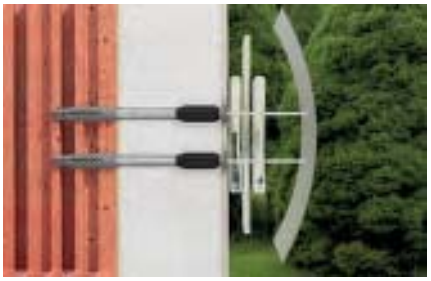
Stand-off installation TherMax 8/10

The thermally separated stand-off installation in external thermal insulation composite systems (ETICS)



External lighting

Down pipes

Applications

For the thermally separated fixing of:
- Signs
- Lighting
- Letter boxes
- Motion detectors
- Downpipes
- Lightning rods
- Blind guide rails

Advantages

- The stand-off installation allows for the fixture to be adjusted to the exact position required, whereby pressure marks and damage to the ETICS are avoided.
- The plastic cone creates a thermal barrier between the fixture and the inner fixture, and offers an energy-optimised fixing.
- The glass-fibre-reinforced plastic cone cuts its own way through the ETICS with a positive fit, and allows for a simple and fast installation without the need for any special tools.
- Combining TherMax 8 and 10 with the universal plug UX provides a secure anchoring in the substrate.
- Without UX plug direct mounting in wood substrate is possible after pre-drilling.

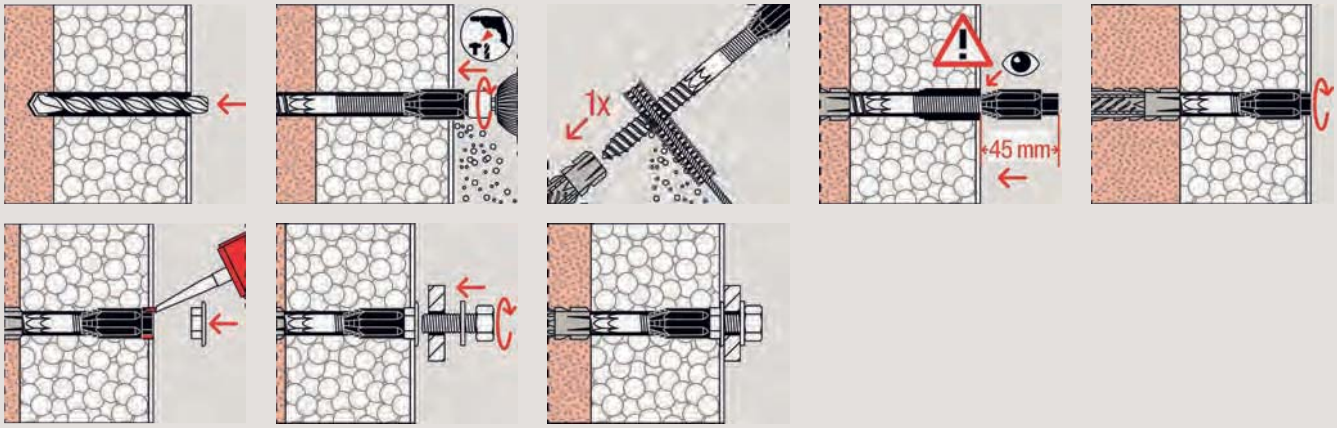
Building materials

- Concrete
- Vertically perforated brick
- Hollow blocks made from lightweight concrete
- Perforated sand-lime brick
- Solid sand-lime brick
- Building brick
- Aerated concrete
- Wood

