fischer

Frame fixings.
The full range for all applications.

SXR

The efficient with short expansion element.

The short expansion element of 50 mm only requires a small drill hole depth. This **saves drilling time** and results in **less drill bit wear.**

SXR 10 x 120 T

The anti-rotation ribs increase the installation comfort and provide **additional safety.**

SXR 10 x 120 FUS

The special geometry of the short expansion element allows for **use in many building materials.**

With the push-through installation through timber construction, the hammer-in stop **stops premature expansion in the fixture.**

For metal structures the version FUS (hexagon head screw with moulded washer and plug with wide sleeve rim) is ideally suited. **Contact corrosion between the fixture and the screw is prevented.**

★★★★★ Nylon Quality

Inox Stainless Steel

High quality nylon for a secure and durable fixing.
Safety screw also made of stainless steel.

Certificates

CE

ETA-07/0121
Multiple use for non-structural applications

R 90

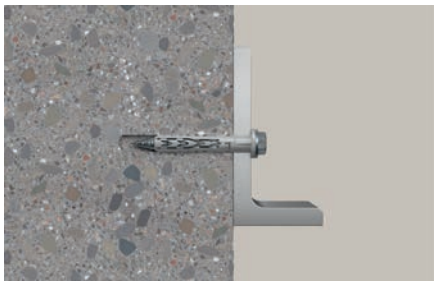
Advantages, functioning and installation.

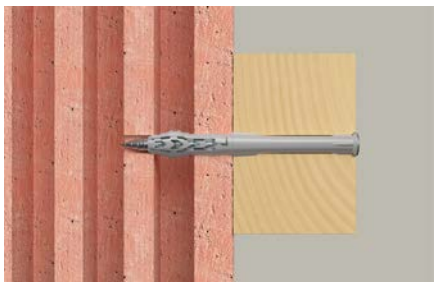
The advantages at a glance

- With an anchorage depth of only 50 mm, the specific functionality enables the use in solid and perforated building materials and thus ensures an economic fastening.
- The European Technical Assessment (ETA) for SXR 8 and 10 covers the use in various solid and hollow building materials and thus guarantees a secure fixing.
- The specially developed combination of plug and safety screw ensures optimal handling. The plug pulls noticeably and thus offers more installation comfort.

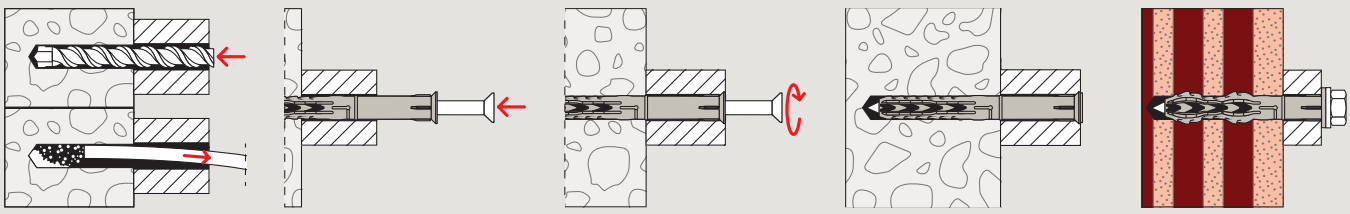
Functioning

- The SXR is suitable for push-through installation.
- In solid building materials the SXR expands.
- In hollow building materials the loads are transmitted to the substrate webs.
- In vertically perforated bricks, drill only in rotary mode (without impact).
- Countersunk screws are recommended for fastening wooden constructions. For metal constructions plugs with a wide sleeve rim and hexagon head screws with moulded washer are suitable.

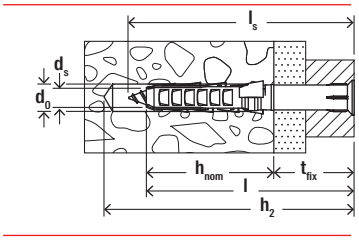




Installation



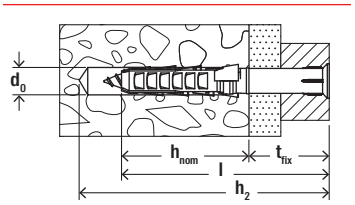
Assortment



Frame fixing SXR

SXR – without screw

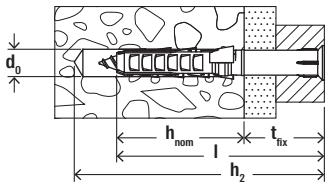
Item	Item No.	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Min. anchorage depth h_{nom} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Screw diameter d_s [mm]	Min. screw length l_s [mm]	Sales unit [pcs]
SXR 6 x 60	**503230**	6	70	30	60	30	4,5	65	100
SXR 8 x 60	**506194**	8	70	50	60	10	5,5 – 6,0	65	100
SXR 8 x 80	**506196**	8	90	50	80	30	5,5 – 6,0	85	100
SXR 8 x 100	**506198**	8	110	50	100	50	5,5 – 6,0	125	100
SXR 8 x 120	**506199**	8	130	50	120	70	5,5 – 6,0	105	100



