

Magnus hook connector

Timber connector for main / secondary beam joints



What can it be used for?

- Load-bearing connection in carports
- Highly stressed node joints in timber engineering

• Constructional use in non-load-bearing connections e.g. in shopfitting

Advantages

- Simple assembly
- High level of prefabrication
- Suitable for high loads
- Visible and hidden joints
- Milling cutter and milling and assembly jig available
- ESC calculation software for free preliminary calculation

Assembly

- Always unscrew Magnus fully simple and safe installation
- Whether it's surface-mounted or flush-mounted, the milling and assembly jig assigns a place to the connector
- The sides and end grain surfaces must be flat to avoid connector deformations due to installation



Timber engineering







Overview of Magnus hook connectors



		Dimensions		Fully thread	led screws ^{b)}	Fixing s	crews ^{b)}	Main	beam	Second surface	ary beam -mounted	S	econdaı flush-m	ry bear ounted	n 	chara	teristic: capacit	load-be y F _{Rk} e)	aring
Art. no.	Name	W x H x D ^{a)}	PU*	Dimension	N _{ner connector}	Dimension	N _{ner connector}	min. W _{MB}	min. H _{MB}	min. W _{sB}	min. H _{sb}	min. W _{SB} ^{c)}	min. H _{sb}	W _F	$D_{M}^{d)}$	F _{1,Rk}	F _{2,Rk}	F _{3,Rk}	F _{4,Rk}
		[mm]		[mm]	Per connector	[mm]	per connector	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944874	Magnus XS 30 x 30	30 x 30 x 9	20	4,0 x 30	6	4,2 x 26	1	40	40	40	40	40	40	30	9	1,2	1,57	1,70	1,19
944875	Magnus S 50 x 60	50 x 60 x 13	10	4,0 x 60	8	4,2 x 26	2	60	80	60	80	80	80	50	13	3,73	7,25	5,00	1,92
944876	Magnus S 50 x 80	50 x 80 x 13	10	4,0 x 60	12	4,2 x 26	2	60	100	60	100	80	100	50	13	3,73	14,50	5,00	2,80
944877	Magnus S 50 x 100	50 x 100 x 13	10	4,0 x 60	18	4,2 x 26	2	60	120	60	120	80	120	50	13	7,46	21,75	5,00	4,41
944878	Magnus M 70 x 120	70 x 120 x 17	10	5,0 x 80	13	4,8 x 60	2	80	140	80	140	100	140	70	17	5,49	21,34	13,00	5,17
944879	Magnus M 70 x 140	70 x 140 x 17	10	5,0 x 80	16	4,8 x 60	2	80	160	80	160	100	160	70	17	5,49	32,00	13,00	6,09
944880	Magnus M 70 x 160	70 x 160 x 17	10	5,0 x 80	21	4,8 x 60	2	80	180	80	180	100	180	70	17	10,98	37,34	13,00	8,27
944881	Magnus M 70 x 180	70 x 180 x 17	10	5,0 x 80	24	4,8 x 60	2	80	200	80	200	100	200	70	17	10,98	42,67	13,00	9,32
944882	Magnus L 110 x 220	110 x 220 x 19	4	8,0 x 120	13	4,8 x 60	2	120	240	120	240	140	240	110	19	9,29	36,10	23,00	13,96
944883	Magnus L 110 x 260	110 x 260 x 19	4	8,0 x 120	17	4,8 x 60	2	120	280	120	280	140	280	110	19	13,93	45,13	23,00	17,98
944884	Magnus L 110 x 300	110 x 300 x 19	4	8,0 x 120	20	4,8 x 60	2	120	320	120	320	140	320	110	19	13,93	54,15	23,00	20,56
944887	Magnus L 110 x 340	110 x 340 x 19	4	8,0 x 120	22	4,8 x 60	2	120	360	120	360	140	360	110	19	13,93	63,18	23,00	24,67
944888	Magnus L 110 x 380	110 x 380 x 19	4	8,0 x 120	25	4,8 x 60	2	120	400	120	400	140	400	110	19	9,29	72,20	23,00	26,96
944889	Magnus L 110 x 580	110 x 580 x 19	4	8,0 x 120	38	4,8 x 60	2	120	600	120	600	140	600	110	19	9,29	126,35	23,00	43,29

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of $\rho_{k}\text{=}$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{IX} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fax should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fax should be reduced to the design values Fax in terms of the service class and the load duration class: Fax= Fax x kmd / ym.



