

Beam Formwork

Made of timber beams H 20
Instructions for assembly and use

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Contents

	Page
Product features	2
Components	2
Assembly	3
Examples of application	4 and 5
Permissible distances	6

The adjustable fixing beam is used as a means of adapting to the height of the beams. It also serves as support for the horizontally arranged timber beams or squared timber which, in conjunction with the shuttering skin, form the lateral beam formwork.

The fixing beam is fastened to the joist clamping connector and secured by means of the integrated unlosable bolt corresponding to the required beam height.

Should adjustable fixing beams not be used, then short timber beams can be directly inserted into the vertical C-profiles of the joist clamping connector for the reception of the side shuttering skin.

Product features

This is a beam formwork which consists of joist clamping connectors, adjustable fixing beams (side beams) as well as the commonly used 20 cm or 24 cm high timber beams. With these items, beams can be shuttered simply and quickly up to heights of 60 cm without the use of forming wall ties. Even beam heights of 90 cm can be attained by using timber beams arranged in upright position. The height can be adjusted in steps of 1 cm because of the design module. The widths can be steplessly regulated. The joist clamping connector can be attached to any type of formwork timber beam having flanges 8 cm wide and at maximum 6 cm thick. Shortened beams of a minimum length of about 1.50 m and upwards can therefore be used to a large degree on job-site.

The joist clamping connector is connected to a timber beam by easy tightening the wing nut. The timber beam is part of the bottom shuttering of the concrete beam. Exactly rectangular side shuttering can be formed due to the large dimension and contact area of the two clamped side forms.

Important notes:

The following instructions for assembly and use include detailed information on the handling and proper application of the products that are described and depicted. All instructions regarding technical operation and function have to be observed carefully. Exceptional use requires a separate design calculation. With regard to safe and technically correct use of our products abroad, all relevant safety rules, regulations and safety instructions of national institutes and/or local authorities have to be followed.

Generally, only flawless material must be used.

Damaged components have to be sorted out. In case of repairs, only original spare parts of the Hünnebeck Company may be used.

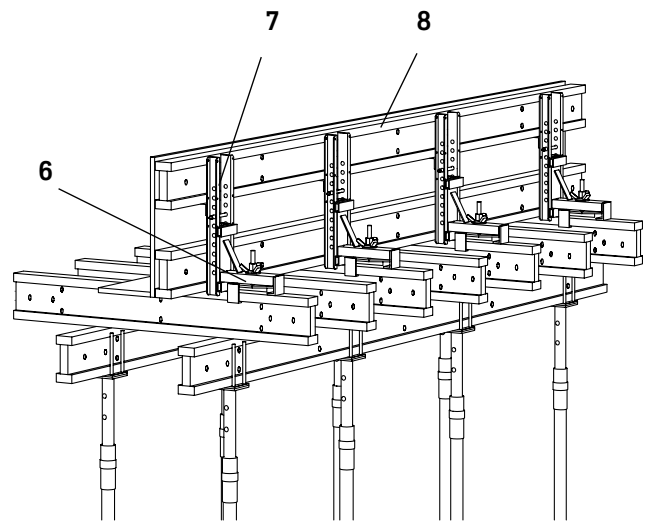
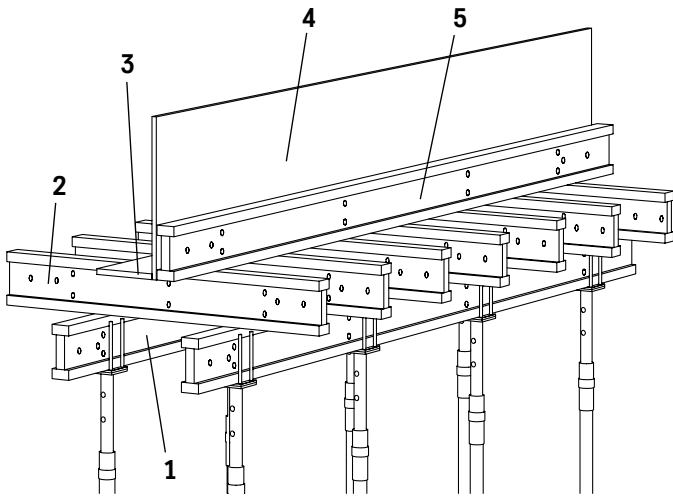
Combined use of our formwork system with equipment from other suppliers may involve certain dangers and, therefore, requires an additional checkup.