Frame fixing SXR-Z

SXR – with fischer countersunk head screw

Item	Item No. Zinc-plated steel gvz	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Min. anchorage depth h_{nom} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Drive	Sales unit [pcs]
SXR 6 x 60 Z	**503233**	6	70	30	60	30	PZ2	50

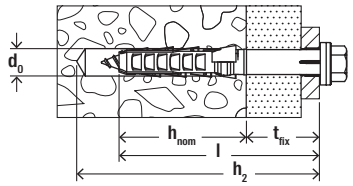


Frame fixing SXR-T

SXR – with fischer countersunk head safety screw

Item	Item No. Zinc-plated steel gvz	Item No. Stainless steel R	Item No. Hot-dip galvanised steel hdg	Approval ETA	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Min. anchorage depth h_{nom} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Drive	Sales unit [pcs]
SXR 8 x 60 T	**502999**	**–**	**–**	●	8	70	50	60	10	TX30	50
SXR 8 x 80 T	**503000**	**–**	**–**	●	8	90	50	80	30	TX30	50
SXR 8 x 100 T	**503001**	**–**	**–**	●	8	110	50	100	50	TX30	50
SXR 8 x 120 T	**503002**	**–**	**–**	●	8	130	50	120	70	TX30	50
SXR 10 x 80 T	**046263**	**046272**	**–**	●	10	90	50	80	30	TX40	50
SXR 10 x 100 T	**046264**	**046274**	**–**	●	10	110	50	100	50	TX40	50
SXR 10 x 100 T	**–**	**–**	**509534**	–	10	110	50	100	50	TX40	50
SXR 10 x 120 T	**046265**	**046278**	**–**	●	10	130	50	120	70	TX40	50
SXR 10 x 120 T	**–**	**–**	**509535**	–	10	130	50	120	70	TX40	50
SXR 10 x 140 T	**046266**	**046279**	**–**	●	10	150	50	140	90	TX40	50
SXR 10 x 140 T	**–**	**–**	**509536**	–	10	150	50	140	90	TX40	50
SXR 10 x 160 T	**046267**	**046283**	**–**	●	10	170	50	160	110	TX40	50
SXR 10 x 180 T	**046268**	**046285**	**–**	●	10	190	50	180	130	TX40	50
SXR 10 x 200 T	**046269**	**046286**	**–**	●	10	210	50	200	150	TX40	50
SXR 10 x 230 T	**046270**	**046287**	**–**	●	10	240	50	230	180	TX40	50
SXR 10 x 260 T	**046271**	**–**	**–**	●	10	270	50	260	210	TX40	50

Assortment



Frame fixing SXR-FUS

SXR – with fischer hexagon head safety screw, moulded washer and integrated bit recess

Item	Item No. Zinc-plated steel gvz	Item No. Stainless steel R	Item No. Hot-dip galvanised steel hdg	Approval ETA	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Min. anchorage depth h_{nom} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Drive	Sales unit [pcs]
SXR 10 x 52 FUS	**502456** [1]	**–**	**–**	●	10	62	50	52	2	TX40/SW13	50
SXR 10 x 60 FUS	**046329**	**046339**	**–**	●	10	70	50	60	10	TX40/SW13	50
SXR 10 x 60 FUS	**–**	**–**	**509537**	–	10	70	50	60	10	TX40/SW13	50
SXR 10 x 80 FUS	**046330**	**046340**	**–**	●	10	90	50	80	30	TX40/SW13	50
SXR 10 x 80 FUS	**–**	**–**	**509538**	–	10	90	50	80	30	TX40/SW13	50
SXR 10 x 100 FUS	**046331**	**046342**	**–**	●	10	110	50	100	50	TX40/SW13	50
SXR 10 x 100 FUS	**–**	**–**	**509539**	–	10	110	50	100	50	TX40/SW13	50
SXR 10 x 120 FUS	**046332**	**046343**	**–**	●	10	130	50	120	70	TX40/SW13	50
SXR 10 x 140 FUS	**046333**	**046344**	**–**	●	10	150	50	140	90	TX40/SW13	50
SXR 10 x 140 FUS	**–**	**–**	**509540**	–	10	150	50	140	90	TX40/SW13	50
SXR 10 x 160 FUS	**046334**	**046345**	**–**	●	10	170	50	160	110	TX40/SW13	50
SXR 10 x 180 FUS	**046335**	**046361**	**–**	●	10	190	50	180	130	TX40/SW13	50
SXR 10 x 200 FUS	**046336**	**046362**	**–**	●	10	210	50	200	150	TX40/SW13	50
SXR 10 x 230 FUS	**046337**	**046363**	**–**	●	10	240	50	230	180	TX40/SW13	50
SXR 10 x 260 FUS	**046338**	**–**	**–**	●	10	270	50	260	210	TX40/SW13	50

