8	POR

Other shapes available on request.

### Example order for roll layer holders JRH

Type	/	Brick-on-edge course thickness
JRH 5	/	11.5

## Roll layer holders JRH (for stretcher lintels)



JRH 20

JRH 21-27

Type	Brick-on-edge course thickness [mm]	For bracket dimensions $H_w \times B_w \times s_w$ [mm]	Price per piece [€]
JRH 20	11.5	For JVAeco+ N, NA, NU	POR
JRH 21	11.5	30-35 × 80-100 × 3-8	POR
JRH 22	11.5	40-45 × 80-100 × 3-8	POR
JRH 23	11.5	50-55 × 80-100 × 3-8	POR
JRH 24	11.5	60-65 × 80-100 × 3-8	POR
JRH 25	11.5	70-75 × 80-100 × 3-8	POR
JRH 26	11.5	80-85 × 80-100 × 3-8	POR
JRH 27	11.5	90-95 × 80-100 × 3-8	POR

Other shapes available on request.

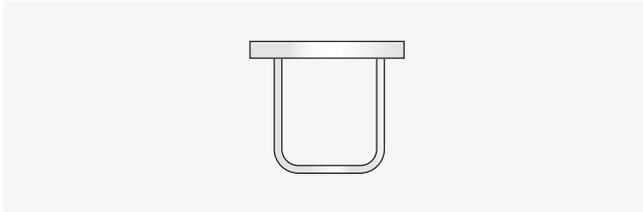
## Stainless steel wires ESD

Type	Dia. [mm]	Length [mm]	Price per m [€]
ESD	4	3,000	Prices on request

### Material

- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

## Precast holders JFT+



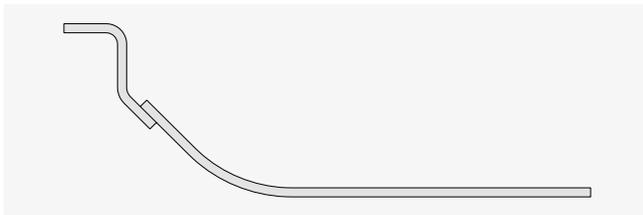
Type	Load level [kN]	Price per piece [€]
JFT 1+ (K28/15)	4.5	Prices on request
JFT 2+ (K38/17) <sup>1)</sup>	7.0	Prices on request
JFT 3+ (K38/17) <sup>1)</sup>	9.0 / 10.5	Prices on request

<sup>1)</sup> Additional reinforcement necessary according to approval Z-21.4-2014  
Special shapes available on request.

### Example order for prefabricated element holder JFT+

Type	/	Profile type
JFT 1+	/	K28/15

## Precast lintel brackets JFTW



Type	Load level [kN]	Price per piece [€]
JFTW-2.6	2.6	Prices on request
JFTW-3.5	3.5	Prices on request
JFTW-4.2	4.2	Prices on request
JFTW-5.5	5.5	Prices on request
JFTW-7.0	7.0	Prices on request

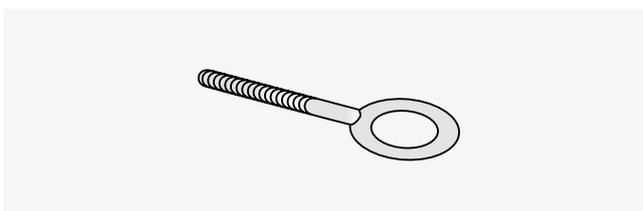
### Example order for precast lintel bracket JFTW

Type	-	Load level
JFTW	-	5.5

### Version and material

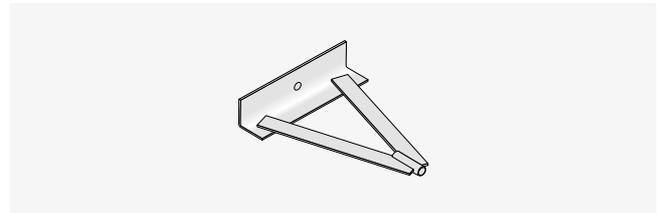
- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)

## Scaffold eyelets FIG



## Scaffold anchors JGA+ Q

(with interior thread and cap)



Type	Length <sup>1)</sup> [mm]	Price per piece [€]
JGA+ Q	150-410	Prices on request

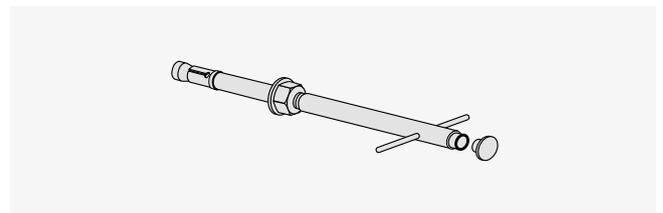
<sup>1)</sup> Length in 20-mm steps  
Intermediate and special sizes are available on request.

### Example order for scaffold anchor JGA+ Q

Type	Length
JGA+ Q	150

## Scaffold anchors JGA+ Z

(with interior thread and cap)



Type	Length <sup>1)</sup> [mm]	Price per piece [€]
JGA+ Z	110-350	Prices on request

<sup>1)</sup> Length in 20-mm steps  
Price includes reinforced concrete dowels and gray cap

### Example order for scaffold anchor JGA+ Z

Type	Length
JGA+ Z	110

Type	Price per piece [€]
FIG M12 x 40 gv	Prices on request

Material: galvanized

## Installation set (for mounting Facade brackets JVAeco+ on anchor channels)

Type <sup>1)</sup>	Suitable for		Price per 100 pcs. [€]
	Channel	Bracket load level [kN]	
JH M12 × 70 T A4 set	JTA K 38/17	3.5	Prices on request
JB M12 × 80 T A4-70 set	JTA K 50/30	4.5 / 7.0 / 9.0	Prices on request
JB M16 × 85 T A4 set	JTA K 53/34	10.5	Prices on request
JB M16 × 85 T A4 set	JTA W 50+	13.5	Prices on request

<sup>1)</sup> Set consists of bolt, nut, angled hole plate, and clamping disc



Further T-head/hook-head T-bolts can be found in the section concerning bolts for channels starting from page 66.

## Individual parts and installation set (facade brackets JVAeco+ with dowels)

Type	Facade fastening and load level [kN]	Price per piece [€]
Anchor bolts M10/10 A4	Angled brackets L+ [1.2 / 1.5 / 2.1 / 3.2]	POR
Anchor bolts M12/10 A4	Parapet brick anchors JAV, windposts JWP, additional component JVA+ZB [7.0 / 9.0]	POR
Heavy-duty anchors M12 × 75/10 A4 set <sup>2)</sup>	Scaffold anchors JGA+ Q	POR
Anchor bolts M12/50 A4 set <sup>2)</sup>		POR
Anchor bolts M12/60 A4 set <sup>2)</sup>		POR
Anchor bolts M16/100 A4 set <sup>2)</sup>	Facade bracket JVAeco+	POR
Heavy-duty anchors M12 × 75/60 A4 set <sup>3)</sup>	[4.5 / 7.0 / 9.0 / 10.5 / 13.5]	POR
Heavy-duty anchors M12 × 120/60 A4 set <sup>3)</sup>		POR
Heavy-duty anchors M16 × 95/60 A4 set <sup>3)</sup>		POR
Heavy-duty anchors M16 × 160/60 A4 set <sup>3)</sup>		POR
Cleaning brush BS 12 <sup>4)</sup>		POR
Cleaning brush BS 14 <sup>5)</sup>		POR
Cleaning brush BS 16/18 <sup>6)</sup>		POR
Blow-out pump		POR

<sup>2)</sup> Set includes angled hole plate and clamping disc

<sup>3)</sup> Set includes mortar cartridge, angled hole plate, and clamping disc

<sup>4)</sup> For heavy-duty anchors M12

<sup>5)</sup> For heavy-duty anchors M12

<sup>6)</sup> For heavy-duty anchors M16

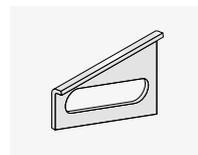
<sup>7)</sup> Set includes mortar cartridge

## Angle compensation brackets AGW



Type	Material thickness [mm]	Price per piece [€]
AGW	2 / 3 / 4 / 5 / 6	POR

## Angled hole plates SLP



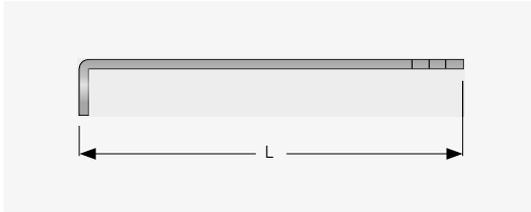
Type	Suitable for load level [kN]	Price per piece [€]
SLP	3.5/4.5/7.0/9.0/10.5/13.5	Prices on request

## Clamping discs KS

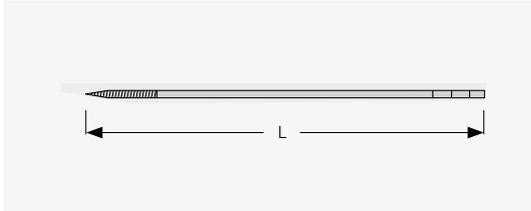


Type	Suitable for load level [kN]	Price per piece [€]
KS11	3.5 / 4.5	POR
KS13	3.5 / 4.5 / 7.0 / 9.0	POR
KS13-K3	10.5 / 13.5	POR
KS17	10.5 / 13.5	POR

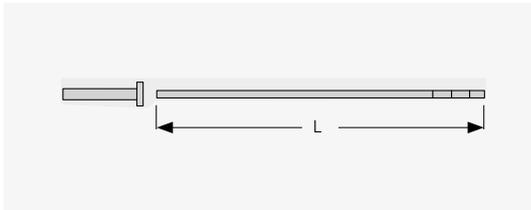
## Air layer anchors JLA



Air layer anchors JLA W-L



Air layer anchors JLA U-EA for wooden surfaces



Dowel anchor JLA D-ZV

Type	Diameter [mm]	Length L [mm]	Price per piece [€]
JLA W-L	4	225 / 250 / 275 / 300 / 340 / 400	POR
JLA U-EA	4	180 / 210 / 235 / 260 / 300 / 330	POR
JLA D-ZV	4	180 / 210 / 250 / 275 / 300 / 320 / 350 / 375 / 400	POR
JLA D-ZV	5	350 / 375 / 400 / 425 / 450 / 475 / 500 / 525 / 550	POR

<sup>1)</sup> Only sold in whole packaging units. 1 PU = 250 pieces. Other types available on request

### Example order for dowel anchors

Type	Diameter	/	Length
JLA D-ZV	4	/	250

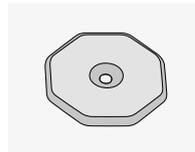
## Clamping claw plates KKP



Type	Price per 100 pcs. [€]
KKP60	Prices on request

Clamping claw plate 60 mm in diameter for cavity wall anchors dia. 3 - 4 mm

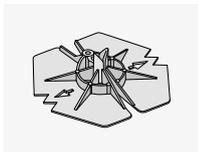
## Drip discs TS



Type	Price per 100 pcs. [€]
TS	Prices on request

Drip disc 25 mm in diameter for air layer anchors dia. 3 - 4 mm

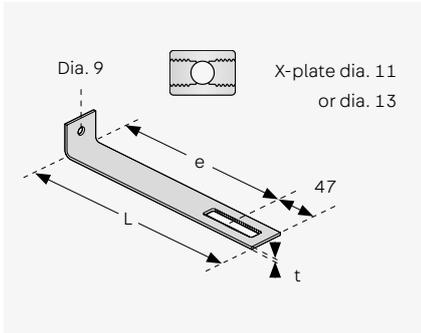
## ISO clips



Type	Price per 100 pcs. [€]
ISO clip	Prices on request

ISO clip with 60 mm diameter for air layer anchors dia. 3 - 5 mm

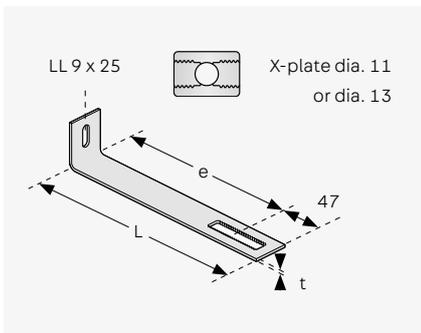
## Tilt protection, angle JVB-WRL



Type	Length L [mm]	Thickness t [mm]	Price per piece [€]
			Design
<b>L4</b>			
JVB-WRL3		3	Prices on request
JVB-WRL4	100 - 395	4	Prices on request
JVB-WRL5	(all lengths)	5	Prices on request
JVB-WRL6		6	Prices on request

Prices include X-plate

## Tilt protection, angle JVB-WLL



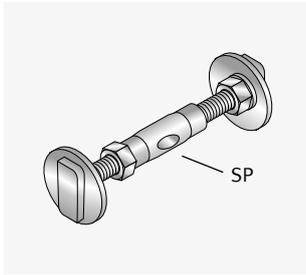
Type	Length L [mm]	Thickness t [mm]	Price per piece [€]
			Design
<b>L4</b>			
JVB-WLL3		3	Prices on request
JVB-WLL4	100 - 395	4	Prices on request
JVB-WLL5	(all lengths)	5	Prices on request
JVB-WLL6		6	Prices on request

Prices include X-plate

### Example order for tilt protection JVB-WRL

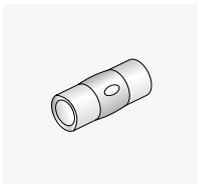
Type	/	Length L	-	Design
JVB-WRL3	/	112	-	L4

## Clamp connections JSV (material A4)



Type	Load level [in kN]	Sleeve	Bolt left-handed thread	Bolt right-handed thread	Price per piece [€]
JSV-28-1	3.5	SP 10 x 50	JDL M10 x 50	JD M10 x 40	52.90
JSV-28-2	3.5	SP 10 x 80	JDL M10 x 50	JD M10 x 60	56.60
JSV-38-1	5.0	SP 12 x 50	JHL M12 x 50	JH M12 x 50	72.80
JSV-38-2	5.0	SP 12 x 80	JHL M12 x 50	JH M12 x 60	76.80
JSV-38-3	5.0	SP 12 x 80	JHL M12 x 50	JH M12 x 100	83.40
JSV-38-4	7.0	SP 16 x 50	JHL M16 x 50	JH M16 x 50	102.70
JSV-38-5	7.0	SP 16 x 80	JHL M16 x 50	JH M16 x 80	112.30
JSV-38-6	7.0	SP 16 x 80	JHL M16 x 50	JH M16 x 100	115.70
JSV-40-1	8.0	SP 16 x 50	JCL M16 x 50	JC M16 x 60	114.50
JSV-40-2	8.0	SP 16 x 80	JCL M16 x 50	JC M16 x 60	119.00
JSV-40-3	8.0	SP 16 x 80	JCL M16 x 50	JC M16 x 100	143.30
JSV-50-1	10.0	SP 16 x 80	JBL M16 x 80	JB M16 x 50	151.60
JSV-50-2	10.0	SP 16 x 80	JBL M16 x 80	JB M16 x 80	157.60
JSV-50-3	10.0	SP 16 x 80	JBL M16 x 80	JB M16 x 100	163.30

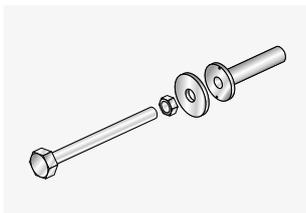
## Clamp sleeves SP (material A4)



(with right/left-hand-  
ed thread and hole)

Thread x length [mm]	Price per 100 pcs. [€]
M10 x 50	2,552.00
M10 x 80	2,756.60
M12 x 50	3,075.10
M12 x 80	3,286.50
M16 x 50	4,383.50
M16 x 80	4,815.70

## Thrust bolts JDS (material A4)



Thread	T-bolt length [mm]									Round plastic sleeve (length = 80 mm)	Price per piece [€]
	80	100	120	140	160	180	200	220 <sup>1)</sup>	240 <sup>1)</sup>		
M10	12.50	12.50	12.50	12.50	13.10	13.40	14.40	POR	POR	1.65	
M12	14.40	14.40	14.40	14.40	14.40	15.80	15.80	POR	POR	1.75	
M16	22.70	22.70	22.70	22.70	22.70	24.00	24.00	POR	POR	1.85	
M20	40.40	40.40	40.40	40.40	40.40	44.50	44.50	POR	POR	1.85	

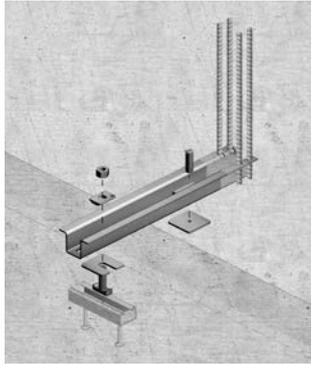
<sup>1)</sup> Custom designs available on request

# Systems for parapet slabs

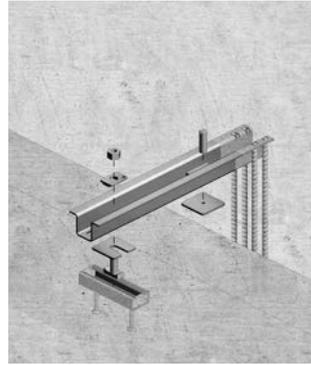
## Support corbels JBA

Type approval (TP S-WUE/130261)

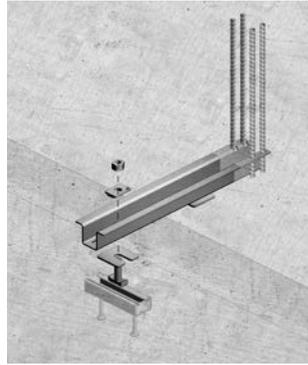
**JBA-NJ**  
Standard version, adjustable



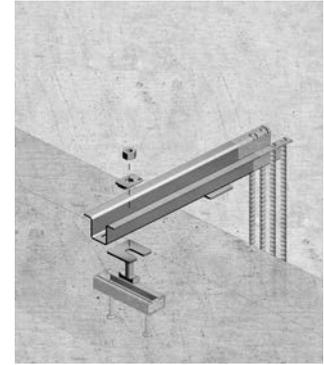
**JBA-AJ**  
Reversed version, adjustable



**JBA-N**  
Standard version



**JBA-A**  
Reversed version



Type	Design				Profile size of support corbel	Profile length L <sup>1)</sup> [mm]				Price per piece [€]
	Standard, adjustable	Reversed, adjustable	Standard, not adjustable	Reversed, not adjustable		Possible spacing e <sup>2)</sup> [mm]				
						0 – 45	50 – 100	105 – 140	145 – 200	
JBA	NJ	AJ	N	A	1	400	450	500	600	POR
JBA	NJ	AJ	N	A	2	450	500	550	650	POR
JBA	NJ	AJ	N	A	3	500	550	600	700	POR
JBA	NJ	AJ	N	A	4	550	600	650	750	POR
JBA	NJ	AJ	v	A	5	550	600	650	750	POR
JBA	NJ	AJ	N	A	6	600	650	700	800	POR
JBA	NJ	AJ	N	A	7	650	700	750	850	POR
JBA	NJ	AJ	N	A	8	700	750	800	900	POR

<sup>1)</sup> Standard lengths [mm] are available in the variants listed above with spacing e for all types; other lengths are also available

<sup>2)</sup> Spacing between front edge of ceiling slab and inside of facade slab

## Installation set for JBA

Type	Profile size of support corbel	Design				Set contents				Price per set [€]
		Standard, adjustable	Reversed, adjustable	Standard, not adjustable	Reversed, not adjustable	X-plate	Horseshoe shim	Square bearing plate <sup>1)</sup>	Threaded pin <sup>1)</sup>	
JBA set	1	J 1	J 1	1	1	JXS-D13	JVS-40/3-13	JVL-40/3-8	JGW M16x50	POR
JBA set	2	J 2	J 2	2-4	2-4				JGW M16x50	POR
JBA set	3	J 3	J 3	2-4	2-4	JXS-D17	JVS-65/4-17	JVL-65/4-8	JGW M20x55	POR
JBA set	4	J 4	J 4	2-4	2-4				JGW M24x60	POR
JBA set	5	J 5-6	J 5-6	5-8	5-8				JGW M27x70	POR
JBA set	6	J 5-6	J 5-6	5-8	5-8				JGW M27x70	POR
JBA set	7	J 7-8	J 7-8	5-8	5-8	JXS-D21	JVS-80/8-21	JVL-80/8-8	JGW M30x80	POR
JBA set	8	J 7-8	J 7-8	5-8	5-8				JGW M30x80	POR

<sup>1)</sup> Only included in adjustable set

### Example order for support corbel JBA

Type	Design	Profile size	Length L	Spacing e
JBA	NJ	5	600	100

### Example order for installation accessories set JBA

Type	Design
JBA set	J 5-6

### Material

- A4 = Stainless steel, corrosion resistance class III (CRC III)
- L4 = Lean duplex stainless steel, corrosion resistance class III (CRC III)
- Reinforcing steel B500B





# Sound insulation

## Elevator insulation

Elevator insulation JAI universal 136

## SINTON®

SINTON® X 137

SINTON® X-T1 / X-T2 137

SINTON® S 137

SINTON® ZB 138

SINTON® D 139

SINTON® Z 139

SINTON® Q 140

Fire protection sleeve SQ BRM 140

# Elevator insulation

## Elevator insulation JAI universal

With voluntary type approval test (TÜV)



JAI-A1J



JAI-R1



JAI-L1

JAI types universal for fastening to anchor / mounting channels or using dowels

Type	Variant	Price per piece [€] net
JAI-A1J-DU16 GV	Elevator insulation, standard	Prices on request
JAI-R1-DU16 GV	Elevator insulation für backpack suspension	Prices on request
JAI-L1-DU12 GV	Elevator insulation, heavy-duty	Prices on request

### Version and material

- gv = Galvanized
- Insulation material: Plastic



Special designs available upon request.  
Please contact the Pohlcon Application Technology department.

