

BUILDING  
COMMON GROUND



# Product List

valid from 1st February 2023



[www.maxfrank.com](http://www.maxfrank.com)



## Spacers

Fibre concrete spacers	12
Cast concrete spacers	24
Plastic spacers	26
Steel spacers	29
Fibre concrete distance tubes	31
Sealing cones and plugs	35
Spacers and distance tubes for drinking water application	41

## Formwork technologies

Pecafil® permanent formwork	46
Stremaform® stay-in-place formwork for working joints	51
Stremaform® stay-in-place formwork for expansion joints	64
Tubbox® column former	68
Zemdrain® CPF liner	73
Balcony and ceiling edge formwork	78
Box-out shutters and recess formers	81
Trennfit release agent	85
Formwork accessories	89

## Reinforcement technologies

Egcobox® thermal break balcony connector	94
Egcobox® FST steel thermal break connector	101
Egcodorn® shear force dowel	104
Stabox® continuity strip	111
MAX FRANK Coupler threaded connection	117

## Sealing technologies

Zemseal® sub-structure waterproofing system	124
Fradiflex® metal waterstop	127
Intec® injection hose system	132
Cresco® expanding waterstop	141

## Building acoustics

Sorp 10® room-acoustic sound absorber	146
Egcopal impact sound insulated shear force dowel	148
Egcosono stair landing bearing	152
Egcostep® stair flight decoupling	155
Egcoscal stair beddings	157
Egcodist wall and floor bearings	161
Egcovoid® void former	163



**BUILDING  
COMMON GROUND**



## OUR BUSINESS MODEL



We accompany our customers reliably through every building phase with a technically sophisticated and intensive intermeshing of industrial production, high-quality products and multifaceted services.

## HOW WE WORK



We listen attentively and ask the right questions – questions that penetrate to the core of the task. We at MAX FRANK call that: “BUILDING COMMON GROUND”.

## OUR STRENGTH



A wide range of products, high-quality product combinations, project solutions, intermeshing of planning, production and sales

## CUSTOMER BENEFITS



Saving of costs and time, solution from a single source

## THE COMMON APPROACH



Sustainable and safe reinforced concrete structures



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### Product Overview



## Products

With a reference search you can pinpoint the exact MAX FRANK product for your solution even faster and more precisely: simple filtering and targeted searches.

### Joint

Choose joint

Thermal insulation

Expanded polystyrene concrete quality

Reset filter

Save search

### Formwork

Choose formwork

Sound insulation

Precast element

### Sealing

Sealing with concreting

Fire protection

Force transfer

10 results found!



Continuity Strip Stabox - special coating



Continuity Strip Stabox - custom version SD



Continuity Strip Stabox - joint seal



Formwork elements for controlled crack joints Stremaforme with coated metal water stop



Formwork elements for expansion joints Stremaforme with rubber water bar cage and shear force transmission



Formwork elements for controlled crack joints Stremaforme with rubber water bar cage



Formwork elements for working joints Stremaforme with metal water stop



Formwork elements for working joints Stremaforme - custom shapes



Formwork elements for working joints Stremaforme with rubber water bar cage



Formwork elements for working joints Stremaforme with coated metal water stop

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## MAX FRANK BUILDINGS

The popular tool is integrated in the website and linked with extensive product information. The virtual landscape provides you with the optimal products for the following types of structure: railway station, bridge, office building, high-rise building, industrial building, sewage plant, museum, drinking water tank, tunnel, hydroelectric power station and residential building.



## PRODUCT FINDER

Simply filter by the application areas and product properties relevant for you and you will find the ideal product for your requirements.



## Joint Designer

The joint designer shows the range of connection joints in concrete structures according to the classification between construction joints, predetermined crack joints, expansion joints, sound separation joints and settlement joints.



## ALWAYS UP TO DATE

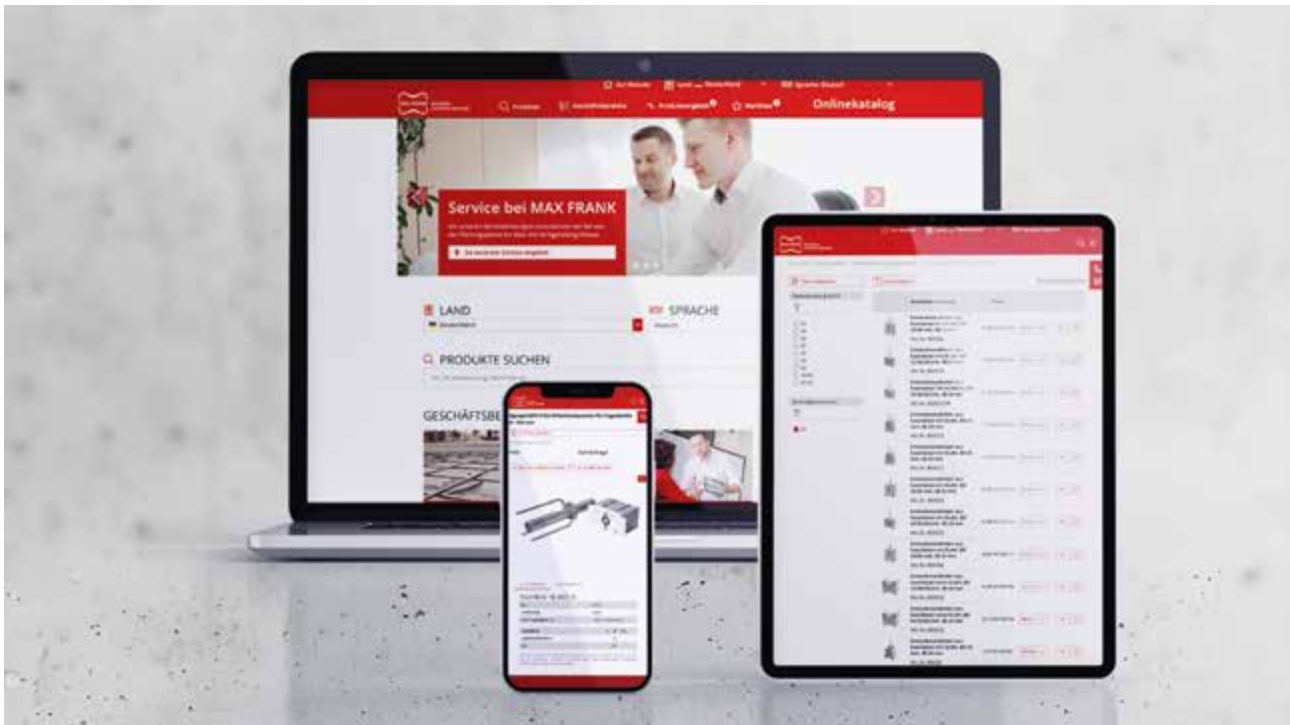
Never miss out! We keep you updated about new products, the latest software and special solutions. Simply sign up for our newsletter free of charge and without obligation and follow us on LinkedIn and YouTube!



## ONLINE CATALOGUE

You can find current product and price information in our online catalogue. Also use functions such as the product comparison, the watch list or the PDF download of article information.





## Online catalogue

Search, find and compare MAX FRANK articles.

From now on, this can be done easily online - with the new **online catalogue**.

In the online catalogue you will find a variety of product information, such as article numbers, pictures, descriptions, technical and logistics data and current prices.



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#### Search and filter

With search and filter options you can quickly find the desired items.

#### Product comparison

Select up to ten items and compare their features at a glance.

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Easily start a quote request for the items on the watch list.

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Create a PDF with the most important product information with just one click.

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### **Service at MAX FRANK is multifaceted and therefore very personal.**

With our services, we support you from the planning phase to beyond completion and create individual, holistic and economical project solutions together with you.

Our customer service team will be happy to advise you and is available Monday to Thursday from 7:30 a.m. to 5:00 p.m. and Fridays from 7:30 a.m. to 1:30 p.m.:



**+49 9427 189-320**



**[customerservice@maxfrank.de](mailto:customerservice@maxfrank.de)**

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### **Notes regarding the Product List**

We generally deliver on the basis of our general terms and conditions of sale and in the defined packaging units. Information about this can be found in the respective product areas. Different delivery quantities are possible on request and by arrangement. We charge a minimum quantity surcharge for these fractional quantities. A freight rate will be charged for shipment.



BUILDING  
COMMON GROUND

# Reinforcement technologies



## Reinforcement technologies

Reliable connection of individual components is often a challenge in reinforced concrete construction. MAX FRANK offers a comprehensive assortment of reinforcement technology products, suitable for different areas of the building, with various applications.