[1] Not pre-assembled

Loads

Frame fixing SXR

Permissible loads[1)2)3)] of a single anchor as part of a multiple fixing of non-structural systems.
For the design the complete current assessment ETA-07/0121 has to be considered.

Type			SXR 8	SXR 10
Anchor diameter		**[mm]**	8	10
Anchorage depth	h_{nom}	**[mm]**	50	50
Anchorage in concrete ≥ C12/15				
Permissible tensile load N_{perm}		**[kN]**	0.99	1.79
Permissible shear load V_{perm}	zinc coated screws (gvz)	**[kN]**	4.23	5.98
	stainless steel screw (R)	**[kN]**	3.93	5.98
Minimum member thickness	h_{min}	**[mm]**	100	100
Characteristic edge distance	$c_{cr,N}$	**[mm]**	70	140
Characteristic spacing	a resp. $s_{cr,N}$	**[mm]**	70	100
Minimum spacing	s_{min}	**[mm]**	70	70
with an edge distance	c ≥	**[mm]**	70	210
Minimum edge distance	c_{min}	**[mm]**	70	85
with a spacing	s ≥	**[mm]**	70	100
Anchorage in narrow concrete members (h ≥ 40 mm) made of concrete ≥ C12/15, e.g. weather shells of triple-skin outer wall panels				
Permissible tensile load N_{perm}		**[kN]**	–	1.19
Permissible shear load V_{perm}		**[kN]**	–	5.98
Anchorage in masonry				
Permissible load[4)] F_{perm} in solid brick	≥ Mz 12/1.8; ≥ NF	**[kN]**	0.57	0.57
	≥ Mz 20/1.8; ≥ NF	**[kN]**	0.71	0.86
Permissible load[4)] F_{perm} in solid sand-lime brick	≥ KS 10/1.8; ≥ NF	**[kN]**	0.57	0.57
	≥ KS 20/1.8; ≥ NF	**[kN]**	0.71	0.71
Permissible load[4)] F_{perm} in lightweight concrete block	≥ Vbl 2; $\rho \geq 1.2$ kg/dm³	**[kN]**	0.26	0.21
	≥ Vbl 6; $\rho \geq 1.6$ kg/dm³	**[kN]**	0.26	0.71
Permissible load[4)5)] F_{perm} in vertically perforated brick	≥ HLz 12; $\rho \geq 1.0$ kg/dm³	**[kN]**	0.17	0.26
Permissible load[4)] F_{perm} in perforated sand-lime brick	≥ KSL 8; $\rho \geq 1.4$ kg/dm³	**[kN]**	0.26	0.43
	≥ KSL 12; $\rho \geq 1.4$ kg/dm³	**[kN]**	0.57	0.57
Permissible load[4)5)] F_{perm} in hollow lightweight concrete blocks	≥ Hbl 2; $\rho \geq 0.7$ kg/dm³	**[kN]**	–	0.43
	≥ Hbl 6; $\rho \geq 1.2$ kg/dm³	**[kN]**	0.43	0.57
Minimum member thickness	h_{min}	**[mm]**	100	100
Minimum spacing (single anchor)	a_{min}	**[mm]**	250	250
Minimum spacing (anchor group)	s_{min}	**[mm]**	100	100
Minimum edge distance (anchor group)	c_{min}	**[mm]**	100	100
Anchorage in aerated concrete				
Permissible load[4)] F_{zul} in aerated concrete	AAC ≥ 2 N/mm²	**[kN]**	–	0.14[6)]
	AAC ≥ 4 N/mm²	**[kN]**	–	0.27
	AAC ≥ 6 N/mm²	**[kN]**	–	0.27
Minimum member thickness	h_{min}	**[mm]**	–	100
Minimum spacing (single anchor)	a_{min}	**[mm]**	–	250
Minimum spacing (anchor group)	s_{min}	**[mm]**	–	400
Minimum edge distance (anchor group)	c_{min}	**[mm]**	–	100

