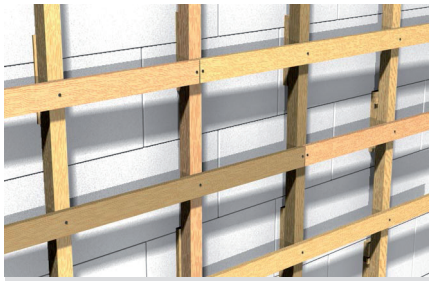
The lamella plug with gentle power transfer

Façade substructures



Timber substructures

VERSIONS

- Zinc-plated steel
- Stainless steel

BUILDING MATERIALS

Approved for:

- Concrete ≧ C12/15
- Vertically perforated brick
- Perforated sand-lime brick
- Solid sand-lime brick
- Solid brick made from lightweight concrete
- Solid brick

Also suitable for:

- Natural stone with dense structure
- Solid panel made from gypsum
- Hollow blocks made from lightweight concrete
- Three-layer composite exterior wall panels
- Lightweight aggregate concrete

CERTIFICATES

ETA-13/0235
ETAG 020 a, b, c
Multiple fixings for non-structural applications in concrete and masonry

Fire resistance classification R 90
for facade systems in concrete

Consistent quality of material PURE MATERIAL fischer NYLON QUALITY HIGH-QUALITY NYLON for security guaranteed to last for decades

EDELSTAHL Rost frei
INOX STAINLESS STEEL

ADVANTAGES

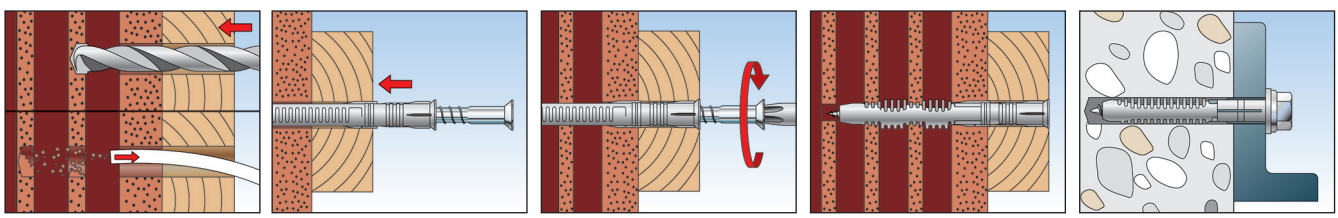
- The operating principle with an anchorage depth of 70 mm and proven asymmetrical teeth, makes it an assembly-friendly anchor even in an unknown base material.
- The slim geometry guarantees a simple installation, even in cases involving thick wooden fixtures and narrow drill holes.
- Range available with diameters of 8 and 10 mm and usable lengths up to 160 mm.

APPLICATIONS

- Façade, ceiling and roof substructures made of wood and metal
- Windows
- Gates and doors
- Squared timbers
- Beams
- Wall covering

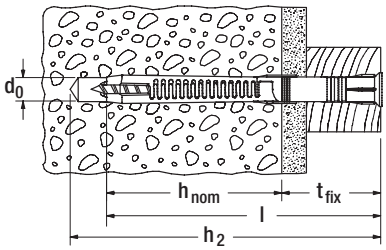
FUNCTIONING

- The FUR is suitable for push-through installation.
- Screwing in the screw causes the individual teeth to expand. In solid materials, the teeth create even expansion forces. In hollow materials, the teeth expand through the solid part of the block and form an undercut in the cavity.
- With vertically perforated bricks, only use rotary drilling (no impact drilling).
- FUR-T with countersunk head screw is recommended for the installation of timber constructions; in the case of metal constructions, use FUR-FUS with a wide sleeve rim and a moulded washer on the screw.



