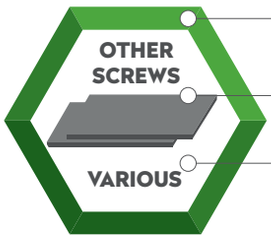
FIREWALL ANCHORS

APPLICATION



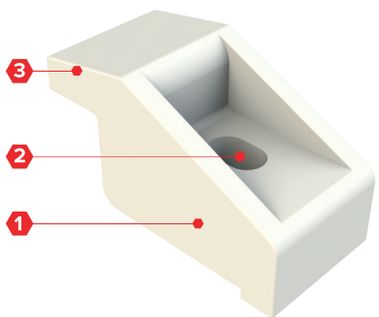
Plastic

Other Screws

Steel ≤ 1,5 mm / Stone

SPECIFICATION

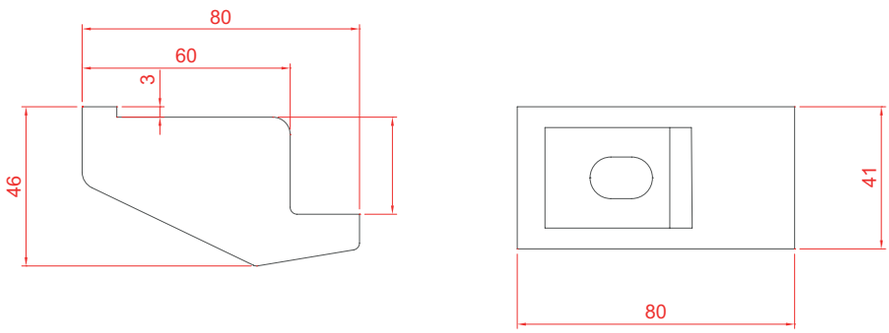
1. Clamping block (Plastic)
2. Fixing location in fire wall
3. Lip