# SINTON®

## SINTON® X

NEW



Impact sound insulation element for masonry and concrete walls. Cutout elements for supporting and acoustically isolating landing and staircase walls at the same time. Supplied with packing for stabilisation during casting and frame for fastening to formwork.

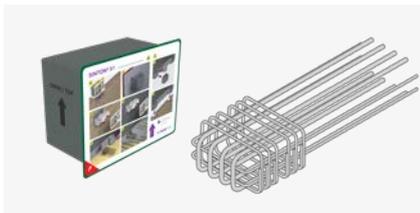
**Tested in accordance with DIN 7396, compliance with increased sound insulation requirements in accordance with DIN 4109-5.**

- SINTON X1 = bottom thrust bearing
- SINTON X2 = bottom and top thrust bearings
- SINTON X3 = bottom, top, and lateral thrust bearings

Article number	Type	Inner dimensions [mm]			Weight [kg/pc.]	PU [pcs./pal.]	Price per piece [€]
		B	D	H			
410200020313	SINTON® X1	245	150	180	1.02	48	103.10
410200020314	SINTON® X2	245	150	180	1.10	48	112.70
410200020315	SINTON® X3	245	150	180	1.25	48	124.00

## SINTON® X-T1 / X-T2

NEW



Impact sound insulation element with type-approved reinforcement cage in two load levels (T1 and T2). Cutout element for supporting and acoustically isolating landing and staircase walls at the same time. Supplied with packing for stabilisation during casting and frame for fastening to formwork.

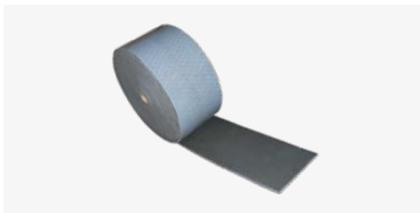
**Tested in accordance with DIN 7396, compliance with increased sound insulation requirements in accordance with DIN 4109-5.**

**Type-approved reinforcement cage in two load levels.**

- SINTON X1 = bottom thrust bearing
- SINTON X2 = bottom and top thrust bearings
- SINTON X3 = bottom, top, and lateral thrust bearings

Article number	Type	Inner dimensions [mm]			Weight [kg/pc.]	PU [pcs./2pal.]	Price per piece [€]
		B	D	H			
410300025052	SINTON® X1-T1	245	150	180	4.95	48	175.40
410300025053	SINTON® X2-T1	245	150	180	5.03	48	184.90
410300025054	SINTON® X3-T1	245	150	180	5.18	48	196.30
410300025055	SINTON® X1-T2	245	150	180	6.48	48	224.30
410300025056	SINTON® X2-T2	245	150	180	6.55	48	233.80
410300025057	SINTON® X3-T2	245	150	180	6.70	48	245.20

## SINTON® S



SINTON® S is a self-adhesive, flexible insulation board to prevent sound bridges between the staircase/landing and the staircase wall.

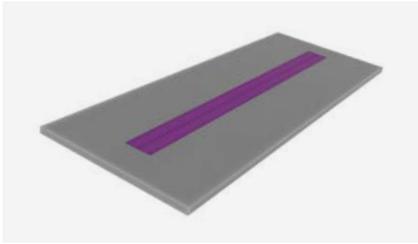
- Supplied on rolls

Article number	Type	Dimensions [mm]		PU [m/roll]	PU [roll/pal.]	Weight [kg/roll]	Price per m [€]
		b	d				
450100024246	SINTON® S 24	240	15	15.00	24	2.30	16.50
450100024247	SINTON® S 36	360	15	15.00	12	3.00	21.20
450100024248	SINTON® S 42	420	15	15.00	8	3.50	22.30
450100024249	SINTON® S 48	480	15	15.00	8	4.00	23.60

## SINTON® ZB

NEW

From March 2026



Impact sound insulation element for acoustically decoupling and supporting prefabricated staircases on floor slabs.

**Tested in accordance with DIN 7396, compliance with increased sound insulation requirements in accordance with DIN 4109-5.**

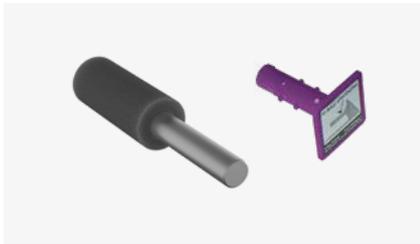
Article number	Type	Element length [mm]	Width [mm]	Weight [kg/pc.]	Price per piece [€]
430200026349	ZB1-L800-B360	800	360	0.29	101.70
430200026350	ZB1-L1000-B360	1000	360	0.37	94.50
430200026351	ZB1-L1100-B360	1100	360	0.41	99.00
430200026352	ZB1-L1200-B360	1200	360	0.44	101.70
430200026353	ZB1-L1300-B360	1300	360	0.48	107.10
430200026354	ZB1-L1500-B360	1500	360	0.56	128.70
430200026355	ZB1-L800-B600	800	600	0.51	101.70
430200026356	ZB1-L1000-B600	1000	600	0.64	101.70
430200026357	ZB1-L1100-B600	1100	600	0.70	106.20
430200026358	ZB1-L1200-B600	1200	600	0.76	108.90
430200026359	ZB1-L1300-B600	1300	600	0.83	114.30
430200026360	ZB1-L1500-B600	1500	600	0.97	135.90
430200026361	ZB2-L800-B360	800	360	0.39	123.20
430200026362	ZB2-L1000-B360	1000	360	0.49	116.80
430200026363	ZB2-L1100-B360	1100	360	0.54	123.20
430200026364	ZB2-L1200-B360	1200	360	0.59	128.80
430200026365	ZB2-L1300-B360	1300	360	0.64	134.40
430200026366	ZB2-L1500-B360	1500	360	0.75	156.80
430200026367	ZB2-L800-B600	800	600	0.68	123.20
430200026368	ZB2-L1000-B600	1000	600	0.85	123.20
430200026369	ZB2-L1100-B600	1100	600	0.93	128.80
430200026370	ZB2-L1200-B600	1200	600	1.02	136.00
430200026371	ZB2-L1300-B600	1300	600	1.10	142.40
430200026372	ZB2-L1500-B600	1500	600	1.30	168.80
430200026373	ZB3-L800-B360	800	360	0.43	161.00
430200026374	ZB3-L1000-B360	1000	360	0.54	153.30
430200026375	ZB3-L1100-B360	1100	360	0.60	159.60
430200026376	ZB3-L1200-B360	1200	360	0.65	164.50
430200026377	ZB3-L1300-B360	1300	360	0.71	170.10
430200026378	ZB3-L1500-B360	1500	360	0.81	191.80
430200026379	ZB3-L800-B600	800	600	0.75	161.00
430200026380	ZB3-L1000-B600	1000	600	0.94	161.00
430200026381	ZB3-L1100-B600	1100	600	1.03	165.20
430200026382	ZB3-L1200-B600	1200	600	1.12	172.90
430200026383	ZB3-L1300-B600	1300	600	1.22	178.50
430200026384	ZB3-L1500-B600	1500	600	1.40	203.70

## SINTON® D

Accessories for SINTON® ZB

NEW

From March 2026



Optional impact sound-absorbing dowel for securing the structural position of stairs.

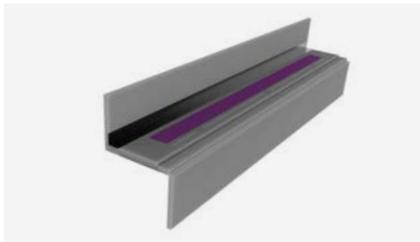
- Acoustically decoupled support in combination with SINTON ZB
- Optionally available with plastic sleeve GK
- Dowel material: stainless steel

Article number	Type	Design	Weight [kg/pc.]	Price per piece [€]
430400027487	SINTON D	Dowel with sound decoupling	0.50	73.00
430400027488	SINTON D-GK	Dowel with sound decoupling and plastic sleeve	0.60	78.00

## SINTON® Z

NEW

From March 2026

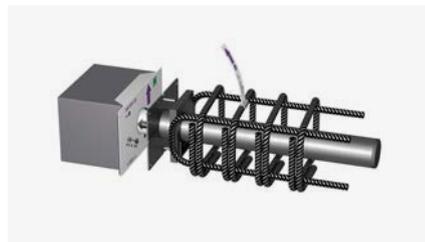


Impact sound insulation element for acoustically decoupling and supporting prefabricated staircases on landings and ceilings.

**Tested in accordance with DIN 7396, compliance with increased sound insulation requirements in accordance with DIN 4109-5.**

Article number	Type	Element length [mm]	Weight [kg/pc.]	Price per piece [€]
430100026328	Z1-L800	800	0.44	54.90
430100026329	Z1-L1000	1000	0.55	54.90
430100026330	Z1-L1100	1100	0.60	60.30
430100026331	Z1-L1200	1200	0.66	64.80
430100026332	Z1-L1300	1300	0.71	75.60
430100026333	Z1-L1500	1500	0.84	90.90
430100026334	Z2-L800	800	0.60	81.60
430100026335	Z2-L1000	1000	0.76	81.60
430100026336	Z2-L1100	1100	0.83	88.40
430100026337	Z2-L1200	1200	0.91	96.90
430100026338	Z2-L1300	1300	0.98	107.10
430100026339	Z2-L1500	1500	1.16	130.10
430100026340	Z3-L800	800	0.68	109.20
430100026341	Z3-L1000	1000	0.85	109.20
430100026342	Z3-L1100	1100	0.93	115.50
430100026343	Z3-L1200	1200	1.02	123.20
430100026344	Z3-L1300	1300	1.10	132.30
430100026345	Z3-L1500	1500	1.30	153.30

## SINTON® Q



The SINTON® Q impact sound insulation element is a shear force connection for the acoustic decoupling of spiral staircases or landings from staircase walls. The elements have technical approval from the DIBt up to a joint width of 120 mm; Z-15.7-355.

SINTON® Q consists of a load-transmitting round dowel made of high-strength stainless steel, an impact sound-absorbing wall support, and a running sleeve with a reinforcement cage.

**Tested in accordance with DIN 7396, compliance with increased sound insulation requirements in accordance with DIN 4109-5.**

- Version Q1 for positive shear forces
- Version Q2 for positive and negative shear forces

Article number	Type	Joint width f [mm]	Dowel length [mm]	Weight [kg/pc.]	PU [pcs./pal.]	Price per piece [€]
420100025004	SINTON Q1-J50	≤50	350	6.37	80	139.60
420100025005	SINTON Q1-J120	51-120	420	6.91	70	149.00
420100025006	SINTON Q2-J50	≤50	350	7.07	80	166.80
420100025007	SINTON Q2-J120	51-120	420	7.61	70	176.20

## Fire protection sleeve SQ BRM

Accessories for SINTON® Q



If a fire protection sleeve is used in joints up to 60 mm wide, the SINTON® Q impact sound insulation element achieves fire resistance class R120 in line with report BB-21-056-1. The choice of SQ BRM fire protection sleeve depends on the width of the joint. The sleeve must be ordered separately from the impact sound insulation element SINTON® Q. The fire protection sleeve may be a maximum of 10 mm narrower than the joint width.

Multiple fire protection sleeves can be combined to create wider joints in compliance with fire protection regulations

Article number	Type	Dimensions H x W [mm]	Thickness t [mm]	Joint width f [mm]	Weight [kg/pc.]	Price per piece [€]
900000024991	SQ-BRM1	120 x 145	3	Up to 12	0.04	10.60
900000024996	SQ-BRM2	120 x 145	13	13-22	0.08	11.80
900000024997	SQ-BRM3	120 x 145	23	23-32	0.13	13.20
900000024998	SQ-BRM4	120 x 145	33	33-42	0.17	14.30
900000024999	SQ-BRM5	120 x 145	43	43-53	0.21	15.40





# Formwork

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# RAPIDOBAT®

## RAPIDOBAT® unlined



Formwork tubes in an unlined design.

- Other diameters and lengths available on request
- Prices apply to lengths of 2,500 mm up to 6,000 mm or 7,000 mm
- For alignment and fastening accessories, see page 149

Article number	Dimensions [mm]		Formwork height [mm]	Weight [kg/m]	Price per m [€]
	Inner dia.	Outer dia.			
310100001877	150	157	7,000	1.18	16.70
310100001878	200	207	7,000	1.56	19.00
310100001880	240	247	7,000	2.26	23.20
310100001881	250	257	7,000	2.36	23.80
310100001883	300	309	7,000	3.18	28.70
310100001886	350	359	7,000	4.08	37.70
310100001887	360	369	7,000	4.40	41.10
310100001889	400	409	7,000	5.10	46.60
310100001890	435	444	7,000	5.53	53.00
310100001891	450	461	7,000	6.72	54.10
310100001892	500	513	7,000	8.29	57.30
310100013213	550	563	7,000	9.12	64.60
310100001893	560	573	7,000	9.28	66.00
310100001894	600	613	7,000	9.95	68.90
310100001895	650	665	7,000	12.21	79.20
310100001896	700	715	7,000	13.17	102.70
310100001898	750	767	7,000	15.76	120.80
310100001899	800	817	7,000	18.61	128.70
310100001900	900	917	7,000	22.94	261.20
310100001875	1,000	1,019	7,000	27.12	317.50
310100001876	1,200	1,219	6,000	34.54	386.40

## RAPIDOBAT® lined

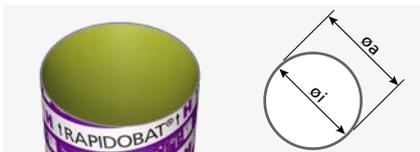


Round formwork tubes with film liners for producing concrete elements with very smooth surfaces.

- Other diameters and lengths available on request
- Prices apply to lengths of 2,500 mm up to 6,000 mm or 7,000 mm
- Number of film joints: Dia. 150-500 mm 1 joint, dia. 550-1,000 mm 2 joints, dia. 1,200 mm 3 joints
- For alignment and fastening accessories, see page 149

Article number	Dimensions [mm]		Formwork height [mm]	Weight [kg/m]	Price per m [€]
	Inner dia.	Outer dia.			
310200001851	150	157	7,000	1.39	25.20
310200001852	200	207	7,000	1.84	30.10
310200001854	240	247	7,000	2.60	35.40
310200001855	250	257	7,000	2.71	37.40
310200001857	300	309	7,000	3.61	45.30
310200001860	350	359	7,000	4.58	55.60
310200001861	360	369	7,000	4.91	57.90
310200001863	400	409	7,000	5.75	63.00
310200001864	435	444	7,000	6.26	72.60
310200001865	450	461	7,000	7.46	73.60
310200001866	500	513	7,000	9.27	79.10
310200013199	550	563	7,000	11.22	103.00
310200001867	560	573	7,000	11.43	104.30
310200001868	600	613	7,000	12.25	106.40
310200001869	650	665	7,000	14.70	134.00
310200001871	700	715	7,000	15.85	152.90
310200001872	750	767	7,000	18.63	171.80
310200001873	800	817	7,000	21.67	183.10
310200001874	900	917	7,000	26.39	321.50
310200001849	1,000	1,019	7,000	30.95	377.90
310200001850	1,200	1,219	6,000	39.13	616.50

## RAPIDOBAT® Cretcon HD



Formwork tubes for producing exposed concrete with the highest-quality surface finish. The self-activating hydrogel formwork skin of RAPIDOBAT® Cretcon HD minimizes cavity formation and ensures that the finished concrete column is uniform in color. The finished element is guaranteed to achieve exposed concrete class SB4.

- Other lengths available on request
- Prices apply to lengths from 2,500 mm to 7,000 mm
- For alignment and fastening accessories, see page 149

Article number	Dimensions [mm]		Formwork height [mm]	Weight [kg/m]	Price per m [€]
	Inner dia.	Outer dia.			
310300001830	200	207	7,000	2.09	31.60
310300001832	240	247	7,000	2.91	37.20
310300001833	250	257	7,000	3.03	39.50
310300001835	300	309	7,000	3.99	47.60
310300001837	350	359	7,000	5.02	58.30
310300001838	360	369	7,000	5.36	61.00
310300001839	400	409	7,000	6.17	66.40
310300001840	435	444	7,000	6.69	76.30
310300001841	450	461	7,000	7.92	77.50
310300001842	500	513	7,000	9.62	83.10
310300013184	550	563	7,000	10.59	108.40
310300001843	560	573	7,000	10.78	109.80
310300001844	600	613	7,000	11.55	112.00
310300001845	650	665	7,000	13.95	141.00
310300001846	700	715	7,000	15.04	160.90
310300001847	750	767	7,000	17.76	180.70
310300001848	800	817	7,000	20.75	192.70

## RAPIDOBAT® square

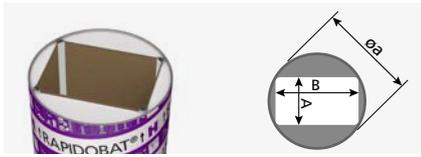


Formwork tubes for square reinforced concrete columns.

- Prices apply to stock lengths: 3,000 mm and 4,000 mm
- Up to 4,000 mm in length, or longer on request
- Cutting surcharge for non-stock lengths + 8%
- Net surcharge for short pieces < 2,500 mm
- Other dimensions available on request
- For alignment and fastening accessories, see page 147 and 149

Article number	Dimensions [mm]			Chamfer [mm]	Weight [kg/m]	Price per m [€]
	A	B	Outer dia.			
310400001781	200	200	272	24	6.90	47.30
310400001789	240	240	324	24	7.30	59.20
310400001798	250	250	340	24	7.50	60.80
310400001804	300	300	409	24	9.50	71.10
310400001810	350	350	513	24	14.10	87.40
310400001814	400	400	573	24	17.20	98.60
310400001817	450	450	665	24	21.50	171.10
310400001818	500	500	715	24	26.80	181.50

## RAPIDOBAT® rectangle



Formwork tubes for rectangular reinforced concrete columns.

- Other dimensions available on request
- Prices apply to stock lengths: 3,000 mm and 4,000 mm
- Up to 4,000 mm in length, or longer on request
- Cutting surcharge for non-stock lengths + 8%
- Net surcharge for short pieces < 2,500 mm
- For alignment and fastening accessories, see page 147 and 149

Article number	Dimensions [mm]			Chamfer [mm]	Weight [kg/m]	Price per m [€]
	A	B	Outer dia.			
310400001780	175	240	309	24	8.00	64.60
310400001782	200	240	324	24	8.50	53.60
310400001783	200	250	324	24	8.70	55.10
310400001784	200	300	384	24	9.80	64.80
310400001785	200	350	444	24	10.90	90.40
310400001786	200	400	461	24	12.90	80.50
310400001787	200	450	513	24	14.00	104.90
310400001788	200	500	563	24	15.50	129.00
310400001790	240	300	409	24	10.70	72.20
310400001791	240	350	444	24	11.00	110.70
310400001792	240	365	444	24	11.60	115.50
310400001794	240	400	513	24	13.70	116.80
310400001795	240	450	563	24	14.60	132.20
310400001796	240	500	573	24	15.70	133.90
310400001799	250	300	409	24	10.20	72.20
310400001800	250	350	444	24	11.10	110.70
310400001801	250	400	513	24	12.60	116.80
310400001802	250	450	563	24	13.60	126.00
310400001803	250	500	573	24	15.90	146.80
310400001805	300	350	513	24	12.50	88.70
310400001806	300	400	513	24	14.70	92.10
310400001807	300	450	563	24	15.60	141.70
310400001808	300	500	613	24	16.80	151.40
310400001811	350	400	563	24	15.70	103.70
310400001812	350	450	563	24	16.80	149.70
310400001813	350	500	665	24	18.10	174.30
310400001815	400	450	665	24	19.40	169.50
310400001816	400	500	665	24	24.80	174.70

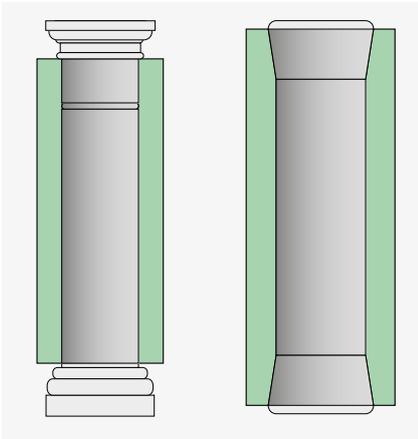
## RAPIDO-Fix



Assembly aid for aligning all angular versions.

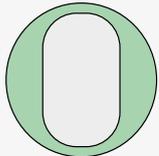
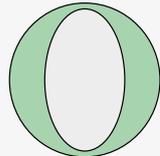
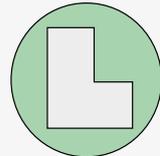
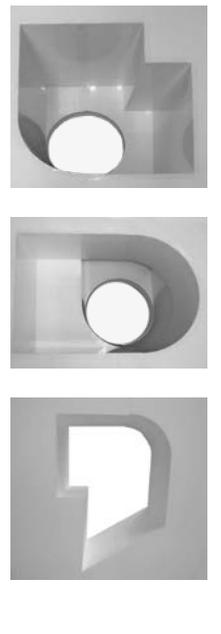
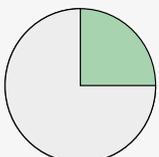
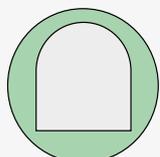
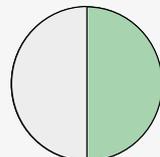
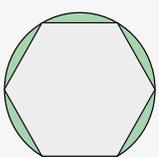
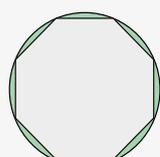
Article number	For dimensions [mm]	PU [pcs./set]	Weight [kg/pc.]	Price per set [€]
330300001930	All	2	0.28	21.50

## RAPIDOBAT® custom shapes



RAPIDOBAT® formwork elements for custom shapes. Any and all creative and complex custom shapes are possible. From special elliptical shapes to L-shaped columns. We can produce formwork according to your drawings and specifications. Feel free to get in touch!

