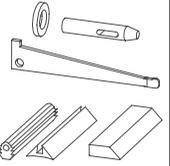
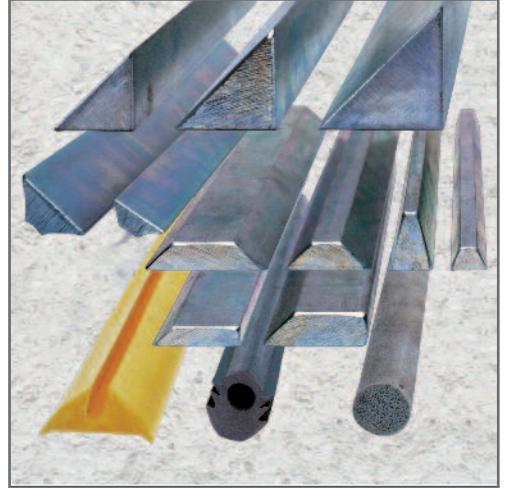
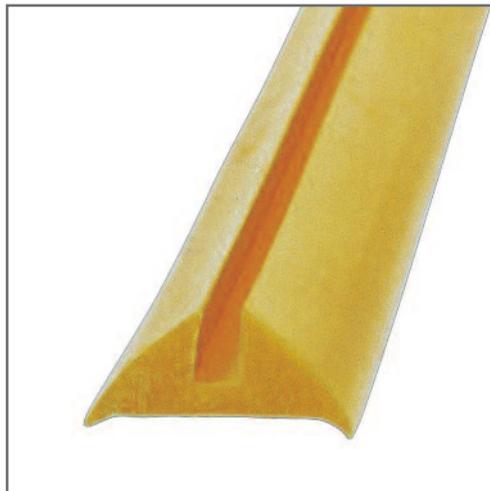


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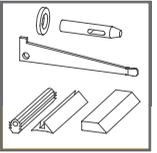
5.1. PROFILE LEDGES and wedge connections



ACCESSORIES FOR FORMWORK CONSTRUCTION



ROBUSTA
GAUKEL



Triangular and trapezoidal ledges made of steel:

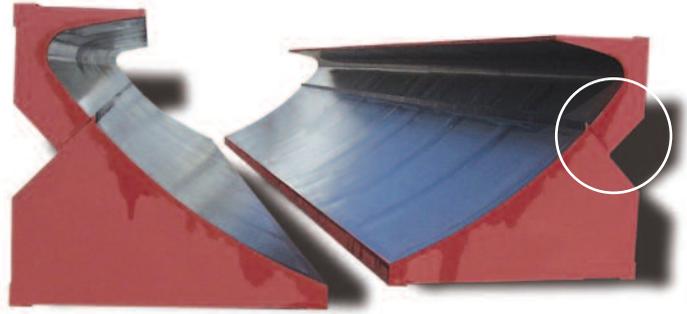
- To produce fractional edges and trapezoidal recessed pointings at concrete elements
- Delivery lengths 3 – 4 m
- Special measurements on request

General information:

ROBUSTA-profile ledges are very important parts, if formwork with chamfered edges is needed or if dummy joints are necessary at prefab elements.

All kinds of profile ledges made of steel can be welded into steel formwork in a run of spot welds with thin welding electrodes. To prevent depressions because of overstanding weld beads at the prefab element it is recommended to place the welding seam in prepared depressions into the casing face. Grind afterwards with angle sander in any case.

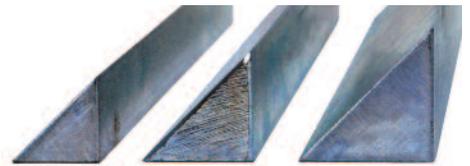
We always have 20 different types of steel ledges for steel formwork available directly from stock. .



*Special formwork for bridge moldings:
Welded triangle profile ledge to produce a drip groove also to cover and hide the formwork joint.*

Type "E", precision cold laminated:

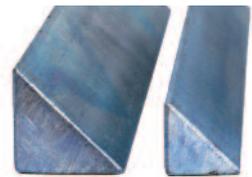
These ledges are cold laminated in a second working step after the hot rolling. In that way sharp longitudinal edges will result for high precision. We recommend these ledges especially for producing high quality exposed concrete prefab elements.