TECHNICAL DATA

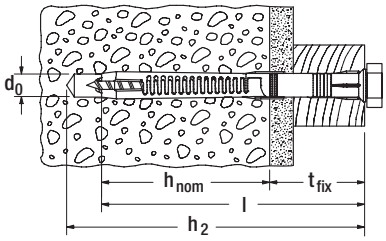
FUR-T - with fischer countersunk head safety screw



	Zinc-plated steel	Stainless steel	Approval	Drill hole diameter	Min. drill hole depth for through fixings	Min. anchorage depth	Anchor length	Max. fixture thickness	Drive	Sales unit
	Art.-No.	Art.-No.	ETA	d_0 [mm]	h_2 [mm]	h_{nom} [mm]	l [mm]	t_{fix} [mm]		[pcs]
Item	gvz	A4								
FUR 8 x 80 T	070110	070120	–	8	90	70	80	10	T30	50
FUR 8 x 100 T	070111	070121	–	8	110	70	100	30	T30	50
FUR 8 x 120 T	070112	070122	–	8	130	70	120	50	T30	50
FUR 10 x 80 T	088756	088784	■	10	90	70	80	10	T40	50
FUR 10 x 100 T	088757	088785	■	10	110	70	100	30	T40	50
FUR 10 x 115 T	088760	088791	■	10	125	70	115	45	T40	50
FUR 10 x 135 T	088758	088786	■	10	145	70	135	65	T40	50
FUR 10 x 160 T	088759	088787	■	10	170	70	160	90	T40	50
FUR 10 x 185 T	088761	088788	■	10	195	70	185	115	T40	50
FUR 10 x 200 T	088764	088789	■	10	210	70	200	130	T40	50
FUR 10 x 230 T	088762	088790	■	10	240	70	230	160	T40	50

TECHNICAL DATA

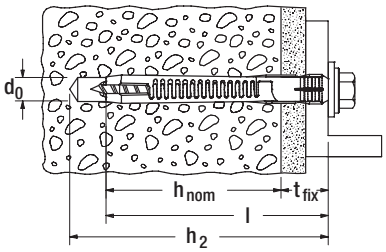
FUR-SS - with fischer hexagon head safety screw



	Zinc-plated steel	Stainless steel	Approval	Drill hole diameter	Min. drill hole depth for through fixings	Min. anchorage depth	Anchor length	Max. fixture thickness	Drive	Sales unit
	Art.-No.	Art.-No.	ETA	d_0 [mm]	h_2 [mm]	h_{nom} [mm]	l [mm]	t_{fix} [mm]		[pcs]
Item	gvz	A4								
FUR 8 x 80 SS	070130	070140	–	8	90	70	80	10	SW 10	50
FUR 8 x 100 SS	070131	070141	–	8	110	70	100	30	SW 10	50
FUR 8 x 120 SS	070132	–	–	8	130	70	120	50	SW 10	50
FUR 10 x 80 SS	088776	088792	■	10	90	70	80	10	SW 13	50
FUR 10 x 100 SS	088777	088793	■	10	110	70	100	30	SW 13	50
FUR 10 x 115 SS	088783	088799	■	10	125	70	115	45	SW 13	50
FUR 10 x 135 SS	088778	088794	■	10	145	70	135	65	SW 13	50
FUR 10 x 160 SS	088779	088795	■	10	170	70	160	90	SW 13	50
FUR 10 x 185 SS	088780	088796	■	10	195	70	185	115	SW 13	50
FUR 10 x 200 SS	088781	088797	■	10	210	70	200	130	SW 13	50
FUR 10 x 230 SS	088782	088798	■	10	240	70	230	160	SW 13	50

TECHNICAL DATA

FUR-FUS - with fischer hexagon head safety screw, moulded washer and integrated bit recess



	Zinc-plated steel	Stainless steel	Approval	Drill hole diameter	Min. drill hole depth for through fixings	Min. ancho-rage depth	Anchor length	Max. fixture thickness	Drive	Sales unit
	Art.-No.	Art.-No.	ETA	d_0 [mm]	h_2 [mm]	h_{nom} [mm]	l [mm]	t_{fix} [mm]		[pcs]
Item	**gvz**	**A4**								
FUR 10 x 80 FUS	**093527** 1)	**093528** 1)	■	10	90	70	80	10	T40/SW13	50
FUR 10 x 100 FUS	**097797** 1)	—	■	10	110	70	100	30	T40/SW13	50

1) Collar: Ø 18 x 2 mm.

