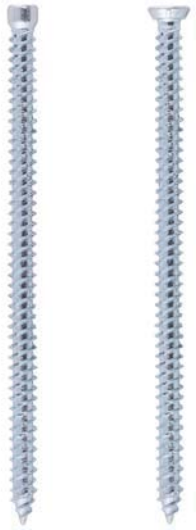
The economical special screw for window installation



Window frames

BUILDING MATERIALS

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

CERTIFICATES

Test Report No.:
14-000559-PR02

ADVANTAGES

- Screw installation without plug for economical processing.
- The small drill bit diameter of 6 mm allows for efficient series installation.
- The continuous thread ensures a stress-free fixing of the frame in the substrate.
- The high-low-thread at the screw tip as well as several cutting notches reduce the amount of force required for screwing in the screws. The installation process can be completed without excessive effort.
- With two head types applicable for all common frame materials.
- According to the ift Rosenheim suitable for the fixation of a plastic window in brick masonry.

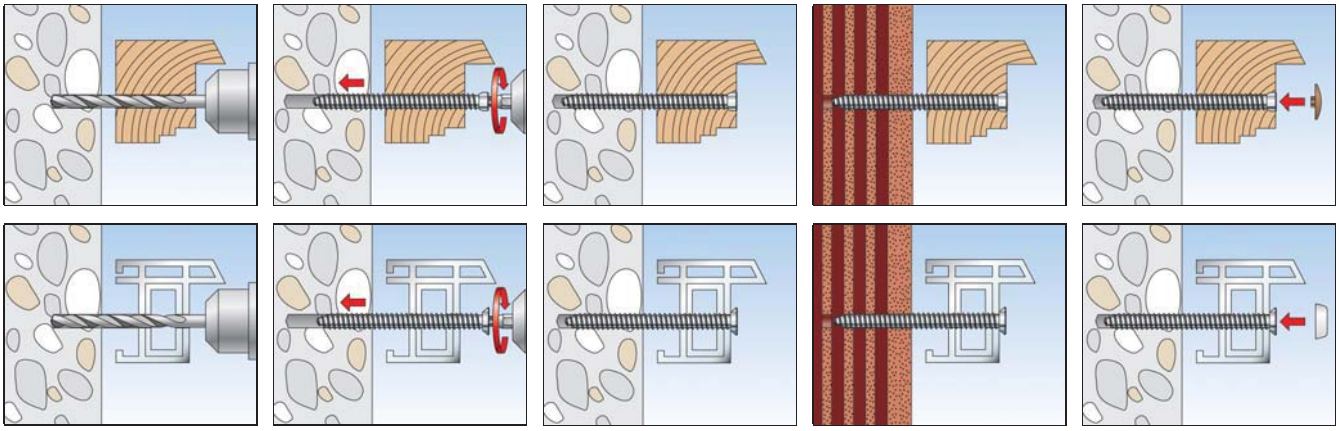
APPLICATIONS

- Window frames made of wood, plastic and aluminium
- Door frames
- Squared timbers

FUNCTIONING

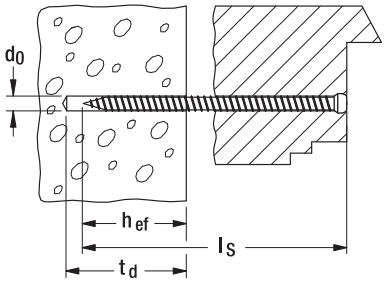
- Note the drill hole and screw-in depths for the different building materials listed in the table.
- Cylinder head screws are recommended for recessed installation in wooden profiles.
- Flat head screws are recommended for installation in plastic and aluminium profiles.

INSTALLATION



TECHNICAL DATA

Window frame screw with cylinder head
FFSZ



Anchorage depth h_{ef}
$h_{ef} \geq 30$ mm in concrete
$h_{ef} \geq 40$ mm in solid brick
$h_{ef} \geq 60$ mm in perforated brick / aerated concrete

t_d : drill hole depth $\geq h_{ef} +$ **10 mm**

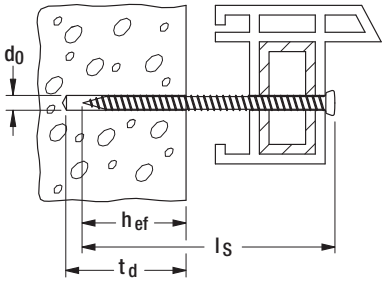
Item	Art.-No.	Drill hole diameter d_0 [mm]	Screw length l_s [mm]	Drive	Head [Ø mm]	Sales unit [pcs]
FFSZ 7,5 x 52 T30	**532906**	6	52	T30	8	100
FFSZ 7,5 x 62 T30	**532907**	6	62	T30	8	100
FFSZ 7,5 x 72 T30	**532908**	6	72	T30	8	100
FFSZ 7,5 x 82 T30	**532909**	6	82	T30	8	100
FFSZ 7,5 x 92 T30	**532910**	6	92	T30	8	100
FFSZ 7,5 x 102 T30	**532911**	6	102	T30	8	100
FFSZ 7,5 x 112 T30	**532912**	6	112	T30	8	100
FFSZ 7,5 x 122 T30	**532913**	6	122	T30	8	100
FFSZ 7,5 x 132 T30	**532914**	6	132	T30	8	100
FFSZ 7,5 x 152 T30	**532915**	6	152	T30	8	100
FFSZ 7,5 x 182 T30	**532916**	6	182	T30	8	100
FFSZ 7,5 x 202 T30	**532917**	6	202	T30	8	100
FFSZ 7,5 x 212 T30	**532919**	6	212	T30	8	100
FFSZ 7,5 x 252 T30	**532920**	6	252	T30	8	100
FFSZ 7,5 x 302 T30	**532921**	6	302	T30	8	100

No pre-drilling in aerated concrete.