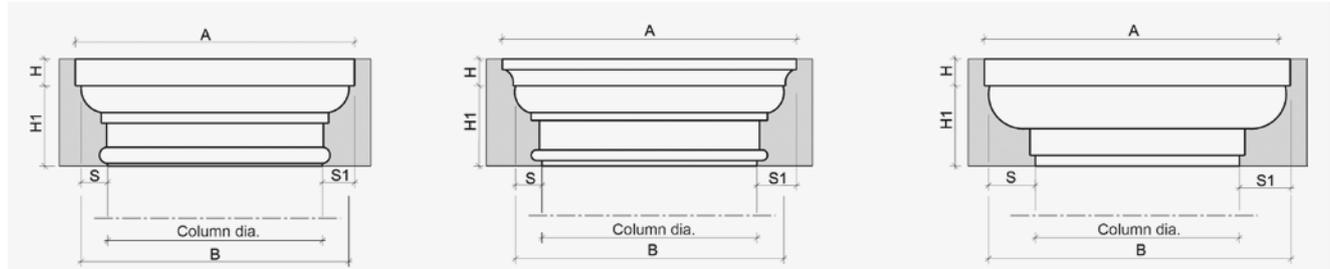
Type	Price [€]
RAPIDOBAT® custom shapes	Prices on request

 Oval	 Ellipse	 L-shaped	
 Cut-out	 Semi-circle	 Half-column	
 Hexagon	 Octagon	 Custom-made	

## Capitals

Capital formwork suitable for use with RAPIDOBAT® formwork tubes.

- Further dimensions and shapes available on request
- Prices apply to column diameters 200-300 mm
- Prices on request for diameters of more than 350 mm



Rome

Parma

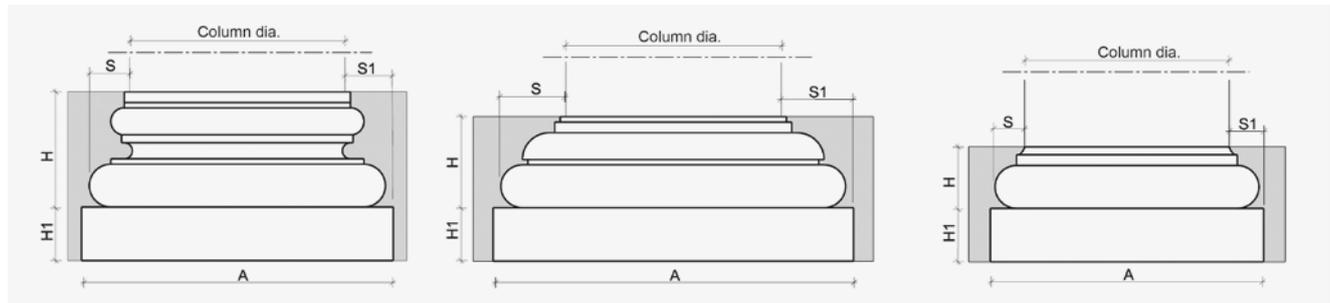
Palermo

Article number	Capital type	Dimensions [mm]					Price per piece [€]
		H	H1	S	S1	A	
3201...	Rome	50	150	50	60	Column dia. + 120	351.40
3201...	Parma / Abakus round	50	150	50	90	Column dia. + 180	343.50
3201...	Palermo	50	150	100	110	Column dia. + 220	341.60

## Bases

Base formwork suitable for use with RAPIDOBAT® formwork tubes.

- Further dimensions and shapes available on request
- Prices apply to column diameters 200-300 mm
- Prices on request for diameters of more than 350 mm.



Messina

Verona

Ancona

Article number	Base type	Dimensions [mm]					Price per piece [€]
		H	H1	S	S1	A	
3203...	Messina	200	100	80	90	Column dia. + 180	357.40
3203...	Verona	200	100	70	80	Column dia. + 160	351.90
3203...	Ancona	100	100	55	65	Column dia. + 130	322.10

## Separating agents for capitals and bases

Gelatinous separating agent for capitals and bases to simplify stripping the formwork elements from the finished concrete.

Article number	Contents [liters]	Consumption per capital / base in liters	Weight [kg/bucket]	Price per liter [€]
32030004983	2.5	Approx. 0.65	2.14	54.70

## RAPIDO clamp type D

Set



Consisting of a tension belt with two brackets and welded-on DYWIDAG anchor rods for aligning with push-pull props.

Article number	For diameter [mm]	Weight [kg/set]	Price per set [€]
330200001937	200-1,200	1.10	66.10

Article number	Weight [kg/pc.]	Price per piece [€]	
330200001936	Single anchor plate for RAPIDO clamp type D	0.30	26.60

## RAPIDO clamp type M



Fixed or adjustable steel sheet sleeves with DYWIDAG anchor rods for aligning with push-pull props.

Adjustable steel sleeve

Article number	For diameter [mm]	Variant	Weight [kg/set]	Price per set [€]
330200001926	250-400	Adjust. steel sleeve	2.95	94.00
330200001927	435-600	Adjust. steel sleeve	4.30	105.70
330200001928	650-800	Adjust. steel sleeve	6.75	186.10
330200001929	900-1,000	Adjust. steel sleeve	8.25	239.90
330200001925	1,200	Adjust. steel sleeve	9.90	356.40

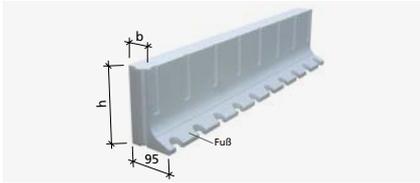
## RAPIDOBAT® accessories

- Adhesive tape for strengthening formwork tubes and connecting half-shells
- Adhesive tape reinforced lengthways and across; 50 mm wide

Article number	Function	PU [m/roll]	Weight [kg/roll]	Price per roll [€]
990500000318	Strengthening	50	0.65	17.10
990500019064	Half shells	50	0.78	70.60

# WARMBORD®

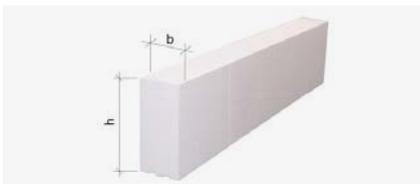
## WARMBORD® type SE with base



Insulating and ceiling edge formwork made from expanded polystyrene (EPS) of thermal conductivity group 035.

Article number	Dimensions [mm]			Design	Weight [kg/m]	PU [m/box]	Price per m [€]
	h	l	b				
360100004986	200	1,000	60	with base	0.34	32.0	9.60
360100004987	220	1,000	60	with base	0.35	28.0	10.80
360100004989	250	1,000	60	with base	0.37	25.0	15.30

## WARMBORD® type SE Without base



Insulating and ceiling edge formwork made from expanded polystyrene (EPS) of thermal conductivity group 035.

- Other dimensions available on request

Article number	Dimensions [mm]			Design	Weight [kg/m]	PU [m/box]	Price per m [€]
	h	l	b				
360100014435	180	1,000	80	Without base	0.28	24.0	10.10
360100014437	200	1,000	80	Without base	0.31	28.0	10.80
360100014439	220	1,000	80	Without base	0.34	21.0	11.60
360100014441	250	1,000	80	Without base	0.39	21.0	16.00
360100014432	160	1,000	100	Without base	0.29	30.0	10.60
360100014434	180	1,000	100	Without base	0.34	24.0	11.10
360100014436	200	1,000	100	Without base	0.38	24.0	13.60
360100014438	220	1,000	100	Without base	0.42	18.0	14.70
360100014440	250	1,000	100	Without base	0.48	21.0	16.40

## WARMBORD® accessories

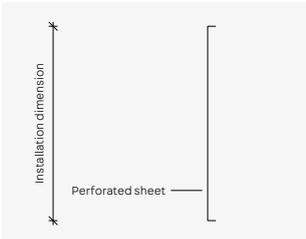
Article number	Type	Consumption [ml/m]	Contents [ml/can]	PU [pcs./box]	Price per can [€]
360200005005	WABO foam	25	750	12	18.30
360200005007	Gun foam	25	750	12	18.30

Article number	Type	Weight [kg/pc.]	PU [pcs.]	Price per piece [€]
360200005006	WABO foam gun	0.50	1	89.30

# Formwork elements

## Formwork elements type R

Rough joint in line with EC2



Formwork element used to create lost formwork in construction joints. Rough joint version in line with DIN EN 1992-1-1/NA.

Type R formwork elements are made entirely from expanded metal.

**Specify joint length and installation height (E dimension) when ordering.**

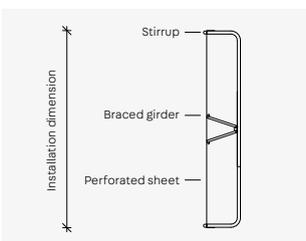
- E dimension: Distance between upper and lower reinforcement layers [mm]
- Element length: 2,400 mm, other lengths available on request

Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
340100013228	80-200	0.96	10.10
340100013229	210-250	1.16	11.50
340100013230	260-300	1.36	13.00
340100013231	310-350	1.56	14.90
340100014960	360-400	1.76	16.60
340100014961	410-500	2.16	22.30
340100013234	510-600	2.56	32.50
340100013235	610-700	2.96	36.20
340100013236	710-800	3.36	39.00
340100013237	810-900	3.76	41.80
340100013238	910-1,000	4.16	45.10

Extension products for formwork elements type R	Surcharge [€]
Surcharge for short pieces	10%
Surcharge for tapered cuts, per meter	9.10

## Formwork elements type A R

Rough joint in line with EC2



Formwork element used to create lost formwork in construction joints. Rough joint version in line with DIN EN 1992-1-1/NA.

The A R version is fitted with a lattice beam structure.

**Specify joint length and installation height (E dimension) when ordering.**

- E dimension: Distance between upper and lower reinforcement layers [mm]
- Element length: 2,400 mm, other lengths available on request

Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
340300013275	80-200	2.33	28.10
340300013276	210-250	2.56	29.90
340300013277	260-300	2.78	31.50
340300013278	310-350	3.22	35.70
340300014963	360-400	3.46	37.10
340300013280	410-500	3.95	43.50
340300013281	510-600	4.88	54.00

Extension products for formwork elements type A R	Surcharge [€]
Surcharge for short pieces	10%
Surcharge for tapered cuts, per meter	9.10



Formwork elements for waterproof construction joints can be found in the section on Waterproofing starting on page 8.

Suitable fibre concrete shuttering strips for formwork elements (floor/floor or ceiling/ceiling) can be found starting on page 154.

## Formwork elements type V

Interlocking joint in line with EC2

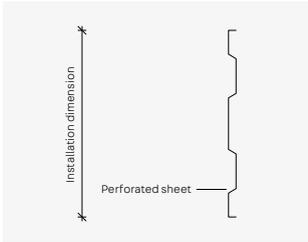


Formwork element used to create lost formwork in construction joints. Interlocking joint version in line with DIN EN 1992-1-1/NA.

Type V formwork elements are made entirely from expanded metal.

**Specify joint length and installation height (E dimension) when ordering.**

- E dimension: Distance between upper and lower reinforcement layers [mm]
- Element length: 2,400 mm, other lengths available on request

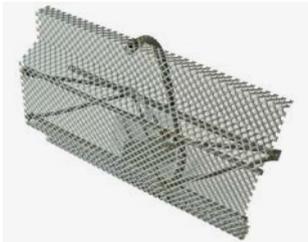


Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
340200013251	120-200	1.20	11.50
340200013252	210-250	1.30	13.10
340200013253	260-300	1.50	14.60
340200013254	310-350	1.70	18.00
340200014962	360-400	1.90	18.40
340200013256	410-500	2.30	24.40
340200013257	510-600	2.70	35.10
340200013258	610-700	3.10	38.40
340200013259	710-800	3.64	41.60
340200013260	810-900	4.04	44.80
340200013261	910-1,000	4.44	47.80

Extension products for formwork elements type V	Surcharge [€]
Surcharge for short pieces	10%
Surcharge for tapered cuts, per meter	9.10

## Formwork elements type A V

(Version with steel construction) – interlocking joint in line with EC2

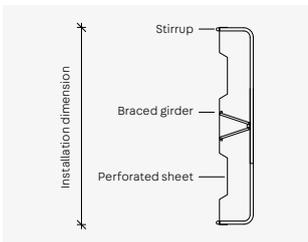


Formwork element used to create lost formwork in construction joints. Interlocking joint version in line with DIN EN 1992-1-1/NA.

The A V version is fitted with a lattice beam structure for reinforcement.

**Specify joint length and installation height (E dimension) when ordering.**

- E dimension: Distance between upper and lower reinforcement layers [mm]
- Element length: 2,400 mm, other lengths available on request



Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
340400013300	120-200	2.57	29.70
340400013301	210-250	2.70	31.60
340400013302	260-300	2.92	32.70
340400013303	310-350	3.36	37.00
340400014964	360-400	3.55	38.00
340400013305	410-500	4.04	44.10
340400013306	510-600	5.42	57.90

Extension products for formwork elements type A V	Surcharge [€]
Surcharge for short pieces	10%
Surcharge for tapered cuts, per meter	9.10

 Formwork elements for waterproof construction joints can be found in the section on Waterproofing starting on page 8.

Suitable fibre concrete spacers (SPACER) for formwork elements (floor/floor or ceiling/ceiling) can be found starting on page 154.

## Formwork elements type A V-S

Interlocking joint in line with EC2, reinforced version

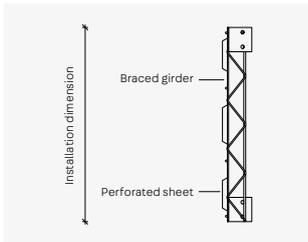


Formwork element used to create lost formwork in construction joints. Interlocking joint version in line with DIN EN 1992-1-1/NA.

The A V-S version is fitted with a lattice beam structure for reinforcement.

**Specify joint length and installation height (E dimension) when ordering.**

- E dimension: Distance between upper and lower reinforcement layers [mm]
- Element length: 2,400 mm, other lengths available on request



Retaining rebar for on-site bracing (page 9).

Article number	Installation height [mm]	Weight [kg/m]	Price per m [€]
340400022132	600 - 690	4.82	71.40
340400022133	700 - 790	5.21	74.40
340400022134	800 - 890	6.78	77.60
340400022135	900 - 990	7.15	80.70
340400022136	1,000 - 1,090	8.96	90.50
340400022137	1,100 - 1,190	9.40	101.30
340400022138	1,200 - 1,290	9.84	112.10
340400022139	1,300 - 1,390	10.94	123.10
340400022140	1,400 - 1,490	11.38	134.00
340400022141	1,500 - 1,590	11.82	144.70
340400022142	1,600 - 1,690	14.01	155.70
340400022143	1,700 - 1,790	14.49	166.60
340400022144	1,800 - 1,890	14.98	177.40
340400022145	1,900 - 2,000	16.81	188.30

Extension products for formwork elements type A V-S	Surcharge [€]
Surcharge for short pieces	10%
Surcharge for tapered cuts, per meter	9.10

## Formwork elements type ADK



Formwork element for precast ceilings with upstand. Flexible and fast formwork with reliable bonding effect thanks to surface profiling.

**Please specify installation height when ordering.**

- Element length: 1500 mm
- Other dimensions available on request

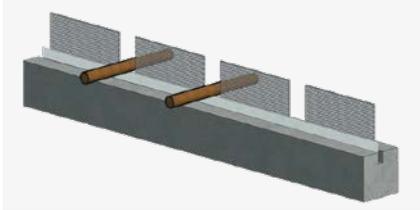
**Formwork elements type ADK 6/150 – incl. integrated edge mounting bracket reinforcement 6/150**

Article number	Installation height [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
340100016750	80/160	2.30	75	20.50
340100016751	100/180	2.34	75	20.80
340100016752	120/200	2.45	75	22.10
340100016753	140/220	2.56	75	22.80
340100016754	160/240	2.67	75	23.50

**Formwork elements type ADK 8/125 – incl. integrated edge mounting bracket reinforcement 8/125**

Article number	Installation height [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
340100016755	80/160	3.50	75	26.60
340100016756	100/180	3.64	75	27.00
340100016757	120/200	3.77	75	28.60
340100016758	140/220	3.91	75	29.70
340100016759	160/240	4.05	75	30.60

## Spacers



Square, fibre concrete spacer with integrated expanded metal strips and rebar spacings of 75/100/120/150/200 mm for 35–60 mm concrete cover. Reduces concrete penetration to a minimum when the floor or ceiling construction joint is formed. For use with PENTAFLEX® ABS (page 8), KUNEX® ABS (page 26), and formwork elements (starting on page 151).

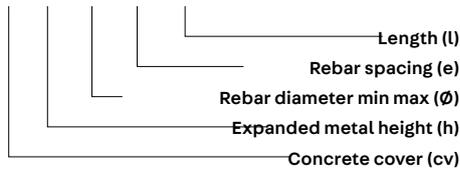
- Other dimensions available on request

Article number	Type	Concrete cover [mm]	Rebar spacing [mm]	Height [mm]	Length [mm]	Dia. [mm]	PU [pcs./pal.]	Weight [kg/m]	Price per m [€]
620400026...	Spacer 35	35	75/100/120/150/200	80	1200	10 - 16	192	2.78	19.90
	Spacer 50	50		120		20 - 28			
<b>Surcharge for different cv dimension (35-60mm)</b>									€ 2.60
<b>Surcharge for different height (max. 200 mm)</b>									€ 2.60
<b>Surcharge for different rebar diameter</b>									€ 2.60
<b>Surcharge for different rebar grid dimensions and/or custom lengths</b>									€ 8.20

The specifications can be combined as required

### Example order for spacers

SPACER 35 / 80 - 10 16 - 150 - 1200



# Formwork accessories

## Fibre concrete pipes



Round fibre concrete pipe as formwork spacer for reinforced concrete walls.  
 Tested for watertightness in waterproofing components.

Article number	Inside diameter [mm]	Outside diameter [mm]	Length [mm]	Weight [kg/m]	PU [m/pal.]	Price per m [€]
720100021521	22	40	1,280	1.75	750.08	2.80

## Fibre concrete pipe sections



Round fibre concrete pipe as formwork spacer for reinforced concrete walls.  
 Tested for watertightness in waterproofing components.

- Other dimensions available on request

Article number	Inside diameter [mm]	Outside diameter [mm]	Length [mm]	Weight [kg/pc.]	PU [pcs./bundle]	PU [pcs./pal.]	Price per piece [€]
720100003774	22	40	100	0.18	150	2,100	0.60
720100003775	22	40	120	0.21	50	2,000	0.60
720100003777	22	40	140	0.25	50	2,000	0.70
720100003778	22	40	150	0.26	50	2,000	0.70
720100003779	22	40	160	0.28	50	2,000	0.70
720100003780	22	40	180	0.32	25	1,000	0.80
720100003782	22	40	200	0.35	25	1,000	0.80
720100003783	22	40	220	0.38	25	1,000	0.80
720100003784	22	40	230	0.40	25	1,000	0.80
720100003785	22	40	240	0.42	25	1,000	0.80
720100003786	22	40	250	0.44	25	1,000	0.90
720100003787	22	40	280	0.49	25	1,000	1.00
720100003789	22	40	300	0.53	25	1,000	1.00
720100003791	22	40	330	0.58	30	1,020	1.10
720100003792	22	40	340	0.60	30	1,020	1.10
720100003793	22	40	350	0.62	30	1,020	1.20
720100003794	22	40	360	0.63	30	1,020	1.30
720100003795	22	40	380	0.67	30	1,020	1.30
720100003796	22	40	400	0.70	30	1,020	1.30
720100003798	22	40	450	0.79	30	510	1.80
720100003800	22	40	500	0.88	20	500	1.80
720100003801	22	40	550	0.96	20	500	2.20
720100003802	22	40	600	1.05	20	500	2.20

## Fibre concrete plugs



Plug made from fibre concrete for sealing fibre concrete formwork spacers.

- Other dimensions available on request

Article number	Dia. [mm]	Length [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	Price per 100 pcs. [€]
720200005359	22	20	1.00	1,000	15.30
720200005360	22	40	2.00	1,000	19.90
720200005361	22	50	2.50	500	22.20

## Fibre concrete adhesive



Two-component epoxy resin adhesive for bonding fibre concrete plugs to fibre concrete pipes.

- Watertightness tested in accordance with DIN 1048
- Mixing ratio of components A:B = 1:1.

Article number	Consumption	Weight [kg/can]	PU [can]	Price per kg [€]
720300005370	2 kg per 1,000 pcs.	1.00	1 ea.	37.60

## Spacer tubes



Plastic spacer tubes with rough surfaces for producing tie points for wall formwork. Element length: 2,000 mm

- Also available with smooth surfaces
- Combination with super cones recommended
- Other dimensions and lengths available on request

Article number	Inside diameter [mm]	Outside diameter [mm]	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
730100002347	20	26	26.00	50	2,450	78.00
730100005377	22	26	18.00	50	2,800	51.90
730100002355	26	32	36.00	50	1,800	114.00
730100003898	32	36	29.50	30	1,260	152.30
730100002361	40	46	54.00	30	900	196.30

## Super cones



Cone for extending the area of contact on the formwork and to protect the formwork skin.

- To be removed after casting the concrete
- Reusable
- Cones of other heights available on request

Article number	Dia. [mm]	Cone height [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./sack]	Price per 1,000 pcs. [€]
730100002410	20	10	5.00	500	3,000	41.20
730100002411	22	10	6.00	500	3,000	30.40
730100002412	26	10	8.00	-	500	68.20
730100002413	32	10	8.40	-	500	82.30
730100002414	40	20	16.00	125	1,000	425.70

## Super plugs



Plastic plugs for sealing spacer tubes and drill holes.