For reasons of further technical development we emphatically reserve the right to revise, change or modify any of the product's components at any time without prior notice.

Components

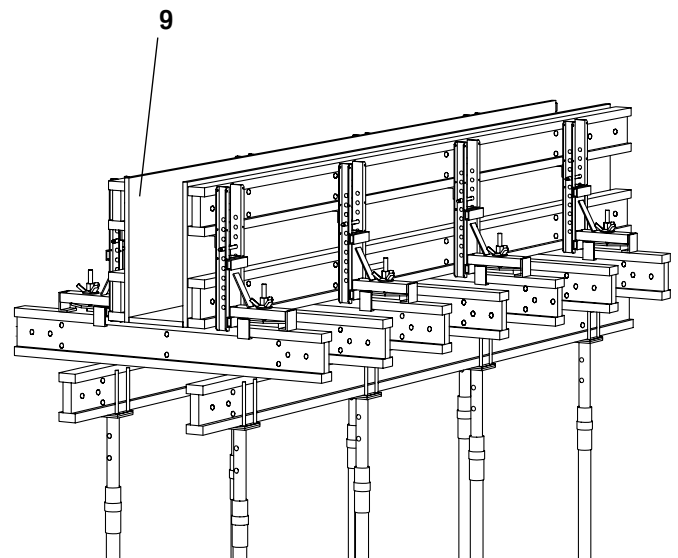
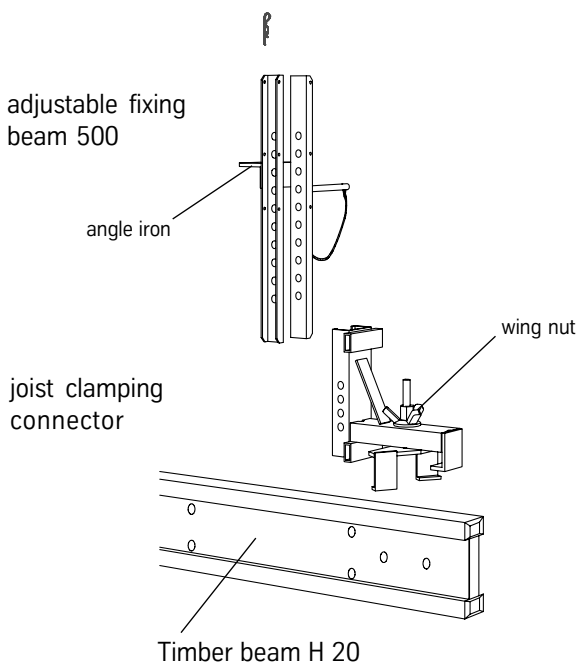
	Description	Art.No.	Weight kg/item
	<p>Joist clamping connector Can be fastened to any timber beam like DUO 20 and DUO 24 with 8 cm wide and at maximum 6 cm thick flanges.</p>	496 469	6.50
	<p>Adjustable fixing beam 500 This is fastened with the unlosable bolt to the joist clamping connector in steps of 1 cm corresponding to the required beam height. The position of the bolt is secured by means of a spring cotter.</p>	496 458	4.50
	<p>Triangular fillet (UZ) Used for beam formwork with 21 mm thick plywood panel. Length : 2.50 m</p>	547 555	0.45

Assembly



- Erect the longitudinal main supports (1).
- Place transverse beams (2) on main beams.
- Nail bottom shuttering skin (3) on beams (2).
- Place and attach side shuttering skin (4).
- Put on timber beam (5) or squared timber.
- Position joist clamping connector (6) on top of the cross beam (2), press it against side formwork (4+5) and tighten wing nut by means of a hammer.
- Fix the adjustable fixing beam (7) acc. to the desired height of beam formwork.

- Place upper timber beam (8) on the angle iron welded to the fixing beam (7).
- Erection of opposite side shuttering (9) after reinforcement work. Same procedure as already described before.