Window frame screws FFSZ and FFS

TECHNICAL DATA

Window frame screw with flat head **FFS**



Anchorage depth h_{ef}
$h_{ef} \geq$ 30 mm in concrete
$h_{ef} \geq$ 40 mm in solid brick
$h_{ef} \geq$ 60 mm in perforated brick / aerated concrete

t_d : drill hole depth $\geq h_{ef}$ + **10 mm**

Item	Art.-No.	Drill hole diameter d_0 [mm]	Screw length l_s [mm]	Drive	Head [Ø mm]	Sales unit [pcs]
FFS 7,5 x 42 T30	**532922**	6	42	T30	11,5	100
FFS 7,5 x 52 T30	**532923**	6	52	T30	11,5	100
FFS 7,5 x 62 T30	**532925**	6	62	T30	11,5	100
FFS 7,5 x 72 T30	**532927**	6	72	T30	11,5	100
FFS 7,5 x 82 T30	**532928**	6	82	T30	11,5	100
FFS 7,5 x 92 T30	**532930**	6	92	T30	11,5	100
FFS 7,5 x 102 T30	**532931**	6	102	T30	11,5	100
FFS 7,5 x 112 T30	**532932**	6	112	T30	11,5	100
FFS 7,5 x 122 T30	**532934**	6	122	T30	11,5	100
FFS 7,5 x 132 T30	**532935**	6	132	T30	11,5	100
FFS 7,5 x 152 T30	**532941**	6	152	T30	11,5	100
FFS 7,5 x 182 T30	**532942**	6	182	T30	11,5	100
FFS 7,5 x 202 T30	**532943**	6	202	T30	11,5	100
FFS 7,5 x 212 T30	**532944**	6	212	T30	11,5	100
FFS 7,5 x 252 T30	**532945**	6	252	T30	11,5	100
FFS 7,5 x 302 T30	**532946**	6	302	T30	11,5	100

No pre-drilling in aerated concrete.

ACCESSORIES

Cover cap **FFSZ-A**

Item	Art.-No.	Colour	Cap [Ø mm]	Cap height [mm]	Match	Sales unit [pcs]
FFSZ-A W	**538708**	white	14	2,2	FFSZ - cylinder head	100
FFSZ-A BR	**538709**	brown	14	2,2	FFSZ - cylinder head	100

ACCESSORIES

Cover cap **FFS-A**

Item	Art.-No.	Colour	Cap [Ø mm]	Cap height [mm]	Match	Sales unit [pcs]
FFS-A W	**061560**	white	15	4,8	FFS - flat head	100
FFS-A BR	**061561**	brown	15	4,8	FFS - flat head	100

LOADS

Window frame screws FFSZ and FFS

Highest recommended loads[1] of a single screw.

Type			FFSZ			FFS		
Screw diameter	Ø	[mm]	7,5			7,5		
Anchorage depth	$h_{ef} \geq$	[mm]	30	40	60	30	40	60
Anchorage in concrete ≥ C20/25								
Recommended tensile load		[kN]	1,00	-		1,00	-	
Recommended shear load		[kN]	0,70	-		0,70	-	
Min. edge distance[5]	c_{min}	[mm]	30	-		30	-	
Anchorage in masonry								
Recommended tensile load in solid brick	≥ Mz 12	[kN]	-	0,40[3]	0,80	-	0,40[3]	0,80
Recommended shear load in solid brick	≥ Mz 12	[kN]	-	0,30[3]	0,70	-	0,30[3]	0,70
Recommended tensile load in solid sand-lime brick	≥ KS 12	[kN]	-	1,00	-	-	1,00	-
Recommended shear load in solid sand-lime brick	≥ KS 12	[kN]	-	0,60	-	-	0,60	-
Recommenced tensile load in vertically perforated brick	≥ HLz 12	[kN]	-		0,25[3]	-		0,25[3]
Recommenced shear load in vertically perforated brick	≥ HLz 12	[kN]	-		0,40[3]	-		0,40[3]
Min. edge distance[5]	c_{min}	[mm]	-	40		-	40	
Anchorage in aerated concrete								
Recommended load[2] in aerated concrete	≥ AAC 2	[kN]	-		0,10[4]	-		0,10[4]
	≥ AAC 4	[kN]	-		0,25[4]	-		0,25[4]
Min. edge distance[5]	c_{min}	[mm]	-		40	-		40

[1] Required safety factors are considered. As a single screw counts e.g. a screw with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1,5 \times h_{ef}$.

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

[3] Rotary drilling.

[4] Without pre-drilling.

[5] Minimal possible edge distance while reducing the recommended loads.