- Other dimensions available on request

Article number	Dia. [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./sack]	Price per 1,000 pcs. [€]
730100002418	20	2.40	1,000	5,000	25.60
730100002419	22	3.60	1,000	4,000	26.20
730100002420	26	4.80	1,000	-	40.50
730100002421	32	8.00	500	-	51.00
730100002422	40	12.00	500	-	266.70

## Sealing plugs



Elastic, PVC-free sealing plug for waterproofing formwork tie points against incoming water.

Article number	Dia. [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
990300002334	20	3.00	500	2,500	50,000	95.00
990300002335	22	3.60	500	2,500	50,000	71.00
990300002337	26	5.20	250	1,000	30,000	191.40

## OPTI wall strengtheners



Pre-assembled plastic tie point for wall formwork.

We recommend using

**PENTAFLEX® OPTI wall strengtheners** in waterproofing components (see page 13).

- Other lengths available on request

Article number	Inside diameter [mm]	Outside diameter [mm]	Length [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730100002425	22	26	150	3.5	100	5,000	37.00
730100002426	22	26	180	4.5	100	5,000	34.00
730100002427	22	26	200	5.0	100	4,000	34.70
730100002429	22	26	240	5.6	100	4,000	37.00
730100002430	22	26	250	6.0	100	4,000	37.50
730100002439	22	26	300	6.8	100	4,000	38.40
730100002440	22	26	350	10.5	75	3,000	48.20
730100002441	22	26	365	12.0	75	3,000	48.90
730100002443	22	26	400	14.0	75	3,000	51.00
730100002444	22	26	450 <sup>1)</sup>	15.0	50	2,000	58.30
730100002445	22	26	500 <sup>1)</sup>	17.0	50	2,000	63.80

<sup>1)</sup> Connected version

## OPTI plugs



Plastic plugs for sealing OPTI wall strengtheners.

Article number	Dia. [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
99030002308	22	3.60	500	2,500	100,000	37.00

## OPTI cones



Cones with waterstops for extending the spacer tube area of contact on the formwork. Remains in the concrete after casting.

- Other dimensions available on request

Article number	Dia. [mm]	Weight [kg/1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
730100002406	22/26	10.0	500	25,000	78.00
730100002407	22/28	11.0	500	25,000	112.10

## OPTI wall strengtheners combi pack



Pre-assembled plastic tie point for wall formwork.

Pack includes OPTI plugs.

- Other lengths available on request

Article number	Inside diameter [mm]	Outside diameter [mm]	Length [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730100002446	22	26	150	3.50	100	5,000	44.00
730100002447	22	26	180	4.50	100	5,000	41.20
730100002448	22	26	200	5.00	100	4,000	41.80
730100002450	22	26	240	5.60	100	4,000	43.30
730100002451	22	26	250	6.00	100	4,000	44.70
730100002453	22	26	300	6.80	100	4,000	46.00
730100002454	22	26	350	10.50	75	3,000	56.50
730100002455	22	26	365	12.00	75	3,000	57.50
730100002305	22	26	400	14.00	75	3,000	59.00
730100002306	22	26	450 <sup>1)</sup>	15.00	50	2,000	66.70
730100002307	22	26	500 <sup>1)</sup>	17.00	50	2,000	73.70

<sup>1)</sup> Connected version

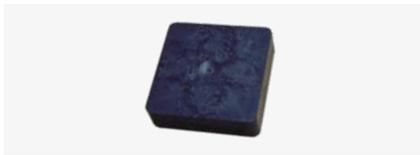
## Spacer plates



Stackable mounting plates with cutouts for use as assembly aids for aligning and installing precast concrete components, for example.

Article number	Length [mm]	Width [mm]	Thickness [mm]	Weight [kg/ 1,000 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730200005398	45	75	2	4.00	500	30,000	4.90
730200005399	45	75	3	6.00	500	25,000	6.30
730200005400	45	75	5	10.00	500	25,000	8.40
730200005401	45	75	10	20.00	500	20,000	14.30
730200005402	45	75	20	40.00	250	10,000	33.30

## Spacer plates type V

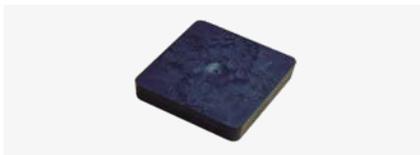


Pressure-resistant spacer plates for use as assembly aids for aligning and installing precast concrete components, for example.

Article number	Length [mm]	Width [mm]	Thickness [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730200005405	70	70	2	0.96	1,000	40,000	5.50
730200005408	70	70	3	1.44	1,000	40,000	7.30
730200005410	70	70	4	1.92	500	20,000	10.40
730200005411	70	70	5	2.40	500	20,000	12.20
730200005412	70	70	6	2.88	500	20,000	15.80
730200005413	70	70	7	3.36	500	20,000	22.60
730200005414	70	70	8	3.84	250	10,000	24.00
730200005415	70	70	9	4.32	250	10,000	24.70
730200005403	70	70	10 <sup>1)</sup>	4.80	250	10,000	25.50
730200005404	70	70	15 <sup>1)</sup>	7.20	200	8,000	51.00
730200005406	70	70	20 <sup>1)</sup>	9.60	150	6,000	63.80
730200005407	70	70	25 <sup>1)</sup>	12.00	100	4,000	102.00
730200005409	70	70	30 <sup>1)</sup>	14.40	100	4,000	130.70

<sup>1)</sup> Not solid plates

## Mounting plates



Pressure-resistant spacer plates for use as assembly aids for aligning and installing precast concrete components, for example.

Article number	Length [mm]	Width [mm]	Thickness [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730200005429	100	100	2	2.28	500	20,000	12.20
730200005430	100	100	3	3.32	500	20,000	14.80
730200005431	100	100	5	5.04	250	10,000	22.70
730200005432	100	100	8	8.20	100	4,000	47.60
730200005433	100	100	10	10.30	100	4,000	56.00
730200005434	100	100	15	15.10	50	2,000	124.00
730200005435	100	100	20	20.50	50	2,000	156.00
730200005436	100	100	30	30.20	50	1,000	232.70

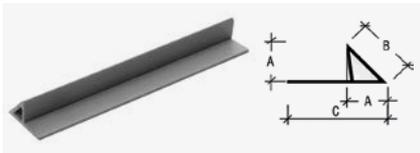
## Spacer plates type S



Pressure-resistant spacer plates with slots for use as assembly aids for aligning and installing precast concrete components, for example. Suitable for use between protruding reinforcement bars.

Article number	Length [mm]	Width [mm]	Thickness [mm]	Slot [mm]	Weight [kg/100 pcs.]	PU [pcs./bag]	PU [pcs./sack]	Price per 100 pcs. [€]
730200005418	70	70	2	22	0.76	250	1,000	5.60
730200005421	70	70	3	22	1.16	250	1,000	7.30
730200005423	70	70	4	22	1.52	125	500	10.30
730200005424	70	70	5	22	1.92	125	500	12.30
730200005425	70	70	6	22	2.32	125	500	15.80
730200005426	70	70	7	22	2.72	125	500	20.10
730200005427	70	70	8	22	3.12	125	250	22.20
730200005428	70	70	9	22	3.52	125	250	24.10
730200005416	70	70	10	22	3.84	125	250	25.90
730200005417	70	70	15	22	5.80	50	200	51.00
730200005419	70	70	20	22	7.60	50	150	65.30
730200005420	70	70	25	22	9.60	100	-	102.80
730200005422	70	70	30	22	11.60	100	-	126.10

## Corner strips



Triangular plastic strips with nail flange for producing evenly chamfered edges on concrete components. Element length: 2,500 mm.

- Tolerance: ± 1 mm
- Reusable

Article number	Dimensions [mm]			Profile	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
	A	B	C					
730300005454	7	11	23	Solid	7.00	100	6,000	57.60
730300005455	11	15	23	Hollow	8.00	100	5,000	46.00
730300005457	15	22	29	Hollow	11.70	100	4,900	57.60
730300005459	20	27	35	Hollow	21.80	50	3,600	87.40
730300005460	25	36	42	Hollow	29.80	50	3,000	121.80

## Triangular strips

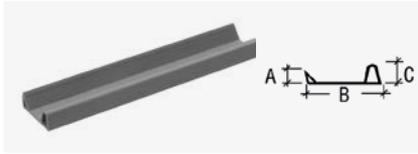


Triangular plastic strips for producing evenly chamfered edges on concrete components. Element length: 2,500 mm.

- Tolerance: ± 1 mm
- Reusable

Article number	Dimensions [mm]		Profile	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
	A	B					
730300005438	10	15	Hollow	5.20	100	7,200	30.40
730300005440	15	21	Hollow	8.00	100	5,400	35.40
730300005442	20	28	Hollow	12.00	100	4,900	46.90
730300005444	25	35	Hollow	16.60	50	2,450	83.80
730300005445	30	40	Hollow	23.60	50	2,400	125.60

## Drip profiles



Plastic profile strip with integrated drip profile for water drips and triangular strips. Used to produce evenly chamfered edges on concrete components, e.g. for the edges of balconies or porches.

Element length: 2,500 mm.

- Reusable

Article number	Dimensions [mm]			Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
	A	B	C				
730300005446	10	33	10	12.00	100	5,000	90.90
730300005447	10	48	10	16.30	100	4,900	132.80

## Water drip

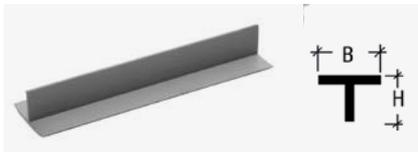


Plastic profile strip for producing water drip edges on concrete components.

Element length: 2,500 mm.

Article number	Dimensions [mm]	Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
	B				
730300005449	12	8.00	100	5,600	46.00
730300005450	20	9.50	100	4,900	54.90

## T-profile



Plastic T-profile for covering small formwork joints in concrete components. Element length: 2,500 mm.

Article number	Dimensions [mm]		Weight [kg/100 m]	PU [m/bundle]	PU [m/pal.]	Price per 100 m [€]
	B	H				
730300005452	38	22	15.00	100	4,800	85.30

## Plastic nails



Fastening nail with barbs for fixing insulation panels in fresh concrete.

Article number	Length [mm]	Weight [kg/1,000 pcs.]	PU [pcs./bag]	PU [pcs./large sack]	PU [pcs./pal.]	Price per 1,000 pcs. [€]
730900005527	75	3.60	500	5,000	100,000	18.50
730900005528	90	4.00	500	5,000	100,000	19.90
730900005518	100	4.40	500	3,000	60,000	20.60
730900005519	125	5.20	500	2,500	50,000	23.50
730900005520	150	5.60	500	2,500	50,000	43.30
730900005521	175	7.20	250	2,000	40,000	78.70
730900005522	200	8.00	125	1,000	20,000	92.20
730900005523	250	11.20	250	-	10,000	188.70
730900005524	300	14.00	250	-	10,000	204.40

## Multi-rackets



Robust plastic spacer with steel core and integrated waterstop for producing triple-layer walls in precast concrete plants.

- Other dimensions available on request (max. 460 mm)

Article number	Wall thickness [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730600005462	150	7.60	100	5,000	58.30
730600005464	180	9.60	100	5,000	59.60
730600005466	200	10.50	100	5,000	62.50
730600005468	215	12.20	100	4,000	66.80
730600005469	220	11.60	100	4,000	67.30
730600005472	240	12.20	100	4,000	67.40
730600005473	250	12.60	100	4,000	70.90
730600005478	300	22.20	50	2,000	99.20
730600005483	340	24.20	50	2,000	105.10
730600005484	350	25.20	50	1,500	112.10
730600005485	360	26.00	50	1,500	116.40
730600005486	365	26.20	50	1,500	116.60
730600005489	400	28.40	50	1,500	122.00

## ISI rackets



Robust steel spacers for producing triple-layer walls in precast concrete plants.

Article number	Wall thickness [mm]	Weight [kg/100 pcs.]	PU [pcs./sack]	PU [pcs./pal.]	Price per 100 pcs. [€]
730700005495	120	4.60	100	5,000	52.90
730700005498	150	5.80	100	5,000	53.90
730700005499	160	6.20	100	5,000	55.80
730700005501	180	7.00	100	5,000	56.20
730700005504	200	7.80	100	5,000	57.60
730700005508	220	8.80	100	4,000	60.50
730700005510	240	9.40	100	4,000	62.00
730700005511	250	9.80	100	4,000	62.60
730700005514	280	11.00	100	4,000	67.40
730700005516	300	11.80	50	3,000	67.80





# Connection

## Shear force dowels

Shear force dowels type HED-S	166
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## Sliding sleeves

Sliding sleeves type GK	167
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## Fire protection sleeves for shear force dowels

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## Double shear connectors

Double shear dowls JDSD	169
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## Fire protection sleeves for double shear connectors

Fire protection sleeve JBRM	170
Fire protection sleeve JBRMQ	170

# Shear force dowels

## Shear force dowel type HED-S



### Shear force dowels type HED-S, galvanized

Article number	Type	Dimensions Dia. x L [mm]	Weight [kg/pc.]	Price per piece [€]
550100003857	HED-S 20/300 <sup>1)</sup>	20x300 <sup>2)</sup>	0.75	4.80
550100003855	HED-S 20/500 <sup>1)</sup>	20x500 <sup>2)</sup>	1.25	7.00
550100003863	HED-S 22/300 <sup>1)</sup>	22x300 <sup>2)</sup>	0.90	5.60
550100003861	HED-S 22/500 <sup>1)</sup>	22x500 <sup>2)</sup>	1.50	8.30
550100003869	HED-S 25/300 <sup>1)</sup>	25x300 <sup>2)</sup>	1.15	6.40
550100003867	HED-S 25/500 <sup>1)</sup>	25x500 <sup>2)</sup>	1.95	9.50
550100003875	HED-S 30/350 <sup>1)</sup>	30x350 <sup>2)</sup>	1.95	10.20
550100003873	HED-S 30/500 <sup>1)</sup>	30x500 <sup>2)</sup>	2.80	13.90

<sup>1)</sup> Classification R 90 via fire protection sleeve

<sup>2)</sup> Other diameters and lengths available on request

### Shear force dowels type HED-S, stainless steel

Article number	Type	Dimensions Dia. x L [mm]	Weight [kg/pc.]	Price per piece [€]
550100003856	HED-S 20/300 <sup>1)</sup>	20x300 <sup>2)</sup>	0.75	10.50
550100003854	HED-S 20/500 <sup>1)</sup>	20x500 <sup>2)</sup>	1.25	16.60
550100003862	HED-S 22/300 <sup>1)</sup>	22x300 <sup>2)</sup>	0.90	11.50
550100003860	HED-S 22/500 <sup>1)</sup>	22x500 <sup>2)</sup>	1.50	18.10
550100003868	HED-S 25/300 <sup>1)</sup>	25x300 <sup>2)</sup>	1.15	15.70
550100003866	HED-S 25/500 <sup>1)</sup>	25x500 <sup>2)</sup>	1.95	24.90
550100003874	HED-S 30/350 <sup>1)</sup>	30x350 <sup>2)</sup>	1.95	23.20
550100003872	HED-S 30/500 <sup>1)</sup>	30x500 <sup>2)</sup>	2.80	32.40

<sup>1)</sup> Classification R 90 via fire protection sleeve

<sup>2)</sup> Other diameters and lengths available on request

## Shear force dowels type HED-P



Article number	Type	Element length [mm]	Surcharge per piece, for HED-S [€]
550200003833	HED-P 20/300 <sup>1)</sup>	300 <sup>2)</sup>	4.40
550200003831	HED-P 20/500 <sup>1)</sup>	500 <sup>2)</sup>	5.40
550200003839	HED-P 22/300 <sup>1)</sup>	300 <sup>2)</sup>	4.40
550200003837	HED-P 22/500 <sup>1)</sup>	500 <sup>2)</sup>	5.40
550200003845	HED-P 25/300 <sup>1)</sup>	300 <sup>2)</sup>	4.40
550200003843	HED-P 25/500 <sup>1)</sup>	500 <sup>2)</sup>	5.40
550200003851	HED-P 30/350 <sup>1)</sup>	350 <sup>2)</sup>	4.40
550200003849	HED-P 30/500 <sup>1)</sup>	500 <sup>2)</sup>	5.40

<sup>1)</sup> Classification R 90 via fire protection sleeve

<sup>2)</sup> Other diameters and lengths available on request

### Version and material

- gv = Galvanized
- fv = Hot-dip galvanized
- A4 = Stainless steel, corrosion resistance class III (CRC III)



Suitable accessories can be found on page 168.

# Sliding sleeves

## Sliding sleeves type GK

For longitudinal movement

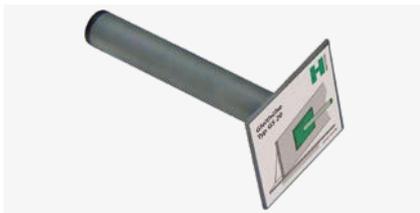


Article number	Type	Material	Element length [mm]	For shear force dowel type	Weight [kg/pc.]	Price per piece [€]
550500004970	GK 20/160	Plastic	160 <sup>1)</sup>	HED-S 20/300	0.035	3.70
550500004971	GK 20/265	Plastic	265 <sup>1)</sup>	HED-S 20/500	0.060	4.00
550500004973	GK 22/160	Plastic	160 <sup>1)</sup>	HED-S 22/300	0.040	4.00
550500004974	GK 22/265	Plastic	265 <sup>1)</sup>	HED-S 22/500	0.065	4.60
550500004976	GK 25/160	Plastic	160 <sup>1)</sup>	HED-S 25/300	0.050	4.80
550500004977	GK 25/265	Plastic	265 <sup>1)</sup>	HED-S 25/500	0.085	4.90
550500004979	GK 30/185	Plastic	185 <sup>1)</sup>	HED-S 30/350	0.055	5.80
550500004980	GK 30/265	Plastic	265 <sup>1)</sup>	HED-S 30/500	0.090	6.30

<sup>1)</sup> Other lengths available on request (for type GK maximum l=320 mm)

## Sliding sleeves type GS

For longitudinal movement



Article number	Type	Material	Element length [mm]	For shear force dowel Type	Weight [kg/pc.]	Price per piece [€]
550600012748	GS 20/160	A4	160 <sup>1)</sup>	HED-S 20/300	0.37	16.30
550600012749	GS 20/265	A4	265 <sup>1)</sup>	HED-S 20/500	0.61	18.50
550600012750	GS 22/160	A4	160 <sup>1)</sup>	HED-S 22/300	0.38	18.70
550600012751	GS 22/265	A4	265 <sup>1)</sup>	HED-S 22/500	0.63	20.90
550600012752	GS 25/160	A4	160 <sup>1)</sup>	HED-S 25/300	0.42	24.40
550600012753	GS 25/265	A4	265 <sup>1)</sup>	HED-S 25/500	0.69	29.10
550600012754	GS 30/185	A4	185 <sup>1)</sup>	HED-S 30/350	0.48	25.00
550600012755	GS 30/265	A4	265 <sup>1)</sup>	HED-S 30/500	0.79	27.50

<sup>1)</sup> Other lengths available on request

## Sliding sleeves type GSQ

For longitudinal and transverse movement



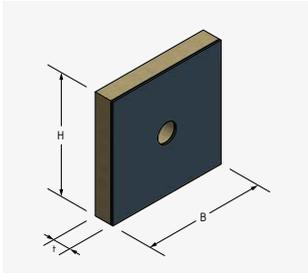
Article number	Type	Material	Element length [mm]	For shear force dowel Type	Weight [kg/pc.]	Price per piece [€]
550700012757	GSQ 20/180	A4	180 <sup>1)</sup>	HED-S 20/300	0.82	28.20
550700012758	GSQ 20/265	A4	265 <sup>1)</sup>	HED-S 20/500	1.20	34.30
550700012759	GSQ 22/180	A4	180 <sup>1)</sup>	HED-S 22/300	0.84	33.40
550700012760	GSQ 22/265	A4	265 <sup>1)</sup>	HED-S 22/500	1.24	41.80
550700012761	GSQ 25/180	A4	180 <sup>1)</sup>	HED-S 25/300	0.91	39.70
550700012762	GSQ 25/265	A4	265 <sup>1)</sup>	HED-S 25/500	1.34	51.80
550700012763	GSQ 30/205	A4	205 <sup>1)</sup>	HED-S 30/350	1.26	43.80
550700012764	GSQ 30/265	A4	265 <sup>1)</sup>	HED-S 30/500	2.08	52.10

<sup>1)</sup> Other lengths available on request

# Fire protection sleeves for shear force dowels

## Fire protection sleeve type BRM

For HED-P / HED-S, classification R 90

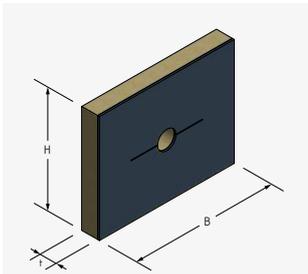


Article number	Type	Dimensions H x W [mm]	Thick- ness t [mm]	Max. joint open- ing f [mm]	Weight [kg/pc.]	To be used with	Price per piece [€]
550300002477	BRM-20-20	122x122	20	30 <sup>1)</sup>	0.09	GK + GS 20	7.60
550300002480	BRM-22-20	122x122	20	30 <sup>1)</sup>	0.09	GK + GS 22	7.60
550300002486	BRM-25-20	122x122	20	30 <sup>1)</sup>	0.09	GK + GS 25	7.60
550300002492	BRM-30-20	122x122	20	30 <sup>1)</sup>	0.09	GK + GS 30	7.60
550300002478	BRM-20-30	122x122	30	40 <sup>1)</sup>	0.11	GK + GS 20	8.40
550300002481	BRM-22-30	122x122	30	40 <sup>1)</sup>	0.11	GK + GS 22	8.40
550300002487	BRM-25-30	122x122	30	40 <sup>1)</sup>	0.11	GK + GS 25	8.40
550300002493	BRM-30-30	122x122	30	40 <sup>1)</sup>	0.11	GK + GS 30	8.40
550300002479	BRM-20-40	122x122	40	50 <sup>1)</sup>	0.14	GK + GS 20	9.00
550300002482	BRM-22-40	122x122	40	50 <sup>1)</sup>	0.14	GK + GS 22	9.00
550300002488	BRM-25-40	122x122	40	50 <sup>1)</sup>	0.14	GK + GS 25	9.00
550300002494	BRM-30-40	122x122	40	50 <sup>1)</sup>	0.14	GK + GS 30	9.00

<sup>1)</sup> For larger joint openings, use two fire protection sleeves.

