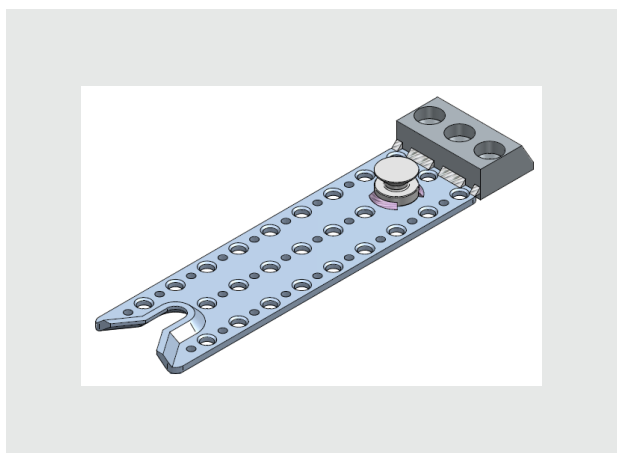


Montageanleitung

Construction Manual

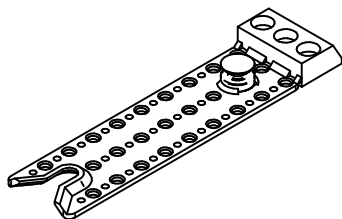
Notice de montage

VERSION



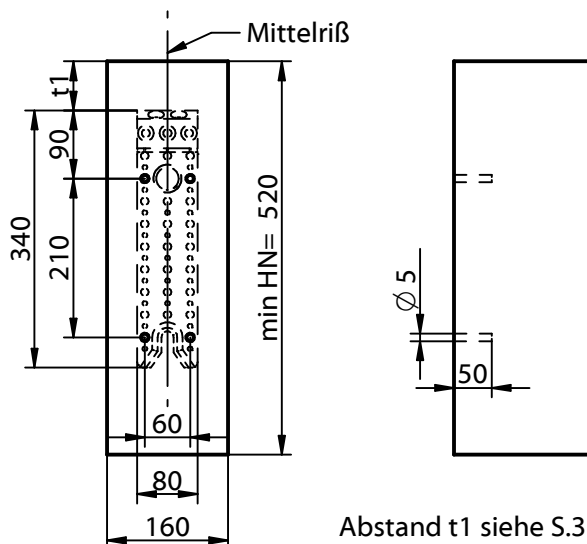
Art.-Nr.

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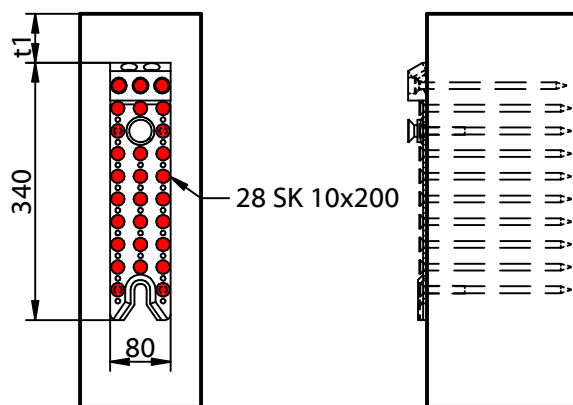
Sichtbare Montage:

1. Nebenträger anreißen und bohren:

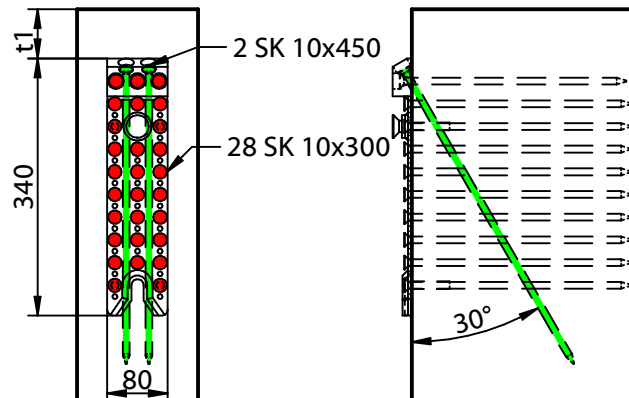


2. Verschraubung Nebenträger

Min. NT-Verschraubung ohne Schrägschrauben:

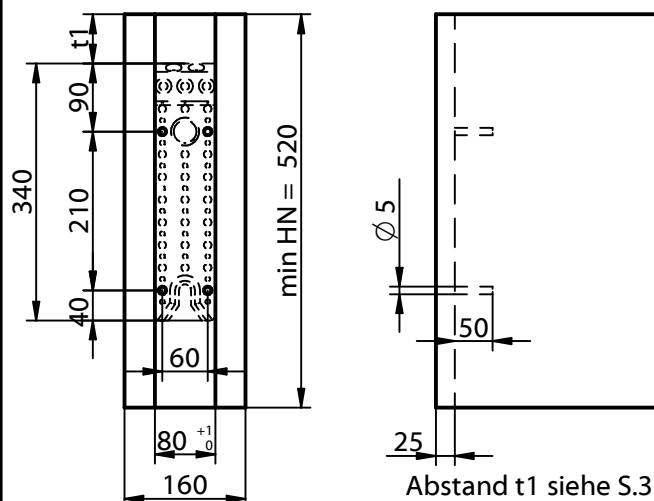


Max. NT-Verschraubung mit Schrägschrauben:



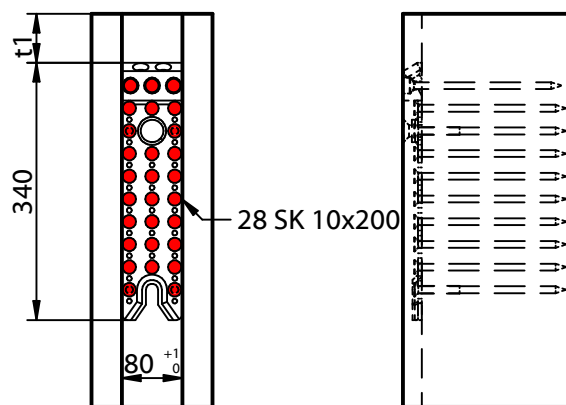
Verdeckte Montage:

1. Nebenträger Nut fräsen anreißen und bohren:

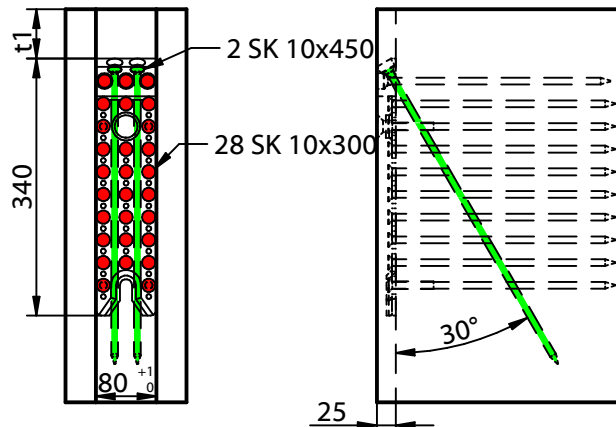


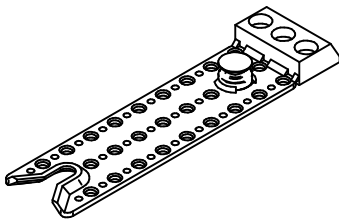
2. Verschraubung Nebenträger

Min. NT-Verschraubung ohne Schrägschrauben:



Max. NT-Verschraubung mit Schrägschrauben:



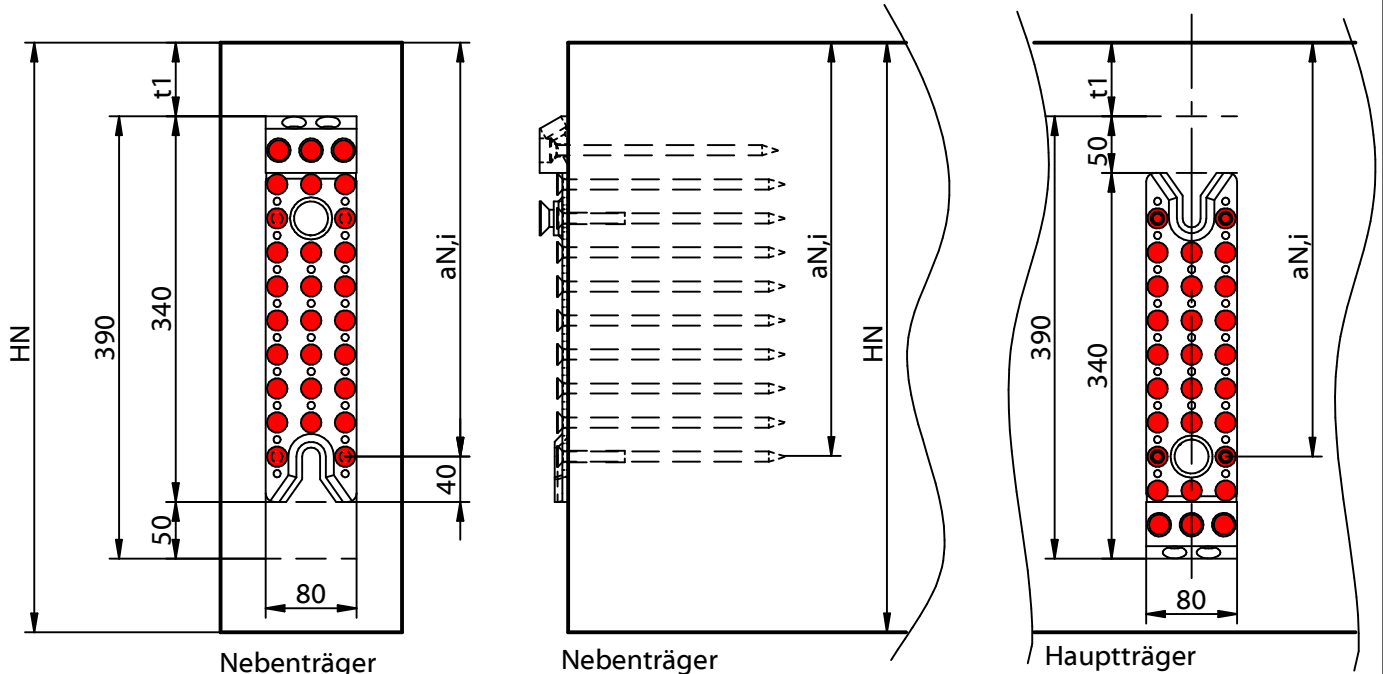


Montageanleitung RICON® S 390/80 VS+ZP

Verschweißter Kragenbolzen + Zusatzplatte **CE**
Einbau im Haupt- und Nebenträger ETA-10/0189

