

FIX EXPANSION PLUG

Easy-to-install plug giving exceptional performance in solid base materials



Product information

Features and benefits

- Anti-rotation fins prevent spinning during tightening of the screw.
- Engineered grip feature for extra holding power.
- Two-way expansion mechanism provides a strong anchorage in solid base materials.

Applications

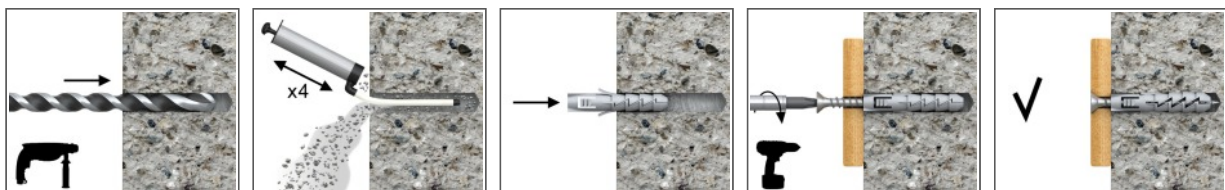
- Pictures
- Lighting
- Skirting / Dado railing
- Shelves
- Trunking
- Cable trays
- Electrical fittings
- Letterboxes

Base materials

Approved for use in:

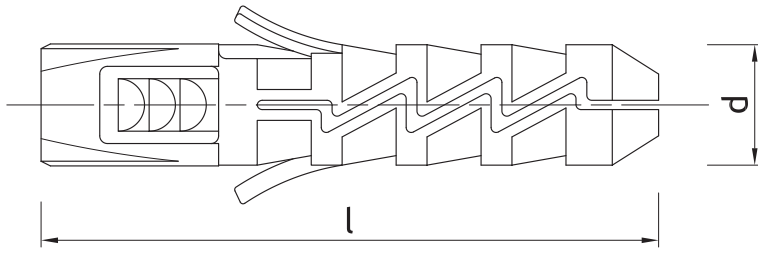
- Concrete
- Solid Brick
- Solid Sand-lime Brick
- Aerated Concrete Block

Installation guide



1. Drill a hole of required diameter.
2. Insert FIX plug into hole and tap home.
3. Insert screw of required diameter into plug through fixture and tighten.

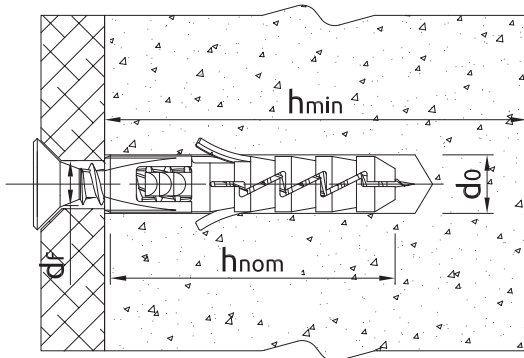
Product information



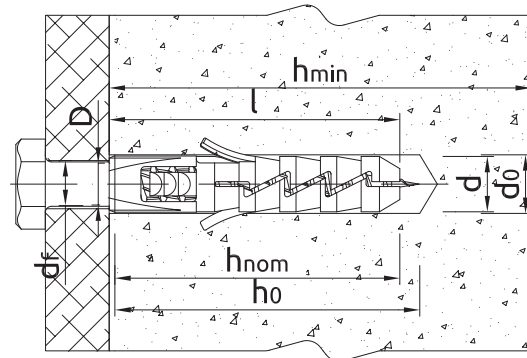
Product dimensions

Size	Product Code	Plug		Screw	Fixture
		Diameter	Length	Diameter	Hole diameter
		d	l	D	d _f
[mm]					
Ø5	R-FIX-K-05	5	25	3,5	4
Ø6	R-FIX-K-06	6	30	3,5 - 4,0	4 - 5
Ø7	R-FIX-K-07	7	35	4,5	5,0
Ø8	R-FIX-K-08	8	40	4,5 - 5,0	5,0 - 6,0
Ø10	R-FIX-K-10	10	50	5,0 - 6,0	6,0 - 7,0
Ø12	R-FIX-K-12	12	60	6,0 - 8,0	7,0 - 9,0
Ø14	R-FIX-K-14	14	70	10	11