## Fire protection sleeve type BRMQ

For HED-P / HED-S with GSQ



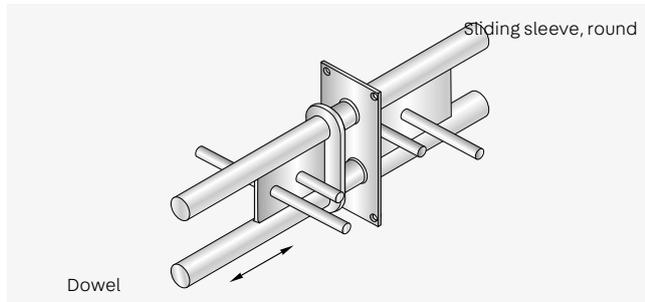
Article number	Type	Dimensions H x W [mm]	Thick- ness t [mm]	Max. joint open- ing f [mm]	Weight [kg/pc.]	To be used with	Price per piece [€]
550300002495	BRMQ-20-20	152x122	20	30 <sup>1)</sup>	0.11	GSQ 20	9.30
550300002498	BRMQ-22-20	152x122	20	30 <sup>1)</sup>	0.11	GSQ 22	9.30
550300002501	BRMQ-25-20	152x122	20	30 <sup>1)</sup>	0.11	GSQ 25	9.30
550300002504	BRMQ-30-20	152x122	20	30 <sup>1)</sup>	0.11	GSQ 30	9.30
550300002496	BRMQ-20-30	152x122	30	40 <sup>1)</sup>	0.14	GSQ 20	9.60
550300002499	BRMQ-22-30	152x122	30	40 <sup>1)</sup>	0.14	GSQ 22	9.60
550300002502	BRMQ-25-30	152x122	30	40 <sup>1)</sup>	0.14	GSQ 25	9.60
550300002505	BRMQ-30-30	152x122	30	40 <sup>1)</sup>	0.14	GSQ 30	9.60
550300002497	BRMQ-20-40	152x122	40	50 <sup>1)</sup>	0.17	GSQ 20	10.30
550300002500	BRMQ-22-40	152x122	40	50 <sup>1)</sup>	0.17	GSQ 22	10.30
550300002503	BRMQ-25-40	152x122	40	50 <sup>1)</sup>	0.17	GSQ 25	10.30
550300002506	BRMQ-30-40	152x122	40	50 <sup>1)</sup>	0.17	GSQ 30	10.30

<sup>1)</sup> For larger joint openings, use two fire protection sleeves.

# Double shear connectors

## Double shear connectors JDSD

National technical approval (abZ Z-15.7-237)  
For longitudinal or transverse movement



Type	Price per piece [€]		
	Dowel	Sleeve (sliding sleeve, round)	Dowel + sleeve
<b>JDSD 20 HF</b>	83.70	37.00	120.70
<b>JDSD 25 HF</b>	105.00	55.20	160.20
<b>JDSD 30 HF</b>	131.40	61.50	192.90
<b>JDSD 45 HF</b>	151.00	64.60	215.60
<b>JDSD 60 HF</b>	191.70	79.60	271.30
<b>JDSD 90 HF</b>	322.90	99.80	422.70
<b>JDSD 120 HF</b>	388.90	151.50	540.40
<b>JDSD 130</b>	448.40	250.70	699.10
<b>JDSD 150</b>	725.80	315.30	1041.10

### Example order for double shear connector JDSD 60 HF

Complete (dowel element and sliding sleeve)

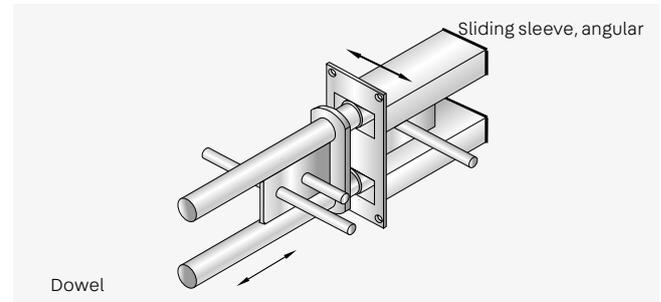
Type	Design
JDSD	60 HF

### Version and material

- A4 = Stainless steel, corrosion resistance class III (CRC III)

## Double shear connectors JDSDQ

National technical approval (abZ Z-15.7-237)  
For longitudinal and transverse movement



Type	Price per piece [€]		
	Dowel	Sleeve (sliding sleeve, angular)	Dowel + sleeve
<b>JDSDQ 25 HF</b>	105.00	101.00	206.00
<b>JDSDQ 30 HF</b>	131.40	112.20	243.60
<b>JDSDQ 45 HF</b>	151.00	122.50	273.50
<b>JDSDQ 60 HF</b>	191.70	166.50	358.20
<b>JDSDQ 90 HF</b>	322.90	246.20	569.10
<b>JDSDQ 120 HF</b>	388.90	360.60	749.50
<b>JDSDQ 130</b>	448.40	465.70	914.10
<b>JDSDQ 150</b>	725.80	646.30	1372.10

### Example order for double shear connector JDSDQ 60 HF

Complete (dowel element and sliding sleeve)

Type	Design
JDSDQ	60 HF

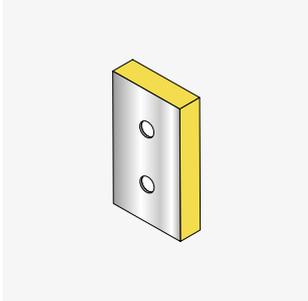


Suitable accessories can be found on page 170.

# Fire protection sleeves for double shear connectors

## Fire protection sleeve JBRM

For JDSD, classification R 120



Type	Price per piece [€]	
	Joint width <sup>1)</sup>	
	20 mm	30 mm
JBRM 20	11.00	12.40
JBRM 25	11.00	12.40
JBRM 30	11.00	12.40
JBRM 45	13.60	14.00
JBRM 60	14.00	15.80
JBRM 90	15.30	16.80
JBRM 120	17.30	18.70
JBRM 130	18.40	19.90
JBRM 150	19.40	21.20

<sup>1)</sup> For larger joint openings, use two fire protection sleeves.

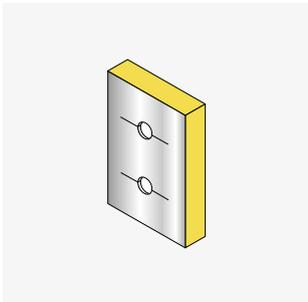
### Example order for fire protection sleeve JBRM

for double shear connector JDSD 60 HF in a 20-mm construction joint

Type	Dowel size	-	Joint width
JBRM	60	-	20

## Fire protection sleeve JBRMQ

For JDSDQ, classification R 120



Type	Price per piece [€]	
	Joint width <sup>1)</sup>	
	20 mm	30 mm
JBRMQ 25	12.70	13.60
JBRMQ 30	12.70	13.60
JBRMQ 45	14.00	16.10
JBRMQ 60	19.10	20.00
JBRMQ 90	19.90	20.60
JBRMQ 120	20.60	22.20
JBRMQ 130	21.90	24.60
JBRMQ 150	22.80	27.00

<sup>1)</sup> For larger joint openings, use two fire protection sleeves.

### Example order for fire protection sleeve JBRMQ

for double shear connector JDSDQ 60 HF in a 20-mm construction joint

Type	Dowel size	-	Joint width
JBRMQ	60	-	20





# Thermal insulation

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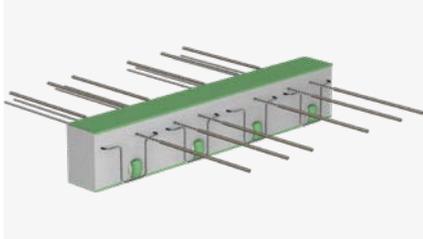
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# ISOPRO® 120 Concrete-Concrete

## IP 120 M



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

### State element height (h) and concrete cover (cv) when ordering.

- Element length: M 10 - M 120: 1,000 mm; M 140 - M 150: 500 mm
- Pressure plane: with compression/thrust bearings (up to M 120); made of steel (from M 140)
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Two-part version available for installation in precast concrete plants (indicated by a "P" - e.g. type IP 120 M P)
- Other heights available on request
- Fireproof version M10 to M120: REI 120
- Fireproof version M140 to M150: REI 90 (REI 120 if the structural load is reduced - see technical information)

### Elements length 1,000 mm with compression/thrust bearings

Article number	Type	Element length [mm]	Height h [mm]	Min. height concrete cover cv 50 [mm]	Weight [kg/m]	Price per m [€]
233100020922	M 10 Q4	1000	160-250	180	9.30	226.00
233100020938	M 20 Q4	1000	160-250	180	11.10	280.00
233100020954	M 30 Q4	1000	160-250	180	14.27	334.00
233100020962	M 40 Q4	1000	160-250	180	14.90	379.00
233100020970	M 50 Q4	1000	160-250	180	15.40	419.00
233100020978	M 60 Q4	1000	160-250	180	18.66	462.00
233100020986	M 70 Q4	1000	160-250	180	20.60	523.00
233100020994	M 80 Q4	1000	160-250	180	21.70	566.00
233100021002	M 90 Q4	1000	160-250	180	30.30	612.00
233100021010	M 100 Q4	1000	160-250	180	38.90	659.00
233100021018	M 110 Q4	1000	160-250	180	42.20	764.00
233100021034	M 120 Q4	1000	160-250	180	43.70	939.00

Prices apply to concrete cover cv35 and cv 50 mm

Extension products for type M 10 - M 120	Height h [mm]	Min. height concrete cover cv 50 [mm]	Design	Surcharge per m [€]
Q6	160-250	180	Shear force reinforcement	49.00
Q8	160-250	180	Shear force reinforcement	59.00
Q4Q4	160-250	180	Shear force reinforcement on both sides	85.00
Q8Q4	160-250	180	Shear force reinforcement on both sides	96.00
Q6Q6	160-250	180	Shear force reinforcement on both sides	96.00

### Elements length 500 mm with steel pressure plane NEW In spring 2026

Article number	Type	Element length [mm]	Height h [mm]	Min. height concrete cover cv 50 [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
230200027517	M 140 Q10	500	170-250	190	30.70	1,260.00	630.00
230200027518	M 150 Q10	500	170-250	190	34.80	1,514.00	757.00

Prices apply to concrete cover cv35 and cv 50 mm

Extension products for type M 140 - M 150	Height h [mm]	Min. height concrete cover cv 50 [mm]	Design	Price per piece [€]	Surcharge per piece [€]
Q12	180-250	200	Shear force reinforcement	34.00	17.00
Q13	180-250	200	Shear force reinforcement	70.00	35.00
Q14	190-250	210	Shear force reinforcement	84.00	42.00
Q15	190-250	210	Shear force reinforcement	106.00	53.00

## IP 120 C



Thermally insulated slab connection for connecting cantilevered reinforced concrete components with exterior corners. Stainless steel rebar for corrosion protection.

**State element height (h) and concrete cover (cv) when ordering.**

- The prices are for one corner element consisting of one left part (cv 35), one right part (cv 50 2nd layer) and one corner insulation body
- The left and right subcomponents (cv 35 / cv 50) can also be purchased as CE elements
- With concrete cover cv 50: Minimum height 200 mm
- Pressure plane in concrete thrust bearings or steel compression struts depending on the version
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

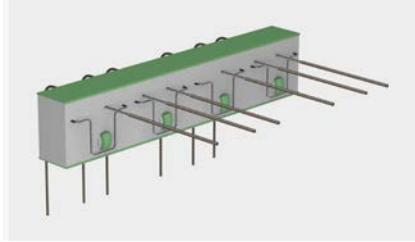
Article number	Type	Element length [mm]		Height h [mm]	Weight [kg/pc.]	Price per piece [€]
		1. layer	2nd layer			
233300021144	C 10 Q10	500	500 <sup>1)</sup>	180 - 250	33.01	1017.00
233300024374	C 10 Q12	500	500 <sup>1)</sup>	180 - 250	37.50	1065.00
233300021145	C 20 Q10	500	500 <sup>1)</sup>	180 - 250	44.97	1,288.00
233300024375	C 20 Q12	500	500 <sup>1)</sup>	180 - 250	49.50	1,336.00

Prices apply to concrete cover - 1st layer cv 35 mm, and 2nd layer cv 50 mm  
<sup>1)</sup> l = 500 mm + 120 mm corner insulation body

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
233300021146	CE 10 Q10	500	180 - 250	16.51	507.00
233300024378	CE 10 Q12	500	180 - 250	18.75	533.00
233300021147	CE 20 Q10	500	180 - 250	22.49	644.00
233300024379	CE 20 Q12	500	180 - 250	24.75	668.00

Prices apply to concrete cover cv 35 and cv 50 mm

## IP 120 WU



Thermally insulated cantilever slab connection for cantilevered, reinforced concrete components connected to reinforced concrete walls. The rebar is anchored downward in the reinforced concrete wall.

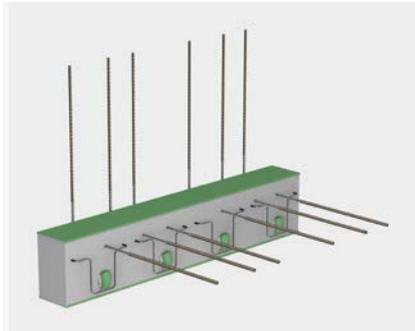
**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 1,000 mm
- With concrete cover cv 50: Minimum height 180 mm
- Suitable for walls  $\geq 220$  mm thick
- Custom solutions for walls  $< 220$  mm thick available on request
- Other heights available on request
- Fireproof version: up to REI 120

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
233100020922	M 10 Q4 WU	160 - 250	9.30	414.00
233100020938	M 20 Q4 WU	160 - 250	11.10	452.00
233100020954	M 30 Q4 WU	160 - 250	14.27	605.00
233100020962	M 40 Q4 WU	160 - 250	14.90	734.00

Prices apply to concrete cover cv 35 mm and cv 50 mm

## IP 120 WO



Thermally insulated cantilever slab connection for cantilevered, reinforced concrete components connected to reinforced concrete walls. The rebar is anchored upward in the reinforced concrete wall.

**State element height (h) and concrete cover (cv) when ordering.**

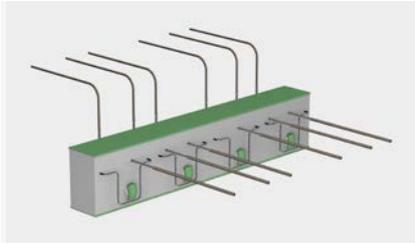
- Element length: 1,000 mm
- With concrete cover cv 50: Minimum height 180 mm
- Suitable for walls  $\geq 220$  mm thick
- Custom solutions for walls  $< 220$  mm thick available on request
- Other heights available on request
- Fireproof version: up to REI 120

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
233100020922	M 10 Q4 WO	160 - 250	10.07	414.00
233100020938	M 20 Q4 WO	160 - 250	12.02	452.00
233100020954	M 30 Q4 WO	160 - 250	15.45	605.00
233100020962	M 40 Q4 WO	160 - 250	16.14	734.00

Prices apply to concrete cover cv 35 mm and cv 50 mm

Extension products for type IP 120 variants	Height h [mm]	Design	Surcharge per m [€]
Q6	180 - 250	Shear force reinforcement	49.00

## IP 120 HV



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components connected to reinforced concrete ceilings with offset heights. The reinforced concrete ceiling is above the balcony slab being connected.

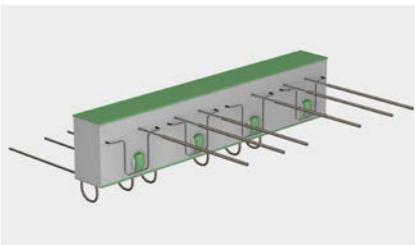
**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 1,000 mm
- With concrete cover cv 50: Minimum height 180 mm
- Selection: Height offset HV100 (100 mm), HV150 (150 mm), HV200 (200 mm)
- Custom solutions for all height offsets and beam widths available on request
- Other heights available on request
- Fireproof version: up to REI 120

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
233100020922	M 10 Q4 HV	160 - 250	10.37	414.00
233100020938	M 20 Q4 HV	160 - 250	12.38	452.00
233100020954	M 30 Q4 HV	160 - 250	15.91	605.00
233100020962	M 40 Q4 HV	160 - 250	16.62	734.00

Prices apply to concrete cover cv 35 mm and cv 50 mm

## IP 120 UV



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components connected to reinforced concrete ceilings with offset heights. The reinforced concrete ceiling is below the balcony slab being connected.

**State element height (h) and concrete cover (cv) when ordering.**

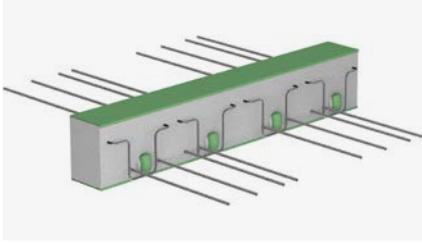
- Element length: 1,000 mm
- With concrete cover cv 50: Minimum height 180 mm
- Selection: Height offset HV100 (100 mm), HV150 (150 mm), HV200 (200 mm)
- Custom solutions for all height offsets and beam widths available on request
- Other heights available on request
- Fireproof version: up to REI 120

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
233100020922	M 10 Q4 UV	160 - 250	10.62	414.00
233100020938	M 20 Q4 UV	160 - 250	12.68	452.00
233100020954	M 30 Q4 UV	160 - 250	16.29	605.00
233100020962	M 40 Q4 UV	160 - 250	17.02	734.00

Prices apply to concrete cover cv 35 mm and cv 50 mm

Extension products for type IP 120 variants	Height h [mm]	Design	Surcharge per m [€]
Q6	180 - 250	Shear force reinforcement	49.00

## IP 120 Q



Thermally insulated slab connection for transmitting shear forces in supported reinforced concrete components. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element length and element height (h) when ordering.**

- Element length: 1,000 mm, 500 mm, 250 mm
- Insulating material: Neopor with  $\lambda = 0.031$  W/m-K
- Other heights available on request
- Fireproof version: up to REI 120

### Element length 1,000 mm

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/m]	Price per m [€]
233500021042	Q 10	Bent	1000	160 - 250	5.70	140.00
233500021043	Q 20	Bent	1000	160 - 250	5.90	156.00
233500021044	Q 30	Bent	1000	160 - 250	6.20	169.00
233500021045	Q 40	Bent	1000	160 - 250	6.40	192.00
233500021046	Q 50	Bent	1000	160 - 250	6.80	214.00
233500021047	Q 60	Straight	1000	160 - 250	7.50	225.00
233500021048	Q 70	Straight	1000	160 - 250	7.90	245.00
233500021049	Q 80	Straight	1000	160 - 250	8.90	280.00
233500021050	Q 90	Straight	1000	170 - 250	9.70	329.00
233500021051	Q 100	Straight	1000	170 - 250	11.60	389.00
233500021052	Q 110	Straight	1000	180 - 250	12.80	429.00
233500021053	Q 120	Straight	1000	180 - 250	14.20	576.00

### Element length 500 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233500021042	Q 10	Bent	500	160 - 250	2.90	182.00	91.00
233500021043	Q 20	Bent	500	160 - 250	3.00	202.80	101.40
233500021044	Q 30	Bent	500	160 - 250	3.10	219.70	109.85
233500021045	Q 40	Bent	500	160 - 250	3.20	249.60	124.80
233500021046	Q 50	Bent	500	160 - 250	3.40	278.20	139.10
233500021047	Q 60	Straight	500	160 - 250	3.80	292.50	146.25
233500021048	Q 70	Straight	500	160 - 250	4.00	318.50	159.25
233500021049	Q 80	Straight	500	160 - 250	4.50	364.00	182.00
233500021050	Q 90	Straight	500	170 - 250	4.90	427.70	213.85
233500021051	Q 100	Straight	500	170 - 250	5.80	505.70	252.85
233500021052	Q 110	Straight	500	180 - 250	6.40	557.70	278.85
233500021053	Q 120	Straight	500	180 - 250	7.10	748.80	374.40

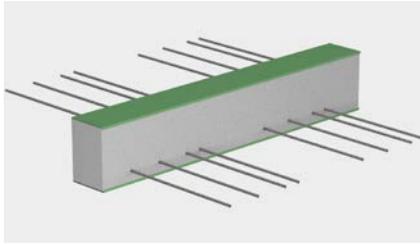
### Element length 250 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233500021045	Q 40	Bent	250	160 - 250	1.60	353.30	88.35
233500021048	Q 70	Straight	250	160 - 250	2.00	450.80	112.70
233500021050	Q 90	Straight	250	170 - 250	2.50	605.40	151.35
233500021052	Q 110	Straight	250	180 - 250	3.20	789.40	197.35

## IP 120 QZ



Thermally insulated slab connection for transmitting shear forces in supported reinforced concrete components. The connection is created without tension. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element length and element height (h) when ordering.**

**Type IP 120 QZ can only be used in combination with IP 120 Q.**

- Element length: 1,000 mm, 500 mm, 250 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version: up to REI 120