Egcoflex® thermal break balcony connector

94



Egcoflex® FST steel thermal break connector

101



Egcodorm® shear force dowel

104



Stabox® continuity strip

111



MAX FRANK Coupler threaded connection

117

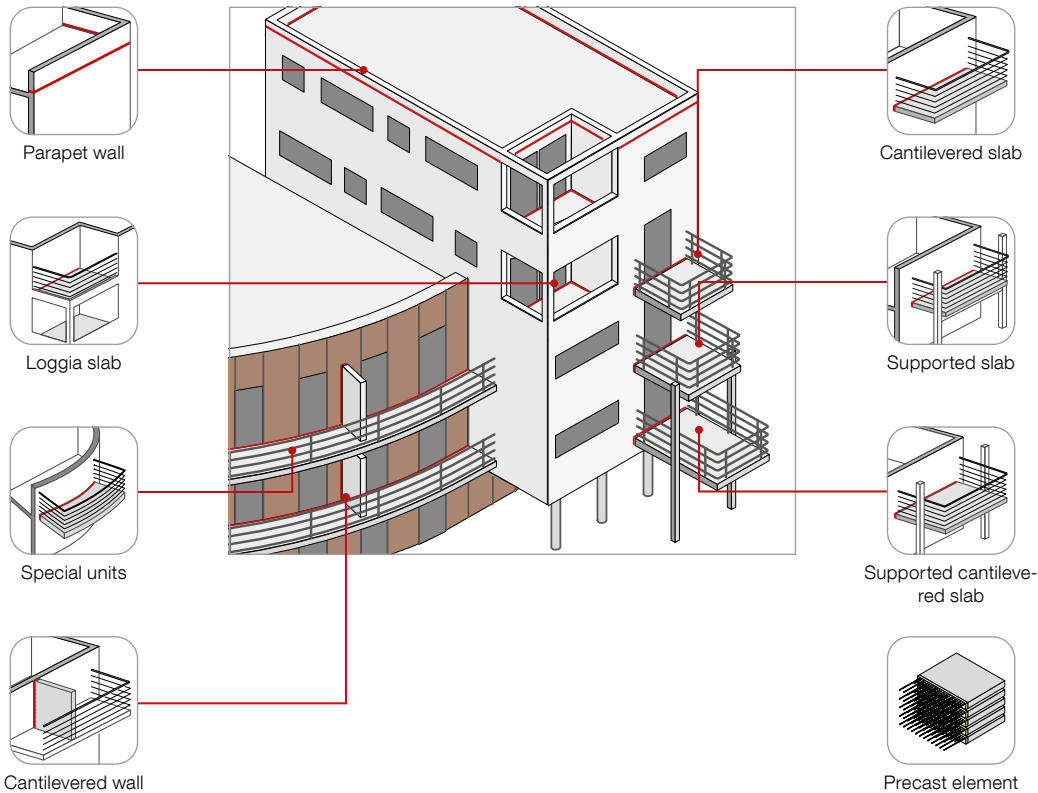


## Egcobox® thermal break balcony connector

Building users are demanding ever more in terms of savings on heating costs, a healthy room climate and the associated prevention of condensation and mould formation. Therefore, when planning, attention must be paid to minimizing thermal bridges in the area of the building shell. Thermal bridges can be reduced with the heat-insulating Egcobox® cantilever connector. Egcobox® structural connection units thermally isolate an exterior component and an interior component from each other. The structural function of Egcobox® is provided by a bar framework, made from reinforcing steel, which passes through the thermal insulation and thus connects the component to the building.

### ★ Advantages

- ETA-approved system, same types can be used EU-wide
- Simple installation due to close-fitting compression units
- All units can be individually adapted to geometric specifications
- Support for your detailed planning with CAD details, BIM files and tender texts
- Fast and simple design with the free Egcobox® design software



## Select the Egcobox® according to your requirements

- Insulation material (standard: Combi-Element, polystyrene, rock wool, phenolic foam)
- Insulating material thickness 80 mm and 120 mm, other dimensions on request
- Unit length
- Concrete cover
- Reinforcement layout
- Fire protection
- The unit shape can be adapted to the building or the component being connected, e.g. round units for concave or convex outer walls or diagonal elements for inclined balconies.

## European Technical Assessment

The Egcobox® thermal break balcony connector has a CE mark according to European Technical Assessment, ETA-19/0046.



## Type designation

Example: **MM70-VS-C45-h200-REI120-SW**

Unit type	Insulating material thickness	Load stage	Unit shape	Variant (bending shape)	Shear force reinforcement	Concrete cover	Unit height	Fire resistance rating	Insulating material
<b>M</b>	<b>M (80 mm)</b>	10	–	–	<b>VS</b>	C30	h160	–	PS
M±	L (100 mm)	20	<b>Standard length</b>	<b>straight connection</b>	V1	C35	h170	<b>REI120</b>	Polystyrene
V	XL (120 mm)	25			K	V2	C40		h175
V±		30	Short unit	HVS	V3	<b>C45</b>	h180		<b>SW</b>
A		40	Z	BH	V4	C50	h190		Rock wool
F		50	without constraint	BHS	VS±		<b>h200</b>		0,037 W/mK
O		60	CO	WOS	V1±		h210		PF
S		65	Corner unit	WU	V2±		h220		Phenolic foam
W		<b>70</b>	FO / F	WUS	V3±		h225		0,021 W/mK
		75	in two parts for installation in semi-prefabricated slabs		V4±		h230		PS-C1 <sup>1)</sup>
		80			V6±		h240		Polystyrene
		110			V7±		h250		0,031 W/mK
		120			V8±		h280	PF-C1 <sup>1)</sup>	
		130					h300	Phenolic foam	
		150						0,021 W/mK	

Other dimensions and insulating materials on request.

<sup>1)</sup> each with rock wool fire protection strips

## Egcobox® thermal break balcony connector

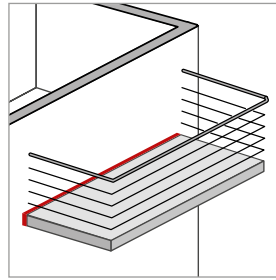
For further article and price information on the Egcobox® thermal break balcony connector, please refer to the MAX FRANK online catalogue.



### Egcobox® type MM

#### Egcobox® type MXL

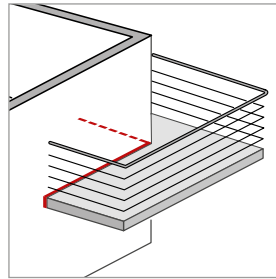
- For cantilever slabs for the transmission of moments and shear forces
- Joint width: 80 mm
- Joint width: 120 mm



### Egcobox® type MM-CO

#### Egcobox® type MXL-CO

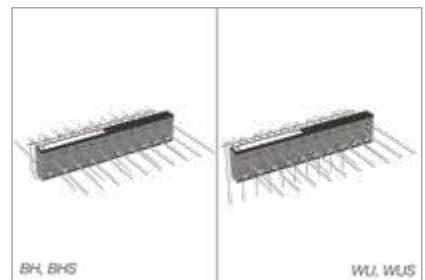
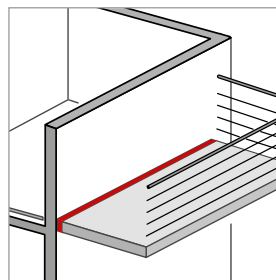
- For cantilever slabs for the transmission of moments and shear forces in the corner area
- Possible as a complete solution or separate sub-element
- For the complete connection of a corner, a 1<sup>st</sup> layer (e.g. 35 mm) + 2<sup>nd</sup> layer (e.g. 50 mm) is always required (equivalent to  $\Delta 15$  mm)
- The sub-elements are also available separately
- Joint width: 80 mm
- Joint width: 120 mm



### Egcobox® type MM-BH /-WU /-BHS /-WUS

#### Egcobox® type MXL-BH /-WU /-BHS /-WUS

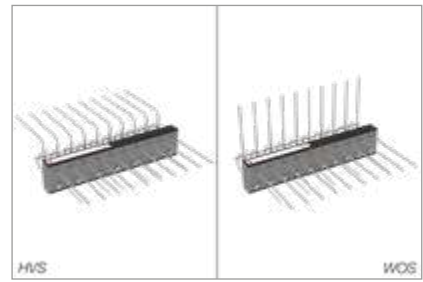
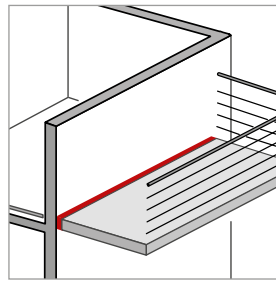
- For cantilever slabs with height offset or wall connection for the transmission of moments and shear forces
- Version (Var1) BH /-WU with wall width  $\geq 220$  mm
- Version (Var1) BHS /-WUS with wall width 175 to 215 mm
- Joint width: 80 mm
- Joint width: 120 mm



**Egco<sup>®</sup> type MM-HVS /-WOS**

**Egco<sup>®</sup> type MXL-HVS /-WOS**

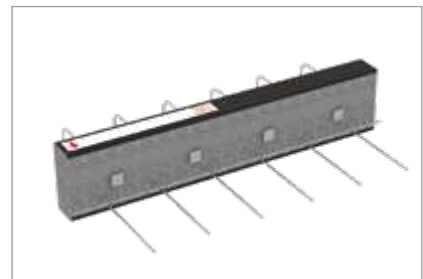
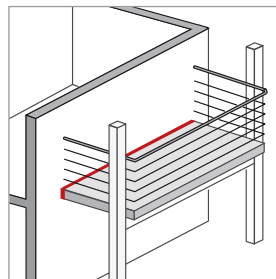
- For cantilever slabs with height offset or wall connection for the transmission of moments and shear forces
- Version (Var2) HVS /-WOS with wall width from 175 mm
- Joint width: 80 mm
- Joint width: 120 mm



**Egco<sup>®</sup> type VM**

**Egco<sup>®</sup> type VXL**

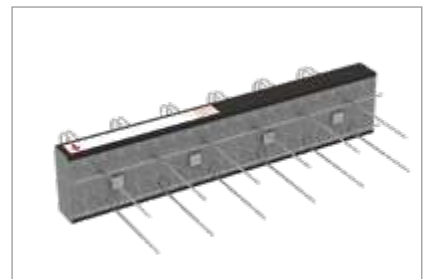
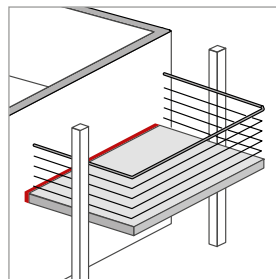
- For supported slabs for the transmission of shear forces
- Joint width: 80 mm
- Joint width: 120 mm