Installation accessories



Art. no.	Suitable for	PU
944867	Magnus XS	1
944894	Magnus S	1
944895	Magnus M	1
944870	Magnus L 220/260/300	1
944903	Magnus L 340/380/420	1
944904	Magnus L 460/500/540/580	1

- Insertion aid for surface-mounted installation
- Milling jig for flush-mounted installation

Milling cutter

For Magnus hook connector



Art. no.	Suitable for	Shaft diameter [mm]	PU
944936	Magnus XS	6,35	1
29686	Magnus S	8	1
29696	Magnus M und L	8	1

The following must be observed in the event of flush-mounted installation in the secondary beam

- The beam's minimum width must be increased so that there is enough surrounding wood remaining at the side for the milling work
- The beam must be milled out at full height

The following must be observed in the event of flush-mounted installation in the main beam

- The main beam's load-bearing cross-section is reduced by the connector's assembly thickness
- The beam's minimum width must be adjusted (screw length)





Magnus XS 30 x 30





Art. no.		Dimensions			Ful	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n 45°	n _{90°}	n _{45°}	[mm]	Π
944874	Magnus XS 30 x 30	30 x 30 x 9	20	4,0 x 30	6	3	-	3	-	4,2 x 26	1

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary b	eam surface-mounted	Seconda	ry beam flu	sh-mou	nted	characte	teristic load-bearing co F _{2,Rk} F _{3,Rk} [kN] [kN] 1.57 1.70	earing capa	city F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. W_{MB}	min. H_{MB}	min. W _{sb}	min. H _{sb}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M c)	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944874	Magnus XS 30 x 30	30 x 30 x 9	40	40	40	40	40	40	30	9	1,12	1,57	1,70	1,19

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of ρ_{R} = 380 kg/m³. The specified characteristic values of the load-bearing capacity F_{R} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors. The characteristic values of the load-bearing capacity Fax should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fax should be reduced to the design values Fax in terms of the service class and the load duration class: $F_{Rd} = F_{Rk} \times k_{mod} / \gamma_{M}$.



Magnus S 50 x 60





Art. no.		Dimensions			Fu	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the mo	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944875	Magnus S 50 x 60	50 x 60 x 13	10	4,0 x 60	8	2	2	2	2	4,2 x 26	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary b	eam surface-mounted	Seconda	ry beam flu	ısh-mou	nted	characte	eristic load-l	earing capa F _{3,Rk} [kN]	city F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	$\min. W_{\rm \tiny MB}$	$\min.\mathrm{H}_{\mathrm{MB}}$	min. W _{sb}	min. H _{sb}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944875	Maanus S 50 x 60	50 x 60 x 13	60	80	60	80	80	80	50	13	2 72	7 95	5.00	1 92

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of ρ_k = 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{ix} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity F_{Rk} should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity F_{Rk} should be reduced to the design values F_{Rk} in terms of the service class and the load duration class: F_{Rk} T_{Rk} should - Y_{Rk}.



Magnus S 50 x 80





		Dimensions			Ful	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x Dª)	PU*	Dimensions	_	In the mo	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	Π
944876	Magnus S 50 x 80	50 x 80 x 13	10	4,0 x 60	12	2	4	2	4	4,2 x 26	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

Art. no.		Dimensions	Main	beam	Secondary be	eam surface-mounted	Seconda	ry beam flu	sh-mou	nted	characte	eristic load-k	earing capa	city F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. $H_{\rm MB}$	min. W _{SB}	min. H _{SB}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944876	Maanus S 50 x 80	50 x 80 x 13	60	100	60	100	80	100	50	13	3.73	14.50	5.00	2.80

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

a) to find the instantiation exists in a durant queues to reace the initiating depin singing, especially for larger wave universities. e) Both beams softwood with a gross density of ρ_k = 380 kg/m³. The specified characteristic values of the load-bearing capacity F_{kk} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fix in terms of the service class and the load duration class: $F_{Rd} = F_{Rk} x k_{mod} / \gamma_{M}$.