Type "EW", hot rolled:

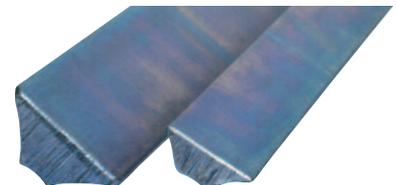
Suitable and inexpensive for the use in formwork for prefab elements for normal demands.

The longitudinal edges are unmashed after the rolling process and have a small radius of 0.3 to 0.5 mm.



Type "ES" with special coving:

This enables an optimized placement of the ledges in the corners. Another advantage of this special forming is the recess in the formwork corner, in which the fillet weld can be welded without a disturbing projecting length.



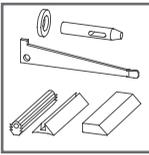
Trapezoidal ledges, inclined to one or both sides:

The ledge TR2 is produced in hot rolled manner just like the triangular ledges. After the rolling process there is no further treatment.

In that way the corners will remain with a small rounding radius of approx. 0.3 – 0.5 mm, which will be sufficient in most cases.

All other trapezoidal ledges are planed machined of bare tie bar material. In that way a sickle-shaped bending cannot be prevented after processing. This will not disturb, if the ledge will be fixed, for example with clamps, against a straight stock rail.



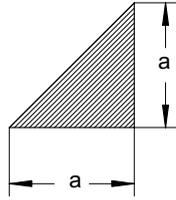


PROFILE LEDGES AND WEDGE CONNECTIONS

5

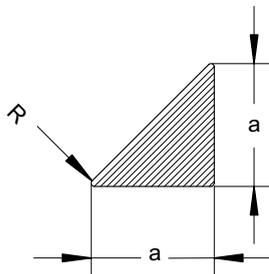
PROFILE LEDGES MADE OF STEEL

TECHNICAL DATA:



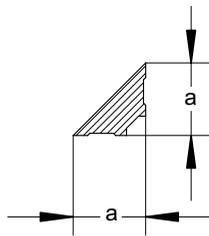
Type "E", cold rolled

Profile	Length of edges a [mm]	Weight [kg/100 m]	Item No.
triangular E 7	7 x 7	20.0	531007
triangular E 10	10 x 10	40.0	531010
triangular E 15	15 x 15	90.0	531015
triangular E 20	20 x 20	157.0	531020
triangular E 25	25 x 25	245.0	531025
triangular E 30	30 x 30	350.0	531030



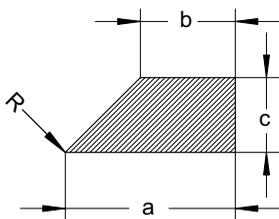
Type "EW", hot rolled

Profile	Length of edges a [mm]	Weight [kg/100 m]	Item No.
triangular EW 7	7 x 7	20.0	531507
triangular EW 10	10 x 10	40.0	531510
triangular EW 15	15 x 15	90.0	531515
triangular EW 20	20 x 20	157.0	531520



Type "ES", with special coving

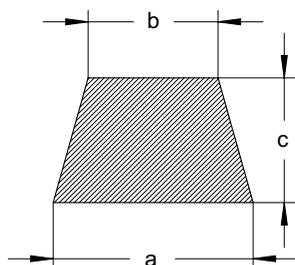
Profile	Length of edges a [mm]	Weight [kg/100 m]	Item No.
triangular ES 10	10 x 10	40.0	532010
triangular ES 15	15 x 15	80.0	532015



Trapezoidal ledges, inclined to one side

Profile	Width a/b x height c [mm]	Weight [kg/100 m]	Item No.
trapezoidal 1*	24 x 18 x 6 high	99.0	533001
trapezoidal 2**	28 x 18 x 10 high	180.0	533002
trapezoidal 3*	34 x 19 x 15 high	312.0	533003