### Element length 1,000 mm

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/m]	Price per m [€]
233600021054	QZ 10	Bent	1000	160 - 250	1.70	140.00
233600021055	QZ 20	Bent	1000	160 - 250	1.90	156.00
233600021056	QZ 30	Bent	1000	160 - 250	2.20	169.00
233600021057	QZ 40	Bent	1000	160 - 250	2.40	191.00
233600021058	QZ 50	Bent	1000	160 - 250	2.80	202.00
233600021059	QZ 60	Straight	1000	160 - 250	3.50	208.00
233600021060	QZ 70	Straight	1000	160 - 250	3.90	245.00
233600021061	QZ 80	Straight	1000	160 - 250	4.90	280.00
233600021062	QZ 90	Straight	1000	170 - 250	5.70	329.00
233600021063	QZ 100	Straight	1000	170 - 250	7.60	389.00
233600021064	QZ 110	Straight	1000	180 - 250	8.80	429.00
233600021065	QZ 120	Straight	1000	180 - 250	9.20	571.00

### Element length 500 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233600021054	QZ 10	Bent	500	160 - 250	0.90	156.80	78.40
233600021055	QZ 20	Bent	500	160 - 250	1.00	174.75	87.40
233600021056	QZ 30	Bent	500	160 - 250	1.10	189.30	94.65
233600021057	QZ 40	Bent	500	160 - 250	1.20	213.95	107.00
233600021058	QZ 50	Bent	500	160 - 250	1.40	226.25	113.15
233600021059	QZ 60	Straight	500	160 - 250	1.80	233.00	116.50
233600021060	QZ 70	Straight	500	160 - 250	2.00	274.40	137.20
233600021061	QZ 80	Straight	500	160 - 250	2.50	313.60	156.80
233600021062	QZ 90	Straight	500	170 - 250	2.90	368.50	184.25
233600021063	QZ 100	Straight	500	170 - 250	3.80	435.70	217.85
233600021064	QZ 110	Straight	500	180 - 250	4.40	480.50	240.25
233600021065	QZ 120	Straight	500	180 - 250	4.60	639.55	319.80

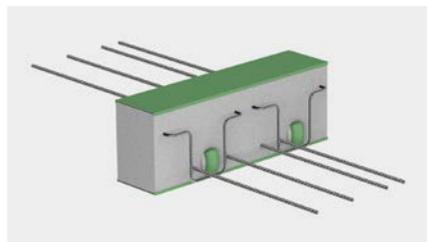
### Element length 250 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233600021057	QZ 40	Bent	250	160 - 250	0.60	299.90	75.00
233600021060	QZ 70	Straight	250	160 - 250	1.00	384.65	96.20
233600021062	QZ 90	Straight	250	170 - 250	1.50	516.55	129.15
233600021064	QZ 110	Straight	250	180 - 250	2.20	673.55	168.40

## IP 120 QS



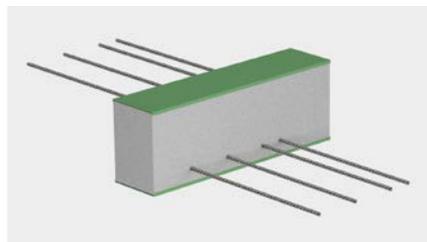
Thermally insulated slab connection for transmitting shear forces in supported reinforced concrete components with forces transferred at specific points. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element height (h) when ordering.**

- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version QS10 to QS90: REI 120
- Fireproof version QS100 to QS120: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
233900021090	QS 10	300	160 - 250	2.90	111.00
233900021091	QS 20	400	160 - 250	4.80	168.00
233900021092	QS 30	500	160 - 250	5.60	210.00
233900021093	QS 40	300	160 - 250	3.90	121.00
233900021094	QS 50	400	160 - 250	4.80	178.00
233900021095	QS 60	500	160 - 250	6.10	213.00
233900021096	QS 70	300	180 - 250	5.30	186.00
233900021097	QS 80	400	180 - 250	8.50	227.00
233900021098	QS 90	500	180 - 250	11.30	221.00
233900021762	QS 100	300	200-250	6.20	212.00
233900021763	QS 110	400	200-250	10.10	305.00
233900021764	QS 120	500	200-250	12.70	350.00

## IP 120 QSZ



Thermally insulated slab connection for tension-free connection of inset balconies and loggias. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

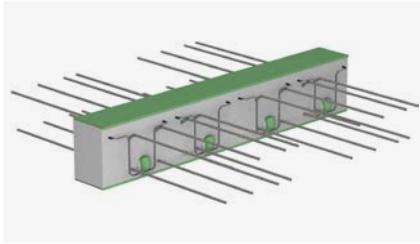
**State the element height (h) when ordering.**

**Type IP 120 QSZ can only be used in combination with IP 120 QS.**

- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version: up to REI 120

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
234000021099	QSZ 10	300	160 - 250	1.90	77.00
234000021100	QSZ 20	400	160 - 250	2.80	118.00
234000021101	QSZ 30	500	160 - 250	3.60	147.00
234000021102	QSZ 40	300	160 - 250	2.90	85.00
234000021103	QSZ 50	400	160 - 250	2.80	124.00
234000021104	QSZ 60	500	160 - 250	4.50	155.00
234000021105	QSZ 70	300	180 - 250	3.30	131.00
234000021106	QSZ 80	400	180 - 250	5.80	169.00
234000021107	QSZ 90	500	180 - 250	7.70	185.00
234000021765	QSZ 100	300	200-250	4.20	148.00
234000021766	QSZ 110	400	200-250	8.10	213.00
234000021767	QSZ 120	500	200-250	10.70	245.00

## IP 120 QQ



Thermally insulated slab connection for transmitting positive and negative shear forces in Supported reinforced concrete components. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element length and element height (h) when ordering.**

- Element length: 1,000 mm, 500 mm, 250 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version: up to REI 120

### Element length 1,000 mm

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/m]	Price per m [€]
233700021066	QQ 10	Bent	1000	160 - 250	4.66	212.00
233700021067	QQ 20	Bent	1000	160 - 250	4.92	232.00
233700021068	QQ 30	Bent	1000	160 - 250	5.43	253.00
233700021069	QQ 40	Bent	1000	160 - 250	5.69	288.00
233700021070	QQ 50	Bent	1000	160 - 250	6.70	312.00
233700021071	QQ 60	Straight	1000	160 - 250	8.70	323.00
233700021072	QQ 70	Straight	1000	160 - 250	9.60	368.00
233700021073	QQ 80	Straight	1000	160 - 250	12.10	420.00
233700021074	QQ 90	Straight	1000	170 - 250	14.20	493.00
233700021075	QQ 100	Straight	1000	170 - 250	16.30	584.00
233700021076	QQ 110	Straight	1000	180 - 250	18.40	643.00
233700021077	QQ 120	Straight	1000	180 - 250	20.10	864.00

### Element length 500 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233700021066	QQ 10	Bent	500	160 - 250	2.4	239.60	119.80
233700021067	QQ 20	Bent	500	160 - 250	2.5	262.20	131.10
233700021068	QQ 30	Bent	500	160 - 250	2.7	285.90	142.95
233700021069	QQ 40	Bent	500	160 - 250	2.9	325.45	162.75
233700021070	QQ 50	Bent	500	160 - 250	3.4	352.60	176.30
233700021071	QQ 60	Straight	500	160 - 250	4.4	365.00	182.50
233700021072	QQ 70	Straight	500	160 - 250	4.8	415.85	207.95
233700021073	QQ 80	Straight	500	160 - 250	6.1	474.60	237.30
233700021074	QQ 90	Straight	500	170 - 250	7.1	557.10	278.55
233700021075	QQ 100	Straight	500	170 - 250	8.2	659.95	330.00
233700021076	QQ 110	Straight	500	180 - 250	9.2	726.60	363.30
233700021077	QQ 120	Straight	500	180 - 250	10.1	976.35	488.20

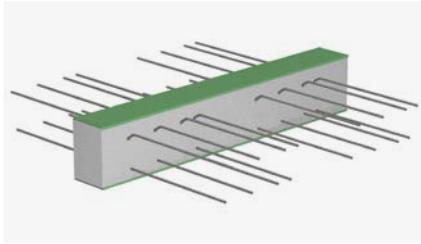
### Element length 250 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233700021069	QQ 40	Bent	250	160 - 250	1.5	460.80	115.20
233700021072	QQ 70	Straight	250	160 - 250	2.4	588.80	147.20
233700021074	QQ 90	Straight	250	170 - 250	3.6	788.80	197.20
233700021076	QQ 110	Straight	250	180 - 250	4.6	1028.80	257.20

## IP 120 QQZ



Thermally insulated slab connection for transmitting positive and negative shear forces in supported reinforced concrete components. The connection is created without tension. Stainless steel for

corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element length (l) and element height (h) when ordering.**

- Element length: 1,000 mm, 500 mm, 250 mm
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Other heights available on request
- Fireproof version: up to REI 120

### Element length 1,000 mm

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/m]	Price per m [€]
233800021078	QQZ 10	Bent	1000	160 - 250	3.00	212.00
233800021079	QQZ 20	Bent	1000	160 - 250	3.30	232.00
233800021080	QQZ 30	Bent	1000	160 - 250	3.80	253.00
233800021081	QQZ 40	Bent	1000	160 - 250	4.00	288.00
233800021082	QQZ 50	Bent	1000	160 - 250	5.00	312.00
233800021083	QQZ 60	Straight	1000	160 - 250	7.00	316.00
233800021084	QQZ 70	Straight	1000	160 - 250	7.90	368.00
233800021085	QQZ 80	Straight	1000	160 - 250	10.40	420.00
233800021086	QQZ 90	Straight	1000	170 - 250	11.70	493.00
233800021087	QQZ 100	Straight	1000	170 - 250	13.80	584.00
233800021088	QQZ 110	Straight	1000	180 - 250	15.00	643.00
233800021089	QQZ 120	Straight	1000	180 - 250	16.70	859.00

### Element length 500 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233800021078	QQZ 10	Bent	500	160 - 250	2.40	212.00	106.00
233800021079	QQZ 20	Bent	500	160 - 250	2.50	232.00	116.00
233800021080	QQZ 30	Bent	500	160 - 250	2.70	253.00	126.50
233800021081	QQZ 40	Bent	500	160 - 250	2.90	288.00	144.00
233800021082	QQZ 50	Bent	500	160 - 250	3.40	312.00	156.00
233800021083	QQZ 60	Straight	500	160 - 250	4.40	316.00	158.00
233800021084	QQZ 70	Straight	500	160 - 250	4.80	368.00	184.00
233800021085	QQZ 80	Straight	500	160 - 250	6.10	420.00	210.00
233800021086	QQZ 90	Straight	500	170 - 250	7.10	493.00	246.50
233800021087	QQZ 100	Straight	500	170 - 250	8.20	584.00	292.00
233800021088	QQZ 110	Straight	500	180 - 250	9.20	643.00	321.50
233800021089	QQZ 120	Straight	500	180 - 250	10.10	859.00	429.50

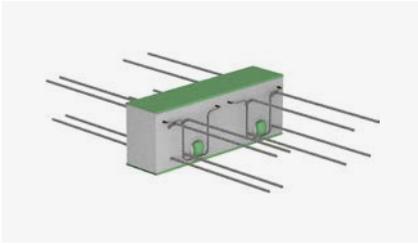
### Element length 250 mm

**NEW**

Fire proof version with fire protection panels on top, bottom, left and right side

Article number	Type	Shear bar on the slab side	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
233800021081	QQZ 40	Bent	250	160 - 250	1.50	388.80	97.20
233800021084	QQZ 70	Straight	250	160 - 250	2.40	496.80	124.20
233800021086	QQZ 90	Straight	250	170 - 250	3.60	665.55	166.40
233800021088	QQZ 110	Straight	250	180 - 250	4.60	868.05	217.05

## IP 120 QQS



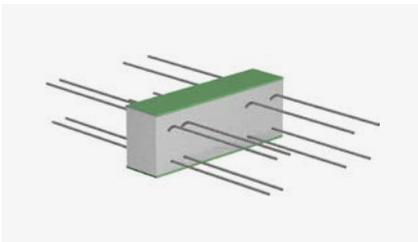
Thermally insulated slab connection for transmitting positive and negative shear forces in supported reinforced concrete components with forces transferred at specific points. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element height (h) when ordering.**

- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version QQS10 to QQS90: REI 120
- Fireproof version QQS100 to QQS120: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
234100021108	QQS 10	300	160 - 250	3.20	146.00
234100021109	QQS 20	400	160 - 250	4.20	219.00
234100021110	QQS 30	500	160 - 250	6.40	272.00
234100021111	QQS 40	300	170 - 250	4.30	157.00
234100021112	QQS 50	400	170 - 250	7.90	231.00
234100021113	QQS 60	500	170 - 250	8.30	276.00
234100021114	QQS 70	300	180 - 250	12.40	241.00
234100021115	QQS 80	400	180 - 250	11.80	277.00
234100021116	QQS 90	500	180 - 250	15.70	293.00
234100021756	QQS 100	300	200 - 250	13.50	276.00
234100021757	QQS 110	400	200 - 250	15.90	397.00
234100021758	QQS 120	500	200 - 250	16.20	455.00

## IP 120 QQSZ



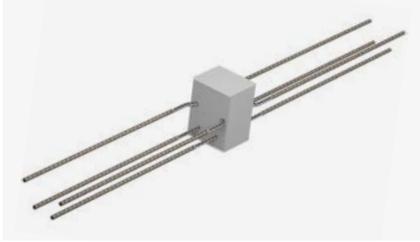
Thermally insulated slab connection for transmitting positive and negative shear forces in supported reinforced concrete components with forces transferred at specific points. The connection is created without tension. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element height (h) when ordering.**

- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version: REI 120

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
234200021117	QQSZ 10	300	160 - 250	2.40	110.00
234200021118	QQSZ 20	400	160 - 250	3.40	164.00
234200021119	QQSZ 30	500	160 - 250	5.60	204.00
234200021120	QQSZ 40	300	170 - 250	3.50	118.00
234200021121	QQSZ 50	400	170 - 250	7.10	174.00
234200021122	QQSZ 60	500	170 - 250	7.10	214.00
234200021123	QQSZ 70	300	180 - 250	11.60	181.00
234200021124	QQSZ 80	400	180 - 250	10.60	231.00
234200021125	QQSZ 90	500	180 - 250	14.00	258.00
234200021759	QQSZ 100	300	200 - 250	13.50	208.00
234200021760	QQSZ 110	400	200 - 250	15.90	297.00
234200021761	QQSZ 120	500	200 - 250	16.20	341.00

## IP 120 H



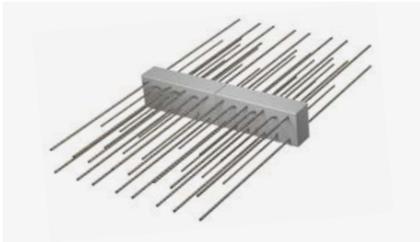
Thermally insulated slab connection for transmitting horizontal forces parallel and/or perpendicular to the insulation layer. For use at selected points to supplement the linear connections e.g. types IP 120 M, IP 120 Q. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State the element height (h) when ordering. Circumferential fire protection available on request.**

- Element length: 150 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version: REI 120

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
234300021162	H-X1	160 - 250	0.69	48.00
234300021163	H-X2	160 - 250	0.54	66.00
234300021164	H-X1Y1	160 - 250	1.05	64.00
234300021165	H-X2Y2	160 - 250	1.70	96.00

## IP 120 D



Thermally insulated slab connection for continuous reinforced concrete ceilings. Stainless steel rebar for corrosion protection. Insulating material 120 mm thick for improved thermal and acoustic insulation.

**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 500 + 500 mm
- With concrete cover cv 50: Minimum height 200 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Other heights available on request
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
234500021126	D 20 Q6	160 - 250	14.50	512.00
234500021129	D 30 Q6	160 - 250	22.20	595.00
234500021132	D 50 Q6	160 - 250	31.90	737.00
234500021135	D 70 Q6	160 - 250	43.70	861.00
234500021138	D 90 Q6	160 - 250	59.30	997.00
234500021141	D 100 Q6	160 - 250	66.00	1,174.00

Prices apply to concrete cover cv 35 and 50 mm

Extension products for type IP 120 D	Height h [mm]	Min. height concrete cover cv 50 [mm]	Design	Surcharge per m [€]
Q8	160-250	200	Shear force reinforcement	72.00
Q10	170-250	210	Shear force reinforcement	145.00
Q12	180-250	220	Shear force reinforcement	294.00
Q14	200-250	240	Shear force reinforcement	374.00

NEW

## IP 120 Z ISO



Intermediate insulation to supplement insulated joints in a range of different installation situations

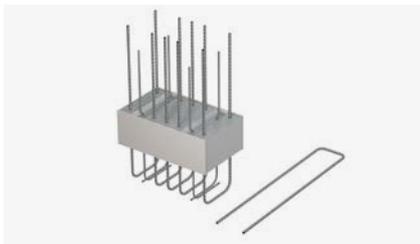
- Element length: 1,000 mm
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- FP1 with fire protection panels
- Other heights available on request

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
235100021149	Z ISO FP1	1,000	160 - 250	2.7	97.00

FP1 = Fire protection panels with a thickness of 10 mm

Extension products for type IP 120 Z ISO	Surcharge per piece [€]
Cutting surcharge	14.00

## IP 120 A



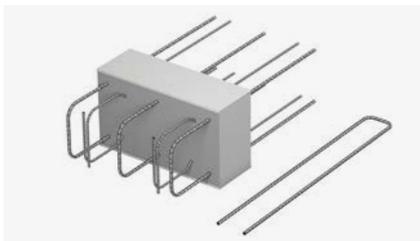
Thermally insulated connector for connecting parapets to ceiling slabs. Stainless steel rebar for corrosion protection. For use at selected points to meet structural requirements.

**State the parapet thickness (a) when ordering.**

- Ceiling thickness:  $\geq 160$  mm
- Insulation thickness: 120 mm
- Parapet thickness will be evened up by applying additional insulation
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Other parapet thicknesses available on request
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Parapet thickness a [mm]	Weight [kg/pc.]	Price per piece [€]
234600021166	A 1	350	150 - 250	3.0	157.00
234600021167	A 2	350	150 - 250	6.0	170.00

## IP 120 F



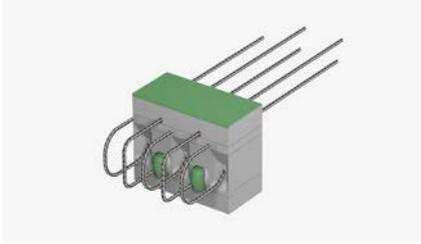
Thermally insulated connector for connecting protruding parapets to ceiling slabs. Stainless steel for corrosion protection. For use at selected points to meet structural requirements.

**State the element height (h) and parapet width (b) when ordering.**

- Parapet width:  $\geq 150$  mm
- Insulation thickness: 120 mm
- Element height will be evened up by applying additional insulation
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Other heights available on request
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
234700021168	F	350	160 - 250	5.70	170.00

## IP 120 O



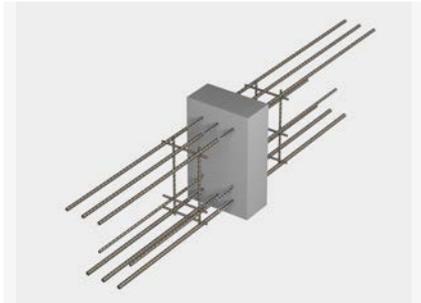
Thermally insulated connector for connecting reinforced concrete brackets to ceiling slabs. Stainless steel rebar for corrosion protection. For use at selected points to meet structural requirements.

**State the element height (h) when ordering.**

- Bracket width:  $\geq 160$  mm
- Insulation thickness: 120 mm
- Element height will be evened up by applying additional insulation
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Other heights available on request
- Fireproof version: REI 120

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
234800021169	O 1	250	180 - 250	2.30	198.00
234800021170	O 2	250	180 - 250	2.40	214.00

## IP 120 S



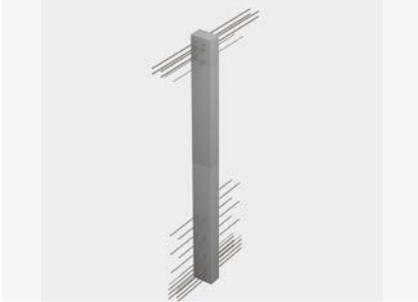
Thermally insulated connector for connecting protruding reinforced concrete beams with ceiling slabs. Stainless steel rebar for corrosion protection.

**State height and width when ordering.**

- Element length: 220-300 mm
- Standard height: 300-600 mm
- Beam width: 220-300 mm
- Insulation thickness: 120 mm
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Weight [kg/pc.]	Price per piece [€]
234900021151	S 1	8.10	381.00
234900021152	S 2	12.70	445.00
234900021154	S 3	19.90	561.00
234900021156	S 4	28.30	743.00

## IP 120 W



Thermally insulated connector for connecting wall slabs to partition walls. Stainless steel rebar for corrosion protection.

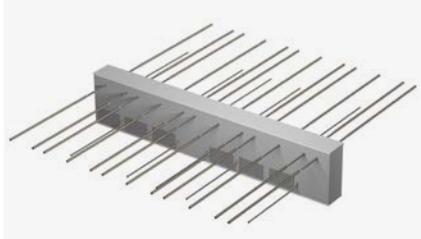
**State the wall width and height when ordering.**

- Wall width: 150 - 250 mm
- Wall height: 1,500 - 3,500 mm
- Insulation thickness: 120 mm
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Weight [kg/pc.]	Price per piece [€]
<a href="#">235000021158</a>	W 1	9.10	561.00
<a href="#">235000021159</a>	W 2	14.40	704.00
<a href="#">235000021160</a>	W 3	26.80	810.00
<a href="#">235000021161</a>	W 4	41.10	929.00

# ISOPRO® Concrete-Concrete

## IP



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components.  
Stainless steel rebar for corrosion protection.