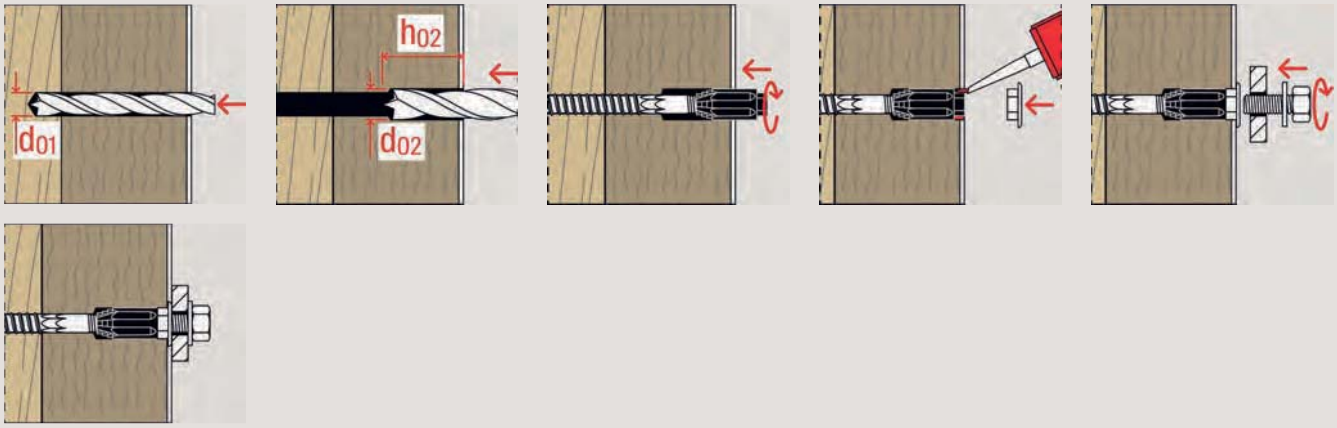
Functioning

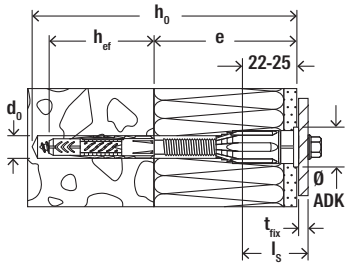
- The TherMax 8 and 10 systems are suitable for pre-positioned installation.
- The self-tapping, glass-fibre-reinforced cone cuts its own way through the plaster into the insulation during installation.
- The anti-cold cone uses a thermal barrier to minimise heat losses.
- Installation without any special tools.
- For use in wood without plug, the wood (footnote below load table) as well as the plaster has to be pre-drilled:
  TherMax 8:
  d_{02} = 14 mm, h_{02} = 50 mm;
  TherMax 10:
  d_{02} = 18 mm, h_{02} = 50 mm
- The extensive range features fitting options with metric screws (M6/8/10), sheet screws (6.3 mm), chipboard screws (6.0 mm) or chipboard screws (4.5 - 5.5 mm) when using an SX 5 expansion plug.

Installation in masonry



Installation in wooden substrate





Technical data

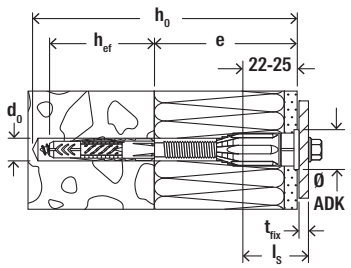
Stand-off installation TherMax 8/10

TherMax 8 and 10

Item	Item No.	Drill hole diameter d_0 [mm]	Drill hole depth h_0 [mm]	Max. thickness of non-bearing layer e [mm]	Anchorage depth h_{ef} [mm]	Cover cap-Ø ADK [mm]	Width across nut SW [mm]	Chipboard / metric / sheet metal screw	Sales unit [pcs]
TherMax 8/60 M6	**045685** 1)2)	10	120	45 - 60	60	18	10	4,5 - 6,0 / M6 / 6,3	20
TherMax 8/80 M6	**045686** 1)2)	10	140	60 - 80	60	18	10	4,5 - 6,0 / M6 / 6,3	20
TherMax 8/100 M6	**045687** 1)2)	10	160	80 - 100	60	18	10	4,5 - 6,0 / M6 / 6,3	20

1) including SX 5

2) Min. screw length l_s = 22mm + thickness of mounting member t_{fix}; for use in wood without universal plug UX, consider drill hole diameter in footnote under load table.