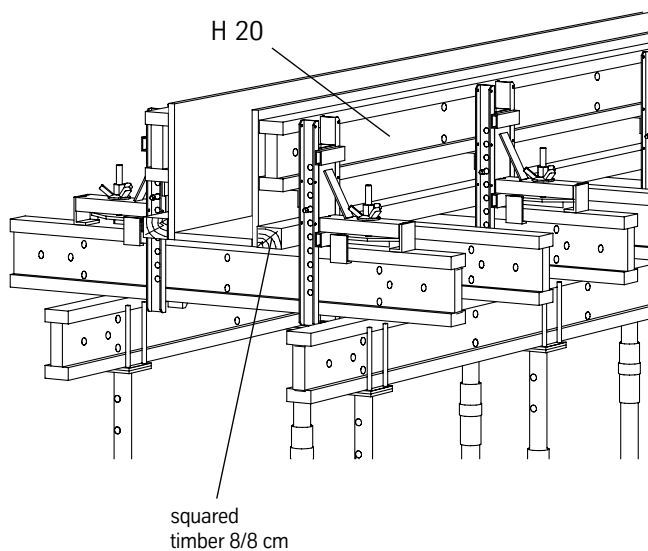
Note:

Always arrange the joist clamping connector in opposite position on the same transverse beam.

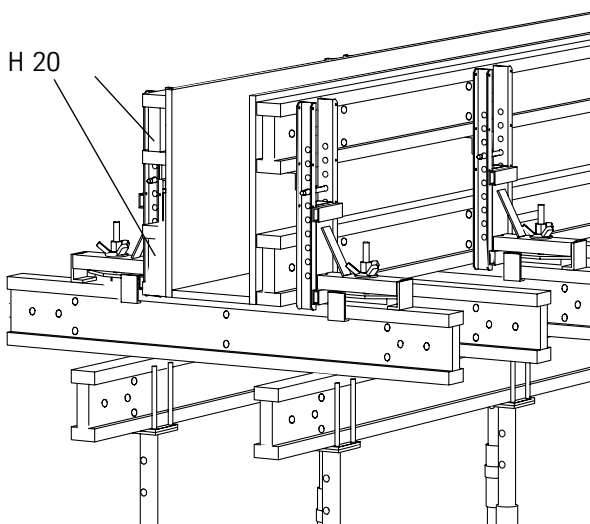
Examples of application

The table on page 6 is decisive when determining the permissible spacing between the joist clamping connectors. Also to be noted is the permissible support distance for the shuttering skin of the bottom of the beam as well as the single-sided occurring lateral concrete pressure when it comes to perimeter beams.

Beam formwork with H 20 and squared timber (= cleat)

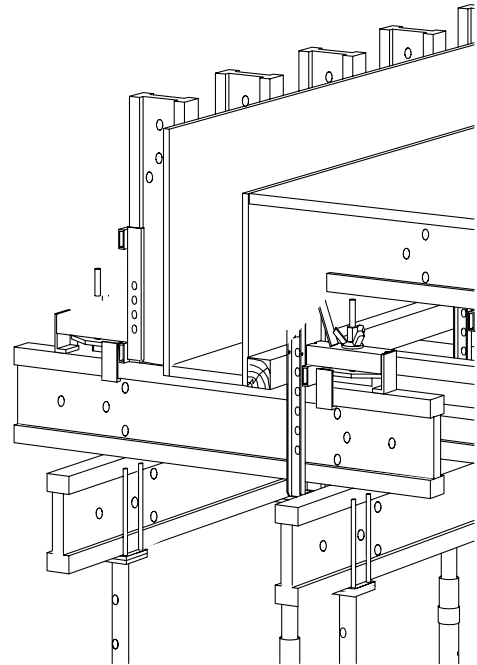


Beam formwork with two beams H 20 (at top and at bottom)

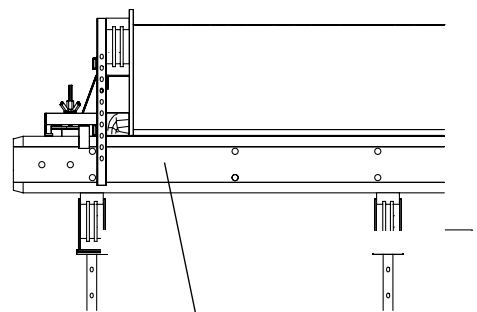


Perimeter beam with slab connection

The exterior side shuttering (here in this example) is formed by means of vertically arranged H 20 inserted in the C-profile of the joist clamping connector. The application of the adjustable fixing beam is not required with this design.