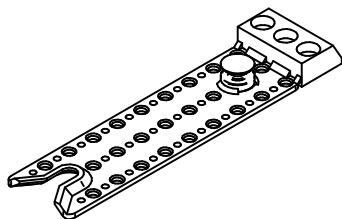
Art.-Nr. K191

RICON S Einbau mit Abstand t_1 in Abhängigkeit der Nebenträgerhöhe H_N :



Nebenträger- höhe H_N [mm]	Abstand t_1 [mm]	Abstand $a_{N,i}$ [mm]	Verhältnis $a_{N,i} / H_N$
520	65	365	0,702
540	80	380	0,704
560	95	395	0,705
580	110	410	0,707
600	120	420	0,700
620	135	435	0,702
640	150	450	0,703
660	165	465	0,705
680	180	480	0,706
700	190	490	0,700
720	205	505	0,701
740	220	520	0,703
760	235	535	0,704
780	250	550	0,705
800	260	560	0,700
820	275	575	0,701
840	290	590	0,702
860	305	605	0,703
880	320	620	0,705
900	330	630	0,700
920	345	645	0,701
940	360	660	0,702
960	375	675	0,703
980	390	690	0,704
1000	400	700	0,700

Wenn das Verhältnis $a_{N,i}/H_N > 0,70$, dann ist nach EN 1995-1-1 und ETA 10-0189 kein zusätzlicher Querkugelnachweis erforderlich. In der Tabelle links wurde dieses Verhältnis für den Abstand $a_{N,i}$ und t_1 in verschiedenen Nebenträgerhöhen dargestellt. Die Abstände t_1 und $a_{N,i}$ können wie oben dargestellt für die RICON S Montage angewendet werden !



Montageanleitung RICON® S 390/80 VS+ZP

Verschweißter Kragenbolzen + Zusatzplatte



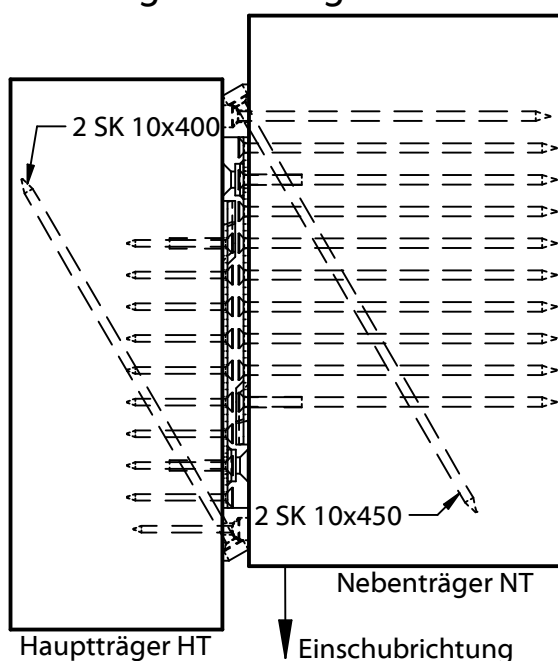
Art.-Nr. K191

Sichtbare / verdeckte Endmontage

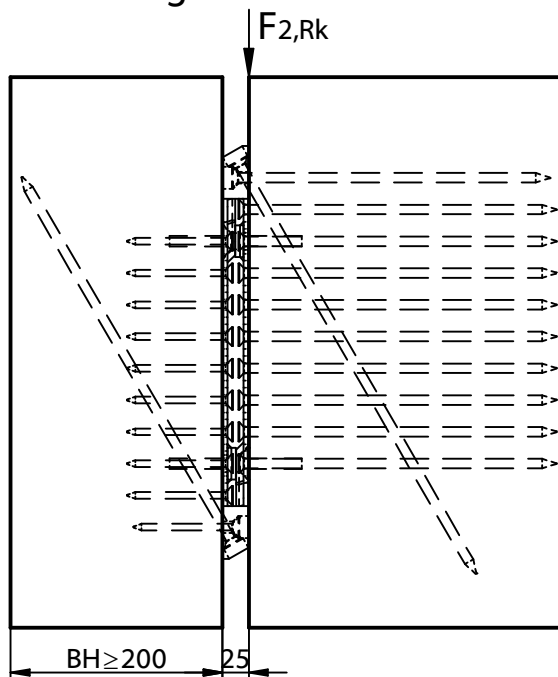
ETA-10/0189

Sichtbare Endmontage

1. Nebenträger einhängen

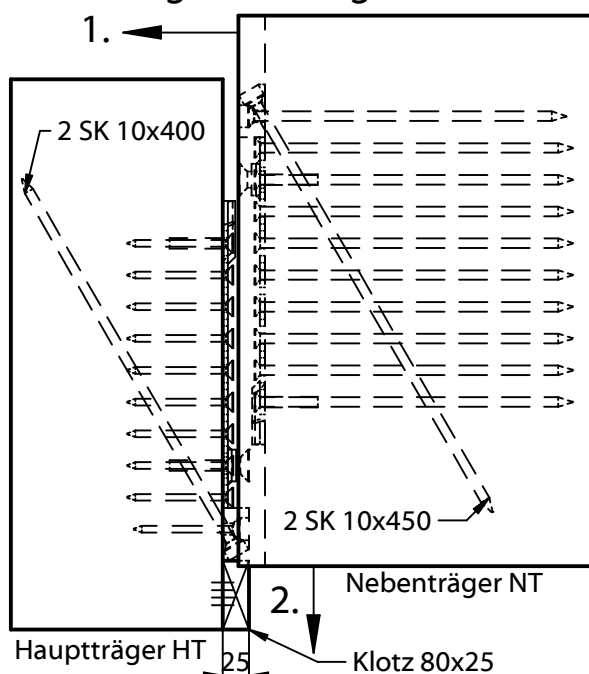


2. HT-NT fertig montiert

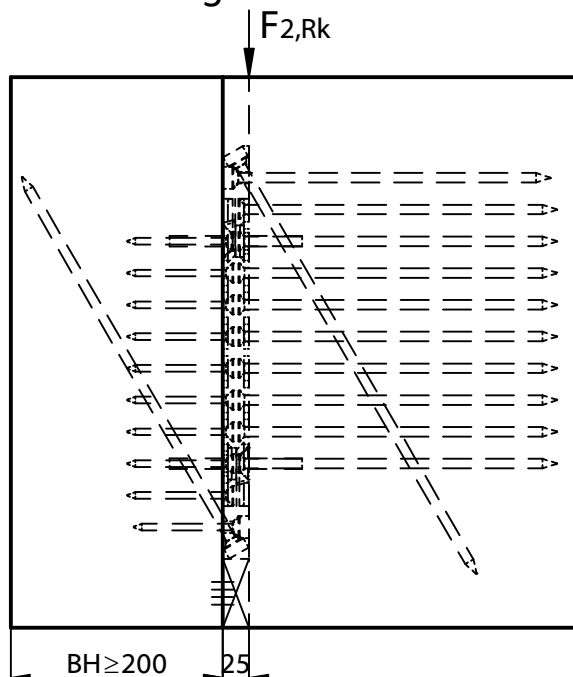


Verdeckte Endmontage

1. Nebenträger einhängen



2. HT-NT fertig montiert



Verschraubungen:

Min. Verschraubung:

HT: 28 SK 10x100; NT: 28 SK 10x200

Standard Verschraubung:

HT: 28 SK 10x100, 2 SK 10x400; NT: 28 SK 10x200, 2 SK 10x450

Max. Verschraubung:

HT: 28 SK 10x100, 2 SK 10x400; NT: 28 SK 10x300, 2 SK 10x450



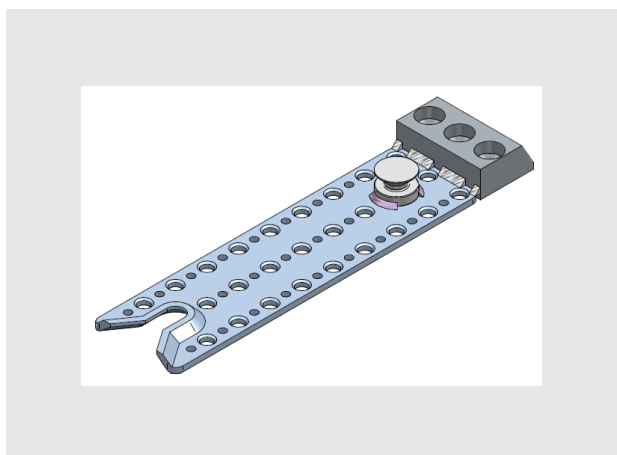
Knapp GmbH ■ Wassergasse 31 ■ A-3324 Euratsfeld ■ Tel.: +43 (0)7474 / 799 10 ■ Fax: +43 (0)7474 / 799 10 99
Knapp GmbH ■ Vertrieb Deutschland ■ Föhrenweg 1 ■ D-85591 Vaterstetten ■ Tel.: +49 (0)8106 / 99 55 99 0 ■ Fax: +49 (0)8106 / 99 55 99 20 ■ E-Mail: info@knapp-verbinder.com
Knapp GmbH Sàrl ■ Filiale France ■ 1A Rue du Stade ■ F - 67880 Innenheim Tel. : +33 (0)3 88 48 17 87 ■ Fax: +33 (0)9 70 62 81 87 ■ E-Mail : france@knapp-connectors.com

