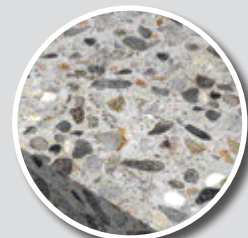


fischer FXA Through Bolts

A compact range of throughbolts for
non-cracked concrete



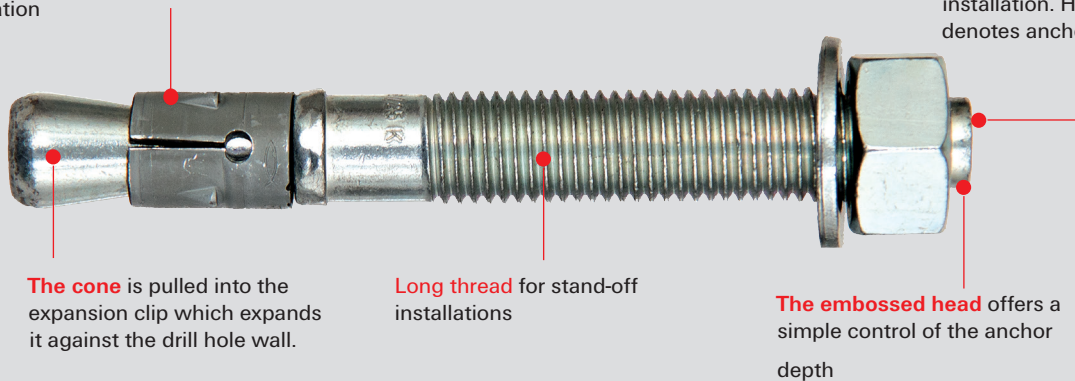
Through Bolt FXA.

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.

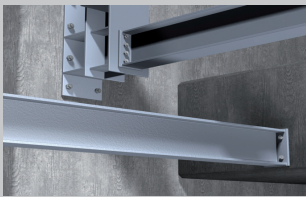


The cone is pulled into the expansion clip which expands it against the drill hole wall.

Long thread for stand-off installations

The embossed head offers a simple control of the anchor depth

Ideal for a large number of applications



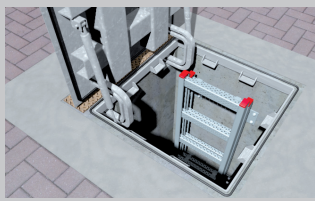
Steel construction



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

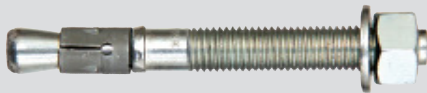
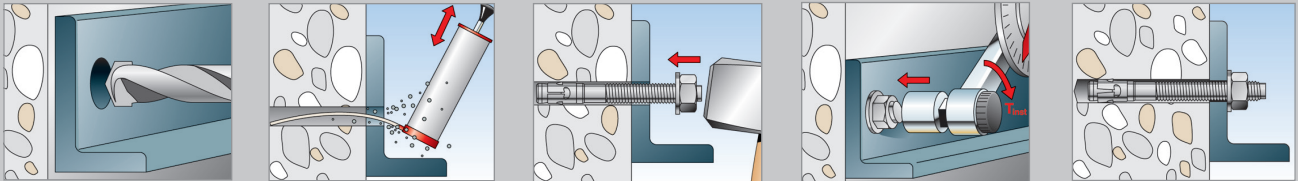
- Concrete C20/25 to C50/60, non-cracked

Also suitable for

- Concrete C12/15
- Natural stone with dense structure

Range.

Installation



FXA Through bolt

Item	zinc-plated steel Art.-No.	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 \varnothing SW [mm]	Sales unit [pcs]
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.