Magnus S 50 x 100





		Dimensions			Fu	lly threaded s	screws ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944877	Magnus S 50 x 100	50 x 100 x 13	10	4,0 x 60	18	2	6	4	6	4,2 x 26	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary b	eam surface-mounted	Seconda	ry beam flu	ısh-mou	nted	characte	eristic load-b	pearing cape	icity F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. H _{MB}	min. W _{sb}	min. H _{sb}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M c)	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	F _{4,Rk}
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944877	Magnus \$ 50 x 100	50 x 100 x 13	60	120	60	120	80	120	50	13	7 46	21 75	5 00	4 41

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

a) both beams softwood with a gross density of ρ_k = 380 kg/m³. The specified characteristic values of the load-bearing capacity F_{Rk} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max, possible load (the max, force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fix in terms of the service class and the load duration class: $F_{Rd} = F_{Rk} \; x \; \dot{k}_{mod} \; / \; \gamma_M.$







		Dimensions			Ful	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	In the main beam In the secondary beam Dimensions						
		[mm]		[mm]	N _{total}	n _{90°}	n 45°	n _{90°}	n _{45°}	[mm]	n
944878	Magnus M 70 x 120	70 x 120 x 17	10	5,0 x 80	13	2	4	2	5	4,8 x 60	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary b	eam surface-mounted	Seconda	y beam flu	sh-mou	nted	characte	eristic load-b	earing capa	city F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	$\min. W_{\rm \tiny MB}$	min. $H_{\rm MB}$	min. W _{sb}	min. H _{SB}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944878	Magnus M 70 x 120	70 x 120 x 17	80	140	80	140	100	140	70	17	5,49	21,34	13,00	5,17

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of $\rho_{\text{k}}\text{=}$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{IN} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity F_{Rk} should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity F_{Rk} should be reduced to the design values F_{Rd} in terms of the service class and the load duration class: F_{Rd} = F_{Rk} x k_{mad} / γ_{Rk}.







		Dimensions			Fu	lly threaded s	screws ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x Dª)	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944879	Magnus M 70 x 140	70 x 140 x 17	10	5,0 x 80	16	2	6	2	6	4,8 x 60	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary be	eam surface-mounted	Seconda	ry beam flu	sh-moui	nted	characte	eristic load-b	earing capa	city F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. $H_{\rm MB}$	min. W _{SB}	min. H _{SB}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944879	Maanus M 70 x 140	70 x 140 x 17	80	160	80	160	100	160	70	17	5.49	32.00	13.00	6.09

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross detention mining dupin signify, especially for target wood dimensions. e) Both beams softwood with a gross density of ρ_i = 380 kg/m³. The specified characteristic values of the load-bearing capacity F_{kk} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fix in terms of the service class and the load duration class: $F_{Rd} = F_{Rk} \times k_{mod} / \gamma_{M}$.







		Dimensions			Ful	lly threaded s	screws ^{b)}			Fixing scre	ews ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	$n_{45^{\circ}}$	[mm]	Π
944880	Magnus M 70 x 160	70 x 160 x 17	10	5,0 x 80	21	2	8	4	7	4,8 x 60	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary be	eam surface-mounted	Seconda	ry beam flu	sh-mou	nted	characte	eristic load-b	earing capa	city F _{Rk} ^{d)}
Art. no.	Name	W x H x Dª)	min. $W_{\rm MB}$	min. H_{MB}	min. W _{SB}	min. H _{SB}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944880	Magnus M 70 x 160	70 x 160 x 17	80	180	80	180	100	180	70	17	10,98	37,34	13,00	8,27

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

The specified characteristic values of the load-bearing capacity F_M apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fns should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fns should be reduced to the design values Fns in terms of the service class and the load duration class: F_{Rd} = $F_{Rk} \times k_{mod} / \gamma_{M}$.