Montageanleitung

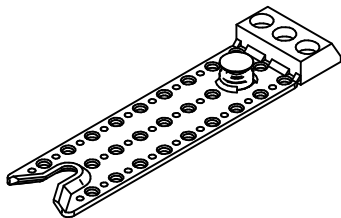
Construction Manual

Notice de montage

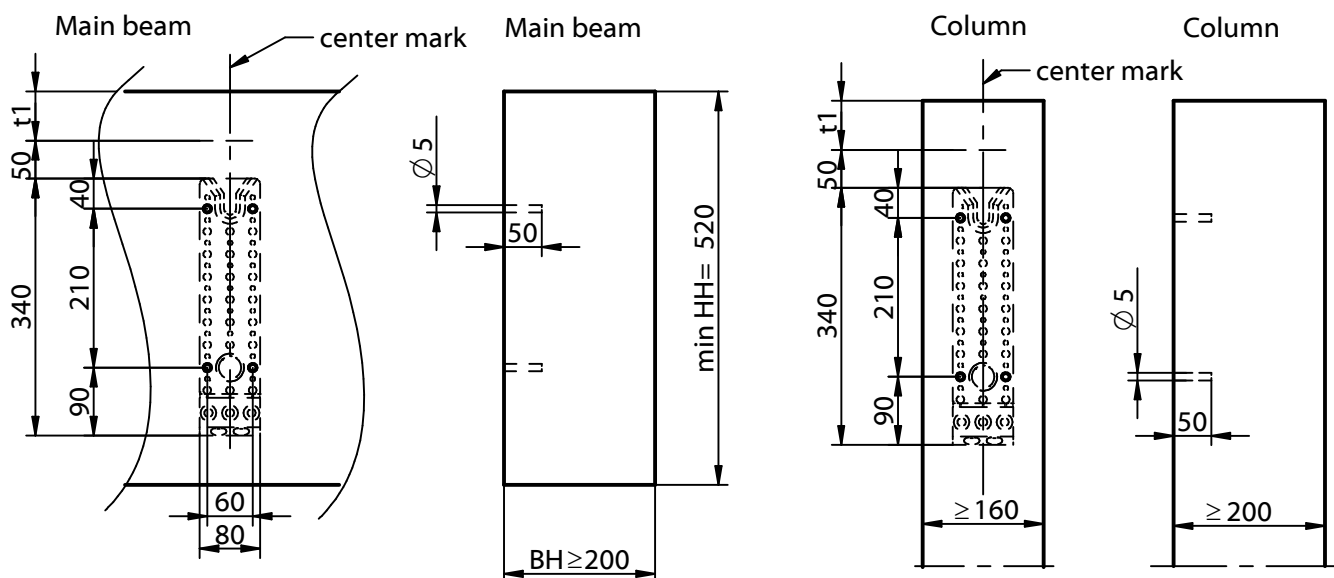
VERSION



Art.-No.



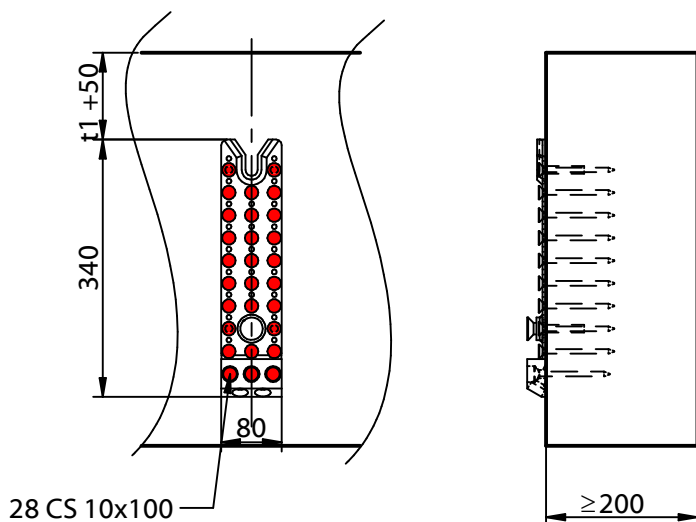
1. Mark and drill main beam and column:



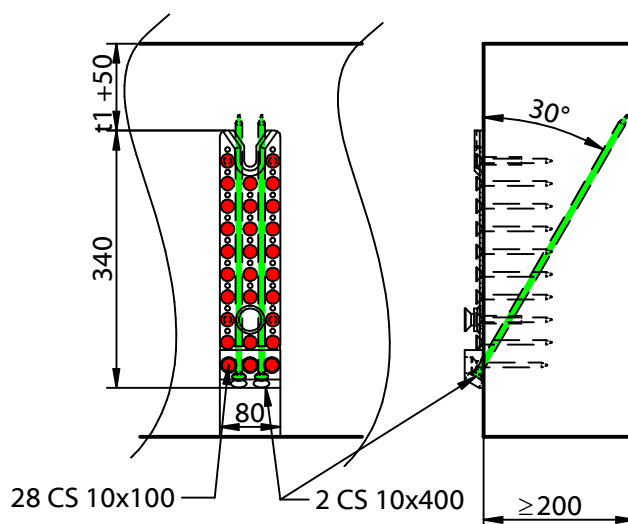
Distance t1 see page 3

2. Screwing main beam and column:

Main beam connection without inclined screws

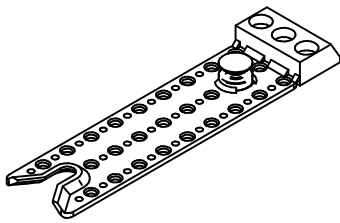


Main beam with inclined screws



Note:

For column depth $BH < 200$ mm shorter inclined screws $L < 400$ mm may be used. A qualified design professional must provide respective design adjustments !



Assembly instructions

RICON® S 390/80 VS+ZP

Welded collar bolt and additional plate

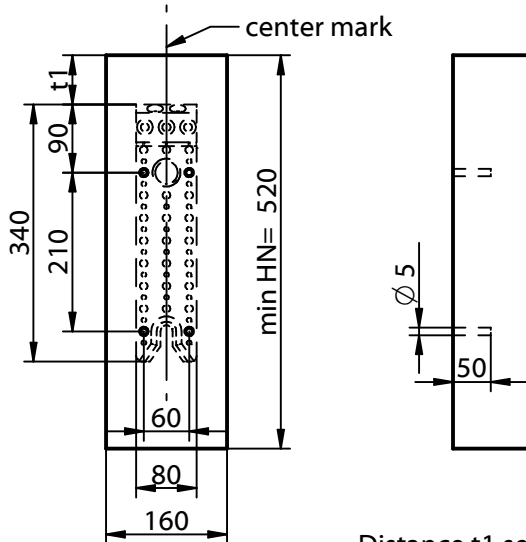


Art.-No. K191 Visible/concealed installation in secondary beam

ETA-10/0189

Visible Installation:

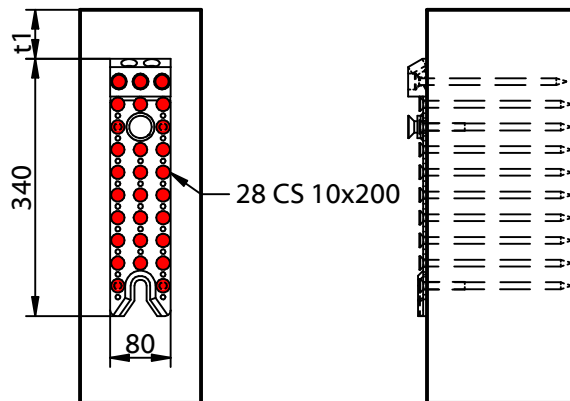
1. Mark and drill secondary beam:



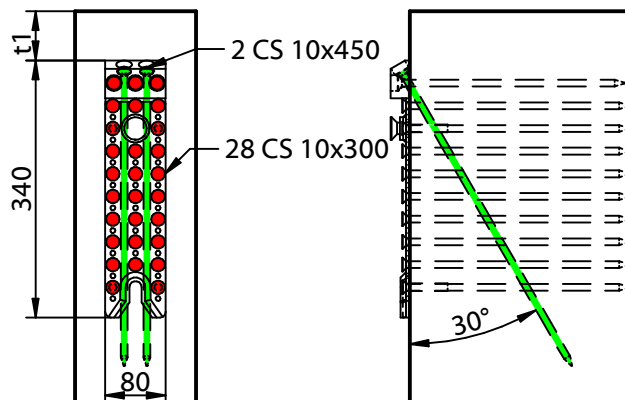
Distance t1 see page 3

2. Screwing secondary beam

Min. screwing in secondary beam with inclined screws:

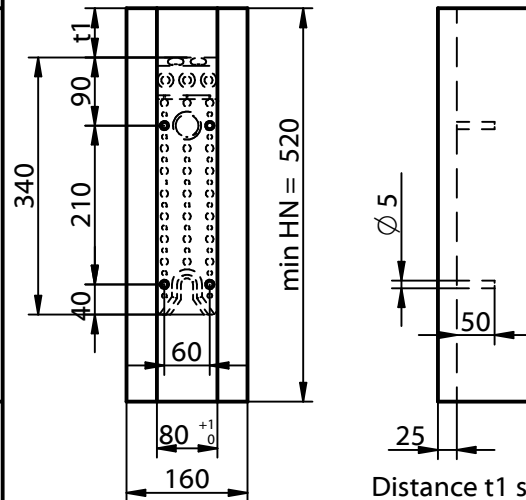


Max. screwing in secondary beam with inclined screws:



Concealed Installation:

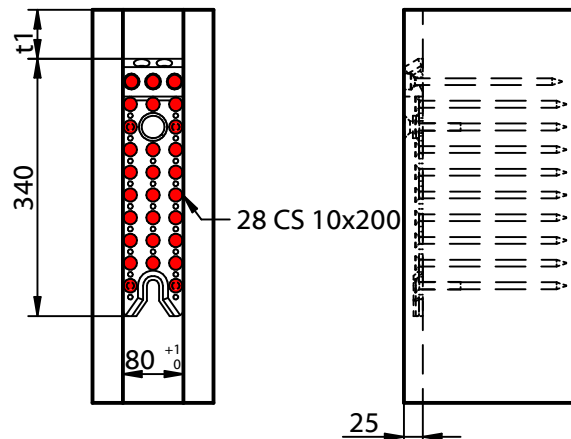
1. Milling housing, mark and drill secondary beam:



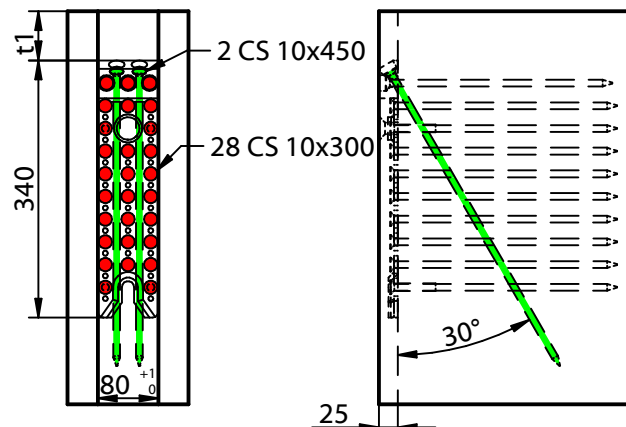
Distance t1 see page 3

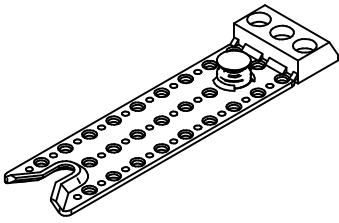
2. Screwing secondary beam

Min. screwing in secondary beam without inclined screws:



Max. screwing in secondary beam without inclined screws:





Assembly instructions

RICON® S 390/80 VS+ZP

Welded collar bolt and additional plate

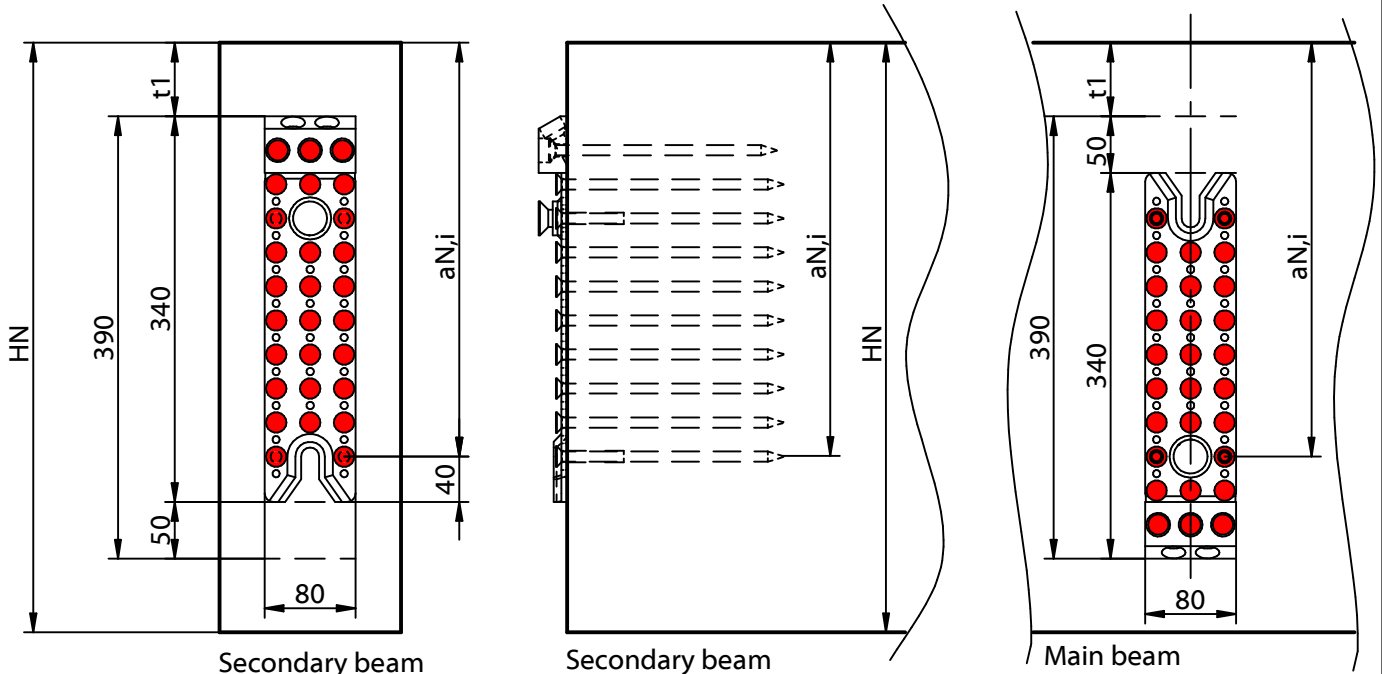


Art.-No. K191

Installation in main- and secondary beam

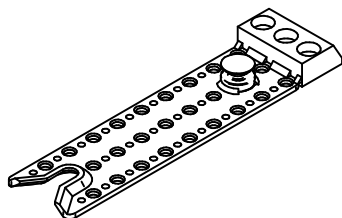
ETA-10/0189

RICON S installation with distance t_1 depending on the secondary beam height H_N :



Secondary beam height H_N [mm]	Distance t_1 [mm]	Distance a_{Ni} [mm]	Ratio a_{Ni} / H_N
520	65	365	0,702
540	80	380	0,704
560	95	395	0,705
580	110	410	0,707
600	120	420	0,700
620	135	435	0,702
640	150	450	0,703
660	165	465	0,705
680	180	480	0,706
700	190	490	0,700
720	205	505	0,701
740	220	520	0,703
760	235	535	0,704
780	250	550	0,705
800	260	560	0,700
820	275	575	0,701
840	290	590	0,702
860	305	605	0,703
880	320	620	0,705
900	330	630	0,700
920	345	645	0,701
940	360	660	0,702
960	375	675	0,703
980	390	690	0,704
1000	400	700	0,700

In cases where ratio $a_{Ni}/H_N > 0,70$, no radial tension reinforcing in accordance with EN 1995-1-1 and ETA 10-0189 is required. Refer to the table on the left for pre calculated values. Distance t_1 and a_{Ni} can be applied to RICON S install as indicated above.



