KERNOW FIXINGS KFX

TECHNICAL DATA SHEET

KFX Concrete Screw Bolt - Large Pan Head (M6x28)

Concrete screw for interior & drywall construction

Fast Installation

Requires only a 6mm hole to be drilled ensuring fast and easy installation, even in high strength concrete.

Minimise Rebar Strikes

Low embedment depth prevents the risk of concrete reinforcement (rebar) strikes.

Easy Installation

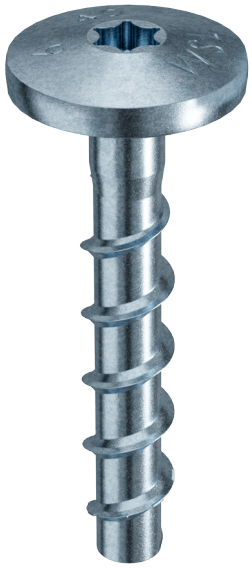
Special thread design allows installation with a standard cordless screwdriver without the need for special tools.

Non-Expansion

Allows for installation closer to the substrate edge, as well as closer distances between anchors.

Easy Removal

Can be quickly and easily removed, meaning drywall can be removed and reinstalled afterwards.



Order Code 03675

APPROVALS

Approvals

ETA Approval ETA-23/0945:
- For use in concrete for redundant non-structural systems.

Base Material

Approved for concrete strength classes from C20/25 to C50/60.

Cracked and non-cracked concrete.

ETA

CE

ETA-23/0945
for anchoring in cracked and non-cracked concrete
For multiple use in concrete for non-structural applications
KFX Screw Bolt 6

R 30 - R 120

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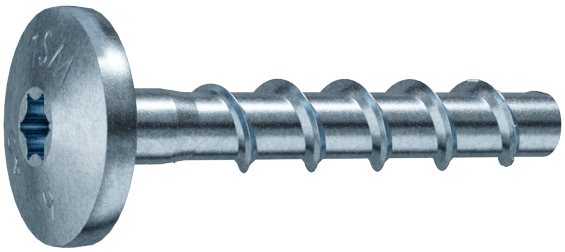
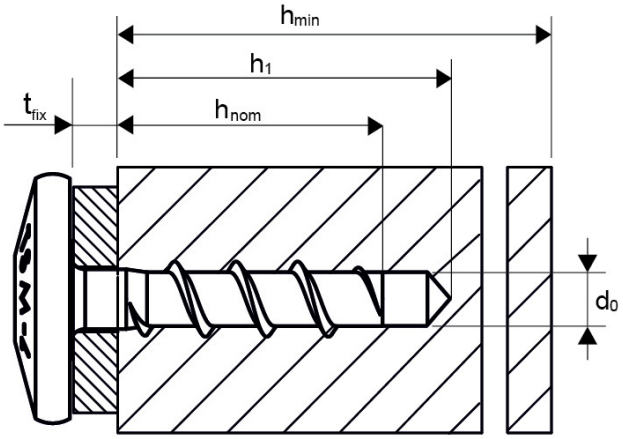
Product Overview

Steel - Zinc plated

Large pan head with Torx TX30 internal drive

Head Ø - 17.5mm





Order Code	Product Reference	Dimensions	Depth of drill hole $h_{1,1}$ / $h_{1,2}$	Embedment depth of anchor $h_{nom,1}$ / $h_{nom,2}$	Max. thickness of fixture $t_{fix,1}$ / $t_{fix,2}$	Packing Unit
03675	KFX BDZ-06028	M6x28	28mm	25mm	3mm	200

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Technical Information

Multiple fastening without fire exposure (steel)

Screw size M6x28			M6x28	
Nominal embedment depth	h_{nom} [mm]		$h_{nom,1}$	$h_{nom,2}$
			25	35
Nominal diameter of drill bit	d_0	[mm]	6	
Depth of drill hole	h_1 min	[mm]	28	38
Effective anchorage depth	h_{ef}	[mm]	19	27
Diameter of clearance hole in the fixture	d_f max	[mm]	8	
Approved tension load in cracked concrete [1) 2)]	N_{zul}	[kN]	0,4	1,0
Approved shear load in cracked concrete [1) 2)]	V_{zul}	[kN]	1,4	2,3
Approved tension load in non-cracked concrete [1) 2)]	N_{zul}	[kN]	1,0	1,9
Approved shear load in non-cracked concrete [1) 2)]	V_{zul}	[kN]	1,9	3,3
Approved bending resistance	M_{zul}	[kN]	6,3	
Minimum egde distance	C_{min}	[mm]	30	
Minimum spacing	S_{min}	[mm]	30	
Minimum base material thickness	h_{min}	[mm]	80	
Installation torque (with metric connection thread)	T_{inst}	[Nm]	10	

[1)] For the determination of the approved loads, the partial safety factor from the approval γM=1,0 was taken into account for material resistance and a partial safety factor γF=1,4 for load actions.

[2)] These values apply without influence of the space and edge distancing.