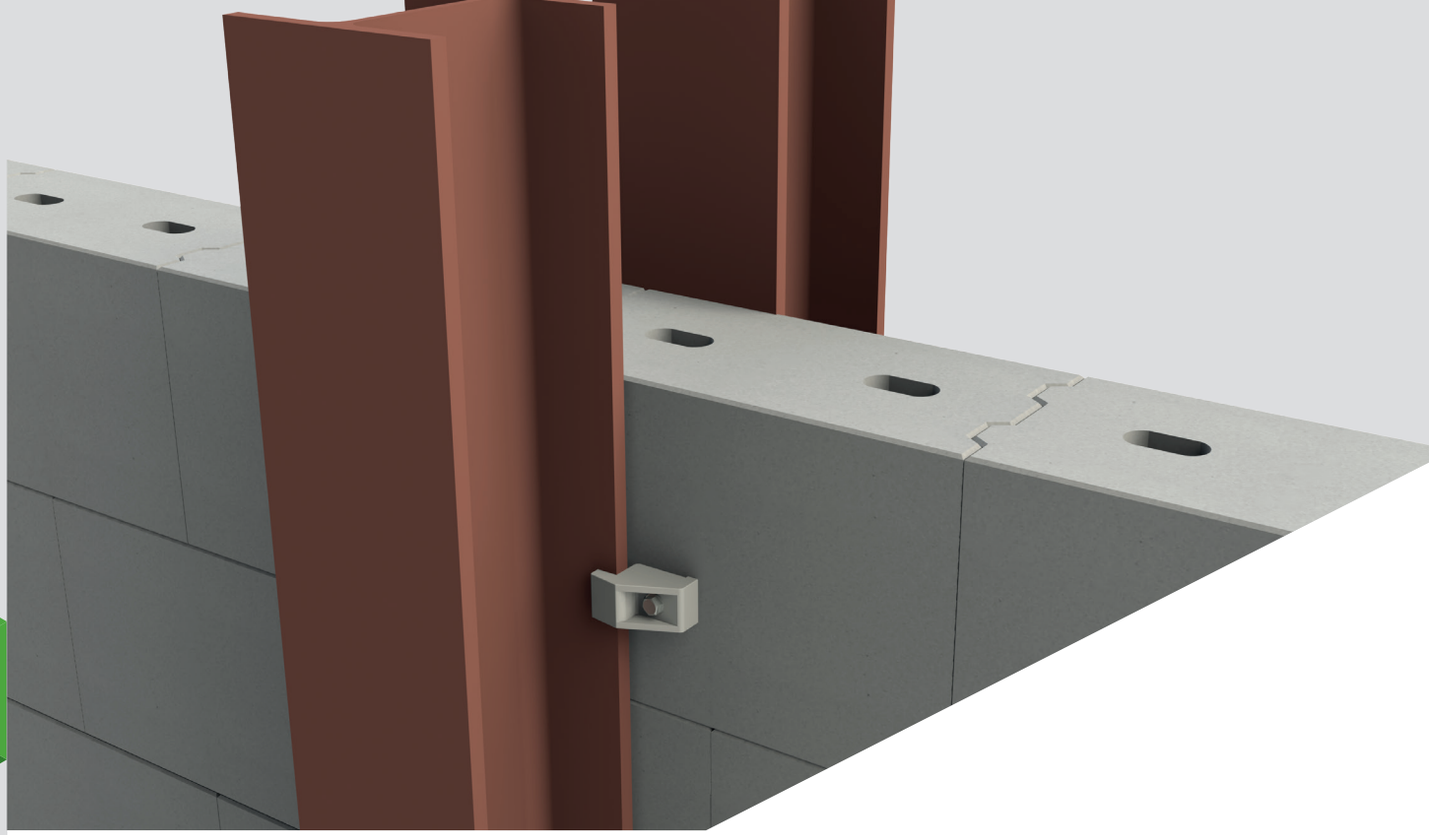
OPTIONS

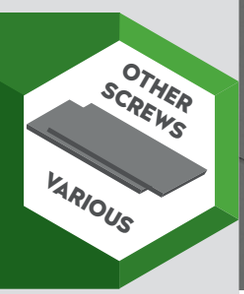
2. Available with lag bolts 7 x 80 + plug S10 for installation in sand-lime brick or DP2 45 screw (HDT 13 & 22) / DP2 60 screw (HDT 30) for installation in sandwich panel fire wall.

SECTION



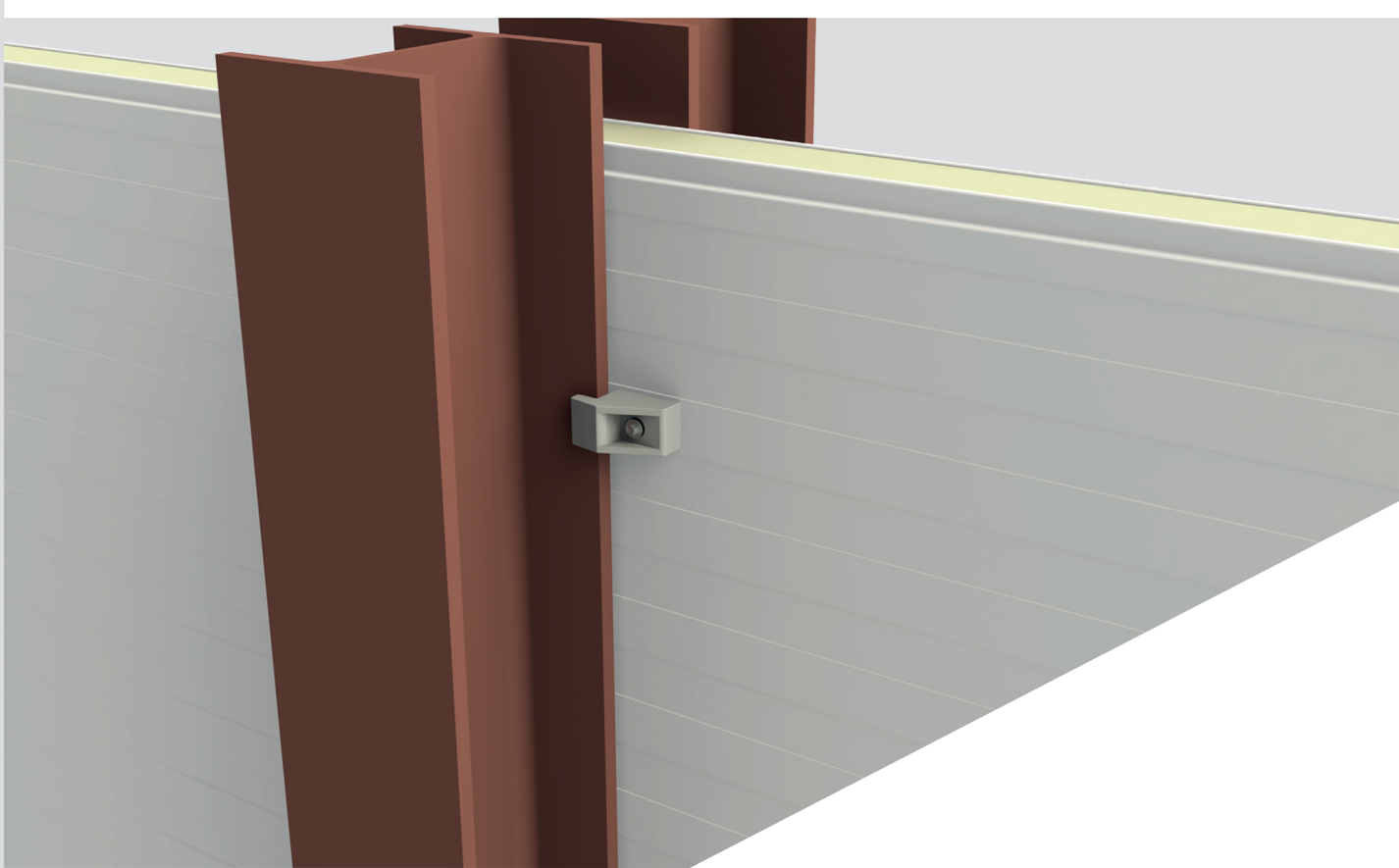
OTHER SCREWS - STEEL ≤ 1,5 MM / STONE - PLASTIC