ACCESSORIES

Cover cap **ADT**

Item	Art.-No.	Colour	Cap [Ø mm]	Match	Sales unit [pcs]
ADT 15 W	**060326**	white	15	Safety screw with integrated bit recess T40	100
ADT 15 DB	**060329**	dark brown	15	Safety screw with integrated bit recess T40	100
ADT 18 W	**060334**	white	18	Safety screw with integrated bit recess T40	100
ADT 18 DB	**060337**	dark brown	18	Safety screw with integrated bit recess T40	100

ACCESSORIES

Washer **U**

Item	Art.-No.	External-Ø d [mm]	Hole-Ø D [mm]	Thickness S [mm]	Matching anchor type	Sales unit [pcs]
U 11,5 x 21 x 1,5 DIN 522 A2	**010026**	21	11.5	1.5	SXR 10, SXRL 10, FUR 10	500

LOADS

Frame fixing FUR 10[4)]

Highest permissible loads[1)2)] of a single anchor as part of a multiple fixing of non-structural systems.
For the design the complete approval ETA-13/0235 has to be considered.

Product			FUR 10
Anchorage depth	h_{nom}	[mm]	70
Anchorage in concrete ≥ C12/15			
Permissible tensile load		[kN]	1,79
Permissible shear load	Zinc-plated steel	[kN]	5,37
	Stainless steel A4	[kN]	4,98
Minimum member thickness	h_{min}	[mm]	110
Characteristic edge distance	$c_{cr,N}$	[mm]	140
Characteristic spacing	a resp. $s_{cr,N}$	[mm]	90
Minimum spacing	s_{min}	[mm]	70
with an edge distance	c ≥	[mm]	140
Minimum edge distance	c_{min}	[mm]	70
with a spacing	s ≥	[mm]	210
Anchorage in masonry			
Permisible load[3)] in solid brick	≥ Mz 12 a. ≥ NF	[kN]	0,86
	≥ Mz 20 a. ≥ NF	[kN]	0,86
Permissible load[3)] in solid sand-lime brick	≥ KS 10 a. ≥ NF	[kN]	0,57
	≥ KS 20 a. ≥ NF	[kN]	0,71
Permissible load[3)] in lightweight concrete block	≥ V 6; ρ ≥ 1,6 kg/dm³	[kN]	0,57
Permissible load[3)5)] in vertically perforated brick (e.g. Poroton)	≥ HLz 10; ρ ≥1,0 kg/dm³	[kN]	0,37
Permissible load[3)] in perforated sand-lime brick	≥ KSL 12	[kN]	0,57
Minimum member thickness	h_{min}	[mm]	110
Minimum spacing (single anchor)	a_{min}	[mm]	250
Minimum spacing (anchor group)	s_{min}	[mm]	100
Minimum edge distance (anchor group)	c_{min}	[mm]	100

[1)] The required partial safety factors for material resistance as well as a partial safety factor for load actions γ_F = 1,4 are considered.
As a single anchor counts e.g. an anchor with a minimum spacing a according to table 8 resp. table 10 of the approval.

[2)] Valid for temperatures in the substrate up to +50 °C (resp. short term up to +80 °C).

[3)] Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads and bending moments see approval.

[4)] Valid for zinc coated screws and for screws made of stainless steel. For exterior use of the zinc coated screws measures against incoming humidity according to approval have to be taken.

[5)] Rotary drilling.

LOADS

Frame fixing FUR 8 [3)]

Highest recommended loads[1)] for a single anchor for multiple fixings of non-structural systems.
The given loads are valid for fischer safety screws included in delivery.

Type			FUR 8
Anchorage depth	h_{nom}	[mm]	70
Diameter of the safety screw	Ø	[mm]	6,0
Min. edge distance concrete	a_r	[mm]	50
Recommended loads in the respective base material F_{rec}[2)]			
Concrete	≥ C12/15	[kN]	1,0
Solid brick	≥ Mz 12	[kN]	0,60
Solid sand-lime brick	≥ KS 12	[kN]	0,60

[1)] Required safety factors are considered.

[2)] Valid for tensile load, shear load and oblique load under any angle.

[3)] Valid for zinc coated screws and for screws made of stainless steel. For exterior use of the zinc coated screws measures against incoming humidity have to be taken.