Assembly instructions

RICON® S 390/80 VS+ZP

Welded collar bolt and additional plate

Visible/concealed final assembly

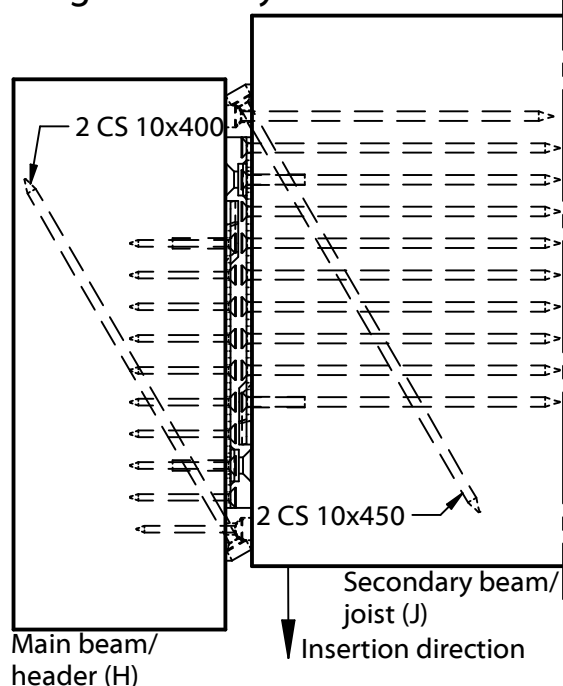
CE

ETA-10/0189

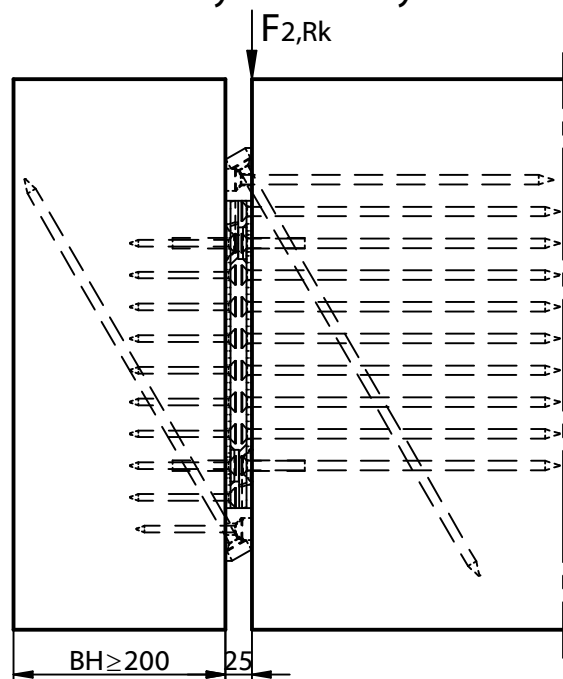
Art.-No. K191

Visible final assembly

1. Fitting secondary beam

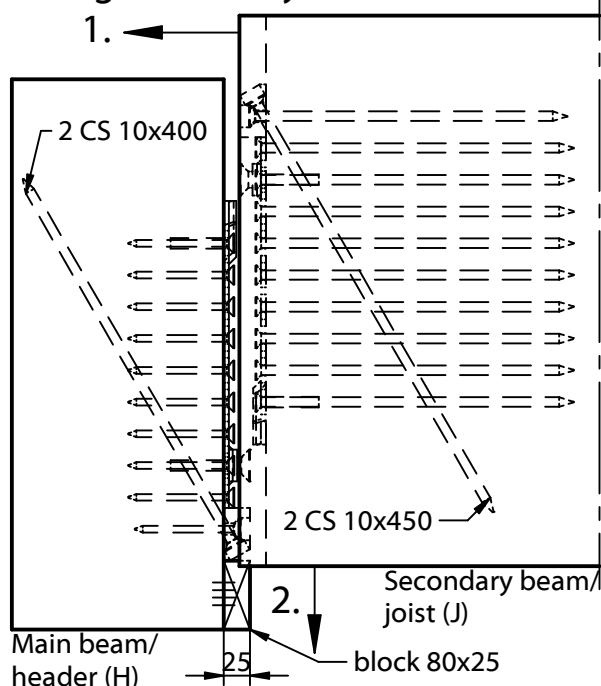


2. Main-secondary beam fully assembled

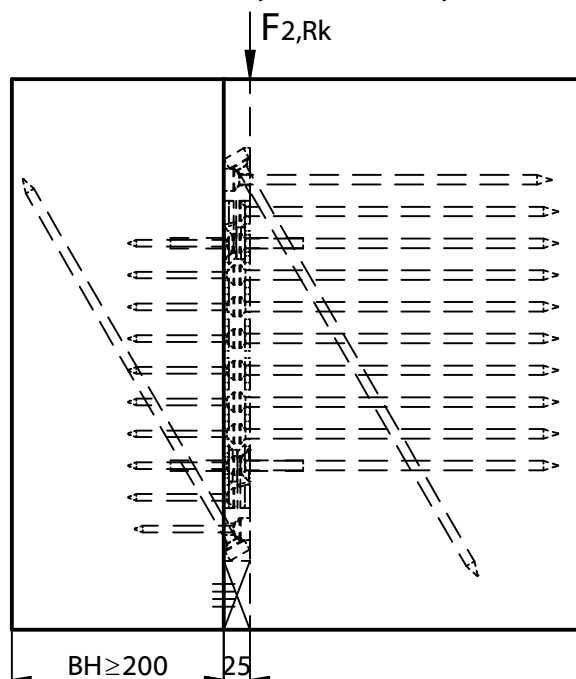


Concealed final assembly

1. Fitting secondary beam



2. Main-secondary beam fully assembled



Screwings:

Min. screwing:

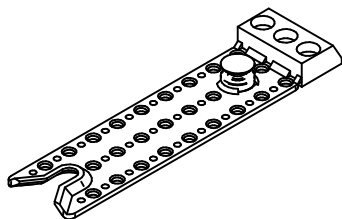
Standard screwing:

Max. screwing:

H: 28 CS 10x100; J: 28 SK 10x200

H: 28 CS 10x100, 2 CS 10x400; J: 28 CS 10x200, 2 CS 10x450

H: 28 CS 10x100, 2 CS 10x400; J: 28 CS 10x300, 2 CS 10x450



Assembly instructions

RICON® S 390/80 VS+ZP

Welded collar bolt and additional plate

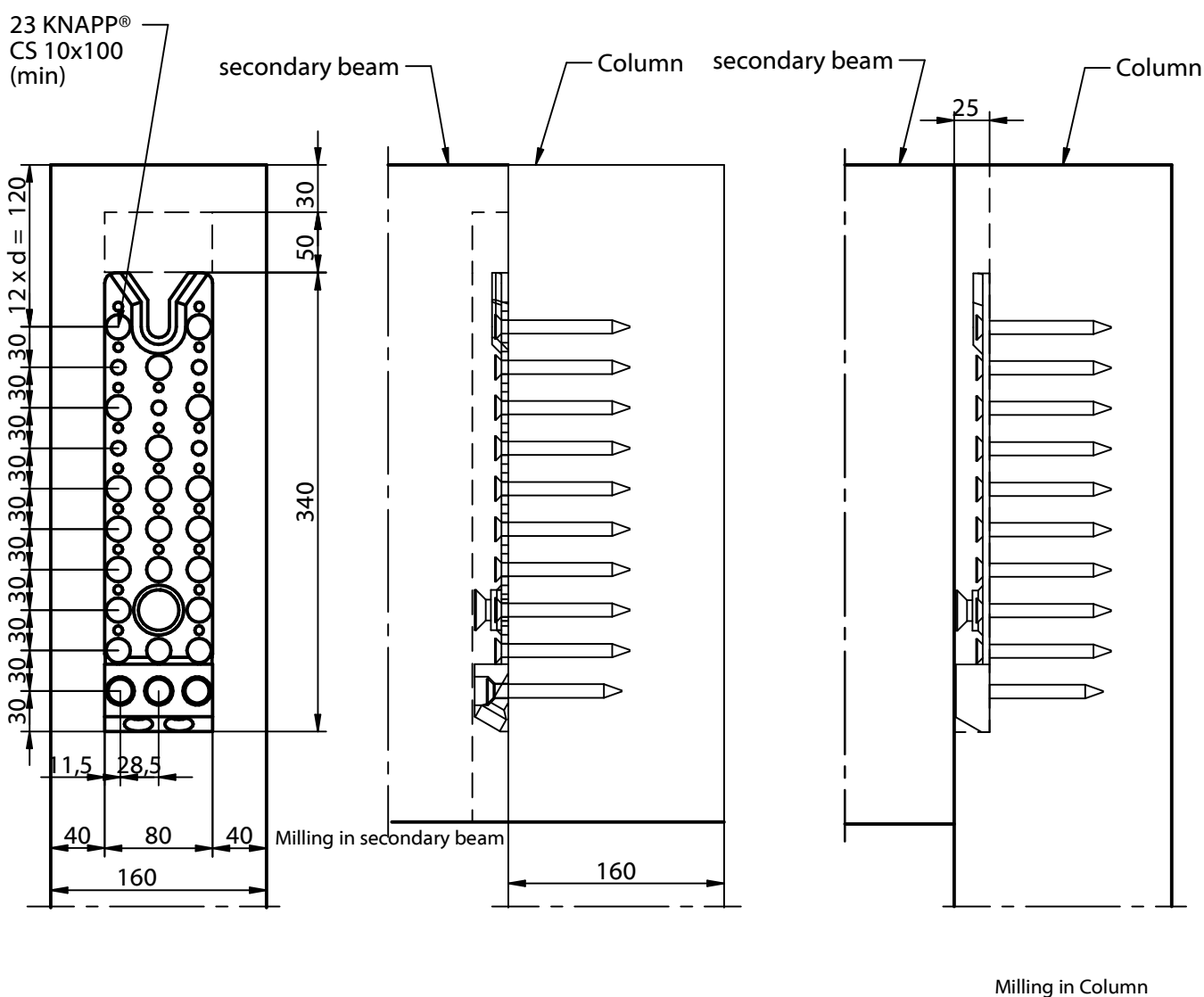


ETA-10/0189

Art.-No. K191

Column connection

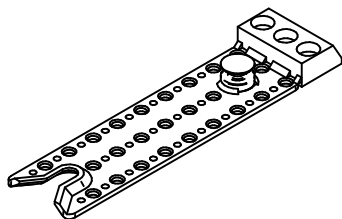
Number of screws and position (min . screw connection)



Minimum cross section for min. column screw connection

Minimum cross-sections apply to glulam.

In solid softwood, the 10x100 mm screws with diameter 6 mm must be pre-drilled over their full length!



Assembly instructions

RICON® S 390/80 VS+ZP

Welded collar bolt and additional plate

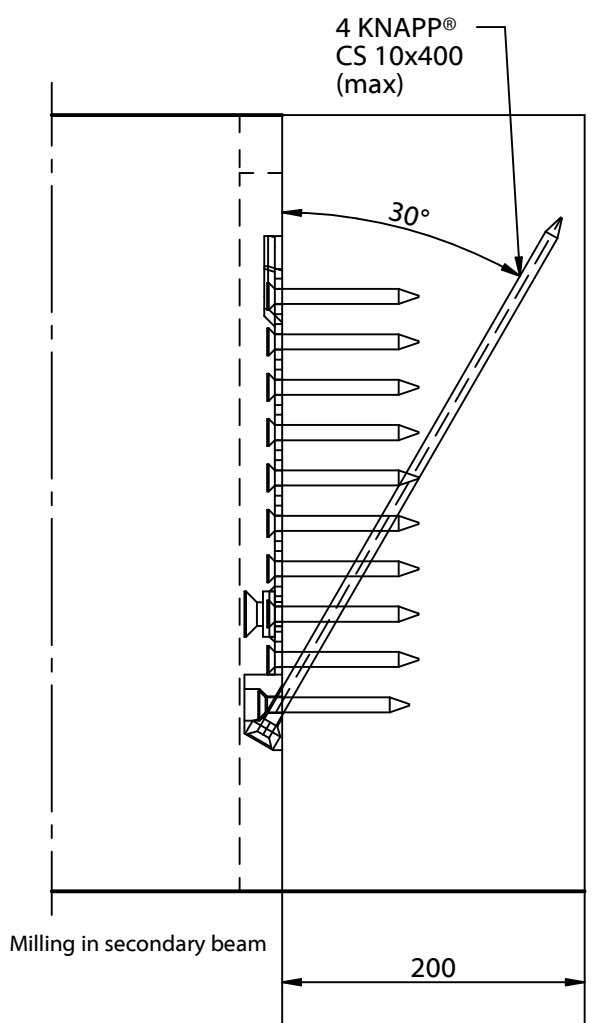
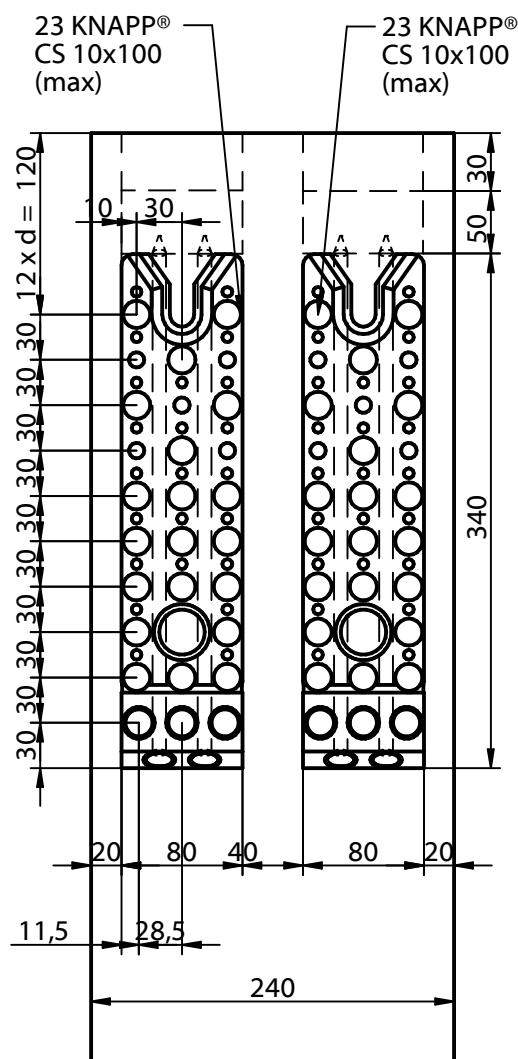