ORDER INFORMATION

Product	Description	Clamping range	Packaging	Article code
Firewall anchors	Firewall anchor HDT 13 mm	9 - 18 mm	10 pcs/box	50050000013
Firewall anchors	Firewall anchor HDT 22 mm	18 - 26 mm	10 pcs/box	50050000022
Firewall anchors	Firewall anchor HDT 30 mm	26 - 34 mm	10 pcs/box	50050000030
Firewall anchors	Firewall anchor for fire wall	13 mm	10 pcs/box	50050050100



FIREWALL ANCHORS

ANCHOR CALCULATION

Melting anchors are used when anchoring fire walls to a double column row of a steel construction. In the event of a fire, the melting anchors melt on the side of the fire, so that the steel construction can collapse on that side without knocking over the fire wall.

The operation of a melting anchor must be guaranteed in two situations:
1. Anchoring during the use situation (without fire). For this, the anchors must be calculated for under- and overpressure on an inner wall.
2. Anchoring during the fire when the construction collapsed on one side of the fire. In this case, the wall must retain its fire-resistant effect in a limited wind. Anchors should be calculated using the wind pressure and suction of an outer wall with a reduction factor y.

Fire is a special tax according to the Eurocode. A reduction factor then applies.

The steel profile that is to be clamped exerts a force $F_{profile}$ on the lip of the melting anchor. This force provides a moment via the lever principle. The bolt load F_{bolt} now follows from the torque equilibrium with the following ratios: $F_{bolt} = 75/30 \times F_{profile}$.

$F_{profile}$ must be calculated in accordance with the Eurocode including associated tax factors.

For the calculation of the resistance of the melting anchor in the anchoring substructure (sand-lime brick or sandwich panel), load and material factors must be applied for safety reasons. It must be shown that the calculated value of the occurring load S_d does not exceed the calculated value of the resistor R_d.

$S_d \leq R_d \Rightarrow F_{bolt} \leq F_{bu}$

The calculation value of the resistance of the different Screws:

Screw	Substructure	Calculation value*
Wood threaded bolt 7x80 with Fischer plug S10	Sand-lime brick	1,00 kN
Self-drilling screw 6,3 x 45 - DP2, Ø 16,0 mm	Steel plate with thickness 0,4 mm	0,34 kN
Self-drilling screw 6,3 x 45 - DP2, Ø 16,0 mm	Steel plate with thickness 0,5 mm	0,50 kN
Self-drilling screw 6,3 x 45 - DP2, Ø 16,0 mm	Steel plate with thickness 0,63 mm	0,63 kN

The table on the next page gives an indication of the minimum center-to-center distance of the melting anchors in different situations (wind area / building height / type of substructure / column distance).

CERTIFICATES

CE

QUALITY CONFIRMED