		Dimensions			Ful	lly threaded s	screws ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944881	Magnus M 70 x 180	70 x 180 x 17	10	5,0 x 80	24	2	10	4	8	4,8 x 60	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary be	eam surface-mounted	Seconda	ry beam flu	sh-moui	nted	characte	eristic load-b	pearing cape	icity F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. H _{MB}	min. W _{SB}	min. H _{SB}	min. W_{SB}^{b}	min. H _{SB}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	F _{4,Rk}
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944881	Maanus M 70 x 180	70 x 180 x 17	80	200	80	200	100	200	70	17	10.98	42.67	13.00	9.32

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions. e) Both beams softwood with a gross density of $\rho_{\rm k}=$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity Fx apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors. The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fix in terms of the service class and the load duration class: $F_{Rd} = F_{Rk} \times k_{mod} / \gamma_{M}$.







		Dimensions			Fu	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the mo	ain beam	In the seco	ndary beam	Dimensions	
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944882 * 1 connector co	Magnus L 110 x 220 nsists of 2 individual parts	110 x 220 x 19	4	8,0 x 120	13	2	4	2	5	4,8 x 60	2

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary be	eam surface-mounted	Seconda	ry beam flu	ısh-mou	nted	characte	eristic load-b	earing capa	i city F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. H_{MB}	min. W _{SB}	min. H _{SB}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M c)	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944882	Magnus L 110 x 220	110 x 220 x 19	120	240	120	240	140	240	110	19	9,29	36,10	23,00	13,96

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of $\rho_{\text{k}}\text{=}$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{Rk} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity F_{Rs} should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity F_{Rs} should be reduced to the design values F_{Rd} in terms of the service class and the load duration class: F_{Rd} = F_{Rd} x k_{and} / y_M.







		Dimensions			Fu	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x Dª)	PU*	Dimensions		In the m	ain beam	In the secor	ndary beam	Dimensions	_
		[mm]		[mm]	N _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944883 * 1 connector co	Magnus L 110 x 260 nsists of 2 individual parts	110 x 260 x 19	4	8,0 x 120	17	3	5	3	6	4,8 x 60	2

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary be	eam surface-mounted	Seconda	ry beam flu	sh-mou	nted	characte	eristic load-b	earing cape	icity F _{Rk} ^{d)}
Art. no.	Name	W x H x D ^{a)}	min. W_{MB}	min. H _{MB}	min. W _{SB}	min. H _{SB}	min. W_{SB}^{b}	min. H _{SB}	W _M	D _M ^{c)}	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	F _{4,Rk}
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944883	Magnus L 110 x 260	110 x 260 x 19	120	280	120	280	140	280	110	19	13,93	45,13	23,00	17,98

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of ρ_k = 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{1x} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity F_{Rk} should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity F_{Rk} should be reduced to the design values F_{Rk} in terms of the service class and the load duration class: F_{Rk} = F_{Rk} x k_{mat} / y_{Rk}.







		Dimensions			Ful	ly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x Dª)	PU*	Dimensions	_	In the mo	in beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	n _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944884	Magnus L 110 x 300	110 x 300 x 19	4	8,0 x 120	20	4	6	3	7	4,8 x 60	2

* I connector consists of 2 individual parts

a) D= assembly thickness b) Included in delivery

		Dimensions	Main	beam	Secondary beam surface-mounted		Secondary beam flush-mounted				characteristic load-bearing capacity $F_{Rk^{d)}}$			
Art. no.	Name	W x H x D ^{a)}	$\min. W_{\rm \tiny MB}$	min. H_{MB}	min. W _{SB}	min. H _{sb}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M c)	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944884	Magnus L 110 x 300	110 x 300 x 19	120	320	120	320	140	320	110	19	13,93	54,15	23,00	20,56

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of $\rho_{\text{k}}\text{=}$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{kx} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fix in terms of the service class and the load duration class: Fix= Fix x kmat / yu.







		Dimensions			Fu	lly threaded s	screws ^{b)}			Fixing scre	ews ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	n _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944887 * 1 connector co	Magnus L 110 x 340 nsists of 2 individual parts	110 x 340 x 19	4	8,0 x 120	22	3	7	3	9	4,8 x 60	2

a) D= assembly thickness

b) Included in delivery

		Dimensions	Main	beam	Secondary b	eam surface-mounted	Secondary beam flush-mounted				characteristic load-bearing capacity $F_{Rk}^{d)}$			
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. H_{MB}	min. W _{SB}	min. H _{SB}	min. W _{SB} ^{b)}	min. H _{SB}	W _M	D _M c))	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944887	Magnus L 110 x 340	110 x 340 x 19	120	360	120	360	140	360	110	19	13,93	63,18	23,00	24,67

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of $\rho_{\text{k}}\text{=}$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_M apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Find in terms of the service class and the load duration class: Fiz= Fix x kmid / yu.