**State element height (h) and concrete cover (cv) when ordering.**

- Element length: IP 10 – IP 75 Q10: 1,000 mm; IP 90 Q10 – IP 100 Q10: 500 + 500 mm
- Special concrete thrust bearing
- With concrete cover cv 50: Minimum height of 180 mm required
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Two-part version available for installation in precast concrete plants
- Fireproof version: REI 120

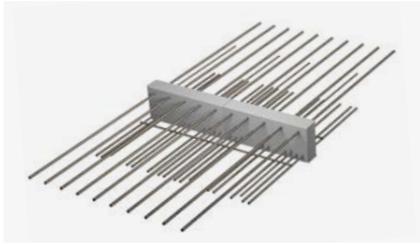
Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
<a href="#">210100012312</a>	IP 10	160-250	7.34	206.00
<a href="#">210100012316</a>	IP 15	160-250	8.44	233.00
<a href="#">210100012322</a>	IP 20	160-250	8.89	261.00
<a href="#">210100012330</a>	IP 25	160-250	9.60	311.00
<a href="#">210100018963</a>	IP 35	160-250	11.49	359.00
<a href="#">210100012358</a>	IP 45	160-250	14.26	395.00
<a href="#">210100012366</a>	IP 50	160-250	15.70	438.00
<a href="#">210100012379</a>	IP 55	160-250	19.92	486.00
<a href="#">210100018954</a>	IP 65	160-250	21.09	517.00
<a href="#">210100018955</a>	IP 75 Q10	170-250	22.26	625.00
<a href="#">210100018956</a>	IP 90 Q10	170-250	24.21	696.00
<a href="#">210100018957</a>	IP 100 Q10	170-250	25.38	765.00

Prices apply to concrete cover cv 35 and cv 50 mm

Extension products for type IP 10 – IP 65	Height h [mm]	Design	Surcharge per m [€]
<a href="#">Q8</a>	160 – 250	Shear force reinforcement	49.00
<a href="#">Q8X</a>	160 – 250	Shear force reinforcement on both sides	78.00
<a href="#">Q10</a>	170 – 250	Shear force reinforcement	63.00
<a href="#">Q10X</a>	170 – 250	Shear force reinforcement on both sides	91.00
<a href="#">Q12</a>	180 – 250	Shear force reinforcement	78.00

Extension products for type IP 75 Q10 – IP 100 Q10	Height h [mm]	Design	Surcharge per m [€]
<a href="#">Q10X</a>	180 – 250	Shear force reinforcement on both sides	39.00
<a href="#">Q12</a>	180 – 250	Shear force reinforcement	15.00

**IPT** Will be replaced by IP 80 M in spring 2026



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components. Stainless steel rebar for corrosion protection with suspended reinforcement integrated into the balcony.

**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 500 + 500 mm
- Steel pressure plane
- With concrete cover cv 50: Minimum height of 200 mm required
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Two-part version available for installation in precast concrete plants
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

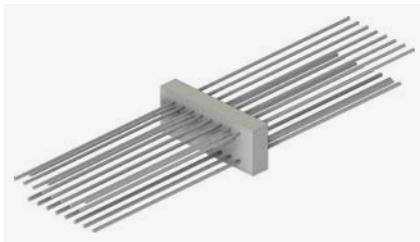
Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
210200014990	IPT 110 Q10	180-250	44.00	909.00
210200014991	IPT 110 Q12	180-250	45.50	925.00
210200014992	IPT 110 Q14	180-250	49.10	974.00
210200015002	IPT 150 Q10	180-250	57.40	1,142.00
210200015008	IPT 150 Q12	180-250	59.70	1,159.00
210200015012	IPT 150 Q14	190-250	62.90	1,211.00

Prices apply to concrete cover cv 35 and cv 50 mm

**IP 80 M**



In spring 2026



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components with high loads. Stainless steel rebar for corrosion protection.

**State element height (h) and concrete cover (cv) when ordering.**

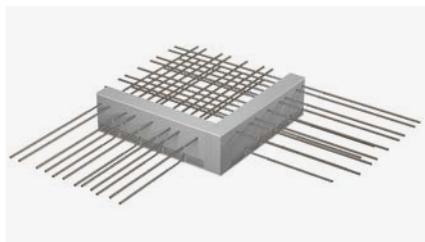
- Element length: 500 mm
- Steel pressure plane
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Two-part version available for installation in precast concrete plants (indicated by a "P" - e.g. type IP 80 M P)
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Height h [mm]	Min. height concrete cover cv 50 [mm]	Weight [kg/pc.]	Price per m [€]	Price per piece [€]
210200027521	IP 80 M 130 Q10	170-250	190	30.50	1142.00	571.00
210200027522	IP 80 M 140 Q10	170-250	190	34.80	1376.00	688.00

Prices apply to concrete cover cv35 and 50 mm  
Pressure plane version for M 120: pressure plates; from M 130 with compression bars.

Extension products for type IP 80 M	Height h [mm]	Min. height concrete cover cv 50 [mm]	Design	Surcharge per m [€]	Surcharge per piece [€]
Q12	180-250	200	Shear force reinforcement	36.00	18.00
Q13	180-250	200	Shear force reinforcement	66.00	33.00
Q14	190-250	210	Shear force reinforcement	76.00	38.00
Q15	190-250	210	Shear force reinforcement	96.00	48.00

## IP / IPT corner



Thermally insulated slab connection for connecting cantilevered reinforced concrete components with exterior corners. Stainless steel rebar for corrosion protection with suspended reinforcement integrated into the balcony.

### State element height (h) and concrete cover (cv) when ordering.

- The prices are for one corner element consisting of one left and one right part and one corner insulation body
- The left IP(T) EL and right IP(T) ER subcomponents can also be purchased individually
- Pressure plane type IP corner with concrete thrust bearings
- Steel pressure plane type IPT corner
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version IP corner 20/30: REI 120
- Fireproof version IPT corner 50: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<b>210300012399</b>	IP corner 20	500 x 500 <sup>1)</sup>	180 - 250	23.79	570.00
<b>210300012401</b>	IP corner 30	620 x 620 <sup>2)</sup>	180 - 250	38.30	959.00
<b>210300011842</b>	IPT corner 50	620 x 620 <sup>2)</sup>	180 - 250	48.36	1,201.00

Prices apply to concrete cover - 1st layer cv 35 mm, and 2nd layer cv 50 mm

<sup>1)</sup>l= 500 mm + 80 mm corner insulation body

<sup>2)</sup>l= 620 mm + 80 mm corner insulation body

### Left subcomponent IP(T) EL

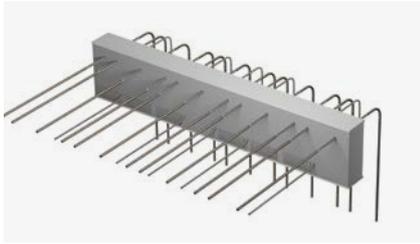
Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<b>210300018948</b>	IP EL 20	500	180 - 250	11.89	285.00
<b>210300018949</b>	IP EL 30	620	180 - 250	19.10	480.00
<b>210300018950</b>	IPT EL 50	620	180 - 250	24.10	601.00

### Right subcomponent IP(T) ER

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<b>210300018951</b>	IP ER 20	500	180 - 250	11.89	285.00
<b>210300018952</b>	IP ER 30	620	180 - 250	19.10	480.00
<b>210300018953</b>	IPT ER 50	620	180 - 250	24.10	601.00

Prices apply to concrete cover cv 35 and 50 mm

## IP var. I

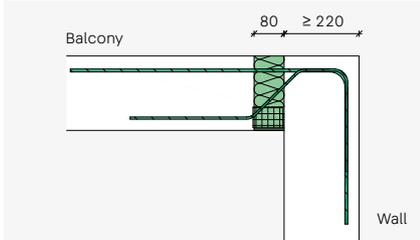


Thermally insulated cantilever slab connection for cantilevered, reinforced concrete components connected to reinforced concrete walls.

The rebar is anchored downward in the reinforced concrete wall for var. I or downward for var. II.

**State element height (h) and concrete cover (cv) when ordering.**

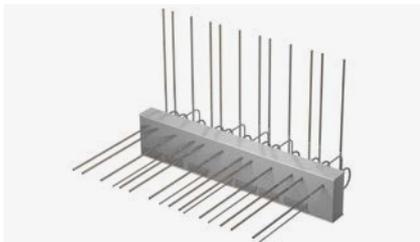
- Element length: 1,000 mm
- Standard: Wall thickness  $\geq 220$  mm
- Custom elements available on request. Please state the wall thickness when ordering.
- Fireproof version: REI 120



Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
210100012322	IP 20 var. I	160 - 250	8.89	314.00
210100012330	IP 25 var. I	160 - 250	9.60	355.00
210100012334	IP 30 var. I	160 - 250	11.49	395.00
210100012358	IP 45 var. I	160 - 250	14.26	437.00
210100012366	IP 50 var. I	160 - 250	15.70	510.00
210100012379	IP 55 var. I	160 - 250	19.92	583.00
210100018964	IP 65 var. I	160 - 250	21.09	645.00
210100020365	IP 75 var. I	160 - 250	22.26	705.00

Prices apply to concrete cover cv 35 and cv 50 mm

## IP var. II

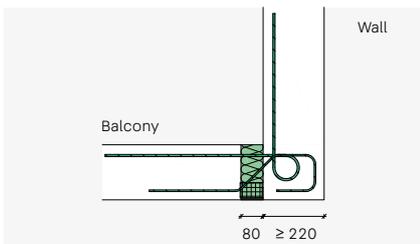


Thermally insulated cantilever slab connection for cantilevered, reinforced concrete components connected to reinforced concrete walls.

The rebar is anchored downward in the reinforced concrete wall for var. I or downward for var. II.

**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 1,000 mm
- Standard: Wall thickness  $\geq 220$  mm
- Custom elements available on request. Please state the wall thickness when ordering.
- Fireproof version: REI 120

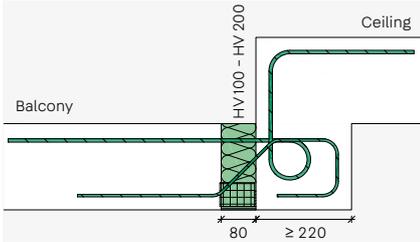
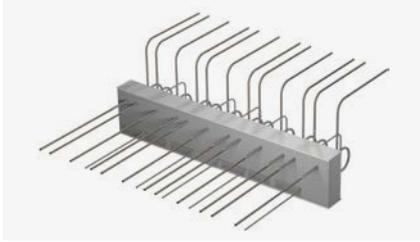


Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
210100012322	IP 20 var. II	160 - 250	9.66	314.00
210100012330	IP 25 var. II	160 - 250	10.44	355.00
210100012334	IP 30 var. II	160 - 250	12.50	395.00
210100012358	IP 45 var. II	160 - 250	15.50	437.00
210100012366	IP 50 var. II	160 - 250	17.07	510.00
210100012379	IP 55 var. II	160 - 250	21.65	583.00
210100018964	IP 65 var. II	160 - 250	22.85	645.00
210100020365	IP 75 var. II	160 - 250	24.20	705.00

Prices apply to concrete cover cv 35 and cv 50 mm

Extension products for type IP variants	Height h [mm]	Design	Surcharge per m [€]
Q8	160 - 250	Shear force reinforcement	49.00

## IP var. III HV



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components connected to reinforced concrete ceilings with offset heights.

The reinforced concrete ceiling is above the balcony slab being connected for var. III HV or under the balcony slab being connected for var. III UV.

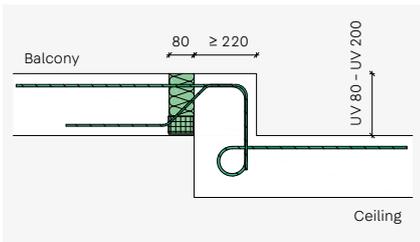
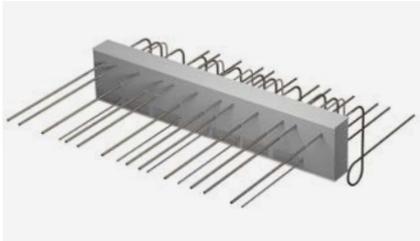
**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 1,000 mm
- Standard: Height offset HV10 (100 mm), HV15 (150 mm), HV20 (200 mm)
- Custom elements available on request. Please state height offset and beam width when ordering.
- Fireproof version: REI 120

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
210100012322	IP 20 var. III HV	160 - 250	9.96	314.00
210100012330	IP 25 var. III HV	160 - 250	10.75	355.00
210100012334	IP 30 var. III HV	160 - 250	12.87	395.00
210100012358	IP 45 var. III HV	160 - 250	16.00	437.00
210100012366	IP 50 var. III HV	160 - 250	17.58	510.00
210100012379	IP 55 var. III HV	160 - 250	22.30	583.00
210100018964	IP 65 var. III HV	160 - 250	23.55	645.00
210100020365	IP 75 var. III HV	160 - 250	24.95	705.00

Prices apply to concrete cover cv 35 and cv 50 mm

## IP var. III UV



Thermally insulated cantilever slab connection for cantilevered reinforced concrete components connected to reinforced concrete ceilings with offset heights.

The reinforced concrete ceiling is above the balcony slab being connected for var. III HV or under the balcony slab being connected for var. III UV.

**State element height (h) and concrete cover (cv) when ordering.**

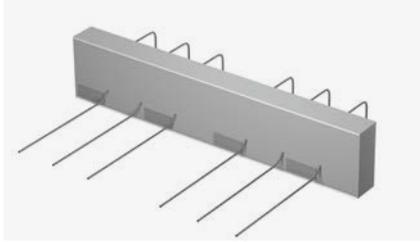
- Element length: 1,000 mm
- Standard: Height offset UV10 (100 mm), UV15 (150 mm), UV20 (200 mm)
- Custom elements available on request. Please state height offset and beam width when ordering.
- Fireproof version: REI 120

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
210100012322	IP 20 var. III UV	160 - 250	10.20	314.00
210100012330	IP 25 var. III UV	160 - 250	11.00	355.00
210100012334	IP 30 var. III UV	160 - 250	13.18	395.00
210100012358	IP 45 var. III UV	160 - 250	16.40	437.00
210100012366	IP 50 var. III UV	160 - 250	18.01	510.00
210100012379	IP 55 var. III UV	160 - 250	22.85	583.00
210100018964	IP 65 var. III UV	160 - 250	24.15	645.00
210100020365	IP 75 var. III UV	160 - 250	25.55	705.00

Prices apply to concrete cover cv 35 and cv 50 mm

Extension products for type IP variants	Height h [mm]	Design	Surcharge per m [€]
Q8	160 - 250	Shear force reinforcement	49.00

## IPQ



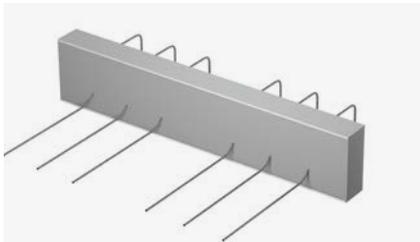
Thermally insulated slab connection for transmitting shear forces in supported reinforced concrete components. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Element length: 1,000 mm
- Pressure plane with concrete thrust bearings
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version: REI 120

Article number	Type	Transverse rod in ceiling	Height h [mm]	Weight [kg/m]	Price per m [€]
210400012403	IPQ 10	Bent	160 - 250	5.43	136.00
210400012414	IPQ 20	Bent	160 - 250	5.61	146.00
210400012421	IPQ 30	Bent	160 - 250	5.79	159.00
210400012427	IPQ 40	Bent	160 - 250	6.15	180.00
210400012433	IPQ 50	Bent	160 - 250	6.50	203.00
210400012442	IPQ 70	Straight	160 - 250	7.10	226.00
210400012445	IPQ 80	Straight	160 - 250	7.50	235.00
210400015016	IPQ 85	Straight	160 - 250	8.50	248.00
210400012448	IPQ 90	Straight	160 - 250	9.30	269.00
210400017123	IPQ 100	Straight	170 - 250	11.20	290.00
210400012411	IPQ 110	Straight	170 - 250	12.50	312.00
210400015018	IPQ 120	Straight	170 - 250	13.80	418.00

## IPZQ



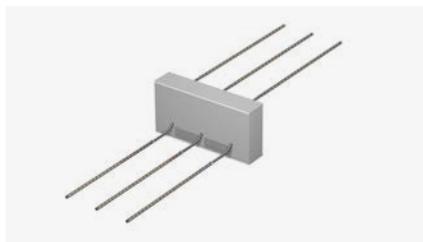
Thermally insulated slab connection for transmitting shear forces in supported reinforced concrete components. Version without thrust bearings for tension-free connection. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Element length: 1,000 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version: REI 120

Article number	Type	Transverse rod in ceiling	Height h [mm]	Weight [kg/m]	Price per m [€]
211900015020	IPZQ 10	Bent	160 - 250	1.30	128.00
211900015022	IPZQ 20	Bent	160 - 250	1.50	140.00
211900015024	IPZQ 30	Bent	160 - 250	1.70	154.00
211900015026	IPZQ 40	Bent	160 - 250	2.00	175.00
211900015028	IPZQ 50	Bent	160 - 250	2.40	198.00
211900015030	IPZQ 70	Straight	160 - 250	3.10	220.00
211900015032	IPZQ 80	Straight	160 - 250	3.50	230.00
211900015034	IPZQ 85	Straight	160 - 250	4.50	240.00
211900015036	IPZQ 90	Straight	160 - 250	5.30	262.00
211900015038	IPZQ 100	Straight	170 - 250	7.20	284.00
211900015040	IPZQ 110	Straight	170 - 250	8.50	306.00
211900015042	IPZQ 120	Straight	170 - 250	9.80	413.00

## IPQS / IPTQS



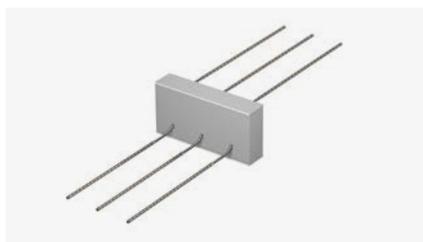
Thermally insulated slab connection for transmitting shear forces in supported reinforced concrete components with forces transferred at specific points. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Pressure plane type IPQS with concrete thrust bearings
- Steel pressure plane type IPTQS
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version IPQS: REI 120
- Fireproof version IPTQS: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
210600015044	IPQS 5	400	160 - 250	2.80	87.00
210600012481	IPQS 10	300	160 - 250	1.96	114.00
210600015046	IPQS 15	500	160 - 250	3.00	142.00
210600012484	IPQS 20	400	160 - 250	3.50	169.00
210600012487	IPQS 30	500	160 - 250	4.64	210.00
210600012489	IPQS 40	300	170 - 250	2.76	176.00
210600012492	IPQS 50	400	170 - 250	4.37	202.00
210600015050	IPQS 55	500	170 - 250	5.50	212.00
210600015052	IPTQS 60	300	180 - 250	4.30	221.00
210600012498	IPQS 70	400	180 - 250	6.20	290.00
210600018551	IPQS 75	500	180 - 250	8.80	265.00
210600015054	IPTQS 80	300	190 - 250	4.80	240.00
210600015056	IPTQS 90	400	190 - 250	7.20	316.00
210600025047	IPTQS 100	500	190 - 250	9.10	394.00

## IPQZ



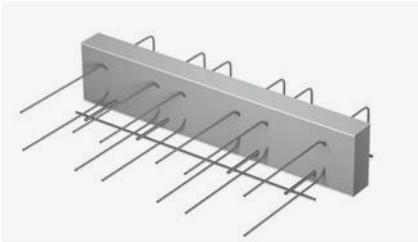
Thermally insulated slab connection for tension-free connection of inset balconies and loggias. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version: REI 120

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
210800015058	IPQZ 5	400	160 - 250	0.80	58.00
210800012505	IPQZ 10	300	160 - 250	1.00	78.00
210800015060	IPQZ 15	500	160 - 250	1.00	99.00
210800012506	IPQZ 20	400	160 - 250	1.50	118.00
210800012508	IPQZ 30	500	160 - 250	2.00	147.00
210800012510	IPQZ 40	300	170 - 250	1.80	123.00
210800012512	IPQZ 50	400	170 - 250	2.60	144.00
210800015064	IPQZ 55	500	170 - 250	3.50	149.00
210800012513	IPQZ 60	300	180 - 250	2.80	156.00
210800012516	IPQZ 70	400	180 - 250	4.20	203.00
210800018552	IPQZ 75	500	180 - 250	5.80	186.00
210800012518	IPQZ 80	300	190 - 250	2.80	169.00
210800012520	IPQZ 90	400	190 - 250	4.20	221.00
210800025048	IPQZ 100	500	190 - 250	6.10	274.00

## IPTQQ



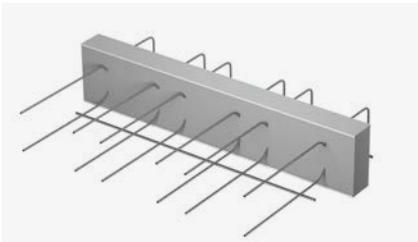
Thermally insulated slab connection for transmitting positive and negative shear forces in supported reinforced concrete components. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Element length: 500 + 500 mm
- Steel pressure plane
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Transverse rod in ceiling	Height h [mm]	Weight [kg/m]	Price per m [€]
212100019002	IPTQQ 10	Bent	160 - 250	4.17	201.00
212100019003	IPTQQ 30	Bent	160 - 250	4.95	220.00
212100019004	IPTQQ 40	Bent	160 - 250	5.84	271.00
212100019005	IPTQQ 50	Bent	160 - 250	7.01	305.00
212100019006	IPTQQ 70	Straight	160 - 250	8.87	337.00
212100019007	IPTQQ 90	Straight	170 - 250	14.82	371.00
212100019008	IPTQQ 110	Straight	180 - 250	23.76	435.00

