UV

CONNECTION 60

One Dimensional Size:
- Different design loads
(use of screws with various lengths)
- Optimization of stocking

Simple and fast mounting

Simple uninstalling

Good tolerance of mounting and perfect attaching

Resistances in all directions

Stopping screw pull-out blocking

Hidden connections (or visible with inner space)

Beam-to-Beam and Beam-to-Column connections are possible also with horizontal and vertical inclination

CE

rothofixing®

CONNECTION UV made of aluminium with full thread screws

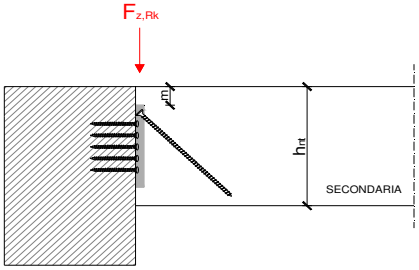
Certificate: CE Marking: ETA-11/0036
Category: GH Top UV Connectors

Material: Alloy of aluminium EN AW-2007 according to EN775-2:2006-06
Geometry: 60x110x13,5 mm

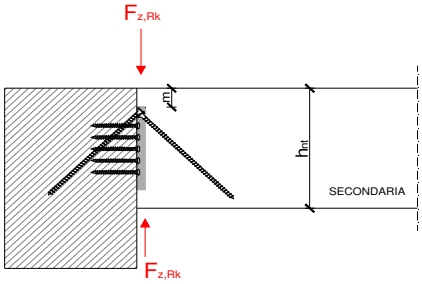
Details of connections:

Basic connection: uniaxial vertical loading

A. 2 Screws UV (Secondary beam)

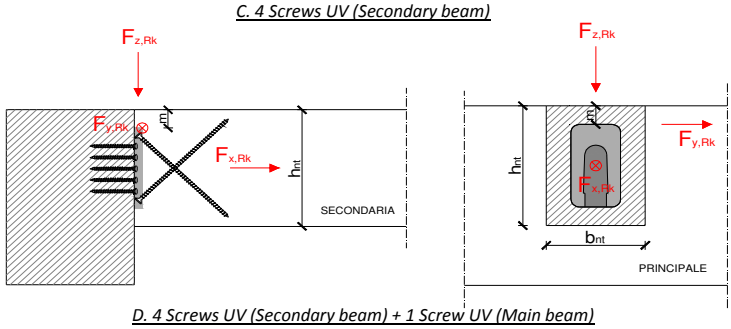


B. 2 Screws UV (Secondary beam) + 1 Screw UV (main beam)

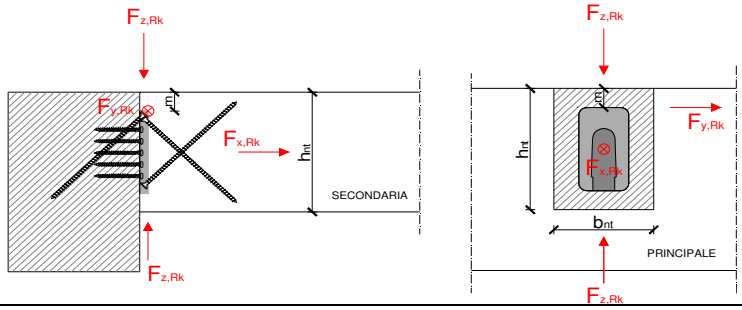


Complete connection: biaxial and triaxial loading

C. 4 Screws UV (Secondary beam)



D. 4 Screws UV (Secondary beam) + 1 Screw UV (Main beam)



Charakteristic resistances

Connection UV 60x110x13,5	Fastening secondary beam (NT)	Min. dimensions of elements Secondary beam (NT)		H_{min} of mounting	Fastening main beam (HT) (10 connectors)		↓ Rz,k characteristic	↑ Rz,k characteristic	↗ Ry,k characteristic	→ Rx,k characteristic
	Full thread screws UV	b_{NT} [mm]	h_{NT} [mm]	m [mm]	Anker nails	Screws for plates	[KN]	[KN]	[KN]	[KN]
	6,0 x 100	80	110	0	4,0 x 50	5,0 x 40	**9,60**	4,80	5,00	4,00
	6,0 x 120	80	110	0	4,0 x 50	5,0 x 40	**11,50**	5,70	5,40	4,00
	6,0 x 140	80	130	10	4,0 x 60	5,0 x 50	**13,30**	6,60	5,90	4,00
	6,0 x 160	80	160	25	4,0 x 60	5,0 x 50	**15,20**	7,50	6,30	4,00
	6,0 x 200	80	220	55	4,0 x 100	5,0 x 60	**18,70**	9,30	7,10	4,00

Notes

- Characteristic values calculated according to EN 1995 and in accordance with CE marking (ETA-08/0264)
'- Anker nails according to EN 14592
'- Screws according to EN 14592 and with Z-9.1-375 certification
'- The resistances refer respectively to:

↓	$F_{Z,Rk}$ [kN]	force in vertical direction, downwards
↑	$F_{Z,Rk}$ [kN]	force in vertical direction, upwards
↗	$F_{Y,Rk}$ [kN]	Lateral shear acting perpendicular to the secondary beam
→	$F_{Y,Rk}$ [kN]	Lateral shear acting parallel to the secondary beam

Verification of biaxial loading:

$$\left(\frac{F_{z,d}}{F_{z,Rd}}\right)^2 + \left(\frac{F_{y,d}}{F_{y,Rd}}\right)^2 \leq 1$$

Verification of triaxial loading:

$$\left(\frac{F_{z,d}}{F_{z,Rd}} + \frac{F_{x,d}}{F_{x,Rd}}\right)^2 + \left(\frac{F_{y,d}}{F_{y,Rd}}\right)^2 \leq 1$$

Admissible resistance (recommended)

Connection UV 60x110x13,5	Fastening secondary beam (NT)	Min. dimensions of elements Secondary beam (NT)		H_{min} of mounting	Fastening main beam (HT) (10 connectors)		↓Rz, zul admissible	↑ Rz, zul admissible	↗ Ry, zul admissible	→ Rx, zul admissible
	Full thread screws UV	b_{NT} [mm]	h_{NT} [mm]	m [mm]	Anker nails	Screws for plates	[KN]	[KN]	[KN]	[KN]
	6,0 x 100	80	110	0	4,0 x 50	5,0 x 40	**4,40**	2,20	2,30	1,80
	6,0 x 120	80	110	0	4,0 x 50	5,0 x 40	**5,20**	2,60	2,50	1,80
	6,0 x 140	80	130	10	4,0 x 60	5,0 x 50	**6,00**	3,00	2,70	1,80
	6,0 x 160	80	160	25	4,0 x 60	5,0 x 50	**6,90**	3,40	2,90	1,80
	6,0 x 200	80	220	55	4,0 x 100	5,0 x 60	**8,50**	4,20	3,20	1,80

Note: the admissible values Rzul are recommended Values and base on DIN1052:1988