*plane machined **hot rolled



Trapezoidal ledges, inclined to both sides, plane machined

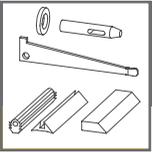
Profile	Width a/b x height c [mm]	Weight [kg/100 m]	Item No.
trapezoidal 4	15 x 5 x 8 high	63.0	533504
trapezoidal 5	14 x 5 x 20 high	149.0	533505
trapezoidal 6	12 x 6 x 8 high	57.0	533506
trapezoidal 7	29 x 9 x 10 high	149.0	533507
trapezoidal 8	40 x 20 x 10 high	236.0	533508
trapezoidal 9	40 x 26 x 25 high	648.0	533509



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PROFILE LEDGES AND WEDGE CONNECTIONS

SEALING PROFILES

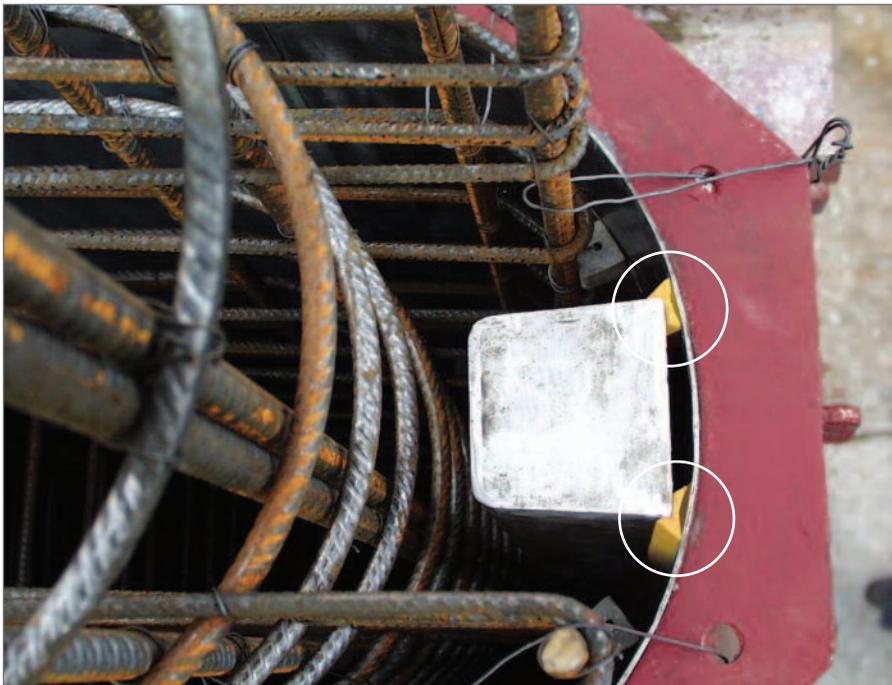


Sealing profiles made of flexible material:

- For producing chamfered edges at concrete elements
- Flexible use in all kinds of formwork because of adjusting of material

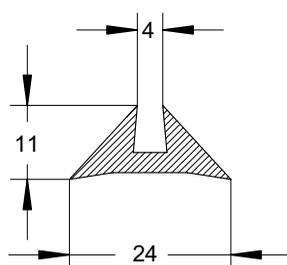
Triangular sealing profile DK 10:

Inexpensive alternative to the weldable triangular ledges 10 x10 mm which can be removed after use without effort. Insertable onto sheets $t = 4$ to 5 mm. Optimum sealing property because of flexible adjusting of the corners. Because of the bending of the plastic also suitable for rounded formwork.



Triangular sealing profile to seal at the round formwork

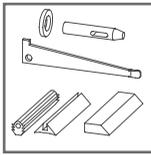
TECHNICAL DATA:



Triangular sealing profile DK 10 made of flexible plastic

Packing unit	Length of edges a [mm]	Weight [kg/100 m]	Item No.
coil à 100 m	ca. 10 mm	12.0	535010





Special sealing profile "pine-tree"