**Egco<sup>®</sup> type VM±**

**Egco<sup>®</sup> type VXL±**

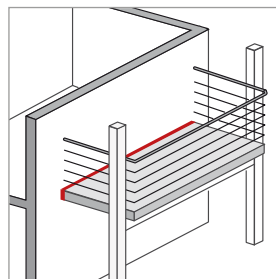
- For supported slabs for the transmission of positive and negative shear forces
- Joint width: 80 mm
- Joint width: 120 mm



**Egco<sup>®</sup> type VM-K**

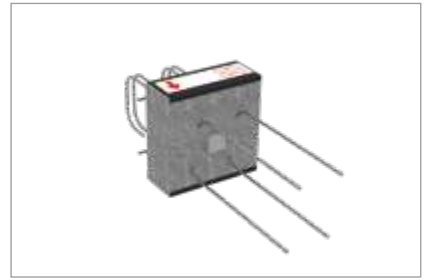
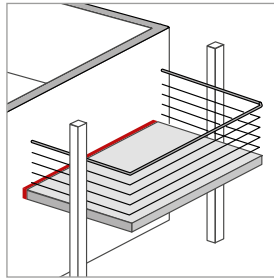
**Egco<sup>®</sup> type VXL-K**

- For supported slabs for the transmission of shear forces
- Joint width: 80 mm
- Joint width: 120 mm



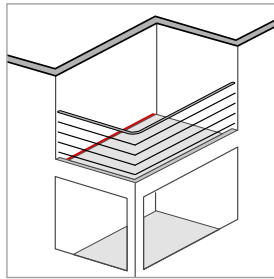
**Egcobox® type VM-K±**  
**Egcobox® type VXL-K±**

- For supported slabs for the transmission of positive and negative shear forces
- Joint width: 80 mm
- Joint width: 120 mm



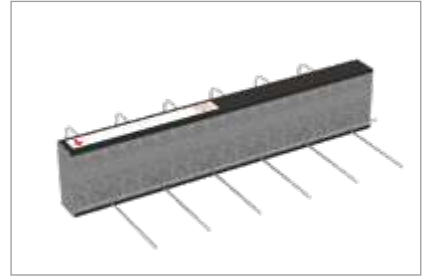
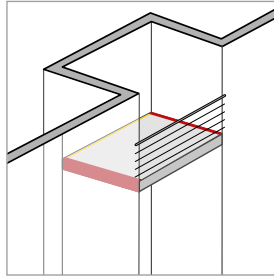
**Egcobox® type MM±**  
**Egcobox® type MXL±**

- For cantilever slabs for the transmission of positive and negative moments and shear forces
- Joint width: 80 mm
- Joint width: 120 mm



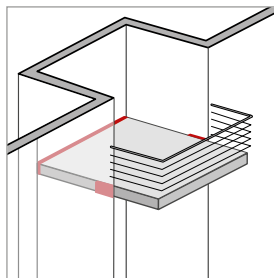
**Egcobox® type VM Z**  
**Egcobox® type VXL Z**

- For force-free connection of laggias for the transmission of shear forces
- Joint width: 80 mm
- Joint width: 120 mm



**Egcobox® type VM Z-K**  
**Egcobox® type VXL Z-K**

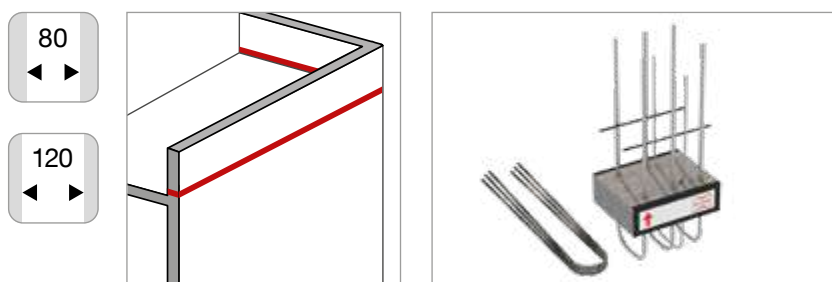
- For force-free connection of laggias for the transmission of shear forces
- Joint width: 80 mm
- Joint width: 120 mm





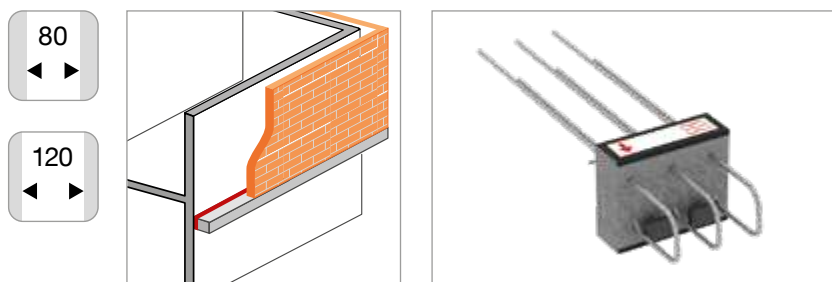
**Egco<sup>®</sup> type AM**  
**Egco<sup>®</sup> type AXL**

- For parapets
- Joint width: 80 mm
- Joint width: 120 mm



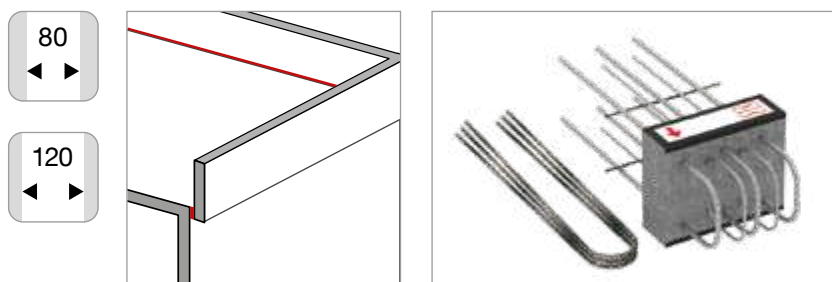
**Egco<sup>®</sup> type OM**  
**Egco<sup>®</sup> type OXL**

- For slab corbels as support for facing masonry
- Joint width: 80 mm
- Joint width: 120 mm



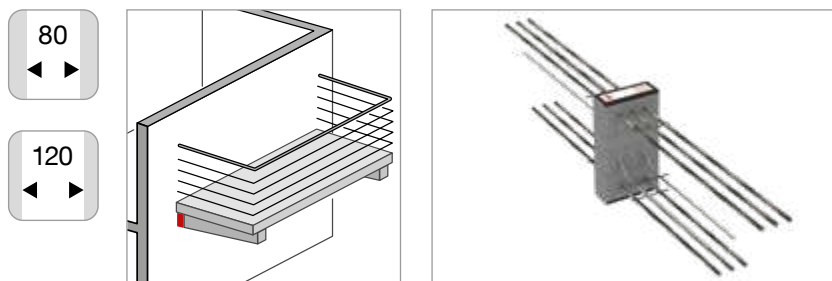
**Egco<sup>®</sup> type FM**  
**Egco<sup>®</sup> type FXL**

- For balustrades
- Joint width: 80 mm
- Joint width: 120 mm



**Egco<sup>®</sup> type SM**  
**Egco<sup>®</sup> type SXL**

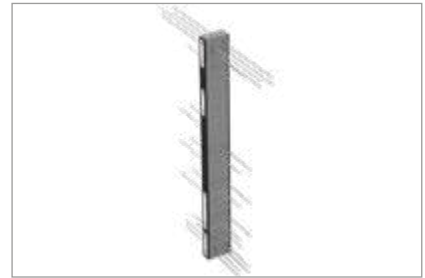
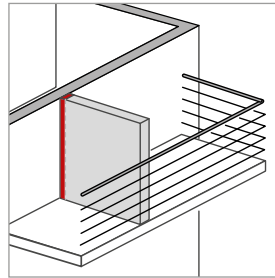
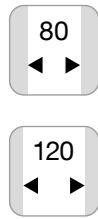
- For cantilevered beams
- Joint width: 80 mm
- Joint width: 120 mm



### Egcobox® type WM

### Egcobox® type WXL

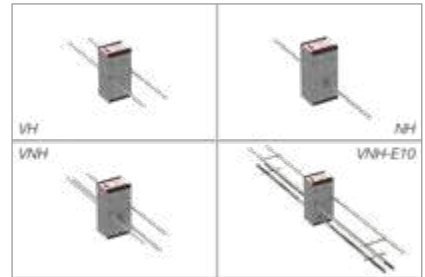
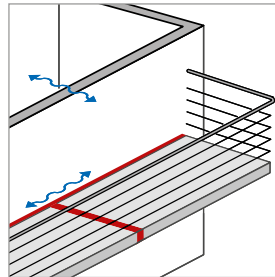
- For cantilevered (floor-to-ceiling) wall panels
- Joint width: 80 mm
- Joint width: 120 mm



### Egcobox® type MM short units (modules)

### Egcobox® type MXL short units (modules)

- For the transmission of normal forces and horizontal shear forces
- Joint width: 80 mm
- Joint width: 120 mm



### Egcobox® insulation strips

As a supplementary insulating element for various areas of application.



