

fischer bolt anchor FXA

Cost efficient fixing with ETA assessment
for non-cracked concrete



- Safe function and easy installation
- Assortment: M8 – M16 available in zinc-plated steel and stainless steel R

Recommendation



- Suitable for the following building material:
non-cracked concrete

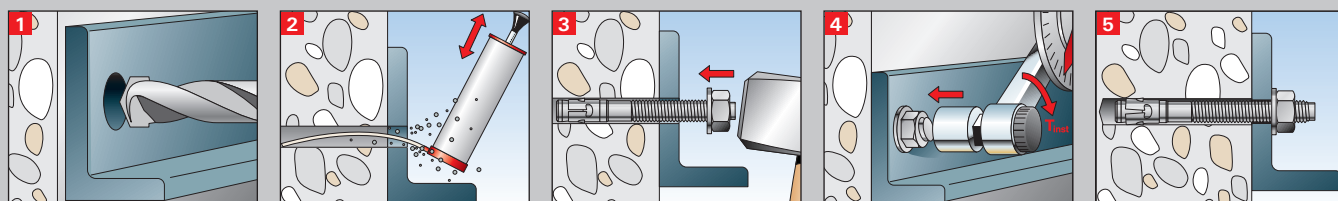
Approvals



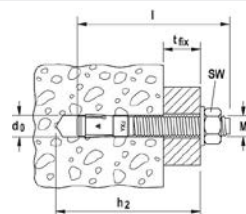
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Installation



Applications



Assortment bolt anchor FXA

Item	Art.-No.		Approval	Drill diameter d_0 [mm]	Min. drill hole depth for push through installation h_2 [mm]	Anchor length l [mm]	Embedment depth with respective usable length		Washer (outer diameter x thickness) [mm]	Thread M [mm]	Width across nut $\varnothing SW$ [mm]	Sales unit [pcs]
	Zinc-plated steel gvz	Stainless steel R					h_{ef} [mm]	t_{fix} [mm]				
FXA 8/5 x 65	523129	-	■	8	61	65	40	5	16 x 1,6	M 8 x 34	13	50
FXA 8/10 x 70	523131	523270	■	8	66	70	40	10	16 x 1,6	M 8 x 39	13	50
FXA 8/30 x 90	523132	523271	■	8	86	90	40	30	16 x 1,6	M 8 x 59	13	50
FXA 8/50 x 110	523222	523272	■	8	106	110	40	50	16 x 1,6	M 8 x 79	13	50
FXA 10/10 x 85	523133	523273	■	10	78	85	50	10	20 x 2	M 10 x 46	17	50
FXA 10/20 x 95	523134	523274	■	10	88	95	50	20	20 x 2	M 10 x 56	17	50
FXA 10/30 x 105	523223	-	■	10	98	105	50	30	20 x 2	M 10 x 66	17	50
FXA 10/50 x 125	523135	523276	■	10	118	125	50	50	20 x 2	M 10 x 86	17	20
FXA 10/100 x 175	523136	-	■	10	168	175	50	100	20 x 2	M 10 x 136	17	20
FXA 12/10 x 104	523137	523277	■	12	95	104	65	10	24 x 2,5	M 12 x 59	19	20
FXA 12/20 x 114	523138	523278	■	12	105	114	65	20	24 x 2,5	M 12 x 69	19	20
FXA 12/30 x 124	523139	-	■	12	115	124	65	30	24 x 2,5	M 12 x 79	19	20
FXA 12/50 x 144	523141	523304	■	12	135	144	65	50	24 x 2,5	M 12 x 99	19	20
FXA 12/100 x 194	523142	-	■	12	185	194	65	100	24 x 2,5	M 12 x 149	19	20
FXA 16/25 x 143	523143	523305	■	16	129	143	80	25	30 x 3	M 16 x 86	24	10
FXA 16/50 x 168	523144	523306	■	16	154	168	80	50	30 x 3	M 16 x 105	24	10
FXA 16/100 x 218	523145	-	■	16	204	218	80	100	30 x 3	M 16 x 164	24	10

