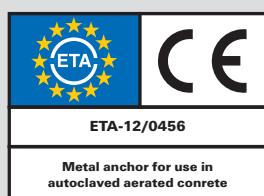
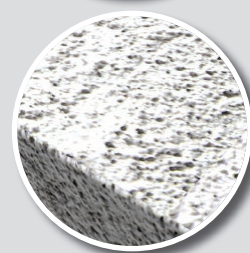




fischer aircrete anchor FPX-I

Unique in aerated concrete.



fischer 
innovative solutions

Aircrete anchor FPX-I – the strong internal thread anchor with unique 4-fold expansion.



Easy

The intelligent installation technique enables simple setting **without a torque wrench.**

Versatile

The metric internal thread enables **standard screws and threaded rods to be used** for ideal adaptation to the attachment or the stand-off installation.

UNIQUE

The unique square expansion sleeve ensures **secure and reliable installation without being turned itself in the drill hole** and enables a high load level.

Fast

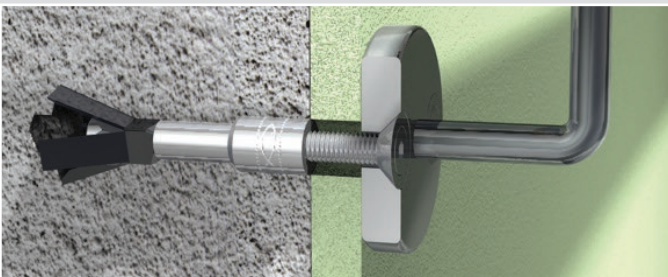
The expansion by means of hexagon wrench enables **fast installation** and guarantees **automatic and 100% setting control.**

Intelligent, fast and easy.

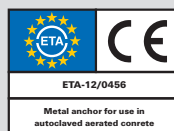
- The FPX-I is suitable for pre-positioned installation.
- Pre-drilling enables the anchor to be hammered in easily, even in high-strength aerated concrete. It is not necessary to clean the drill hole.
- Following optimum expansion, the hexagon wrench is automatically released from the anchor.
- When the anchor is installed, the internal thread bolt is turned and this pulls the cone into the square expansion sleeve. In the process, the aerated concrete is compressed at the four ribs and an undercut is made in the aerated concrete.

Your advantages at a glance

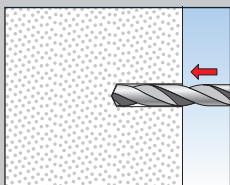
- The easy expansion by means of a cordless screwdriver or ratchet ensures **maximum installation convenience.**
- The displacement-controlled expansion of the anchor ensures **secure and reliable, uniform and effortless installation.**
- The unique 4-fold expansion of the FPX-I ensures high tension and shear loads and therefore means **fewer** fixing points.
- The first steel anchor with ETA approval and fire test certificat for fixing in aerated concrete enables **use** in safety-relevant fixings as well.



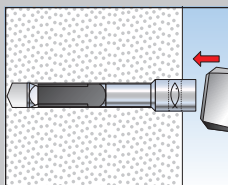
Approvals



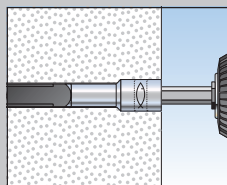
Installation



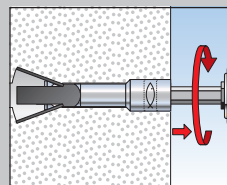
Drill a hole.



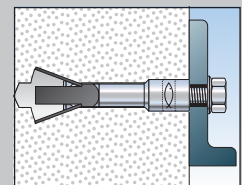
Hammer in the anchor until it is flush with the top edge of the aerated concrete.



Tighten the anchor with the hexagon wrench.



Automatic setting control through the release of the hexagon wrench from the anchor.



Use a screw or threaded rod to fix the attachment. Finished!

Applications, product range.

FPX-I: The internal thread anchor for optimum flexibility in aerated concrete

Approved for the following construction materials

- Aerated concrete masonry with compressive strength PB 1.6 to PB 6.0 N/mm²
- Aerated concrete wall and ceiling slabs with compressive strength 3.3 to 4.4 N/mm²

Ideal for a large number of applications in dry interiors



■ Cable trays



■ Ventilation ducts



■ Pipe lines



■ Guard rails/handrails



■ Kitchen cabinets

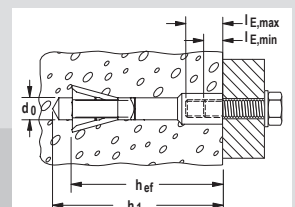


■ Suspended ceilings

- Different attachment thicknesses possible
- Can also be used for fixings in coated (e.g. plastered) aerated concrete masonry. In this case, the anchor must be set flush-mounted with the fixing substrate (aerated concrete).
- Approved for stand-off installations/suspension elements
- Able to support loads immediately after installation
- Fire resistant according to DIN 4102 (Class A1)
- Approved from 100 mm building member thickness



Including hexagon wrench



Aircrete anchor FPX-I

Product designation	Steel, zinc plated Art. No.	Approval ETA	Nominal drill hole diameter d ₀ [mm]	Min. drill hole depth h ₁ [mm]	Anchor length l [mm]	Min. anchorage depth h _{ef} [mm]	Min. screw-in depth l _{E,min} [mm]	Max. screw-in depth l _{E,max} [mm]	Sales unit [pcs.]
FPX M6 I	519021	■	10	80	75	70	10	15	25
FPX M8 I	519022	■	10	80	75	70	8	15	25
FPX M10 I	519023	■	10	80	75	70	10	15	25
FPX M12 I	519024	■	10	80	75	70	12	15	25

