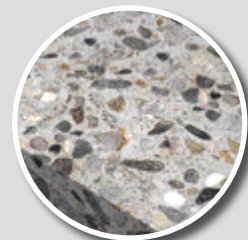


fischer

FXA Through Bolts

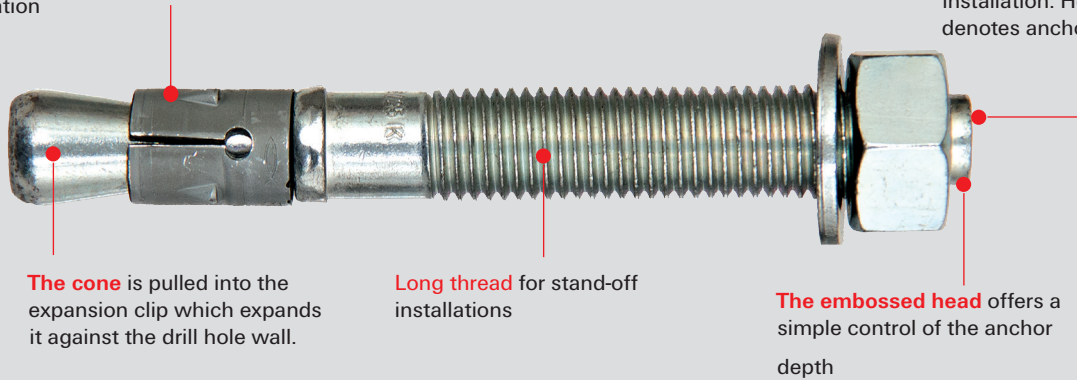
A compact range of throughbolts for non-cracked concrete



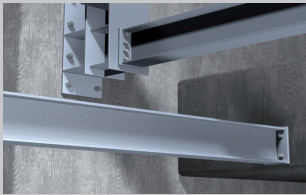
Through Bolt FXA. For standard requirements. Simple and compact.

The **unity of design** holds the expansion clip firmly in place during installation

The **drive-in pin** prevents damage to the thread during installation. Head marking denotes anchorage depth.



Ideal for a large number of applications



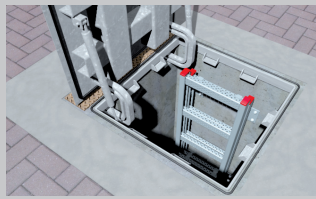
Steel construction



Column bases



Guard rails



Manholes

Cost effective fixing

- The FXA is suitable for pre-positioned and push-through installation; also suitable for stand-off installation under certain conditions.
- Prior to installation, place the hexagon nut in the optimal position (the drive-in pin projects by approx. 3mm out of the hexagon nut).
- When applying the torque, the cone bolt is pulled into the expansion clip and expands it against the drill-hole wall.

Suitable for:

Steel constructions, Manholes, Consoles, Ladders, Machines, Staircases, Gates, Façades

Your advantages at a glance

- The compact range makes it easy to use for applications in non-cracked concrete.
- The long thread balances component tolerances and allows for stand-off installations.
- The drive-in pin protects the thread from damage.

Approved for the following construction materials

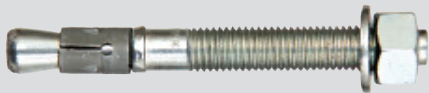
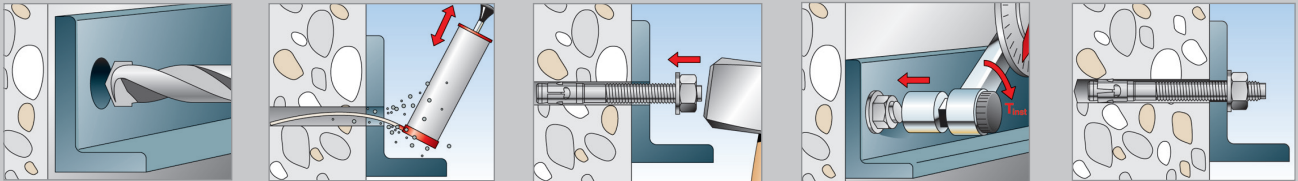
- Concrete C20/25 to C50/60, non-cracked

Also suitable for

- Concrete C12/15
- Natural stone with dense structure

Range.