Art.-No. K191

Column connection

ETA-10/0189

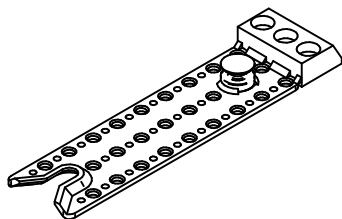
Number of screws and position (max . screw connection)



Minimum cross section for column connection 2 RICON S 390x80 VS+ZP side by side

Minimum cross-sections apply to glulam.

In solid softwood, the 10x100 mm screws with diameter 6 mm must be pre-drilled over their full length!



Assembly instructions

RICON® S 390/80 VS+ZP

Welded collar bolt and additional plate

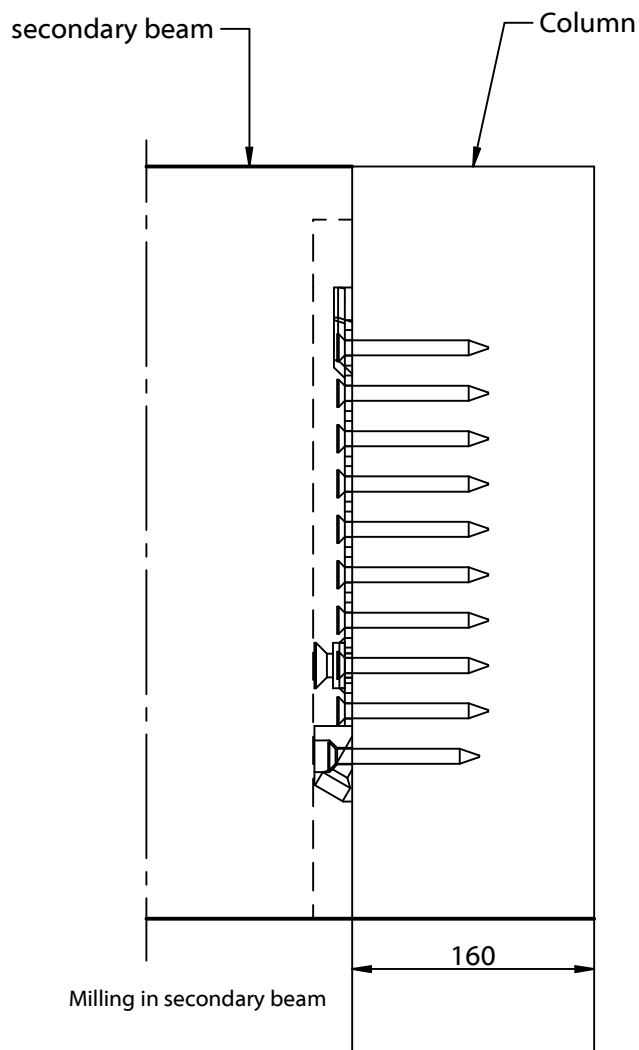
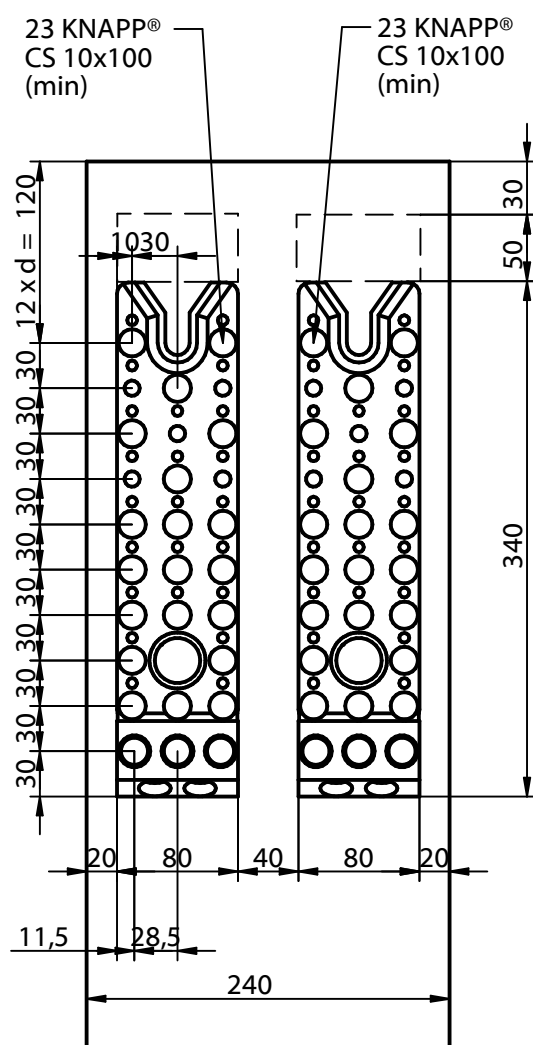


Art.-No. K191

Column connection

ETA-10/0189

Number of screws and position (min. screw connection)



Minimum cross section for column connection 2 RICON S 390x80 VS+ZP side by side

Minimum cross-sections apply to glulam.

In solid softwood, the 10x100 mm screws with diameter 6 mm must be pre-drilled over their full length!



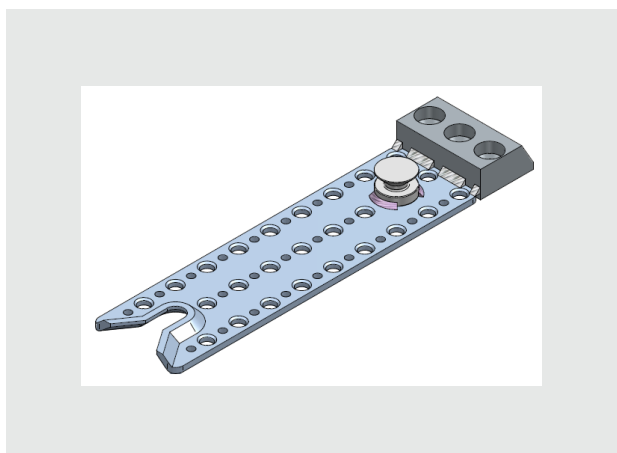
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Knapp GmbH ■ Vertrieb Deutschland ■ Föhrenweg 1 ■ D-85591 Vaterstetten ■ Tel.: +49 (0)8106 / 99 55 99 0 ■ Fax: +49 (0)8106 / 99 55 99 20 ■ E-Mail: info@knapp-verbinder.com
Knapp GmbH Sàrl ■ Filiale France ■ 1A Rue du Stade ■ F - 67880 Innenheim Tel. : +33 (0)3 88 48 17 87 ■ Fax: +33 (0)9 70 62 81 87 ■ E-Mail : france@knapp-connectors.com

Montageanleitung

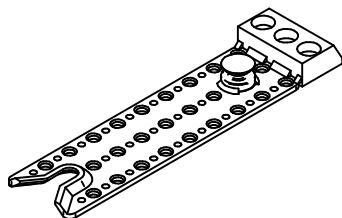
Construction Manual

Notice de montage

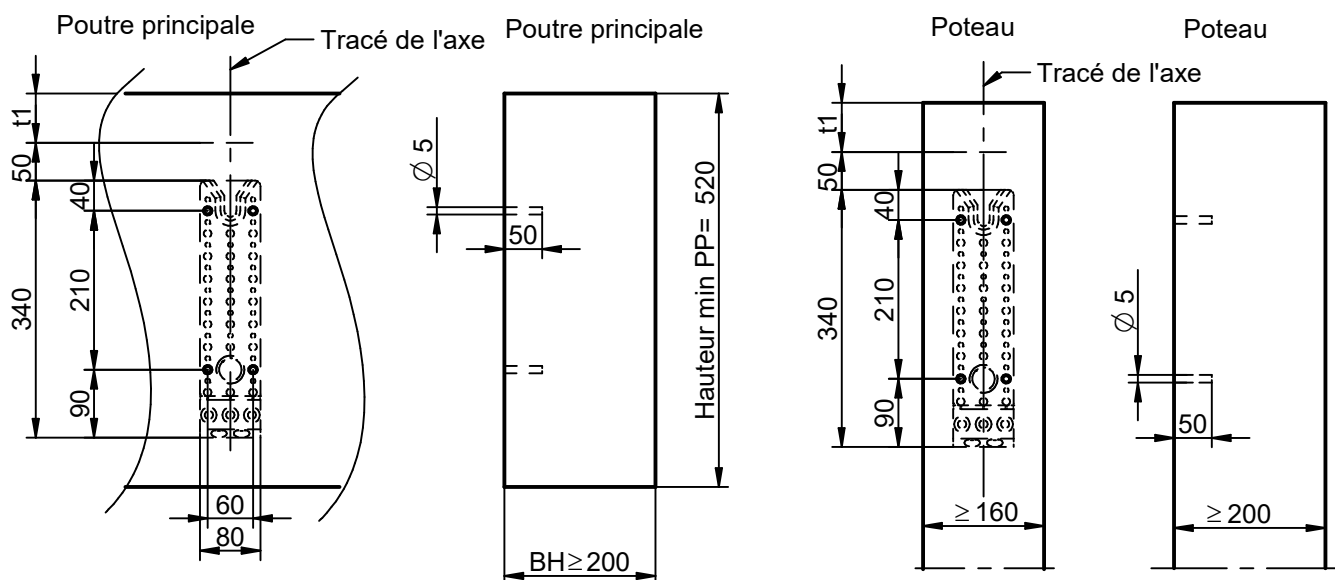
VERSION



Réf.



