

NEW
PRODUCT

T-Joint 20

Screw connector made of cast steel connectors.com

KNAPP[®]

connectors.com



T-Joint 20 connector for flush 45 ° angled screwing into timber construction



i.e. CLT wall joint screwed together with T-Joint 20

Benefits

- Flush - no protruding connector parts
- Tightening - no gaps, can be adjusted at any time
- Demountable – disassemble and re-assemble multiple times
- Fast - high degree of pre-manufacturing
- Universal - suitable for wood and steel joints
- Versatile – for flush and corner wall joints
- Simple - easy positioning in the borehole

Accessories

- Drilling template for 45 ° drilling
- HM drill 20mm with adjustable depth stop and with drilling template
- Spiral drill D 6mm



Accessories for T-Joint 20

Processing



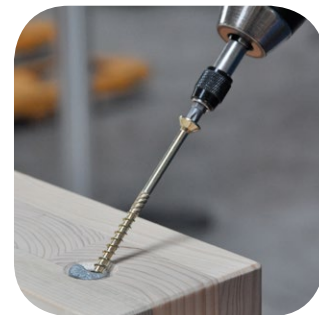
10mm deep borehole with adjustable drilling template for 30mm edge distance



Countersink the borehole approx. 2mm chamfer



Use the 45° drilling template guide for drilling



Screws with 6 or 8mm countersunk head screw

Material

Glulam, Cross laminated timber (CLT), Beech timber construction, solid structural timber, solid timber wall (MHM)

Applications

- For flush and in-angle wall to wall joint
- Tensile force transmission in combination with steel strip for bend-resistant connections (pre-set rafters of roof overhangs) and anchoring of timber frame walls
- Additional fixing of the wooden composite boards by cantilevered canopies



Fixing OSB board with T-Joint 20 for a bend-resistant main/secondary-beam joint for a cantilevered canopy

Non-visible MHM beam connector with RICON® S

Application and joint detail

RICON® S with 2-axis oblique screwed T-Joint 20 (45° / 45°) attached to MHM wall



RICON® S with T-Joint 20 screwed onto the MHM wall.



RICON® S with T-Joint 20 screwed onto the MHM wall.



Concealed on all four sides MHM wooden beam connection with RICON® S



RICON® S screwed with T-Joint 20

Wall corner with WALCO® V in MHM wall

Application and details

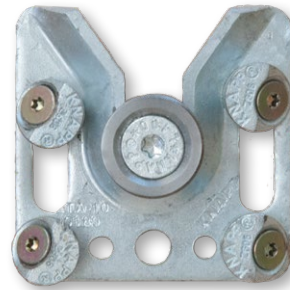
Double-sided connector plate WALCO® V with 2-axis oblique screwed in solid-wood wall (MHM).



Connector plate screwed on the vertical side of the MHM with T-Joint 20



Connector plate with screwed double collar bolts



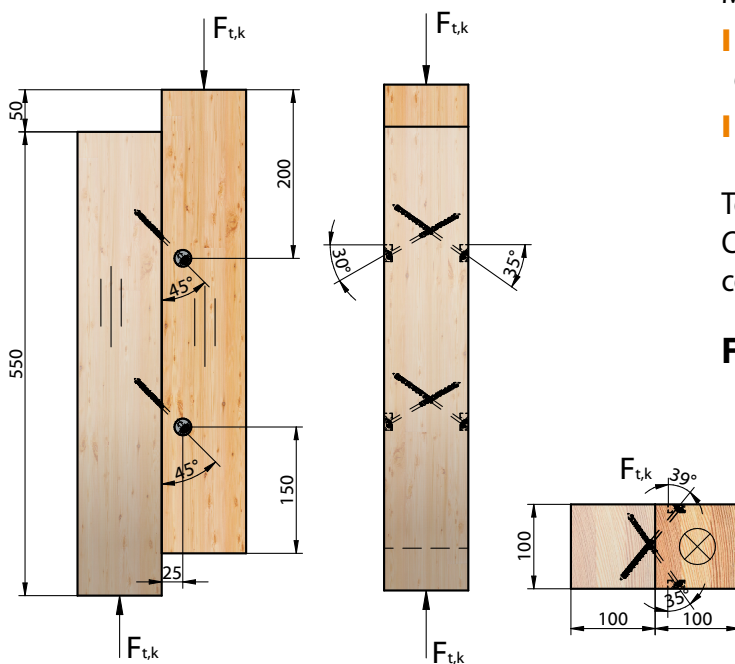
WALCO® V80 Oblong hole with T-Joint 20 and screwed in double collar bolts

In order to increase the pull-out values for WALCO® V and RICON® S in MHM (solid wood walls), we recommend the use of T-Joint.

Connector for wall to wall joints

Application and details

Flush wall to wall joint with T-Joint 20



Materials and dimensions:

- 2 posts 100x100x550 mm made of gluelam timber GL24h
- 4 T-Joint 20 with 4 CS-screws 6x120/65

Test result:

Characteristic load for 2 pairs of T-Joint 20 connectors:

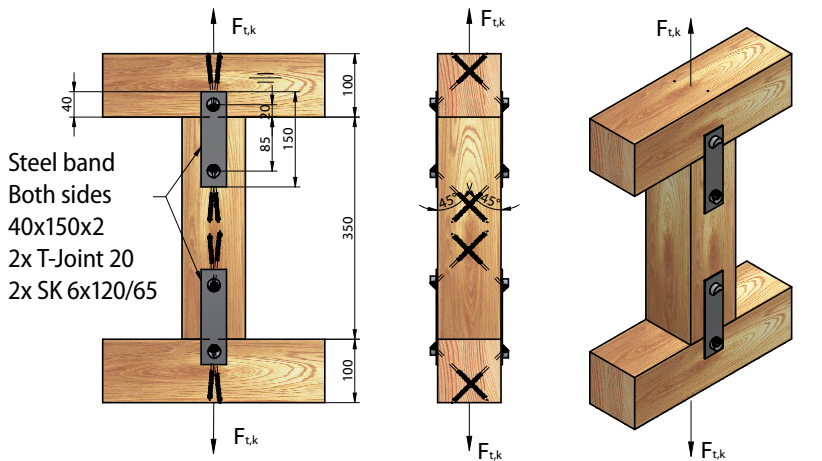
$$F_{t,k} = 20,20 \text{ kN}$$



Connectors for tensile load bearing joints

Application and details

T-joint with steel band for tensile load bearing joints



Example: Connection of rafter heads

Materials and dimensions:

- Beams 100x100x350 mm in gluelam timber GL24h
- Post 100x100x350 mm in gluelam timber GL24h
- Steel band 150x40x2 mm, S235
- Per joint 2x T-Joint 20 with CS-screws 6x120/65

Test results:
Characteristic tensile load:

$$F_{t,k} = 14 \text{ kN}$$

Application and details

T-joint with steel band as anchoring of walls



Anchor connector for walls with T-Joint 20 with steel band.

Materials and dimensions:

- Posts C24 of min. 80x80 mm
- Steel band 60x3 mm, S235
- T-Joint 20 with CS-screws 6x120/65 (Screw qty according to load bearing need)
- Concrete dowels depending on tensile load i.e. Hilti M20 anchor HST or Fischer bolt anchor FAZ II 20

T-Joint qty.	Tensile load $F_{t,d}$ [kN]
5	9,35
8	14,27
10	17,00



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