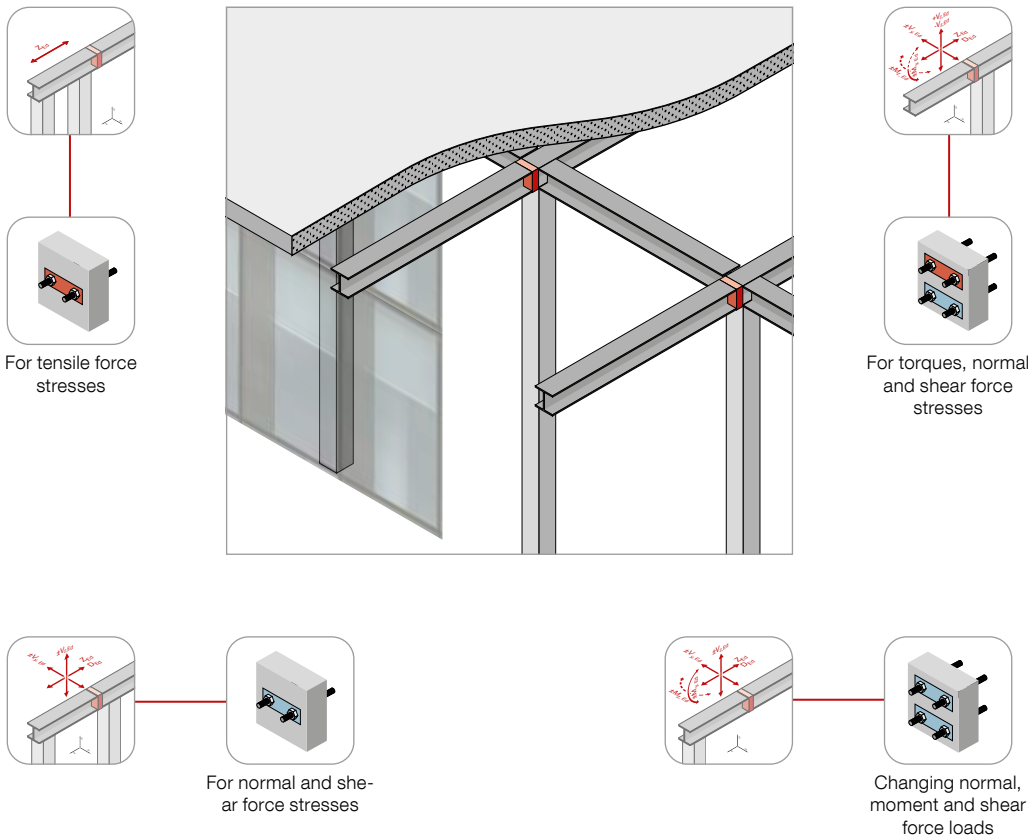


## Egcobox® FST steel thermal break connector

In the case of steel structures, in both industrial and residential construction, special attention must be paid to detail planning when a component penetrates the outer shell of a building. With conventional construction methods, thermal bridges are created at the transition from the building to the projecting component. This leads to increased energy consumption and runs the risk of condensation and mould formation. Egcobox® FST steel connection is an optimal solution for the thermal separation of steel structures and thus reduces thermal bridges, without limiting the structural effectiveness of the support system. Insulation for the connection unit is available in polystyrene or rock wool, on request.

### ★ Advantages

- Reduces thermal bridges - thereby avoiding condensation and mould formation
- High structural functionality and corrosion resistance
- Project-specific and dimensionally accurate production of the Egcobox® FST according to the desired installation geometry
- Versatile application opportunities in new builds or in modernization projects



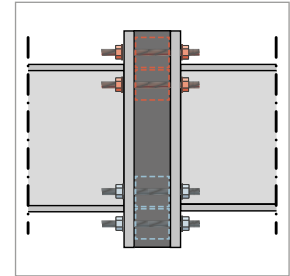
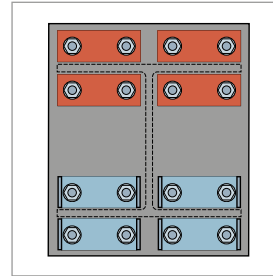
## Egcobox® FST composition

Egcobox® FST is manufactured on a project-by-project basis and precisely on the basis of the existing installation geometry as well as the static requirements. With Egcobox® FST, distinction is made between components for tensile stresses and those for normal or shear force stresses. A component consists of threaded rods with a diameter of 16 mm or 22 mm, arranged in pairs. The on-site modification or assembly of Egcobox® FST is unnecessary due to the precisely dimensioned and tailored manufacturing.



## Type designation

- FZST
- FVST



### Example: FST 16 – 4 / 4

Type	Load stage (thread diameter) mm	Number of FZST components for tensile force stress	Number of FVST components for normal and shear force stresses	Insulating material
<b>FST</b>	<b>16</b>	0	0	–
	22	1	1	<b>Polystyrene</b>
		2	2	SW
		<b>4</b>	<b>4</b>	Rock wool

The type designation does not indicate the dimensions of the Egcobox® FST. The Egcobox® FST is factory-adjusted to the existing installation geometry. The data required for the manufacture can easily be created with the help of the design forms in the technical brochure.

## CE marking

The Egcobox® FST steel thermal break connector has a CE marking, declaration of performance according to Annex III of Regulation (EU) No. 305/2011.



### Egcobox® FST steel thermal break connector

WG: 263

	Egcobox® type	Joint width mm	Unit height mm	Unit length mm
	FST16-1/0	80	≥ 60	≥ 180
	FST22-1/0	80	≥ 60	≥ 180
	FST16-0/1	80	≥ 80	≥ 180
	FST22-0/1	80	≥ 80	≥ 180
	FST16-1/1	80	≥ 125	≥ 180
	FST22-1/1	80	≥ 125	≥ 180
	FST16-2/2	80	≥ 230	≥ 180
	FST22-2/2	80	≥ 230	≥ 180
	FST16-4/4	80	≥ 230	≥ 340
	FST22-4/4	80	≥ 230	≥ 340
	FST16-0/2	80	≥ 145	≥ 180
	FST22-0/2	80	≥ 145	≥ 180
	FST16-0/4	80	≥ 275	≥ 180
	FST22-0/4	80	≥ 275	≥ 180
	FST16-0/8	80	≥ 275	≥ 340
	FST22-0/8	80	≥ 275	≥ 340

The precise dimensions and distances between the individual components are to be specified when ordering.

Design templates can be taken from the technical brochure.

The Egcobox® FST steel connection is made of materials of corrosion resistance class III.

The Egcobox® FST steel connection is made of polystyrene (standard).

The option to manufacture from rock wool depends on the existing geometry and must be checked by our technical consultants in the individual case.

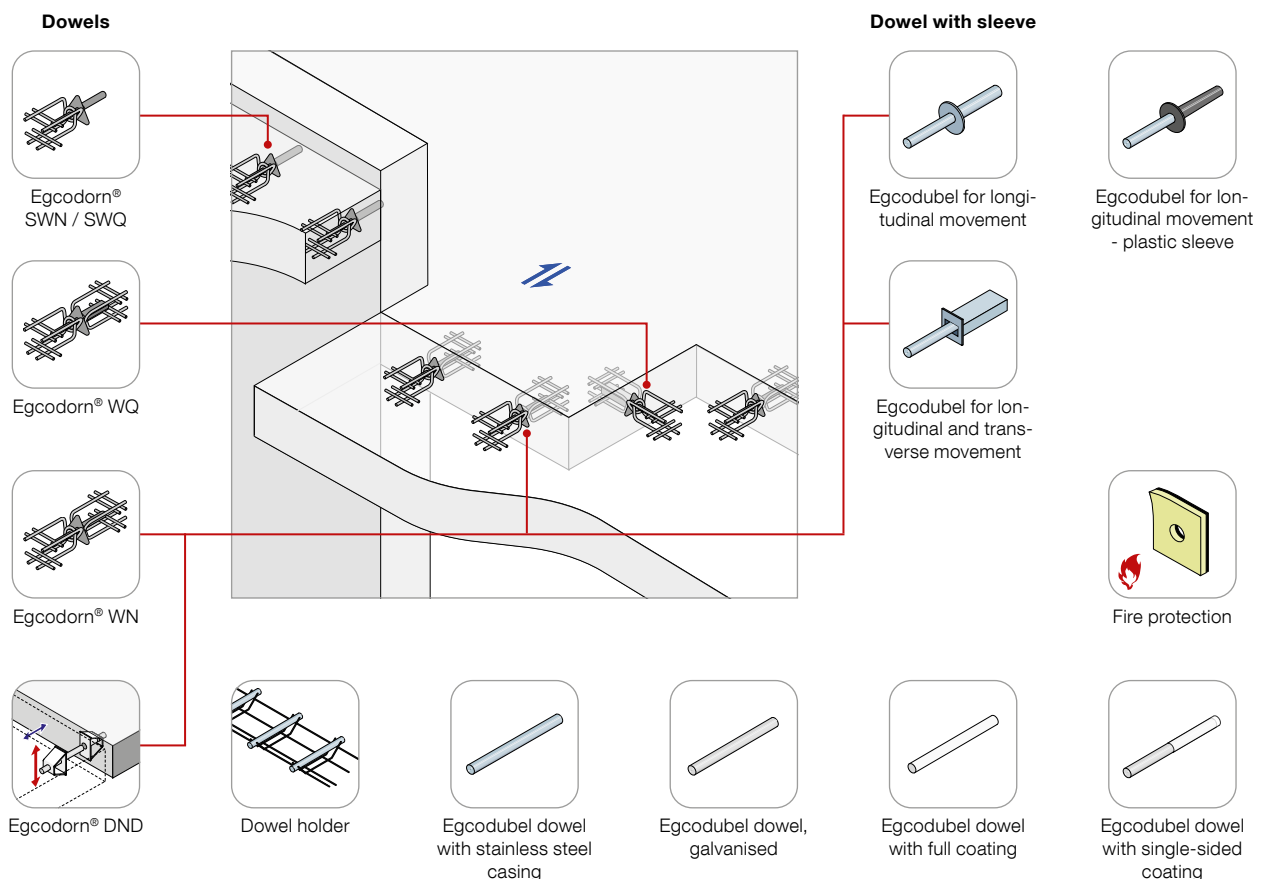


## Egcodorn® shear force dowel

Expansion joints are provided in concrete structures to decouple components and avoid stress cracks. Shear force dowels or shear dowels are used for the transmission of shear forces which occur in such joints. There are three basic types, which are designed for different applications. For high static loads, the Egcodorn® shear force dowel system offers security in planning and execution. Egcodorn® DND is the optimal solution if the dynamic loads predominate, as with joints in road surfaces. Egcodubel is the most economical product for structural connections.