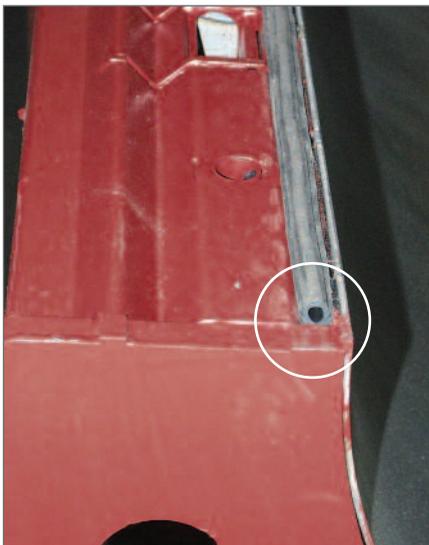
This special profile offers essential advantages compared to the conventional sealing rings:

The continuous hollow space guarantees a relative long squeezing range. A lateral upwards standing lamination prevents a removing out of the joint. Important with heated formwork: proofed up to approx. 80° C.

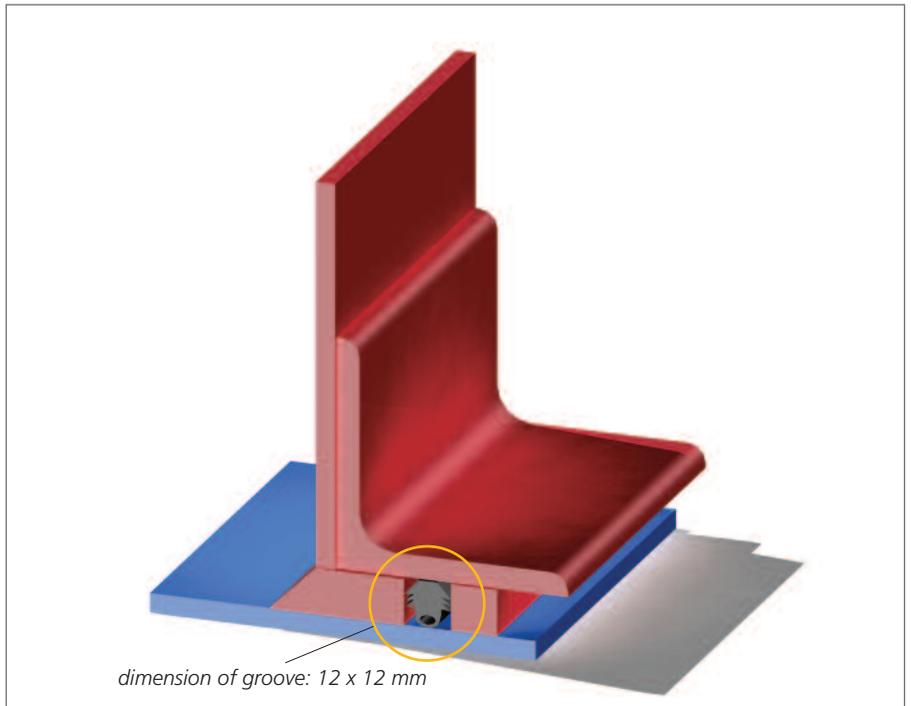


Sealing profile R 12:

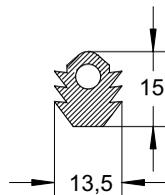
Rubber sponge sealing ring made of quality EPDM as a propitious version to the profile G 13.



Usage of the profile "pine-tree" with ROBUSTA-round column formwork prevents the leaking of water and thus ugly grit spots. The result: prefab element quality at the in-situ-concrete construction site.

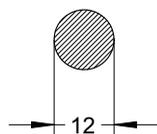


TECHNICAL DATA:



Special sealing profile G 13 "pine-tree"

Packing unit	Width x Height [mm]	Weight [kg/100 m]	Item No.
coils à 30 m	13 x 15	16.7	535513



Sealing profile R 12 made of rubber sponge

Packing unit	Diameter Ø [mm]	Weight [kg/100 m]	Item No.
bundles à 50 m	12	5.5	536012



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PROFILE LEDGES AND WEDGE CONNECTIONS