Maximum allowable loads ¹⁾ in aerated concrete.				Single anchor				Anchor groups				
Type				M6	M8	M10	M12	M6	M8	M10	M12	
Minimum building member thickness with drill hole cleaning		h_{\min}	[mm]	100				100				
Minimum building member thickness without drill hole cleaning		h_{\min}		120				120				
Effective anchorage depth		h_{ef}		70				70				
Maximum tightening torque of the fixing screw		T_{\max}	[Nm]	3.0 ⁵⁾				3.0 ⁵⁾				
Min. joint distance for single anchors		c_F	[mm]	0 ⁹⁾ / 75 ¹³⁾ / 125 ¹⁴⁾				–				
Min. centre-to-centre spacing ²⁾ within the anchor group and 2 single anchors ¹⁵⁾		s_{\min}		100				100				
Min. edge distance ²⁾		c_1		125 ¹¹⁾				250				
Min. edge distance ²⁾ orthogonally to c_1		c_2		188				375				
Min. intermediate spacing		a		375 (600) ¹²⁾				750				
Allowable load for single anchors F_{zul} ³⁾ or for anchor groups with 2 or 4 anchors $F_{zul,n}$ ^{3) 6) 8)}												
Aerated concrete masonry ^{4) 7)}	$f_{ck} \geq 1.6 \text{ N/mm}^2$; $\rho_m \geq 0.25 \text{ kg/dm}^3$		F_{zul} ³⁾	[kN]	0.3				0.6			
	$f_{ck} \geq 2.0 \text{ N/mm}^2$; $\rho_m \geq 0.35 \text{ kg/dm}^3$				0.4				0.8			
	$f_{ck} \geq 4.0 \text{ N/mm}^2$; $\rho_m \geq 0.50 \text{ kg/dm}^3$				0.9				1.8			
	$f_{ck} \geq 6.0 \text{ N/mm}^2$; $\rho_m \geq 0.65 \text{ kg/dm}^3$				1.4				2.8			
Aerated concrete slabs ⁴⁾ , cracked	$f_{ck} \geq 3.3 \text{ N/mm}^2$; $\rho_m \geq 0.50 \text{ kg/dm}^3$				0.6				1.2			
	$f_{ck} \geq 4.4 \text{ N/mm}^2$; $\rho_m \geq 0.55 \text{ kg/dm}^3$				0.8				1.6			
Aerated concrete slabs ⁴⁾ , non-cracked	$f_{ck} \geq 3.3 \text{ N/mm}^2$; $\rho_m \geq 0.50 \text{ kg/dm}^3$				0.8				1.6			
	$f_{ck} \geq 4.4 \text{ N/mm}^2$; $\rho_m \geq 0.55 \text{ kg/dm}^3$				1.2				2.4			

- 1) Includes an allowance for the partial safety factors of the resistances stipulated in the approval and a partial safety factor of the action of $\gamma_F = 1.4$.
- 2) Smallest possible centre-to-centre spacing or edge distance without reduction in the allowable load.
- 3) Applies to tension load, shear load and diagonal load under any angle.
- 4) Brick/block strength class f_{ck} and dry density ρ_m according to EN 771-4 and EN 12602 respectively.
- 5) If the anchor is unable to support itself against the attachment when tightened, no torque may be applied ($T_{\max} = 0$).
- 6) If 4 anchors are used they are arranged in a rectangle.
- 7) In the case of a masonry joint, calculations are required to verify that the brick block is not pulled out.
- 8) Allowable total load of the anchor group.

- 9) No joint distance is required for all-over grouting of the joint with a joint width of $\leq 12 \text{ mm}$ and a mortar compressive strength according to EN 998-2 $\geq f_{ck}$ aerated concrete.
- 10) In the case of concealed joints, the allowable total load of the anchor group must be halved and calculated as a multiple fixing in accordance with ETAG 001, Annex C.
- 11) For reinforced aerated concrete slabs with a slab width of $\leq 700 \text{ mm}$: $c_1 \geq 150 \text{ mm}$.
- 12) Value in brackets applies to aerated concrete slabs.
- 13) c_F for tension and/or shear load parallel to the ungrouted joint with a width of $\leq 2 \text{ mm}$.
- 14) $c_F = c_1$ for transverse tensile force or inclined tensile force orthogonally to the ungrouted joint with width $\leq 2 \text{ mm}$.
- 15) The intermediate spacings and edge distances for anchor groups apply to 2 single anchors with spacing $\leq 375 \text{ mm}$ ($\geq s_{\min}$).

Our 360° service for you.



As a reliable partner, we are there to provide help and advice whenever you need it:

- Our product range extends from chemical systems to steel anchors through to plastic anchors.
- Expertise and innovation through in-house research and development.
- Worldwide presence and active sales service in more than 100 countries.
- Qualified applications advice for economical fixings solutions in conformity with the relevant regulations and guidelines. If necessary, on site too.
- Training courses, some with certification, on your premises or in the fischer ACADEMY.
- Design and calculation software for high-quality and sophisticated fixings.

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 and EC2, such as EC1, 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.

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