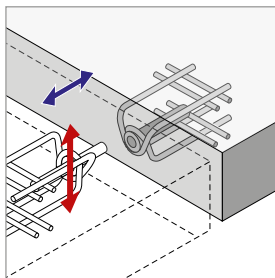
### ★ Advantages

- Simplification of formwork and reinforcement work on expansion joints
- Permanent corrosion protection through high quality materials
- Rational construction process through product combinations of preassembled Stremaform® formwork elements with the Egcodorn® shear force dowel system
- Free Egcodorn design software is available for download



## Egcodorn® WN

- Shear force dowels for very high static loads with DIBt approval Z-15.7-301
- The normally movable Egcodorn® WN allows only displacements in the direction of the longitudinal axis of the dowel. The dowels must be carefully arranged in the direction of displacement and aligned in parallel with each other



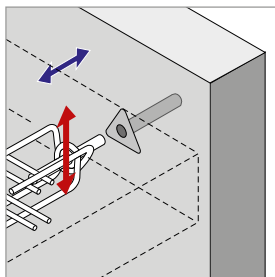
WG: 119

Item No.	Type	Weight kg/pce
EGCODORNWN040	WN40	2.70
EGCODORNWN050	WN50	4.30
EGCODORNWN070	WN70	6.00
EGCODORNWN095	WN95	8.80
EGCODORNWN100	WN100	9.20
EGCODORNWN120	WN120	15.50
EGCODORNWN150	WN150	16.20
EGCODORNWN210	WN210	28.80
EGCODORNWN300	WN300	30.40
EGCODORNWN350	WN350	34.00
EGCODORNWN400	N400	60.00

Articles are suitable for joint width 0-60 mm; special types up to 80 mm joint width on request.

## Egcodorn® SWN

- Shear force dowels for very high static loads with DIBt approval Z-15.7-301 and anchor body on one side, for optimal use in walls
- The normally movable Egcodorn® SWN allows only displacement in the direction of the longitudinal axis of the dowel.



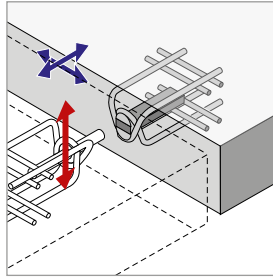
WG: 119

Item No.	Type	Weight kg/pce
EGCODORNSWN040	SWN040	1.826
EGCODORNSWN050	SWN050	2.746
EGCODORNSWN070	SWN070	3.816
EGCODORNSWN095	SWN095	5.501
EGCODORNSWN100	SWN100	5.892
EGCODORNSWN120	SWN120	9.355
EGCODORNSWN150	SWN150	10.097
EGCODORNSWN210	SWN210	16.799
EGCODORNSWN300	SWN300	21.944
EGCODORNSWN350	SWN350	21.944

Articles are suitable for joint width 0-60 mm; special types up to 80 mm joint width on request.

## Egcodorn® WQ

- Shear force dowels for very high static loads with DIBt approval Z-15.7-301
- If displacements occur both along and laterally to the dowel axis, the laterally displaceable Egcodorn® WQ must be used. For curved component edges or large joint lengths, the Egcodorn® WQ should be used



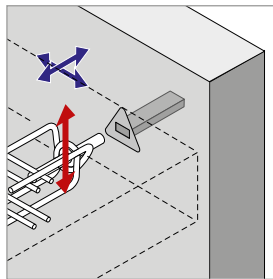
WG: 119

Item No.	Type	Weight kg/pce
EGCODORNWQ040	WQ40	3.10
EGCODORNWQ050	WQ50	4.60
EGCODORNWQ070	WQ70	6.50
EGCODORNWQ095	WQ95	9.30
EGCODORNWQ100	WQ100	9.70
EGCODORNWQ120	WQ120	16.20
EGCODORNWQ150	WQ150	17.30
EGCODORNWQ210	WQ210	30.00
EGCODORNWQ300	WQ300	32.00
EGCODORNWQ350	WQ350	35.80
EGCODORNQ400	Q400	61.00

Articles are suitable for joint width 0-60 mm; special types up to 80 mm joint width on request.

## Egcodorn® SWQ

- Shear force dowels for very high static loads with DIBt approval Z-15.7-301 and anchor body on one side, for optimal use in walls
- If displacements occur both along and laterally to the dowel axis, the laterally displaceable Egcodorn® WQ must be used. For curved component edges or large joint lengths, the Egcodorn® WQ should be used



WG: 119

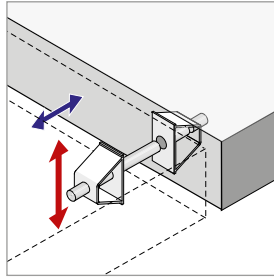
Item No.	Type	Weight kg/pce
EGCODORNSWQ040	SWQ040	2.030
EGCODORNSWQ050	SWQ050	2.955
EGCODORNSWQ070	SWQ070	4.104
EGCODORNSWQ095	SWQ095	5.830
EGCODORNSWQ100	SWQ100	6.273
EGCODORNSWQ120	SWQ120	9.730
EGCODORNSWQ150	SWQ150	10.772
EGCODORNSWQ210	SWQ210	17.627
EGCODORNSWQ300	SWQ300	23.020
EGCODORNSWQ350	SWQ350	23.020

Articles are suitable for joint width 0-60 mm; special types up to 80 mm joint width on request.



## Egcodorn® DND

- Transverse force dowels for dynamic loads with DIBt approval Z-15.7-266
- For dynamically stressed expansion joints, the Egcodorn® DND is currently the only approved shear force dowel connection. The main area of application is vehicle-accessible joints, for example in mass-spring systems or multi-storey car parks

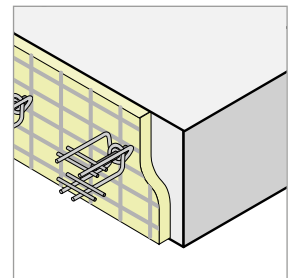


WG: 117

Item No.	Type	Weight kg/pce
DND040	DND40	2.55
DND050	DND50	3.13
DND070	DND70	4.61
DND095	DND95	6.67
DND100	DND100	7.89
DND120	DND120	9.36
DND150	DND150	12.23
DND210	DND210	19.59
DND300	DND300	34.36
DND350	DND350	38.19

## Stremaform® jointing formwork

In order to ensure a fast and efficient construction process, Egcodorn dowels can be integrated into pre-fabricated Stremaform® expansion joint formwork units. The assembly is then carried out section by section using a crane, which reduces physical strain on-site. For more information about Stremaform®, see page 51.



## Fire protection collar, fire resistance rating F120/R120

WG: 119

	Item No.	Joint width mm	For Egcodorn type	For Egcodubel with diameter mm
		EDBRAND20040	20	WN040, WQ040
EDBRAND20050		20	WN050, WQ050	25
EDBRAND20070		20	WN070, WQ070	27
EDBRAND20095		20	WN095, WQ095	30
EDBRAND20120		20	WN120, WQ120	-
EDBRAND20150		20	WN150, WQ150	37
EDBRAND20210		20	WN210, WQ210	-
EDBRAND20300350		20	WN300, WQ300, WN350, WQ350, N400, Q400	-

Further dimensions available on request.

**Egcodubel Standard - S355**

WG: 120

 Yield strength core material  $f_{yk} = 355 \text{ N/mm}^2$ .

	Item No.	Corrosion protection	Type of sleeve	Diameter	Sleeve length	Length
				mm	mm	mm
	EDM20S355	Stainless steel	-	20	-	315
	EDM22S355	Stainless steel	-	22	-	340
	EDM27S355	Stainless steel	-	27	-	405
	EDM30S355	Stainless steel	-	30	-	445
	EDV20S355	Galvanised	-	20	-	320
	EDV22S355	Galvanised	-	22	-	350
	EDV25S355	Galvanised	-	25	-	385
EDV30S355	Galvanised	-	30	-	450	
	EDM20S355H	Stainless steel	Plastic	20	200	315
	EDM22S355H	Stainless steel	Plastic	22	210	340
	EDM27S355H	Stainless steel	Plastic	27	240	405
	EDM30S355H	Stainless steel	Plastic	30	260	445
	EDV20S355H	Galvanised	Plastic	20	200	320
	EDV22S355H	Galvanised	Plastic	22	210	350
	EDV25S355H	Galvanised	Plastic	25	230	385
EDV30S355H	Galvanised	Plastic	30	260	450	
	EDM20S355HI	Stainless steel	Stainless steel	20	200	315
	EDM22S355HI	Stainless steel	Stainless steel	22	210	340
	EDM27S355HI	Stainless steel	Stainless steel	27	240	405
	EDM30S355HI	Stainless steel	Stainless steel	30	260	445
	EDM20S355HQI	Stainless steel	Stainless steel, transverse movement	20	200	315
	EDM22S355HQI	Stainless steel	Stainless steel, transverse movement	22	215	340
	EDM27S355HQI	Stainless steel	Stainless steel, transverse movement	27	245	445
	EDM30S355HQI	Stainless steel	Stainless steel, transverse movement	30	265	445

All anchor sleeves are longitudinally adjustable, the HQI types are longitudinally and transversely adjustable. The diameter indication for Egcodubel with stainless steel casing refers to the external diameter. The diameter of the respective steel core is the external diameter minus 2 mm.