Loads and Accessories

Bolt anchor FXA
zinc plated steel/stainless steel R

Permissible loads of a single anchor in non-cracked normal concrete (concrete compression zone) of strength class C20/25 (~ B25) 1) 2) 3)										Minimum spacings while reducing the load	
Item	Material fixing element	Min. member thickness	Effective anchorage depth	Installation torque	Permissible tensile load	Permissible shear load	Required edge distance (with one edge) for		Required spacing for	Min. spacing	Min. edge distance
		h_{\min} [mm]	h_{ef} [mm]	T_{inst} [Nm]	$N_{\text{perm}}^{4)}$ [kN]	$V_{\text{perm}}^{4)}$ [kN]	Max. tension load c [mm]	Max. shear load c [mm]	Max. load s [mm]	$s_{\min}^{5)}$ [mm]	$c_{\min}^{5)}$ [mm]
FXA 8	gvz	100	40	15	4,8	6,1	90	90	120	40	45
	R			10							
FXA 10	gvz	100	50	30	6,3	8,5	90	125	150	70	55
	R			20							
FXA 12	gvz	120	65	50	9,9	14,3	135	190	200	70	70
	R			35							
FXA 16	gvz	160	80	100	16,7	26,9	170	310	240	120	90
	R			80							

For the design the complete assessment ETA-13/0772 has to be considered. 6)

1) The partial safety factors for material resistance as regulated in the assessment as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As an single anchor counts e.g. an anchor with a spacing $s \geq 3 \cdot h_{ef}$ and an edge distance $c \geq 1.5 \cdot h_{ef}$.

Accurate data see assessment.

2) For higher concrete strength classes up to C50/60 higher permissible loads may be possible.

3) Drill method hammer drilling.

4) For combinations of tensile loads and shear loads or for shear loads with lever arm (bending moments) as well as reduced edge distances or spacings (anchor groups) we recommend to use our anchor design software Fixperience - Module C-Fix.

5) Minimum possible axial spacings resp. edge distance while reducing the permissible load.

6) The given loads refer to the European Technical Assessment ETA-13/0772, issue date 27th September 2017. Design of the loads according ETAG 001, Annex C, Method A (for static resp. quasi-static loads).

Accessories

Bolt anchor setting tool FA-ST



Art.Nr. 541891
Art.Nr. 541892

- The fischer setting tool FA-ST is used for the insertion and pre-tightening of bolt anchors. Final control of the installation torque has to be done with the help of a torque wrench.
- Energy-saving installation: Can be used on walls, ceilings, and floors without the plug falling out.
- The projecting thread is not damaged during hammering.
- Fast and easy installation: Set more anchors in the same amount of time.
- Safe installation without damage to the fixture when installing stainless steel railings, for example.

Setting tool FABS



Art.Nr. 077937

- The fischer setting tool FABS is used for the mechanical installation. The SDS adapter enables the insertion of bolt anchors with the aid of a hammer drill.
- Can be used for the application on the wall, ceiling and floor.
- Quick and simple application: set more anchors in the same time.
- Safe application without damaging the attachment part.

fischer FIXPERIENCE

The design and information software suite



- The modular design program includes engineering software and application modules.
- The software is based on international design standards (ETAG 001, EC1, EC2, EC3 and EC5), including the national application documents. All common force and measurement units are available.
- Incorrect input will be recognized and the software gives tips to get a correct result. This ensures a safe and reliable design every time.
- The graphical display can easily be rotated through 360°, panned, tilted or zoomed as required.
- The 3D display gives a detailed and realistic image.
- The "live update" feature helps to keep the program up to date ensuring you are always working with the latest version.
- Free download and updates at www.fischer.de/fixperience-en

Our service to you



We are available to you at any time as a reliable partner to offer technical support and advice:

- Our products range from chemical resin systems to steel anchors through to nylon anchors.
- Competence and innovation through own research, development and production.
- Global presence and active sales service in over 100 countries.
- Qualified technical consulting for economical and compliant fastening solutions. Also on-site at the construction site if requested.
- Training sessions, some with accreditation, at your premises or at the fischer academy.
- Design and construction software for demanding applications.

This is what fischer stands for



FIXING SYSTEMS



AUTOMOTIVE SYSTEMS



FISCHERTECHNIK



CONSULTING

See the extensive main catalogue or visit our website at www.fischer-international.com for information about the complete fischer range