[1)] Valid for zinc coated screws (gvz) and for screws made of stainless steel (R). For exterior use of the zinc coated screws measures against incoming humidity according to assessment have to be taken.
[2)] The required partial safety factors for material resistance as well as a partial safety factor for load actions $\gamma_L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a minimum spacing according to assessment.
[3)] Valid for temperatures in the substrate up to +50 °C (resp. short term up to +80 °C).
[4)] Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads and bending moments see assessment.
[5)] Rotary drilling.
[6)] Drill holes to be made with aerated concrete hole punch.

Loads & accessories

Frame fixing SXR

Recommended loads[1] of a single anchor as part of a multiple fixing of non-structural systems.
The given loads are valid for wood screws with the specified diameter.

Type			SXR 6	SXR 8
Screw diameter		**[mm]**	4.5	6.0
Anchorage depth	h_{nom}	**[mm]**	30	50
Minimum edge distance concrete	c_{min}	**[mm]**	50	60
Recommended loads in the respective base material F_{rec} [2]				
Concrete	≥ C20/25	**[kN]**	0.25	0.40
Solid brick	≥ Mz 12	**[kN]**	0.20	0.30
Solid sand-lime brick	≥ KS 12	**[kN]**	0.20	0.30
Vertically perforated brick	≥ Hlz 12; ρ ≥ 1.0 [kg/dm³]	**[kN]**	0.10	0.10
Perforated sand-lime brick	≥ KSL 12	**[kN]**	0.20	0.30

[1] Valid for zinc coated screws (gvz) and for screws made of stainless steel (R). For exterior use of the zinc coated screws measures against incoming humidity have to be taken. Required safety factors are considered.
[2] Valid for tensile load, shear load and oblique load under any angle.

Washer U

U – made of stainless steel A2, e.g. for facade substructures with slotted hole

Item	Item 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, DuoXpand 10	500

Aircrete hole punch GBS

GBS

Item	Item No.	Drill hole-ø d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Match	Sales unit [pcs]
GBS 10 x 80	**050590**[1]	9	85	SXR 10 x 52, SXR 10 x 60, SXR 10 x 80	1
GBS 10 x 100	**050591**[1]	9	105	SXR 10 x 100	1
GBS 10 x 135	**050593**[1]	9	140	SXR 10 x 120	1
GBS 10 x 160	**050594**[1]	9	165	SXR 10 x 140, SXR 10 x 160	1
GBS 10 x 185	**050595**[1]	9	190	SXR 10 x 180	1
GBS 10 x 230	**050596**[1]	9	235	SXR 10 x 200, SXR 10 x 230	1

[1] According to the ETA, the aircrete hole punch GBS must be used for drill-hole production in aerated concrete PB < 4N/mm².

Anti-corrosion spray FTC-CP

FTC-CP professionally prevents the penetration of moisture into the anchor shaft and securely protects the connection from corrosion.

Item	Item No.	Colour	Content per can [ml]	Sales unit [pcs]
FTC-CP	**511440**	black	500 [1]	12

[1] With one can about 300 screw heads can be coated.

Bits

FDB DiamondBit

FPB ProfiBit

FMB II Bit

Item	Item No.	Drive	Length [mm]	Content	Sales unit [pcs]
FDB TX30 DiamondBit W10	**557861**	TX30	25	10	10
FDB TX40 DiamondBit W10	**557862**	TX40	25	10	10
FPB TX30 ProfiBit W10	**557849**	TX30	25	10	10
FPB TX40 ProfiBit W10	**557850**	TX40	25	10	10
FPB TX50 ProfiBit W1	**557844**	TX50	35	1	1
FMB II TX30 Bit W5	**564314**	TX30	25	5	5
FMB II TX40 Bit W5	**564315**	TX40	25	5	5

Bit holder

FBH BitHolder W 1

FBH QuickBit Slim W 1

Item	Item No.	Drive	Length [mm]	Content	Sales unit [pcs]
FBH BitHolder W 1	**558178**	1/4"	58	1	1
FBH QuickBit Slim W 1	**533150**	1/4"	50	1	1

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