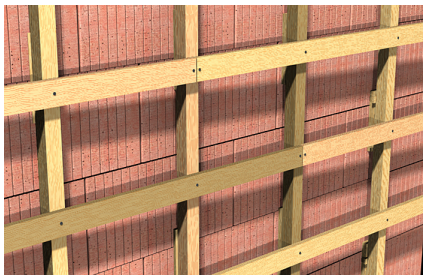
The powerful problem solver with long expansion sleeve



VERSIONS

- Zinc-plated steel
- Stainless steel

BUILDING MATERIALS

Approved for:

- Vertically perforated brick
- Aerated concrete
- Hollow blocks made from lightweight concrete
- Perforated sand-lime brick
- Thermal insulation blocks
- Solid block made from lightweight and normal weight concrete
- Solid brick
- Solid sand-lime brick
- Concrete C12/15

Also suitable for:

- Natural stone with dense structure
- Solid panel made from gypsum

APPROVALS

ETA-07/0121
ETAG 020 a, b, c, d
Multiple use in concrete and masonry for non-structural applications

ETA-14/0297
ETAG 020 a, b, c, d
Multiple use in concrete and masonry for non-structural applications

Zulassung

Fire resistance classification R 90

EDELSTAHL Rostfrei INOX STAINLESS STEEL

ADVANTAGES

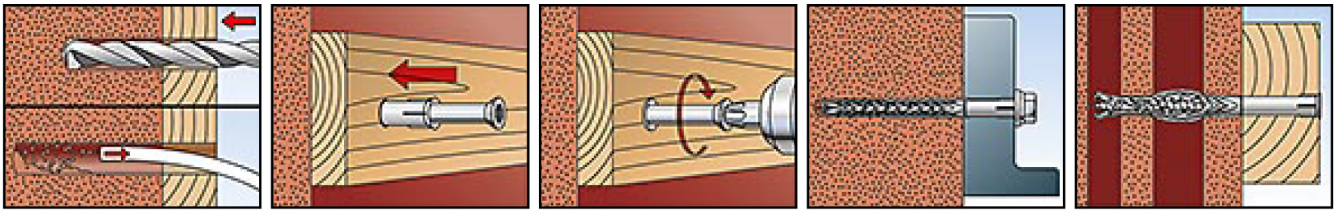
- Through the special geometry of the plug, the retention forces are evenly distributed in the drill hole.
- When the plug is to be set below the plaster, the longer ribs prevent plug rotation during installation.
- The variable anchorage depths of 70 or 90 mm offer special advantages and high loads when anchoring in aerated concrete.
- When anchoring in hollow and solid construction materials, the two expansion zones lead to optimum retention values.
- SXRL 14 is approved for the application under compression load and is thus for example useable for facade substructures that are mounted at a distance without wall brackets.
- The SXRL with effective lengths up to 290 mm provides the right plug for every application.

APPLICATIONS

- Façade, ceiling and roof substructures made of wood and metal
- TV consoles
- Kitchen hanging cabinets
- Wardrobes
- Squared timbers
- Windows
- Gates and doors
- Facade substructures under compression load (e.g. made of aluminium without wall brackets)

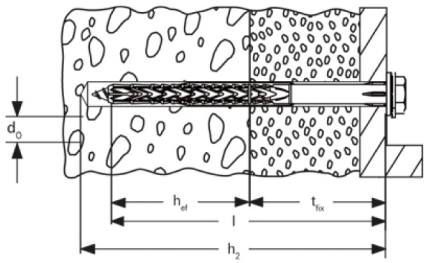
FUNCTIONING

- In perforated brick masonry, the two expansion zones ensure that the introduction of force is gentle on the substrate. The porous block fillets are not crushed by the second expansion zone and therefore serve to transmit the force.
- In aircrete and solid building material, the two expansion zones combine to form one long expansion element, thus providing for a uniform and flat distribution of the load into substrate.



TECHNICAL DATA

Frame fixing SXRL-FUS



stainless steel A4

Article name	Art.-No.	DIBt-approval	ETA-approval	Drill diameter d_0 [mm]	Anchor length l [mm]	Min. drill hole depth for through fixings h_2 [mm]	Usable length at anchorage depth 70mm [mm]	Usable length at anchorage depth 70mm t_{fix} [mm]	Usable length at anchorage depth 90mm t_{fix} [mm]
SXRL 10 x 80 FUS A4	**522730**		■	10	80	90	30	10	
SXRL 10 x 100 FUS A4	**522731**		■	10	100	110	50	30	10

LOADS

					Solid brick masonry and perforated brick masonry		
Type	**compressive brick strength f_b [N/mm²]**	**brick type, naming acc. DIN [-]**	**min. anchorage depth h_{nom} [mm]**	**min. member thickness h_{min} [mm]**	**permissible load F_{perm} [3) 5)] [kN]**	**min. spacing s_{min} [2)] [mm]**	**min. edge distance c_{min} [2)] [mm]**
Solid brick Mz							
SXRL 10	≥ 20	Mz	70	110	1,14	100	100
SXRL 10	≥ 28	Mz	70	110	1,57	100	100
Solid sand-lime brick and solid block KS							
SXRL 10	≥ 12	KS	70	110	1,86	100	100
Vertically perforated brick Hlz							
SXRL 10	≥ 20	HLz	70	110	0,34	100	100
Perforated sand-lime brick KSL							
SXRL 10	≥ 20	KSL	70	110	1,00	100	100
Hollow block of lightweight aggregate concrete Hbl							
SXRL10	≥ 6	Hbl	70	110	0,43	100	100
SXRL10	≥ 10	Hbl	70	110	0,71	100	100
Solid brick and solid block of lightweight aggregate concrete V							
SXRL 10	≥ 2	V	70	110	0,34	100	100
Aerated concrete blocks AAC							
SXRL 10	≥ 2	AAC	90	175	0,32	100	100
SXRL 10	≥ 6	AAC	90	175	1,43	120	120

LOADS

Frame fixing SXRL 10 [4)]

Highest permissible loads[1) 6)] for a single anchor for multiple fixings of non-structural applications in normal concrete ≥ C12/15 resp. ≥ B15. For the design the complete assessment ETA-07/0121 has to be considered.

			Cracked or Non-cracked concrete			
Type	**Min. anchorage depth h_{nom} [mm]**	**Min. member thickness h_{min} [mm]**	**Permissible tensile load N_{perm} [3)] [kN]**	**Permissible shear load V_{perm} [3)]**	**Min. spacing s_{min} [2)] [mm]**	**Min. edge distance c_{min} [2)] [mm]**
SXRL 10	70	100	2,6	2,6 [5)]	50	50

[1)] The required partial safety factors for material resistance as well as a partial safety factor for load actions γ_L = 1,4 are considered. As an single anchor counts e.g. an anchor with a spacing $s \geq s_{cr,N}$ and an edge distance $c \geq c_{cr,N}$ according table 8 of the assessment.

[2)] Minimum possible axial spacings (anchor group) resp. edge distance for concrete ≥ C16/20 while reducing the permissible load. The combination of the given min. spacing and min. edge distance is not possible. One of them has to be increased according assessment. Values for concrete C12/15 see assessment.

[3)] For combinations of tensile loads, shear loads, bending moments as well as reduced edge distances or spacings (anchor groups) see assessment.

[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 assessment have to be taken.

[5)] The permissible shear load determined acc. ETAG 020, Annex C considers exclusively steel failure of the screw. It amounts V_{perm} = 6,0 kN. Due to that the expected displacements will disable the proper function of the fixture a maximum shear load on the basis of table 7 of the assessment is recommended.

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