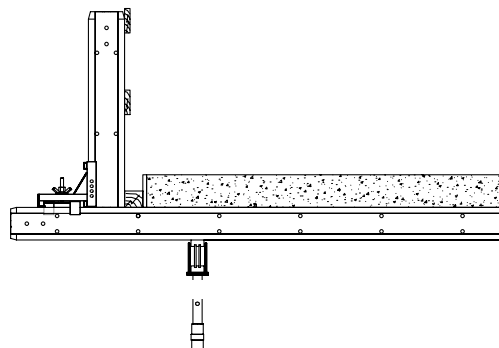


Front end shuttering of slab



H 20 has to be secured from horizontal slipping out.

Guard rail in conjunction with slab stopend shuttering



Compound use with slab formwork

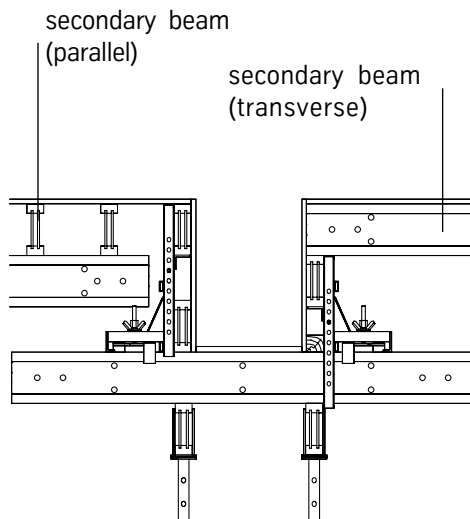
When joining timber beam slab formwork and beam formwork, two connecting variations arise through the directions of the secondary beams of the slab formwork.

Direction of secondary beam parallel to the beam formwork

The top timber beam H 20 of the side shuttering of the beam is arranged in such a way with the secondary beams of the slab formwork that it serves as support beam for the plywood of the slab at the same time.

Direction of secondary beam transverse to the beam formwork

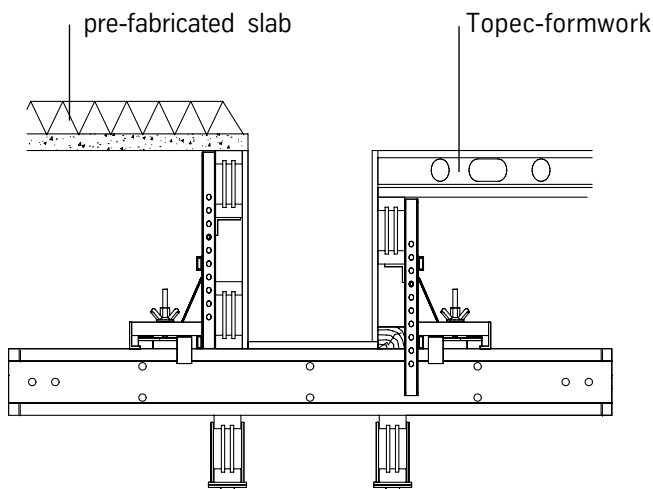
The top timber beam H 20 of the side shuttering of the beam is lowered to such a degree that the secondary beam can directly be placed on this.



Other slab formwork systems can be bound into the beam formwork without any problems thanks to the height adjustment possibility of the adjustable fixing beam.

Important note:

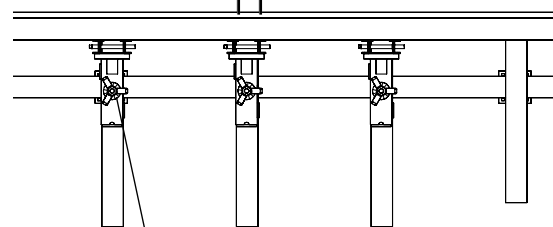
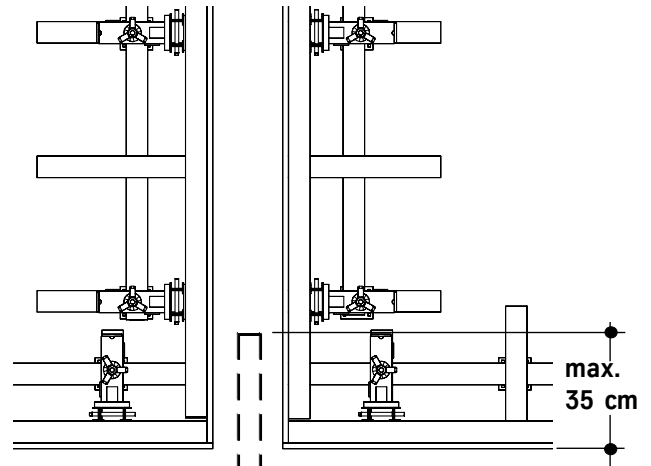
Maximum slab load per each joist clamping connector: 6.5 kN



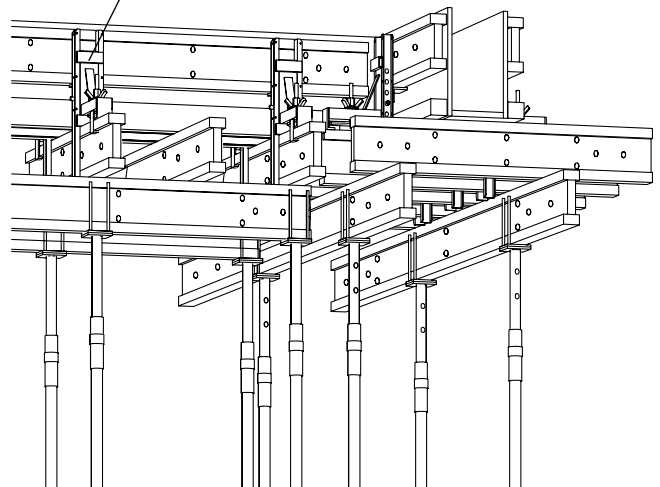
T-intersections and crossings of beams

Even in these areas it is possible to work with the joist clamping connector easily and without problems and without costly fitting work.

It is only to be noted that the transverse beams must not project more than 35 cm into the cross beams of the rectangularly arranged beam formwork of the intersection.

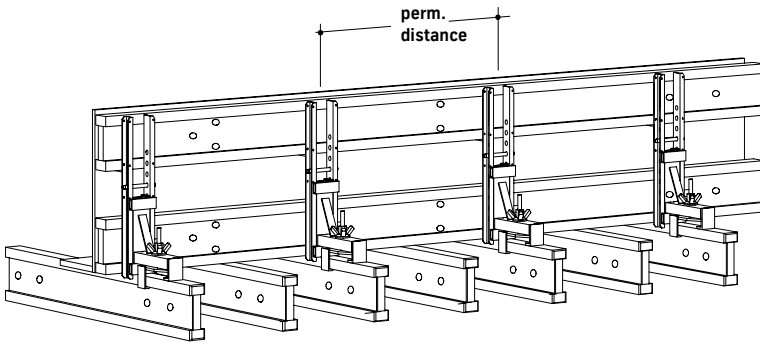


joist clamping connector with adjustable fixing beam 500



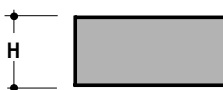
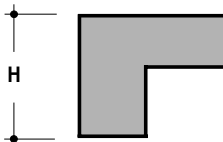
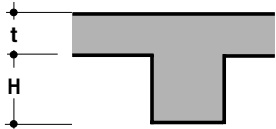
Permissible distances

Joist clamping connectors are only to be arranged opposite on top of the same transverse beam.



The height "H" of the side formwork is decisive for the calculation.

In case of having perimeter beams, the exterior side is decisive for the permissible distances.



beam height H (cm)	max. distances of joist clamping connectors		
	without slab (m)	with slab	
		t = 20 cm (m)	t = 30 cm (m)
30	2.25	1.50	1.25
35	2.00	1.25	1.00
40	1.75	1.05	0.90
45	1.50	0.95	0.80
50	1.35	0.85	0.70
55	1.30	0.75	0.60
60	1.05	0.65	0.50
65	0.90	0.50	0.40
70	0.80	0.40	0.35
75	0.60	0.30	
80	0.55		
85	0.45		
90	0.35		

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