Spacers

Formwork technologies

Reinforcement technologies

Sealing technologies

Building acoustics

## Egcodubel high-strength - HF

WG: 120




Yield strength core material  $f_{yk} = 750 \text{ N/mm}^2$ .

	Item No.	Corrosion protection	Type of sleeve	Diameter	Sleeve length	Length
				mm	mm	mm
	EDM20HF	Stainless steel	-	20	-	315
	EDM22HF	Stainless steel	-	22	-	340
	EDM27HF	Stainless steel	-	27	-	405
	EDM30HF	Stainless steel	-	30	-	445
	EDM37HF	Stainless steel	-	37	-	535
	EDV20HF	Galvanised	-	20	-	320
	EDV22HF	Galvanised	-	22	-	350
	EDV25HF	Galvanised	-	25	-	385
	EDV30HF	Galvanised	-	30	-	450
	EDM20HFH	Stainless steel	Plastic	20	200	315
	EDM22HFH	Stainless steel	Plastic	22	210	340
	EDM27HFH	Stainless steel	Plastic	27	240	405
	EDM30HFH	Stainless steel	Plastic	30	260	445
	EDV20HFH	Galvanised	Plastic	20	200	320
	EDV22HFH	Galvanised	Plastic	22	210	350
	EDV25HFH	Galvanised	Plastic	25	230	385
	EDV30HFH	Galvanised	Plastic	30	260	450
		EDM20HFHI	Stainless steel	Stainless steel	20	200
EDM22HFHI		Stainless steel	Stainless steel	22	210	340
EDM27HFHI		Stainless steel	Stainless steel	27	240	405
EDM30HFHI		Stainless steel	Stainless steel	30	260	445
EDM37HFHI		Stainless steel	Stainless steel	37	305	535
	EDM20HFHQI	Stainless steel	Stainless steel, transverse movement	20	200	315
	EDM22HFHQI	Stainless steel	Stainless steel, transverse movement	22	215	340
	EDM27HFHQI	Stainless steel	Stainless steel, transverse movement	27	245	405
	EDM30HFHQI	Stainless steel	Stainless steel, transverse movement	30	265	445
	EDM37HFHQI	Stainless steel	Stainless steel, transverse movement	37	310	535

All anchor sleeves are longitudinally adjustable, the HQI types are longitudinally and transversely adjustable. The diameter indication for Egcodubel with stainless steel casing refers to the external diameter. The diameter of the respective steel core is the external diameter minus 2 mm.

## Egcodubel for roadway slabs


WG: 120

	Description	Item No.	Corrosion protection	Type of sleeve	Diameter	Length
					mm	mm
	for roadway slabs	EDV25S235	Galvanised	-	25	500
		EDV25S235B	Plastic coating	-	25	500
						
	for roadway slabs, with coating on one side	EDV25S235E	Galvanised	Expansion sleeve	25	500

Article EDV25S235B with CE mark

**Dowel holder for roadway slabs**

WG: 120

	Item No.	Dowel spacing mm	Length mm	Weight kg/m
	TDFAHAL250	250	2250	0.82

Further dimensions available on request.  
Please specify the desired altitude.  
Delivery is carried out with separate freight.

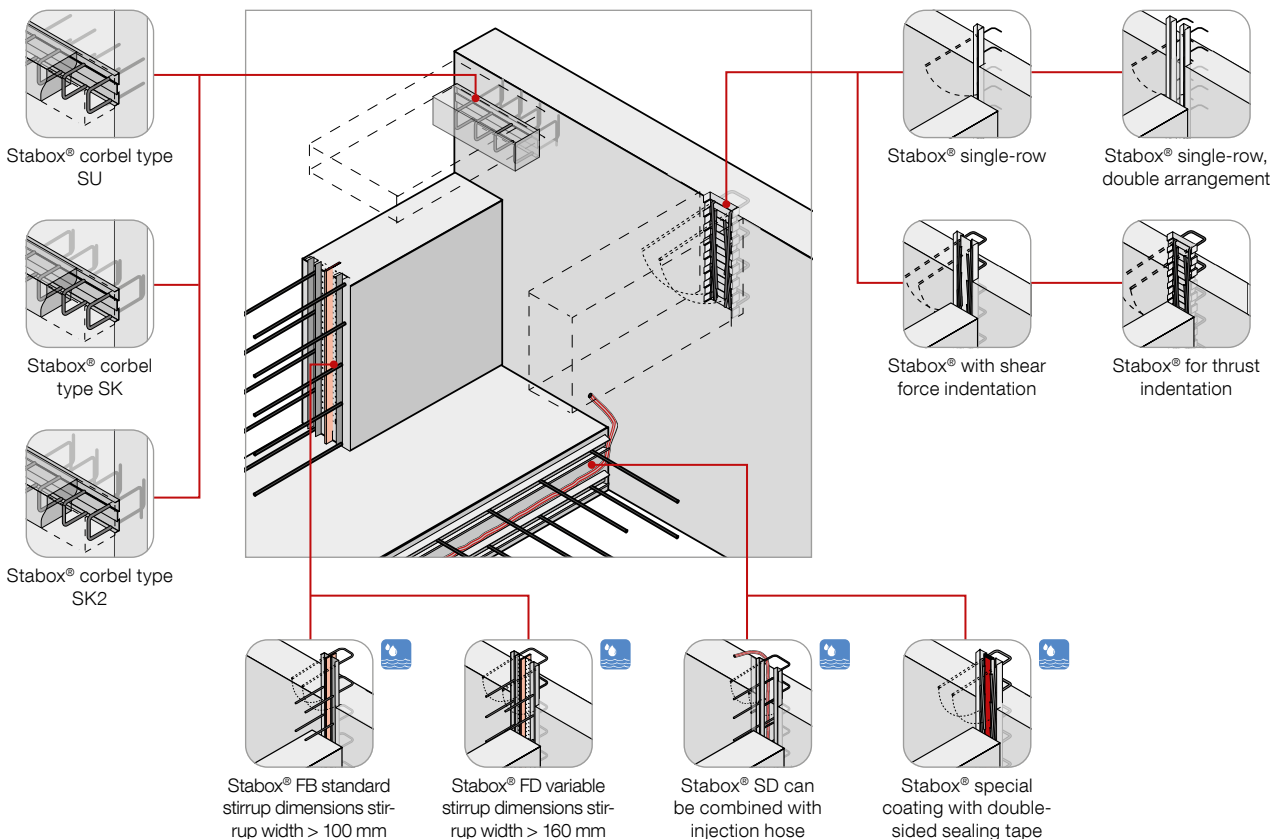


## Stabox® continuity strip

Stabox® reinforcement connections enable the force-locked connection of reinforced concrete components, which are created and concreted in several construction sections as a result of rational formwork systems. Based on the coordinated geometry according to Eurocode and National Annex, Stabox® standard and special connections meet the maximum requirement of an indented joint design. Continuity Strips are available with rebar diameters of 8, 10 and 12 mm. The material input depends on the respective national requirements.

### ★ Advantages

- Simplification of formwork on concrete working joints
- No need to pierce the formwork
- Individual Stabox® special versions can be produced at short notice



## Stabox® single-row continuity strip

The single-row design of the Stabox® continuity strip opens up many possible applications. Very narrow cross-sections can be connected in a force-locked manner. The low weight of the single-row connections allows easy installation of the access boxes on the formwork. Through the systematic arrangement of two Stabox® connections, double-section reinforcement layers can also be installed, which additionally results in a high flexibility of the laying distances (e.g. slab height or wall thickness) and high shear forces can be transmitted. Stabox® single-row continuity strips are available in standard and special versions.



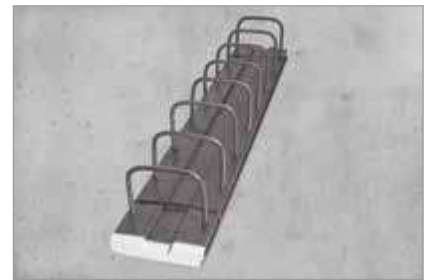
WG: 74

	Item No.	Type	Steel diameter	Stirrup spacing	Length	Pallet content	Weight	Weight
			mm	mm	m	Pcs	kg/pce	kg/pallet
	STA05L0815	5 L	8	150	1.25	150	2.78	437
	STA05L0820	5 L	8	200	1.25	150	2.36	375
	STA05L1015	5 L	10	150	1.25	150	3.77	585
	STA05L1020	5 L	10	200	1.25	150	3.10	485
	STA07L1010	7 L	10	100	1.25	120	5.26	652
	STA07L1215	7 L	12	150	1.25	150	5.62	862
	STA07L1220	7 L	12	200	1.25	150	4.52	698
	STA09L1210	9 L	12	100	1.25	120	8.07	988

Please refer to the table "Standard Dimensions" as well as the data for other geometrical conditions.