WEDGE CONNECTIONS



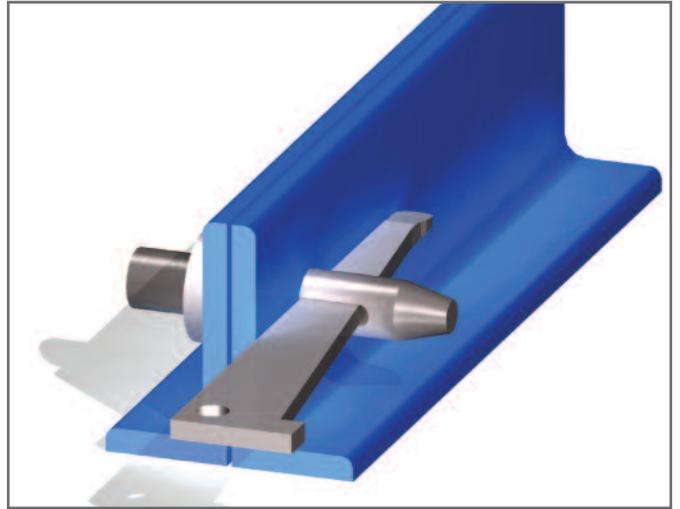
Keybolts and wedges:

- For self construction of formwork
- To connect steel profiles

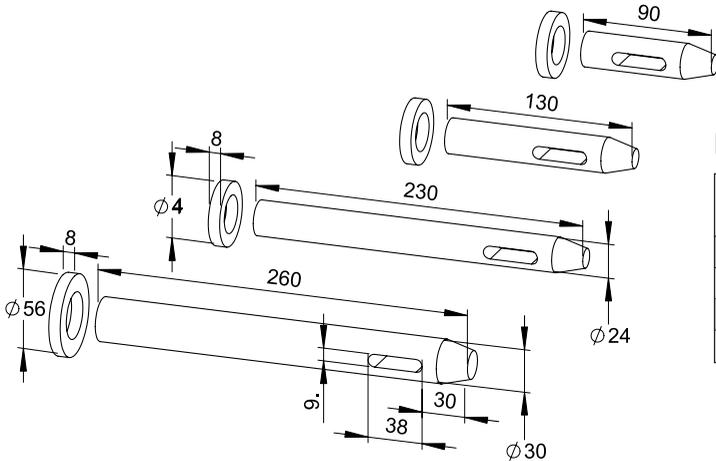
Especially to close small steel formwork, if angle- or U-profiles have to be connected.

To adjust to the clamping width we deliver loose washers, to weld them on the spot accordingly.

If needed these bolts can be welded directly into the steel construction without washer.

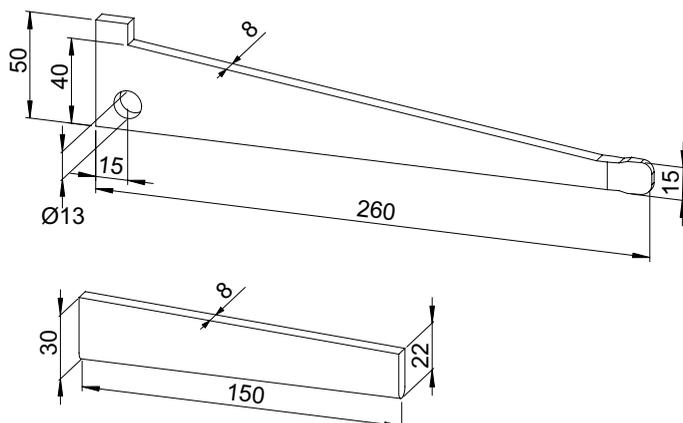


TECHNICAL DATA:



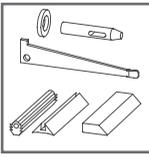
Key bolts made of steel with loose sheets

Indication or Ø [mm]	Clamping width max. [mm]	Weight [kg/100 units]	Item No.
Ø 24 x 90	30	27.7	537009
Ø 24 x 130	70	41.8	537013
Ø 24 x 230	170	27.7	537023
Ø 30 x 260	180	139.8	537026



Wedges made of steel

Indication	Weight [kg/100 units]	Item No.
gib key: 15/40 x 260, 8 mm thick, hardened and galvanized	41.2	537040
wedge: 22/30 x 150, 8 mm thick, hardened, raw material	24.2	537015



PROFILE LEDGES AND WEDGE CONNECTIONS

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