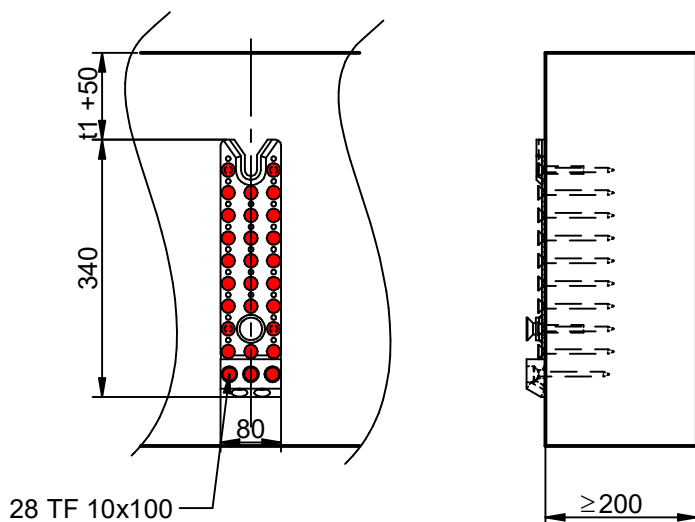
1. Pointer et percer la poutre principale ou le poteau :



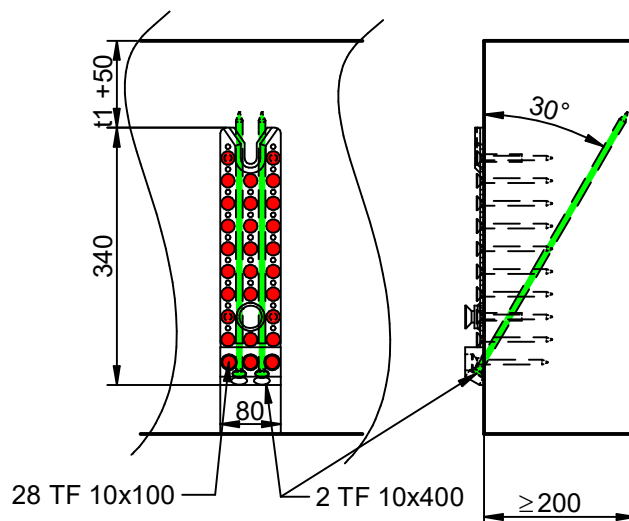
Distance t1 cf. Page 3

2. Réaliser le vissage sur la poutre principale/poteau

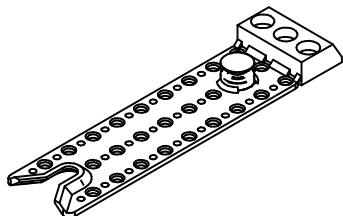
Mise en œuvre sans vissage biais :



Mise en œuvre avec vissage biais :



Pour les poutres principales/poteaux avec BH < 200 mm, il est également possible d'utiliser des vis biais plus courtes < 400 mm !



RICON® S 390/80 VS+ZP

Goujon d'accroche soudé + talon de renfort

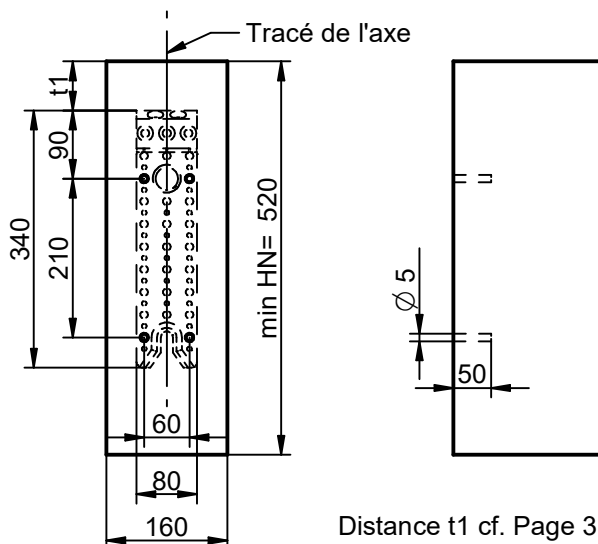


Réf. K191

Montage en applique ou encastré sur poutre secondaire

Montage en applique :

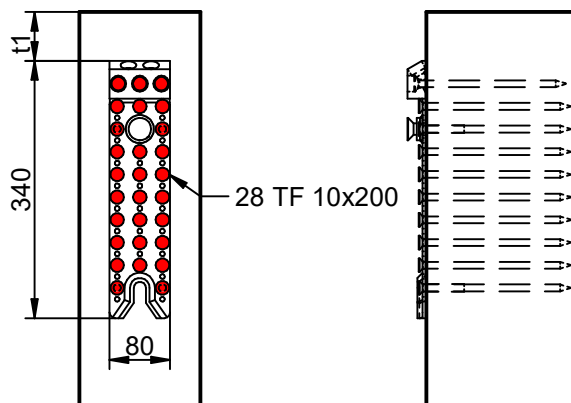
1. Pointer et percer la poutre secondaire :



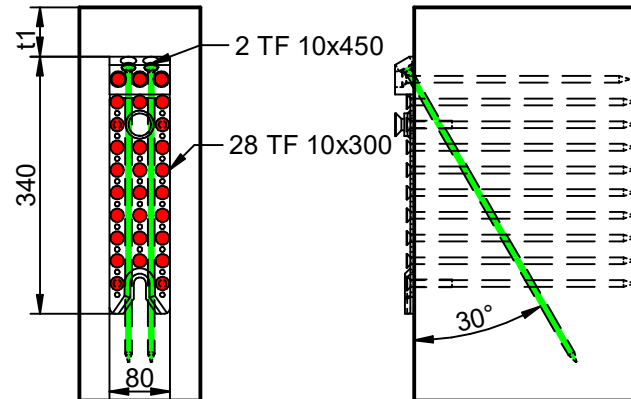
Distance t1 cf. Page 3

2. Réaliser le vissage sur la poutre secondaire :

Mise en œuvre sans vissage biais (min) :

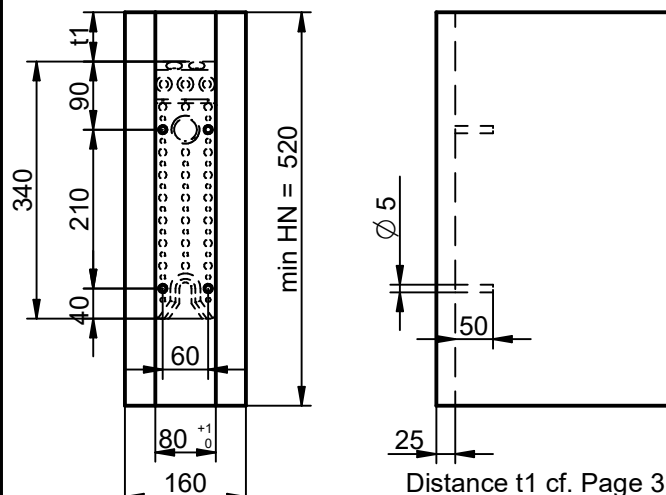


Mise en œuvre avec vissage biais (max) :



Montage encastré :

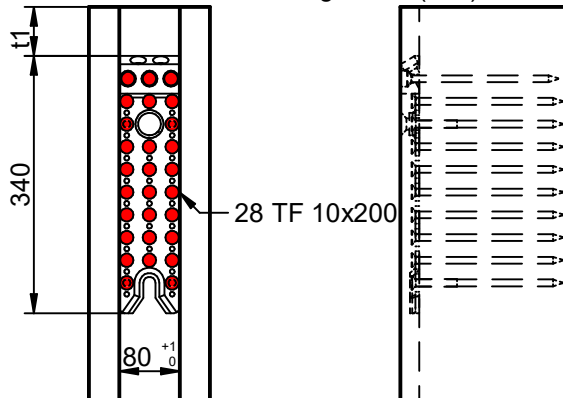
1. Rainurer, pointer et percer la poutre secondaire :



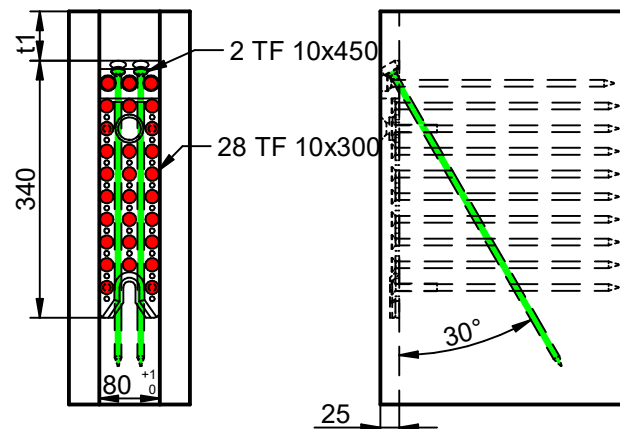
Distance t1 cf. Page 3

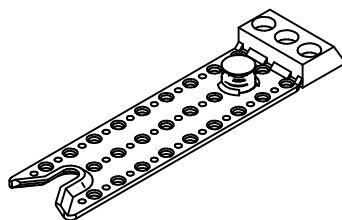
2. Réaliser le vissage sur la poutre secondaire :

Mise en œuvre sans vissage biais (min) :



Mise en œuvre avec vissage biais (max) :