## IPZQQ



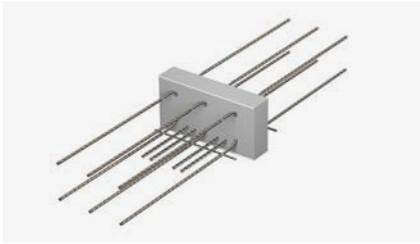
Thermally insulated slab connection for tension-free transmission of positive and negative shear forces in supported reinforced concrete components. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Element length: 500 + 500 mm
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Fireproof version: REI 120

Article number	Type	Transverse rod in ceiling	Height h [mm]	Weight [kg/m]	Price per m [€]
212200022112	IPZQQ 10	Bent	160 - 250	2.00	196.00
212200022114	IPZQQ 30	Bent	160 - 250	2.70	213.00
212200022115	IPZQQ 40	Bent	160 - 250	3.40	264.00
212200022116	IPZQQ 50	Bent	160 - 250	4.20	299.00
212200022117	IPZQQ 70	Straight	160 - 250	6.40	332.00
212200022119	IPZQQ 90	Straight	170 - 250	9.70	363.00
212200022121	IPZQQ 110	Straight	180 - 250	15.80	428.00

## IPTQQS



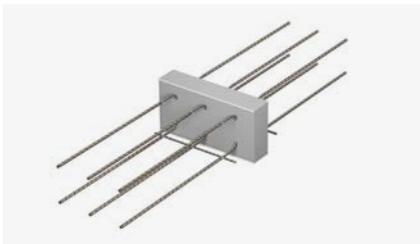
Thermally insulated slab connection for transmitting positive and negative shear forces in supported reinforced concrete components with forces transferred at specific points. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

- Steel pressure plane
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
210700019010	IPTQQS 10	300	160 - 250	2.95	148.00
210700019011	IPTQQS 20	400	160 - 250	4.30	220.00
210700019012	IPTQQS 40	300	170 - 250	4.28	228.00
210700019013	IPTQQS 50	400	170 - 250	6.66	263.00
210700019014	IPTQQS 60	300	180 - 250	8.11	288.00
210700019015	IPTQQS 70	400	180 - 250	11.67	376.00
210700019016	IPTQQS 80	300	190 - 250	11.61	313.00
210700019017	IPTQQS 90	400	190 - 250	17.29	412.00
210700025049	IPTQQS 100	400	190 - 250	25.80	510.00

## IPQQZ



Thermally insulated slab connection for tension-free transmission of positive and negative shear forces in supported reinforced concrete components with forces transferred at specific points. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering.**

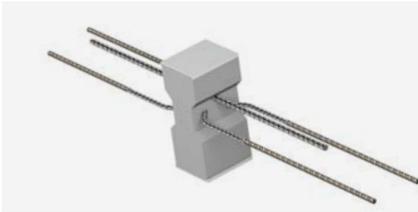
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Fireproof version: REI 120

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
212300022122	IPQQZ 10	300	160 - 250	2.50	142.00
212300022123	IPQQZ 20	400	160 - 250	3.60	213.00
212300022125	IPQQZ 40	300	170 - 250	3.20	222.00
212300022126	IPQQZ 50	400	170 - 250	4.80	258.00
212300022127	IPQQZ 60	300	180 - 250	5.30	282.00
212300022128	IPQQZ 70	400	180 - 250	7.90	370.00
212300022129	IPQQZ 80	300	190 - 250	8.20	308.00
212300022130	IPQQZ 90	400	190 - 250	12.30	405.00
212300025050	IPQQZ 100	400	190 - 250	25.80	504.00

## Horizontal anchors

Article number	Diameter [mm]	Length [mm]	Weight [kg/pc.]	Price per piece [€]
211800014854	10	620/320/620	0.93	15.00
211800014856	12	740/320/740	1.78	17.00

## IP 80 H



Thermally insulated slab connection for transmitting horizontal forces parallel and/or perpendicular to the insulation layer. For use at selected points to supplement the linear connections, e.g. types IP, IPT, IPQ. Stainless steel rebar for corrosion protection.

**State the element height (h) when ordering. Circumferential fire protection available on request.**

- Element length: 100 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Fireproof version: REI 120

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
210900021860	IP 80 H-X1	160 - 250	0.44	36.00
210900021864	IP 80 H-X2	160 - 250	0.59	52.00
210900021862	IP 80 H-X1-Y1	160 - 250	0.95	59.00
210900021866	IP 80 H-X2-Y2	160 - 250	1.50	89.00

## IPTD

Will be replaced by IP 80 D in spring 2026



Thermally insulated slab connection for continuous reinforced concrete ceilings. Stainless steel rebar for corrosion protection.

**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 500 + 500 mm
- With concrete cover cv 50: Minimum height of 200 mm required
- Fireproof version: REI 90

Article number	Type	Height h [mm]	Weight [kg/m]	Price per m [€]
211100012555	IPTD 20	160 - 250	18.79	396.00
211100012557	IPTD 30	160 - 250	24.11	468.00
211100012566	IPTD 50	160 - 250	30.05	681.00
211100012573	IPTD 70	160 - 250	44.50	822.00
211100012581	IPTD 90	160 - 250	60.19	958.00
211100015066	IPTD 100	160 - 250	62.20	1095.00

Prices apply to concrete cover cv 35 and 50 mm

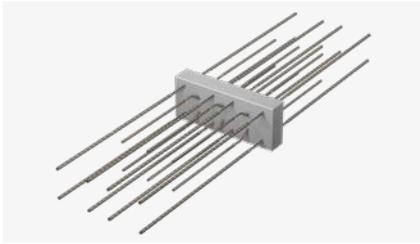
Extension products for type IPTD 20-90	Height h [mm]	Design	Surcharge per m [€]
Q8	160-250	Shear force reinforcement	67.00
Q10	170-250	Shear force reinforcement	145.00

Extension products for type IPTD 100	Height h [mm]	Design	Surcharge per m [€]
Q8	170-250	Shear force reinforcement	145.00
Q10	180-250	Shear force reinforcement	162.00

## IP 80 D

NEW

In spring 2026



Thermally insulated slab connection for continuous reinforced concrete ceilings. Stainless steel rebar for corrosion protection.

**State element height (h) and concrete cover (cv) when ordering.**

- Element length: 500 mm
- With concrete cover cv 50: Minimum height of 200 mm required
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
211100027532	IP 80 D10 Q6Q6	160 - 250	7.70	Prices on request
211100027533	IP 80 D20 Q6Q6	160 - 250	10.50	Prices on request
211100027534	IP 80 D30 Q6Q6	160 - 250	13.40	Prices on request
211100027535	IP 80 D40 Q6Q6	160 - 250	16.20	Prices on request
211100027536	IP 80 D50 Q6Q6	160 - 250	19.00	Prices on request
211100027538	IP 80 D60 Q6Q6	160 - 250	32.90	Prices on request

Prices apply to concrete cover cv 35 and 50 mm

Extension products for type IP 80 D	Height h [mm]	Min. height concrete cover cv 50 [mm]	Design	Surcharge per piece [€]
Q8Q8	160-250	200	Shear force reinforcement on both sides	Prices on request
Q10Q10	170-250	210	Shear force reinforcement on both sides	Prices on request
Q12Q12	180-250	220	Shear force reinforcement on both sides	Prices on request
Q14Q14	200-250	240	Shear force reinforcement on both sides	Prices on request

## Z ISO



Intermediate insulation to supplement insulated joints in a range of different installation situations

Element length: 1,000 mm

Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

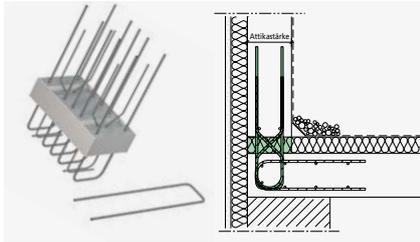
FP1 with fire protection panels

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
2117...	IP Z ISO FP1	1,000	160 - 250	2.2	82.00

FP1 = Fire protection panels with a thickness of 10 mm

Extension products for type Z ISO	Surcharge per piece [€]
Cutting surcharge	14.00

## IPTA



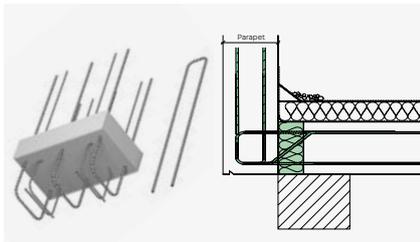
Thermally insulated connector for connecting parapets to ceiling slabs. Stainless steel rebar for corrosion protection. These elements are used at specific points depending on the relevant structural requirements.

**State the parapet thickness (a) when ordering.**

- Ceiling thickness:  $\geq 160$  mm
- Insulation thickness: 80 mm, optional 60 mm
- Elements with parapets more than 160 mm thick will be evened up by applying additional insulation.
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Parapet thickness a [mm]	Weight [kg/pc.]	Price per piece [€]
211200020248	IPTA 1	350	150 - 250	3.86	154.00
211200020258	IPTA 2	350	150 - 250	6.47	169.00

## IPTF



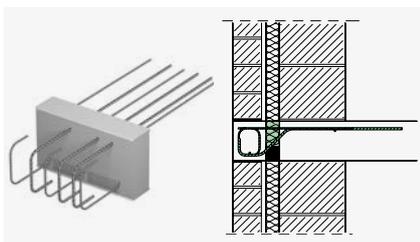
Thermally insulated connector for connecting protruding parapets to ceiling slabs. Stainless steel for corrosion protection. These elements are used at specific points depending on the relevant structural requirements.

**State the element height (h) and parapet width (b) when ordering.**

- Parapet width:  $\geq 150$  mm
- Insulation thickness: 80 mm, optional 60 mm
- Elements more than 160 mm high will be evened up by applying additional insulation.
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
211300018977	IPTF	350	160 - 250	2.36	169.00

## IPO



Thermally insulated connector for connecting reinforced concrete brackets to ceiling slabs. Stainless steel rebar for corrosion protection.

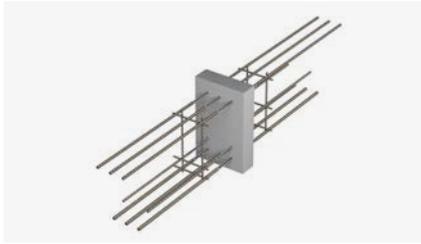
These elements are used at specific points depending on the relevant structural requirements.

**State the element height (h) when ordering.**

- Bracket width:  $\geq 150$  mm
- Insulation thickness: 80 mm, optional 60 mm
- Elements more than 180 mm high will be evened up by applying additional insulation.
- Insulating material: Neopor with  $\lambda = 0.031$  W/m·K
- Fireproof version: up to REI 120

Article number	Type	Element length [mm]	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
211400020268	IPO 16	350	180 - 250	2.22	197.00
211400021507	IPO 20	350	180 - 250	2.22	212.00

## IPTS



Thermally insulated connector for connecting protruding reinforced concrete beams with ceiling slabs. Stainless steel rebar for corrosion protection.

**State height and width when ordering.**

- Beam width: 220-300 mm
- Standard height: 300-600 mm
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Weight [kg/pc.]	Price per piece [€]
211500018978	IPTS 1	7.13	347.00
211500018979	IPTS 2	11.22	405.00
211500018980	IPTS 3	16.21	510.00
211500018981	IPTS 4	22.64	675.00

## IPTW



Thermally insulated connector for connecting wall slabs to partition walls. Stainless steel rebar for corrosion protection.

**State wall width and wall height when ordering.**

- Wall width: 150 - 250 mm
- Wall height: made to measure (1,500-3,500 mm)
- Fireproof version: REI 90 (REI 120 if the structural load is reduced - see technical information)

Article number	Type	Weight [kg/pc.]	Price per piece [€]
211600018982	IPTW 1	8.30	510.00
211600018983	IPTW 2	13.17	640.00
211600018984	IPTW 3	22.04	737.00
211600018985	IPTW 4	36.35	846.00

# ISOPRO® 80/120 Concrete-Steel

## IP 80 SM



Thermal insulation element for transmitting bending moment and shear force when connecting protruding steel constructions to reinforced concrete ceiling slabs.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
2201000...	SM 14 Q8	180/200/220	7.4	319.00
2201000...	SM 14 Q10	180/200/220	8.4	335.00
2201000...	SM 14 QQ	180/200/220	8.6	353.00
2201000...	SM 20 Q10	180/200/220	18.8	485.00
2201000...	SM 20 Q12	180/200/220	19.6	503.00

Extension products for type SM	Surcharge per piece [€]
For heights 190, 210, 230–280 mm	19.00

## IP 80 SQ



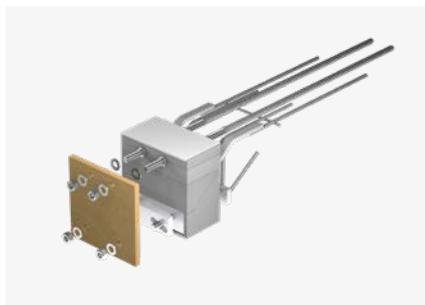
Thermally insulated connector for transmitting shear force when connecting supported steel constructions to reinforced concrete ceiling slabs.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
2202000...	SQ 8	180/200/220	5.1	196.00
2202000...	SQ 10	180/200/220	6.6	223.00
2202000...	SQ 12	180/200/220	7.5	250.00

Extension products for type SQ	Surcharge per piece [€]
For heights 190, 210, 230–280 mm	19.00

## IP 120 SM



Thermal insulation element for transmitting bending moment and shear force when connecting protruding steel constructions to reinforced concrete ceiling slabs.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Heights 260–280 mm available on request

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
2201000...	SM 14 Q8	180/200/220	8.90	384.00
2201000...	SM 14 Q10	180/200/220	9.60	400.00
2201000...	SM 14 QQ	180/200/220	9.80	419.00
2201000...	SM 20 Q10	180/200/220	22.00	583.00
2201000...	SM 20 Q12	180/200/220	22.90	602.00

Extension products for type IP 120 SM	Surcharge per piece [€]
For heights 190, 210, 230–280 mm	19.00

## IP 120 SQ



Thermally insulated connector for transmitting shear force when connecting supported steel constructions to reinforced concrete ceiling slabs.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$
- Heights 260–280 mm available on request

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
2202000...	SQ 8	180/200/220	5.90	253.00
2202000...	SQ 10	180/200/220	7.20	270.00
2202000...	SQ 12	180/200/220	8.60	303.00

Extension products for type IP 120 SM	Surcharge per piece [€]
For heights 190, 210, 230–280 mm	19.00

# ISOPRO® 80/120 Concrete-Timber

## IP 80 HM



Thermally insulated connector for transmitting bending moment, shear force, and horizontal forces when connecting protruding timber constructions to reinforced concrete components.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<b>220300011817</b>	HM 14 Q8 (with connection strut with front plate) <sup>1)</sup>	180	16.35	422.00
<b>990100014345</b>	Connection strut with front plate		8.95	103.00

<sup>1)</sup> HM consists of SM 14 Q8 with a height of 180 mm incl. connection strut with front plate

## IP 80 HQ



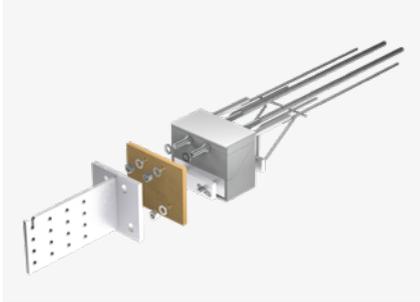
Thermally insulated connector for transmitting shear force and horizontal forces when connecting supported timber constructions to reinforced concrete components.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<b>220400011818</b>	HQ 10 (with connection strut with front plate) <sup>1)</sup>	180	15.15	326.00
<b>990100014345</b>	Connection strut with front plate		8.95	103.00

<sup>1)</sup> HQ consists of SQ 10 with height of 180 mm incl. connection strut with front plate

## IP 120 HM



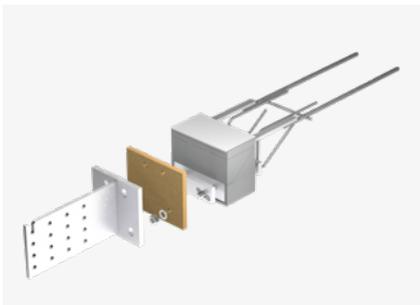
Thermally insulated connector for transmitting bending moment and shear force when connecting a protruding wooden construction to a reinforced concrete ceiling slab.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<a href="#">220300025418</a>	HM 14 Q8 (with connection strut with front plate) <sup>1)</sup>	180	18.60	487.00
<a href="#">990100014345</a>	Connection strut with front plate		8.95	103.00

<sup>1)</sup> HM consists of SM 14 Q8 with a height of 180 mm incl. connection strut with front plate

## IP 120 HQ



Thermally insulated connector for transmitting bending moment and shear force when connecting a supported wooden construction to a reinforced concrete ceiling slab.

- Element length: 220 mm
- Insulating material: Neopor with  $\lambda = 0.031 \text{ W/m}\cdot\text{K}$

Article number	Type	Height h [mm]	Weight [kg/pc.]	Price per piece [€]
<a href="#">220400025419</a>	HQ 10 (with connection strut with front plate) <sup>1)</sup>	180	16.20	373.00
<a href="#">990100014345</a>	Connection strut with front plate		8.95	103.00

<sup>1)</sup> HQ consists of SQ 10 with height of 180 mm incl. connection strut with front plate

# ISOPRO® overview

## Pallet overview ISOPRO® 120

Quantity [m/pal.]

Type	Type length [mm]	Element height h [mm]					
		160	180	200	220	240	250
IP 120 M 10 – M 80	1,000	22	18	18	16	14	14
IP 120 M 10 – M 40 2-part	1,000	20	20	20	20	20	20
IP 120 M 50 – M 80 2-part	1,000	20	20	20	20	20	20
IP 120 M 90 – M 120	1,000	16	16	16	14	12	12
IP 120 M 140 – M 150	500	-	6	5	5	4	4
IP 120 M 90 – M 120 2-part	1,000	16	16	16	16	16	16
IP 120 Q 10 – 50	1,000 , 500, 250	40	36	36	32	32	28
IP 120 Q 60 – 120	1,000 , 500, 250	20	18	18	16	16	14
IP 120 QQ 10 – 50	1,000 , 500, 250	30	27	27	24	24	21
IP 120 QQ 60 – 120	1,000 , 500, 250	20	18	18	16	14	14
IP 120 QS / QSZ	300	40	36	36	32	28	28
IP 120 QS / QSZ	400	36	36	32	32	28	28
IP 120 QS / QSZ	500	28	28	28	24	24	24
IP 120 D 20 – 100	500 + 500	8	7	6	6	6	4
IP 120 Z ISO	1,000	-	63	63	63	54	54
IP 120 A	350	-	-	84	72	60	60

## Pallet overview ISOPRO®

Quantity [m/pal.]

Type	Type length [mm]	Element height h [mm]					
		160	180	200	220	240	250
IP 10 – IP 75	1,000	22	18	18	16	14	14
IP 10 – IP 45 2-part	1,000	24	24	24	20	20	20
IP 50 – IP 75 2-part	1,000	20	20	20	20	20	20
IP 90 – IP 100	500 + 500	16	16	16	14	12	12
IP 90 – IP 100 2-part	500 + 500	16	16	16	16	16	16
IP 80 M 130 – M 140	500	-	6	5	5	4	4
IPT 110 – IPT 150	500 + 500	12	12	12	12	10	10
IPQ 10 – 50	1,000	40	36	36	32	32	28
IPQ 70 – 90	1,000	20	18	18	16	16	14
IPQ 100 – 120	1,000	20	18	18	16	14	14
IPQS, IPTQS, IPQZ, IPTQQS	300	40	36	36	32	28	28
IPQS, IPTQS, IPQZ, IPTQQS	400	36	36	32	32	28	28
IPQS, IPQZ, IPTQQS	500	28	28	28	24	24	24
IPTQ 10 – 50	500 + 500	30	27	27	24	24	21
IPTQ 70 – 110	500 + 500	20	18	18	16	14	14
IPTD 20 – 90	500 + 500	10	8	8	7	6	6
IPTD 100	500 + 500	8	7	6	5	5	4
IP 80 D 10 - 50	500	10	8	8	7	6	6
IP 80 D 60	500	8	7	6	5	5	4

# ISOMUR®

## ISOMUR® plus wall base element



Load-bearing thermal insulation elements in the lower and/or upper section of masonry. Efficient thermal insulation with a high load-bearing capacity in line with ETA-18/1063.

- Characteristic compressive strength mean value  $\geq 25.0 \text{ N/mm}^2$
- Thermal conductivity:
  - horizontal  $\lambda_{eq} = 0.14 \text{ W/(m}\cdot\text{K)}$
  - vertical  $\lambda_{eq} = 0.33 \text{ W/(m}\cdot\text{K)}$
- General type certification (aBG)
- Width: 115-240 mm

Article number	Type / width / height	Element length [mm]	PU [kg/pal.]	PU [pcs./pal.]	PU [m/pal.]	Price per m [€]	Price per piece [€]
<a href="#">290100004824</a>	ISOMUR® plus 11.5 - 11.3	600	930	120	72	32.60	19.60
<a href="#">290100004826</a>	ISOMUR® plus 15.0 - 11.3	600	990	100	60	35.20	21.10
<a href="#">290100004828</a>	ISOMUR® plus 17.5 - 11.3	600	918	80	48	39.40	23.60
<a href="#">290100004830</a>	ISOMUR® plus 20.0 - 11.3	600	990	80	48	42.50	25.60
<a href="#">290100004832</a>	ISOMUR® plus 24.0 - 11.3	600	966	60	36	45.90	27.50



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