## Stabox® S double-row continuity strip

Stabox® S continuity strip offers the highest joint category "indented joint" according to Eurocode 2 for the dimensioning of the shear force transmission. The shear force design resistance for all load cases (after type test, type static calculation and type test report) can be taken from the Stabox® brochure. Stabox® S connections are available in standard and special versions.



WG: 74

	Item No.	Type	Steel diameter	Stirrup spacing	Length	Pallet content	Weight	Weight
			mm	mm	m	Pcs	kg/pce	kg/pallet
	STA09B0815	9 B	8	150	1.25	120	4.44	552
	STA09B1015	9 B	10	150	1.25	120	5.88	725
	STA12B0815	12 B	8	150	1.25	120	5.12	634
	STA12B1015	12 B	10	150	1.25	120	7.18	882
	STA12B1215	12 B	12	150	1.25	80	10.89	891
	STA15B0815	15 B	8	150	1.25	120	5.16	639
	STA15B1015	15 B	10	150	1.25	120	7.70	944
	STA15B1215	15 B	12	150	1.25	80	11.55	944
	STA15B1220	15 B	12	200	1.25	80	9.05	744
	STA19B0815	19 B	8	150	1.25	80	5.34	447
	STA19B1010	19 B	10	100	1.25	60	10.82	669
	STA19B1015	19 B	10	150	1.25	80	7.89	651
	STA19B1210	19 B	12	100	1.25	60	17.48	1069
	STA19B1215	19 B	12	150	1.25	60	12.52	771
	STA19B1220	19 B	12	200	1.25	80	10.09	827
	STA22B1015	22 B	10	150	1.25	80	8.89	731
	STA22B1210	22 B	12	100	1.25	60	18.02	1101
	STA22B1215	22 B	12	150	1.25	60	12.95	797
	STA25B1210	25 B	12	100	1.25	60	18.72	1143
	STA25B1215	25 B	12	150	1.25	60	13.54	832

Please refer to the table "Standard Dimensions" as well as the data for other geometrical conditions. Standard short units and connections for precast plants on enquiry.

**Standard dimensions**

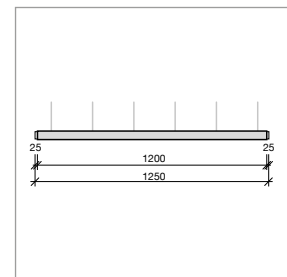
Steel Ø mm	Possible hook/ stirrup shape	Possible hook/ stirrup spacing s mm	Number of stir- rups and hooks with standard unit length	Stirrup height h mm	Hook length v mm	Overlap length l <sub>0</sub> mm	Unit length l m
8	L / B	100 / 150 / 200	12 / 8 / 6	170	100	260	1,25
10	L / B	100 / 150 / 200	12 / 8 / 6	170	100	300	1,25
12	L / B	100 / 150 / 200	12 / 8 / 6	170	100	390	1,25

**Technical notes on Stabox® continuity strips**

- With the standard types of the Stabox® continuity strips, the stirrup dimensions such as stirrup height h and overlap length l<sub>0</sub> are manufactured in accordance with the Stabox® type static calculation and type test report.
- For production reasons, the overlap length of the steel diameter of 8 mm is produced with l<sub>0</sub> = 260 mm and thus deviates from the minimum value of the overlap length according to the Stabox® type test.
- The unit thickness “d” of the access boxes is between 30 and 50 mm depending on the steel diameter and spacing.
- Due to manufacturing and installation conditions, the stirrup height may vary by 10 to 20 mm.

**Access box length**

The length of the access box without foam polystyrene end caps is 1.20 m per unit. With foam polystyrene end caps at each end, they have an installation length of 1.25 m.

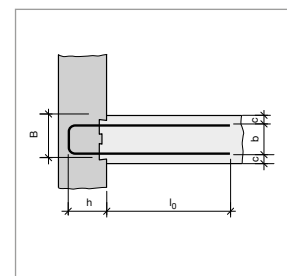


**Access box width B**

The selection of the access box widths B depends on the given component dimensions minus the required concrete cover c.

Example: wall thickness 2<sup>nd</sup> pour = 220 mm, concrete cover c = 25 mm, stirrup width w = 220 mm - 2 \* 25 mm = 170 mm. Selected: Stabox® type 19 B (stirrup width w = 170 mm, see sketches in the table for Stabox® box and stirrup dimensions).

The concrete cover should not be less than required; a smaller box type should be chosen if necessary.



**Rebending tool**

WG: 74

Please make sure that only the appropriate rebending tool is used.

Item No.	For steel diameters mm	Colour
STARBW08	8	yellow
STARBW10	10	green
STARBW12	12	red

**Stabox® special versions, single row**

WG: 80

		Item No.	Type
		STASW	SW
		STASL	SL
		STASG	SG

 $v, v_1, v_2 \geq 100 \text{ mm}$ .

**Stabox® S special versions, double row**

WG: 80

		Item No.	Type
		STAS2G	S2G
		STASB	SB
		STASD	SD
		STASK	SK
		STASK1	SK1
		STASK2	SK2
		STASU	SU

 $v, v_1, v_2 \geq 100 \text{ mm}$ .

 For corbel types, there may be differences in the dimension  $h_1$  of 10 to 20 mm due to production and installation.



### Stabox® T special versions

WG: 80

	Item No.	Type
	STATB	TB
	STATU	TU
	STATL	TL

For corbel types, there may be differences in the dimension  $h_1$  of 10 to 20 mm due to production and installation.

### Stabox® T special connection for high shear forces

Stabox® T is the optimal supplement to the Stabox® S continuity strip for shear stress in the longitudinal direction of the joint. Due to the special, stable trapezoidal sheet metal of the access box, the highest requirement for an indented working joint according to EN 1992-1-1 and National Appendix is guaranteed.



### Ordering code

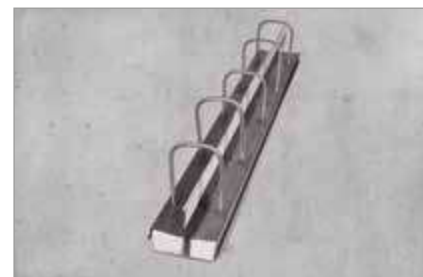
Example: **STAT12B0810**

Product designation	Box width mm	Stirrup shape	Steel Ø mm	Stirrup spacing mm
<b>STAT</b>	90	<b>B</b>	<b>8</b>	<b>100</b>
	<b>120</b>	L	10	150
	160	U	12	200
	190			
	220			

The box width 90 mm can only be combined with the stirrup shape L. Otherwise, all combinations are possible.

### Stabox® FB continuity strip

The Stabox® FB double-row continuity strip offers an ideal solution for safe joint waterproofing according to the German guideline for watertight structures in addition to the production of a force-locked connection between two reinforced concrete components manufactured separately. The Stabox® FB continuity strip can be produced with a standard stirrup dimension starting from a stirrup width of 100 mm.



## Ordering code

**Example: STAF – B – 12B – 8 / 150 – 1200**

Product designation	Stirrup type	Type (stirrup width) mm	Steel Ø mm	Bar spacing mm	Access box length mm
<b>STAF</b>	<b>B</b>	<b>12B</b> (100)	<b>8</b>	100	<b>1200</b>
		15B (120)	10	<b>150</b>	
		19B (170)	12	200	
		22B (200)			

For the Stabox® FB types, the same standard dimensions are used (see Table "Standard Dimensions") as are used for the standard types. Please note that the Type 12B is not compatible with a steel diameter of 12 mm.

## Stabox® FD continuity strip

The Stabox® FD double-row continuity strip with variable stirrup width consists of two single sheet steel access boxes, which are connected by an expanded metal profile with an integrated sealing plate coated on both sides. This offers the possibility to connect even larger component dimensions with integrated sealing in a force-locked manner. For variable stirrup dimensions from a stirrup width of 160 cm.



## Ordering code

**Example: STAF – D – 160 – 8 / 150 – 1200**

Product designation	Stirrup type	Stirrup width (type) mm	Steel Ø mm	Bar spacing mm	Access box length mm
<b>STAF</b>	<b>D</b>	<b>160</b> (5B)	<b>8</b>	100	<b>1200</b>
		200 (7B)	10	<b>150</b>	
		240 (9B)	12	200	
		300 (12B)			

Please note that the Type 5B is not compatible with a steel diameter of 12 mm. Special lengths and dimensions on request.