Technical data

Stand-off installation TherMax 8/10

TherMax 8 and 10

5

Item	Item No.	Drill hole diameter d_0 [mm]	Drill hole depth h_0 [mm]	Max. thickness of non-bearing layer e [mm]	Anchorage depth h_{ef} [mm]	Cover cap-Ø ADK [mm]	Width across nut SW [mm]	Chipboard / metric / sheet metal screw	Sales unit [pcs]
TherMax 8/120 M6	**045688** [1)2)]	10	180	100 - 120	60	18	10	4,5 - 6,0 / M6 / 6,3	20
TherMax 8/140 M6	**045689** [1)2)]	10	200	120 - 140	60	18	10	4,5 - 6,0 / M6 / 6,3	20
TherMax 8/160 M6	**045690** [1)2)]	10	220	140 - 160	60	18	10	4,5 - 6,0 / M6 / 6,3	20
TherMax 8/180 M6	**045691** [1)2)]	10	240	160 - 180	60	18	10	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/100 M6	**045692** [1)2)]	12	160	80 - 100	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/120 M6	**045693** [1)2)]	12	180	100 - 120	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/140 M6	**045694** [1)2)]	12	200	120 - 140	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/160 M6	**045695** [1)2)]	12	220	140 - 160	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/180 M6	**045696** [1)2)]	12	240	160 - 180	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/200 M6	**512605** [1)2)]	12	260	180 - 200	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/220 M6	**514250** [1)2)]	12	280	200 - 220	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/240 M6	**514251** [1)2)]	12	300	220 - 240	70	22	13	4,5 - 6,0 / M6 / 6,3	20
TherMax 10/100 M8	**045697** [2)]	12	160	80 - 100	70	22	13	M8	20
TherMax 10/120 M8	**045698** [2)]	12	180	100 - 120	70	22	13	M8	20
TherMax 10/140 M8	**045699** [2)]	12	200	120 - 140	70	22	13	M8	20
TherMax 10/160 M8	**045700** [2)]	12	220	140 - 160	70	22	13	M8	20
TherMax 10/180 M8	**514252** [2)]	12	240	160 - 180	70	22	13	M8	20
TherMax 10/200 M8	**514253** [2)]	12	260	180 - 200	70	22	13	M8	20
TherMax 10/220 M8	**514254** [2)]	12	280	200 - 220	70	22	13	M8	20
TherMax 10/240 M8	**514255** [2)]	12	300	220 - 240	70	22	13	M8	20
TherMax 10/100 M10	**045702** [2)]	12	160	80 - 100	70	22	13	M10	20
TherMax 10/120 M10	**045703** [2)]	12	180	100 - 120	70	22	13	M10	20
TherMax 10/140 M10	**045704** [2)]	12	200	120 - 140	70	22	13	M10	20
TherMax 10/160 M10	**045705** [2)]	12	220	140 - 160	70	22	13	M10	20
TherMax 10/180 M10	**514256** [2)]	12	240	160 - 180	70	22	13	M10	20
TherMax 10/200 M10	**514257** [2)]	12	260	180 - 200	70	22	13	M10	20
TherMax 10/220 M10	**514258** [2)]	12	280	200 - 220	70	22	13	M10	20
TherMax 10/240 M10	**514259** [2)]	12	300	220 - 240	70	22	13	M10	20

1) including SX 5

2) Min. screw length l_s = 22mm + thickness of mounting member t_{fix}; for use in wood without universal plug UX, consider drill hole diameter in footnote under load table.

Loads

Stand-off installation TherMax 8 and 10

Recommended loads[1] of a single anchor in concrete and masonry.

Type			TherMax 8	TherMax 10
Supplied type of plug for the anchorage in the base material			UX 10 x 60	UX 12 x 70
Recommended tensile loads in the respective base material N_{rec}[2]				
Concrete[3] [4]	≥ C20/25	[kN]	1.00	1.00
Solid brick[3][4]	≥ Mz 12	[kN]	0.50	0.70
Perforated sand-lime brick[3][4]	≥ KSL 12	[kN]	0.60	0.80
Vertically perforated brick[4]	≥ Hlz 12	[kN]	0.20	0.30
Aerated concrete[3][4]	≥ AAC 4	[kN]	0.40	0.60
Recommended shear load V_{rec}, valid für all above mentioned base materials for the stated insulation thickness				
External Thermal Insulation Composite System[5]	≤ 240 mm	[kN]	0.15	0.20

[1] Required safety factors are considered.
[2] The drilling method is to be adapted to the building material used. As different joint qualities are possible, the given values only apply for installation in the brick.
[3] The given recommended tensile loads apply for fastenings with metric screws.
When using chipboard screws with diameter 6.0 mm they have to be reduced to 0.35 kN.
[4] The given recommended tensile loads apply for fastenings with metric screws.
When using a SX 5-plug chipboard screws with diameter 4.5 - 5.5 mm they have to be reduced to 0.1 kN.
[5] Values are valid for an ETICS made from PS- respectively PU-rigid foam panels. Thickness of rendering minimum 6 mm.

Loads

Stand-off installation TherMax 8 and 10

Recommended shear loads[1] for a single anchor.

Type			UX 10 + TherMax 8[3]	UX 12 + TherMax 10[3]
Recommended shear loads V_{rec}[1]				
External thermal insulation composite system[2]	≤ 240 mm	[kN]	0.15	0.20

[1] Required safety factors are considered.
[2] Values are valid for an ETICS made from PS- respectively PU-rigid foam panels. Thickness of rendering minimum 6 mm.
[3] In wood installation without plug.

Loads

Stand-off installation TherMax 8 and 10

Recommended tensile loads[1] for a single anchor in wood.

Type			TherMax 8	TherMax 10
Recommended tensile loads in the respective base material N_{rec}[2]				
Beech	≥ D35	[kN]	1.00[3]	1.00[5]
Spruce	≥ C24	[kN]	1.00[4]	1.00[5]

[1] Required safety factors are considered.
[2] Installation without UX-plug. Edge distances and spacings following Eurocode 5.
[3] Pre-drilled wood with diameter 6 mm.
[4] Pre-drilled wood with diameter 5 mm.
[5] Pre-drilled wood with diameter 7 mm.