		Dimensions			Fu	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions		In the mo	ain beam	In the seco	ndary beam	Dimensions	
		[mm]		[mm]	n _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944888	Magnus L 110 x 380	110 x 380 x 19	4	8,0 x 120	25	4	8	2	11	4,8 x 60	2

* 1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

Art no		Dimensions	Main	beam	Secondary be	eam surface-mounted	Secondary beam flush-mounted				characteristic load-bearing capacity $F_{\!\!Rk}{}^{d)}$			
Art. no.	Name	W x H x D ^{a)}	$\min. W_{\scriptscriptstyle MB}$	min. H _{MB}	min. W _{SB}	min. H _{sB}	min. W_{SB}^{b}	min. H _{sb}	W _M	D _M c)	$F_{1,Rk}$	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944888	Magnus L 110 x 380	110 x 380 x 19	120	400	120	400	140	400	110	19	9,29	72,20	23,00	26,96

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross density of $\rho_{\text{k}}\text{=}$ 380 kg/m³.

The specified characteristic values of the load-bearing capacity F_{kx} apply to the specified timber cross-sections, centred force application along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max. possible load (the max. force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fix in terms of the service class and the load duration class: Fix= Fix x kmat / ym.







		Dimensions			Fu	lly threaded s	crews ^{b)}			Fixing scre	ws ^{b)}
Art. no.	Name	W x H x D ^{a)}	PU*	Dimensions	_	In the m	ain beam	In the seco	ndary beam	Dimensions	_
		[mm]		[mm]	n _{total}	n _{90°}	n _{45°}	n _{90°}	n _{45°}	[mm]	n
944889	Magnus L 110 x 580	110 x 580 x 19	4	8,0 x 120	38	4	14	2	18	4,8 x 60	2

1 connector consists of 2 individual parts

a) D= assembly thickness

b) Included in delivery

Art no		Dimensions	Main	beam	Secondary be	eam surface-mounted	Secondary beam flush-mounted				characteristic load-bearing capacity $F_{Rk}^{d)}$			
Art. no.	Name	W x H x D ^{a)}	min. $W_{\rm MB}$	min. H_{MB}	min. W _{SB}	min. H _{SB}	min. W _{SB} ^{b)}	min. H _{SB}	W _M	D _M ^{c))}	F _{1,Rk}	F _{2,Rk}	F _{3,Rk}	$F_{4,Rk}$
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[kN]	[kN]
944889	Magnus L 110 x 580	110 x 580 x 19	120	600	120	600	140	600	110	19	9,29	126,35	23,00	43,29

a) D= assembly thickness

b) Included in delivery

c) Recommended minimum width of the secondary beam with the connector flush-mounted

d) To make installation easier, it is advantageous to reduce the milling depth slightly, especially for larger wood dimensions.

e) Both beams softwood with a gross devices in manual upon signify, expecting for target were animated instantiation along the respective beam axis as well as connector installation flush with the top edge of the main and secondary beams. Calculation according to ETA 15/0761. All mechanical values provided should be viewed as subject to the assumptions that have been made and represent example calculations.

All values are calculated minimum values and are subject to typographical and printing errors.

The characteristic values of the load-bearing capacity Fix should not be treated as equivalent to the max, possible load (the max, force). The characteristic values of the load-bearing capacity Fix should be reduced to the design values Fize in terms of the service class and the load duration class: $F_{Rd} = F_{Rk} \times k_{mod} / \gamma_{M}$.



ECS calculation aid

The Eurotec ECS calculation software allows you to create verifiable calculation aids according to ETA-15/0761 and EN 1995 (Eurocode 5) in an extremely short space of time.

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EuroTec calculation service

Magnus Hook Connector according to ETA-15/0761



The specialist for fastening technology

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Please contact our technical department or use the free calculation services in the service section of our website.

Contact				
Trader:		Contrac	ctor:	
Contact Person:		Contac	t Person:	
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□ inserted into main beam		14	- Ratio of changing load:	kN
Selection of Magnus				