Installation



FXA Through bolt

Item	zinc-plated steel	ETA	Drill hole diameter [mm]	Clearance hole in fixture [mm]	Min drill hole depth for through fixing [mm]	Anchor length [mm]	Max. usable length [mm]	Width across nut \circ SW [mm]	Sales unit [pcs]
	Art.-No.								
FXA 8/5 x 66	523129	■	8	9	61	66	5	13	50
FXA 8/10 x 71	523131	■	8	9	66	71	10	13	50
FXA 8/30 x 91	523132	■	8	9	86	91	30	13	50
FXA 10/10 x 86	523133	■	10	12	78	86	10	17	50
FXA 10/20 x 95	523134	■	10	12	88	95	20	17	50
FXA 10/50 x 126	523135	■	10	12	118	126	50	17	20
FXA 10/100 x 176	523136	■	10	14	168	176	100	17	20
FXA 12/10 x 106	523137	■	12	14	95	106	10	19	20
FXA 12/20 x 116	523138	■	12	14	105	116	20	19	20
FXA 12/30 x 126	523139	■	12	14	115	126	30	19	20
FXA 12/50 x 146	523141	■	12	14	135	146	50	19	20
FXA 12/100 x 196	523142	■	12	14	185	196	100	19	20
FXA 16/25 x 145	523143	■	16	18	129	145	25	24	10
FXA 16/50 x 170	523144	■	16	18	154	170	50	24	10
FXA 16/100 x 220	523145	■	16	18	204	220	100	24	10

Through Bolt FXA. Highest permissible loads for a single anchor in non-cracked concrete C20/25. For the design the complete approval ETA - 13/0772 has to be considered.

Load Data						
Type	Effective anchorage depth [mm]	Min member thickness [mm]	Installation torque (Nm)	Permissible tensile load [kN]	Min. spacing [mm]	Min edge distance [mm]
M8	40	100	15	4.76	40	45
M10	50	100	30	6.35	70	55
M12	65	120	50	9.92	70	70
M16	80	160	100	16.67	120	90

¹⁾ The partial safety factors for material resistance as regulated in the approval 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 $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1,5 \times h_{ef}$. Accurate data see approval.

²⁾ Minimum possible axial spacings resp. edge distance while reducing the permissible load.

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

⁴⁾ For higher concrete strength classes up to C50/60 higher permissible loads may be possible.

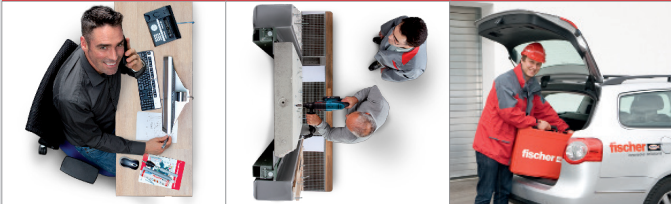
Not available on Compufix

Design software C-Fix simplifies design and construction.



- Design fixing solutions with steel and bonded anchors safely and economically without great effort.
- An automatic calculation gives immediate information on the effect of changes to input criteria.
- The user-friendly Windows interface enables use without the need for lengthy training
- Using 3D navigation, you can easily rotate, pan, tilt and zoom designs in the space.
- An automatic wizard provides support with detailed instructions.
- Verifiable document.
- Free download and updates at www.fischer.de | www.fischer.co.uk

Our comprehensive service to you.



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

- Our products range from chemical 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 application-specific consulting for efficient anchor solutions in line with statutory guidelines. On-site consultations and site tests on request.
- External / internal training sessions, in-house seminars and CPD Seminars.
- Design and construction software for demanding applications.