Multiple fastening under fire exposure (steel)

Screw size M6x28				M6x28	
Nominal embedment depth		h_{nom} [mm]		$h_{nom,1}$	$h_{nom,2}$
				25	35
Approved load under tensile and shear use ($F_{zul,fi} = N_{zul,fi} = V_{zul,fi}$)					
Fire resistance class					
R 30	Approved load	$F_{zul,fi\ 30}$	[kN]	0,23	0,27
R 60		$F_{zul,fi\ 60}$	[kN]	0,23	0,27
R 90		$F_{zul,fi\ 90}$	[kN]	0,22	
R 120		$F_{zul,fi\ 120}$	[kN]	0,17	
R 30		$M_{zul,fi\ 30}$	[Nm]	0,22	
R 60		$M_{zul,fi\ 60}$	[Nm]	0,22	
R 90		$M_{zul,fi\ 90}$	[Nm]	0,18	
R 120		$M_{zul,fi\ 120}$	[Nm]	0,14	
Fire resistance class					
R 30 toR 120		$C_{cr,fi}$	[mm]	2 x h_{ef}	
The edge distance must be at least 300 mm if the fire load attacks from more than one side.					
Spacing					
R 30 to R 120		$S_{cr,fi}$	[mm]	4 x h_{ef}	
Concrete pry-out failure					
R 30 to R 120		k	[-]	1,0	
In wet concrete, the embedment depth must be increased by at least 30 mm.					

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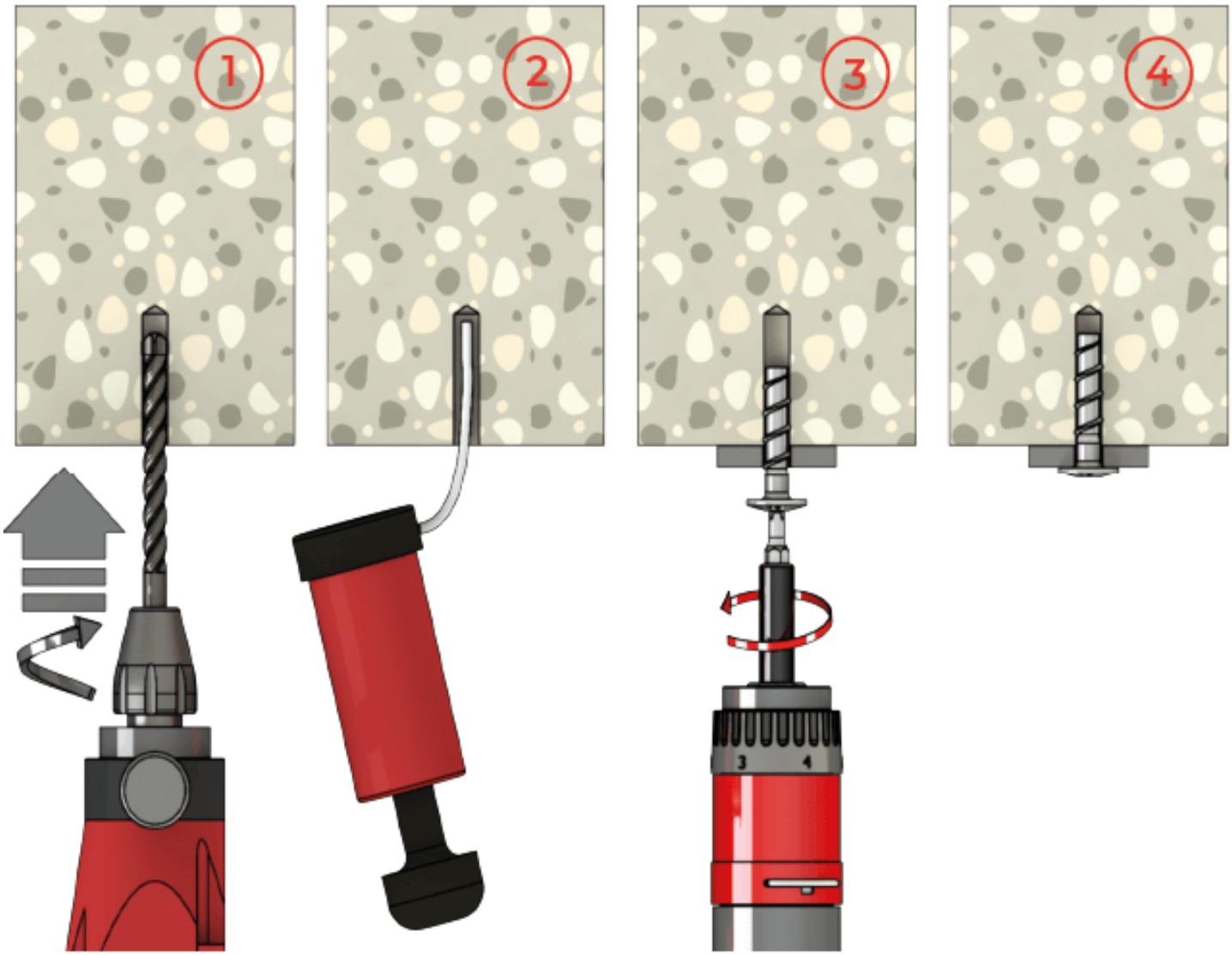
Installation Instructions



1. Drill a 6mm hole to required depth using with rotary hammer drill.
2. Thoroughly clean the hole using blow out hand pump (min 4 pumps).
3. Screw in the KFX-BDZ Pan Head Screw using a standard cordless screwdriver.
4. Tighten until the screwhead is completely flush with the undamaged substrate surface. Further turning of the screw must not be possible.

Tools Required:

- SDS drill with 6mm drill bit
- Blow out pump
- Cordless screwdriver with a Torx TX30 head
- Torque wrench