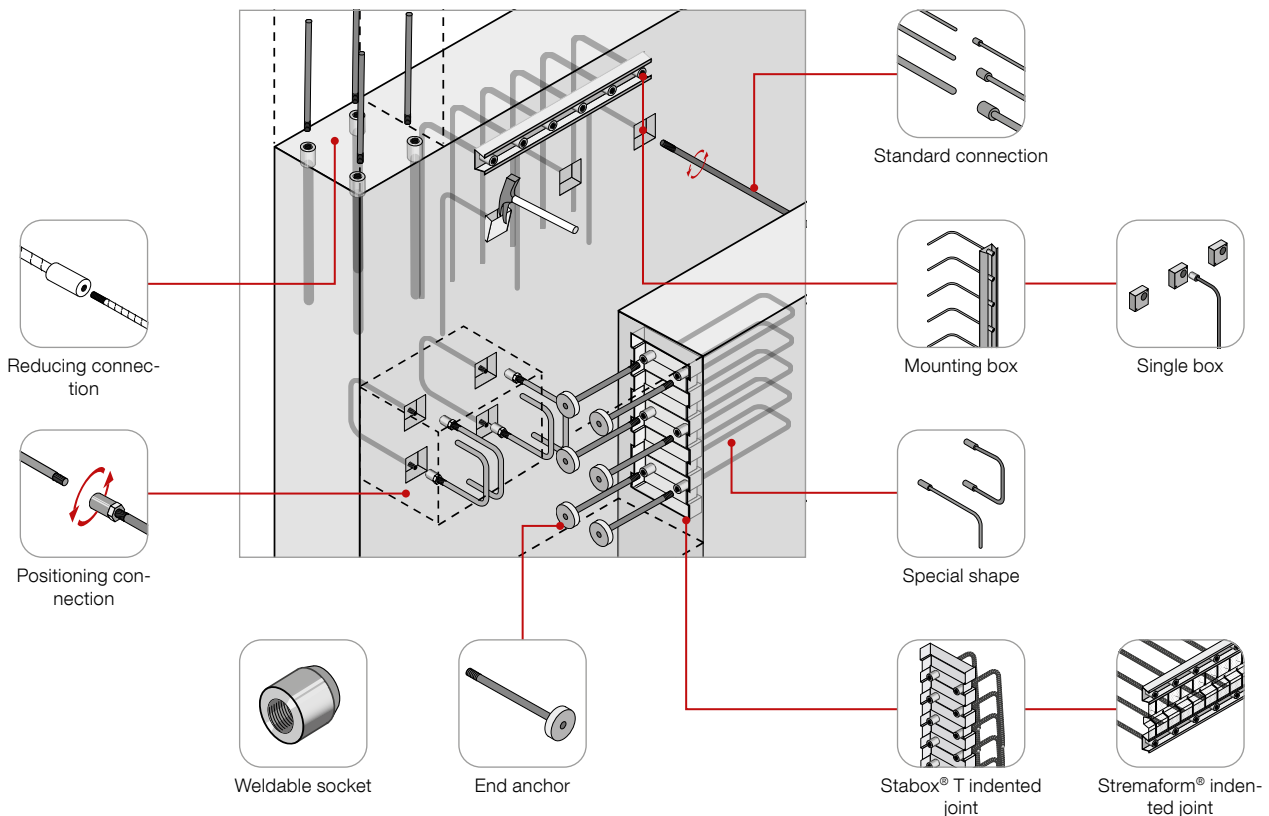


## MAX FRANK Coupler threaded connection

The newly developed MAX FRANK threaded socket connections are used where the conventional splice joint is not practical or not permitted. They are also used where rebending is not possible due to the rebar diameter. The rebar connection usually consists of a threaded rod with a pre-mounted threaded coupler for the 1<sup>st</sup> construction phase as well as the continuation bar for screwing in during the 2<sup>nd</sup> construction phase. Threaded coupler connections offer an efficient and cost-effective way to connect or reinforcing bars under permanent and dynamic loads.

### Advantages

- Approval from the German Institute of Building Technology Berlin for rebar diameters 12 - 40 mm for standard, positioning and reducing connections as well as end anchors (Z-1.5-282).
- Easy and quick installation
- Available for all common rebar diameters (12 to 40 mm)
- 100 % force transmission - "bar break"
- No reduction in the rebar cross-section
- No positioning couplers required
- Designed to conform to international standards: Eurocode 2 (NEN/DIN/BS EN 1992-1-1), ACI 318 type 1-2, test standard ISO 15835
- European Technical Assessment, ETA-20/0387



## European Technical Assessment

The MAX FRANK Coupler threaded connection has CE marking according to European Technical Assessment ETA-20/0387.



### “Bar break” - the failure of the rebar outside the socket connection

Prior to rolling the threads, a light upsetting of the rebar ends is carried out. As a result of this, failure of the sample outside the socket connection is achieved during tensile tests (“bar break”). The “soft cold forged” process guarantees gentle upsetting in the entire thread area and thus prevents a fatigue or brittle fracture in the thread.



### MAX FRANK Coupler standard connection, threaded rod CA

WG: 82

For 1<sup>st</sup> concrete pour.

	Item No.	Steel diameter	Installation length	Socket length	Thread-protection cap colour	Weight
		mm	mm	mm		kg/pce
	CMCA120720	12	734	28	Green	0.68
	CMCA140840	14	856	32	White	1.07
	CMCA160960	16	978	36	Grey	1.60
	CMCA201200	20	1222	44	Yellow	3.10
	CMCA251500	25	1527	54	White	6.03
	CMCA281680	28	1710	60	Blue	8.46
	CMCA321920	32	1954	68	Black	12.63

### MAX FRANK Coupler standard connection, continuation bar CE

WG: 82

As a supplementary bar for the 2<sup>nd</sup> concrete pour or for self-assembly of the socket in the 1<sup>st</sup> concrete pour.

	Item No.	Steel diameter	Installation length	Tightening torque	Weight
		mm	mm	Nm	kg/pce
	CMCE120720	12	706	40	0.64
	CMCE140840	14	824	80	1.02
	CMCE160960	16	942	120	1.52
	CMCE201200	20	1178	180	2.96
	CMCE251500	25	1473	270	5.78
	CMCE281680	28	1650	270	8.11
	CMCE321920	32	1886	300	12.12

### MAX FRANK Coupler torque wrench

WG: 82

- Application of a defined tightening torque to the continuation bar according to the specifications in Z-1.5-282
- Special pliers head for the MAX FRANK Coupler rebar connections from 12 to 40 mm
- Infinite adjustment of the required torques possible

	Item No.	Tightening torque Nm	Weight kg/pce
	CMDMS730Q20MF14	0 - 270	2.56
	CMDMS721Q30MF18	180 - 350	4.15

### MAX FRANK Coupler custom-made products

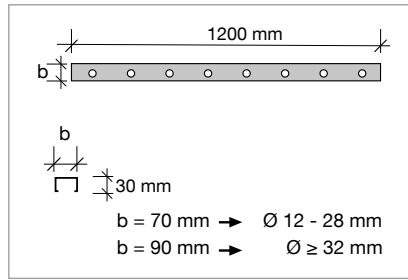
The MAX FRANK Couplers are available as standard versions and as custom-made products under the item no. CMC-SONDER. They can be manufactured at short notice according to your requirements. In addition to different bending radii and individual bar lengths, we also offer a wide range of socket or threaded connections. Alongside standard, position and reducing connections, weldable sockets and end anchors are also possible variants.

	<p><b>Type CA</b></p>		<p><b>Type CA* Positioning socket</b></p>
	<p><b>Type CE</b></p>		<p><b>Type CE* Positioning connection CE-bar</b></p>
	<p><b>Type ECA</b></p>		<p><b>Type ECA* with end anchor</b></p>
	<p><b>Type DCA</b></p>		<p><b>Type DCA* with end anchor</b></p>
	<p><b>Type DCE</b></p>		<p><b>Type WCASB</b></p>
	<p><b>Type WCA</b></p>		<p><b>Type WCE</b></p>
	<p><b>Type DWCA</b></p>		<p><b>Type DWCE</b></p>
	<p><b>Type WCAG</b></p>		<p><b>Type WWCA</b></p>

\* Example of type variants: Under the article number CMCSONDER, the variants of the connections such as positioning and reducing connection as well as weldable couplers and end anchors can also be selected from the different types of bending shapes.

## MAX FRANK Coupler mounting box

The MAX FRANK Coupler mounting box enables easy series installation of the threaded connections for all available diameters. The bar spacings can be selected as desired. The mounting box with the polystyrene end caps guarantees free access for the installation of the supplementary bars in the second concrete pour.



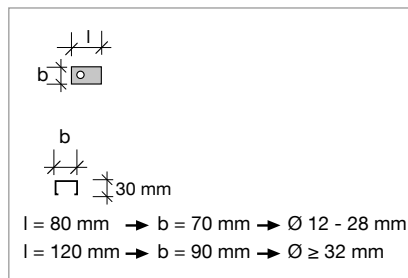
## Ordering code

**Example:** **CMPSTBOX - 1200 - 20 - 150 - 8**

Product designation	Unit length mm	Steel Ø mm	Centre distance mm	Possible connection per unit Pcs
<b>CMPSTBOX</b>	<b>1200</b>	12	100	12
		14	<b>150</b>	<b>8</b>
		16	200	6
		<b>20</b>		
		25		
		28		
		32		

## MAX FRANK Coupler single box

The MAX FRANK Coupler mounting box is also available to fit a single line of couplers for standard and positioning connections.



## Single mounting box for bar with Coupler sleeve

WG: 82

Item No.	For steel diameters mm	Carton content pce/carton	Weight kg/pce
CMPSTBOXS12	12	20	0.080
CMPSTBOXS14	14	20	0.080
CMPSTBOXS16	16	20	0.080
CMPSTBOXS20	20	20	0.080
CMPSTBOXS25	25	20	0.080
CMPSTBOXS28	28	20	0.080
CMPSTBOXS32	32	10	0.095

## Single mounting box for threaded bar

WG: 82

Item No.	For steel diameters mm	Carton content pce/carton	Weight kg/pce
CMPSTBOXSPE12	12	20	0.080
CMPSTBOXSPE14	14	20	0.080
CMPSTBOXSPE16	16	20	0.080
CMPSTBOXSPE20	20	20	0.080
CMPSTBOXSPE25	25	20	0.080
CMPSTBOXSPE28	28	20	0.080
CMPSTBOXSPE32	32	10	0.095





**BUILDING  
COMMON GROUND**



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