RICON® S 390/80 VS+ZP

Goujon d'accroche soudé + talon de renfort

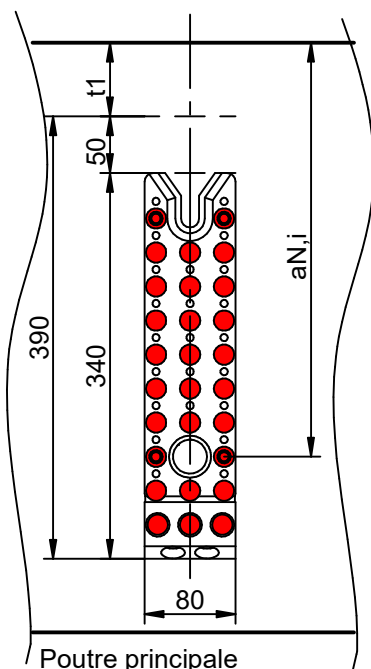
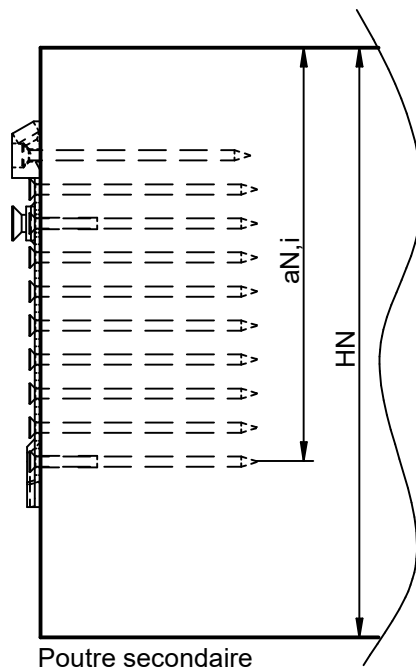
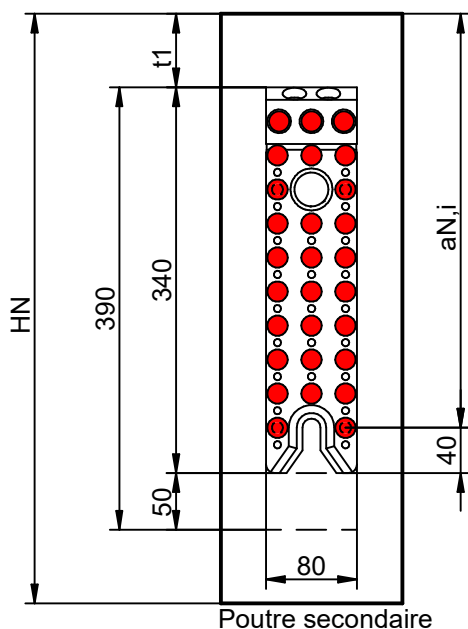


Réf. K191

Positionnement sur poutre principale et secondaire

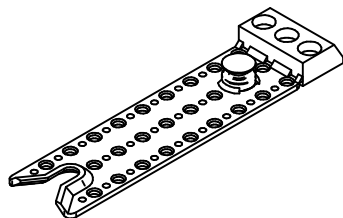
ETA-10/0189

Positionnement de RICON S avec distance t_1 en fonction de la hauteur de la poutre secondaire P.S. :



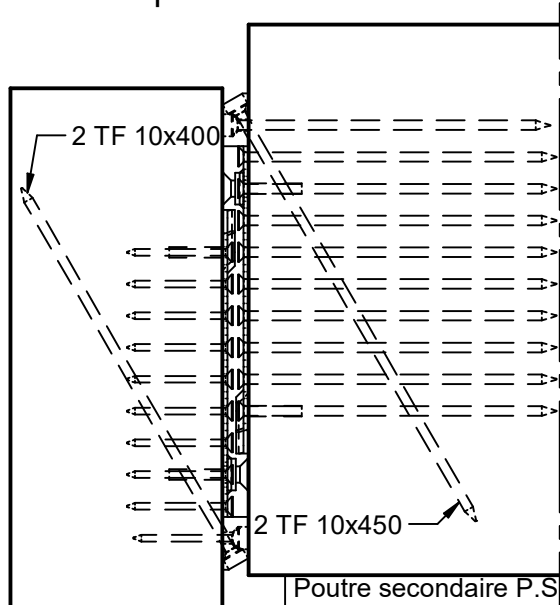
Hauteur P.S. H_N [mm]	Distance t_1 [mm]	Distance $a_{N,i}$ [mm]	Rapport $a_{N,i} / H_N$
520	65	365	0,702
540	80	380	0,704
560	95	395	0,705
580	110	410	0,707
600	120	420	0,700
620	135	435	0,702
640	150	450	0,703
660	165	465	0,705
680	180	480	0,706
700	190	490	0,700
720	205	505	0,701
740	220	520	0,703
760	235	535	0,704
780	250	550	0,705
800	260	560	0,700
820	275	575	0,701
840	290	590	0,702
860	305	605	0,703
880	320	620	0,705
900	330	630	0,700
920	345	645	0,701
940	360	660	0,702
960	375	675	0,703
980	390	690	0,704
1000	400	700	0,700

Dans le cas où le rapport $a_{N,i}/H_N > 0,70$, aucun vissage de renfort transversal n'est requis, conformément à EN 1995-1-1 et ETA 10-0189. Le tableau de gauche indique en fonction de ce rapport, les distances idéales $a_{N,i}$ et t_1 suivant la hauteur de la poutre secondaire. Ces distances t_1 et $a_{N,i}$ sont à prendre en compte pour le positionnement de RICON S !



Emboîtement connecteur en applique (visible) :

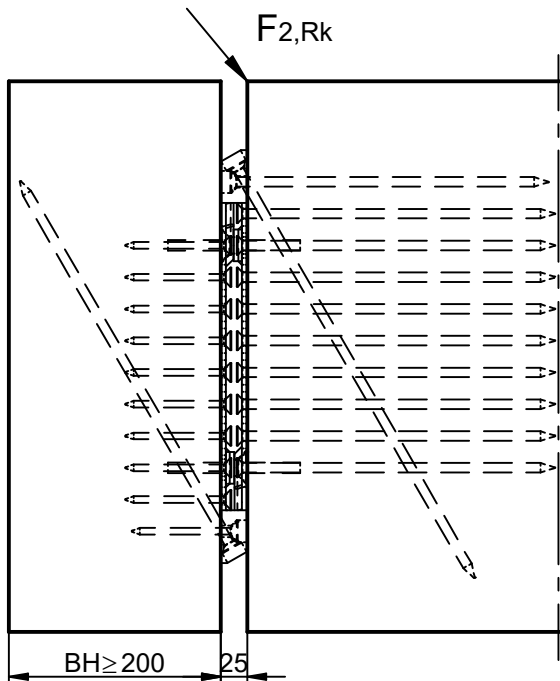
1. Emboîter la poutre secondaire



Poutre principale P.P.

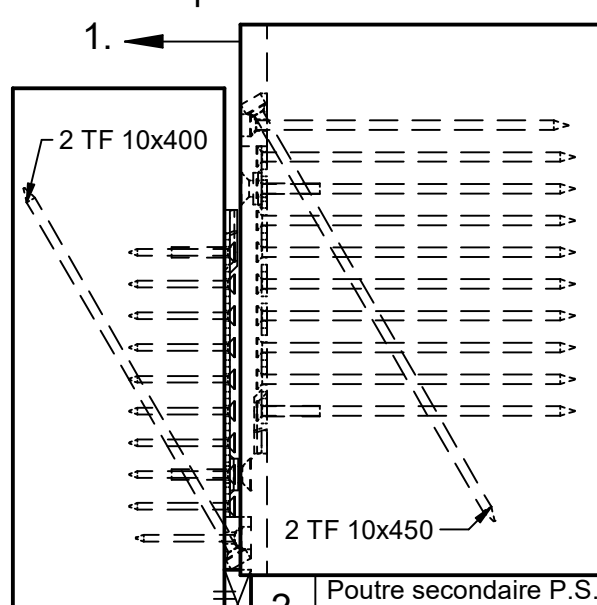
Sens d'emboîtement

2. Positionnement final P.P. et P.S.



Emboîtement connecteur encastré (invisible) :

1. Emboîter la poutre secondaire

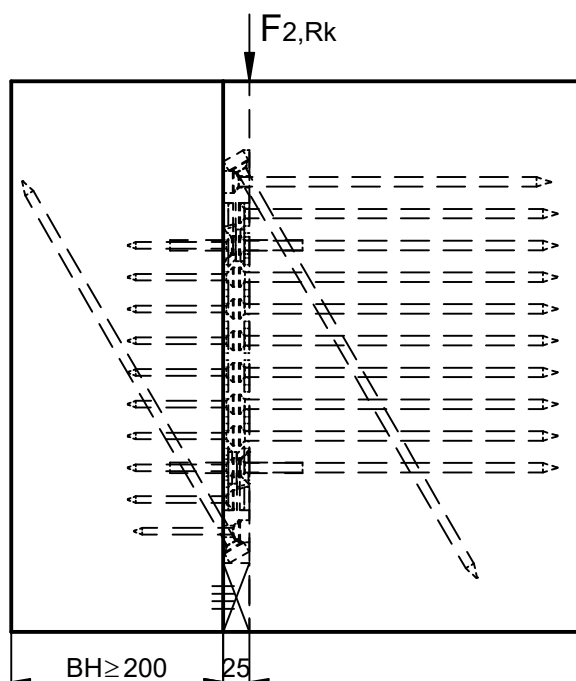


Poutre principale P.P.

25

Calle 80x25

2. Positionnement final P.P. et P.S.



Vissage:

Vissage minimum :

Vissage standard :

Vissage maximum :

P.P.: 28 TF 10x100; P.S.: 28 TF 10x200

P.P.: 28 TF 10x100, 2 TF 10x400; P.S.: 28 TF 10x200, 2 TF 10x450

P.P.: 28 TF 10x100, 2 TF 10x400; P.S.: 28 TF 10x300, 2 TF 10x450



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