Installation data



Installation data



Installation data for countersunk head screw

Size			Ø5	Ø6	Ø7	Ø8	Ø10	Ø12	Ø14
Fixing diameter	d	[mm]	5	6	7	8	10	12	14
Hole diameter in substrate	d ₀	[mm]	5	6	7	8	10	12	14
Min. hole depth in substrate	h ₀	[mm]	35	40	45	50	60	70	80
Min. installation depth	h _{nom}	[mm]	25	30	35	40	50	60	70
Min. substrate thickness	h _{min}	[mm]	55	60	65	70	80	90	100
Min. spacing (countersunk head)	s _{min}	[mm]	25	30	35	40	30	30	-
Min. spacing (HEX head)	s _{min}	[mm]	-	-	-	-	50	60	70
Min. edge distance (countersunk head)	c _{min}	[mm]	25	30	35	40	40	40	-
Min. edge distance (HEX head)	c _{min}	[mm]	-	-	-	-	50	60	70

Basic performance data

Performance data for single fixing without influence of edge distance and spacing

Substrate		Concrete C20/25 - C50/60	Solid clay brick min 20MPa (eg Mz20/Z.0)	Sand-lime solid brick	Aerated concrete 600 Mark V
MEAN ULTIMATE LOAD $F_{R,m}$					
Ø5, Embedment depth 25mm	[kN]	0.26	0.32	0.22	0.30
Ø6, Embedment depth 30mm	[kN]	0.24	1.11	0.65	0.76
Ø7, Embedment depth 35mm	[kN]	0.57	-	-	0.61
Ø8, Embedment depth 40mm	[kN]	1.02	2.92	1.65	1.17
Ø10, Embedment depth 50mm	[kN]	0.78	1.86	1.62	1.64
Ø12, Embedment depth 60mm	[kN]	1.82	5.80	4.06	2.99
Ø14, Embedment depth 70mm	[kN]	2.29	3.73	2.37	1.80
CHARACTERISTIC LOAD F_{Rk}					
Ø5, Embedment depth 25mm	[kN]	0.10	0.15	0.10	0.15
Ø6, Embedment depth 30mm	[kN]	0.15	0.40	0.30	0.40
Ø7, Embedment depth 35mm	[kN]	0.49	-	-	0.52
Ø8, Embedment depth 40mm	[kN]	0.50	2.00	1.20	0.75
Ø10, Embedment depth 50mm	[kN]	0.40	0.90	0.60	0.90
Ø12, Embedment depth 60mm	[kN]	1.20	4.00	3.00	2.00
Ø14, Embedment depth 70mm	[kN]	1.20	2.50	1.20	1.15
DESIGN LOAD F_{Rd}					
Ø5, Embedment depth 25mm	[kN]	0.05	0.06	0.04	0.07
Ø6, Embedment depth 30mm	[kN]	0.08	0.16	0.12	0.20
Ø7, Embedment depth 35mm	[kN]	0.20	-	-	0.26
Ø8, Embedment depth 40mm	[kN]	0.27	0.80	0.48	0.37
Ø10, Embedment depth 50mm	[kN]	0.22	0.36	0.24	0.45
Ø12, Embedment depth 60mm	[kN]	0.66	1.60	1.20	1.00
Ø14, Embedment depth 70mm	[kN]	0.66	1.00	0.48	0.57
RECOMMENDED LOAD F_{rec}					
Ø5, Embedment depth 25mm	[kN]	0.04	0.04	0.03	0.05
Ø6, Embedment depth 30mm	[kN]	0.06	0.11	0.09	0.14
Ø7, Embedment depth 35mm	[kN]	0.14	-	-	0.18
Ø8, Embedment depth 40mm	[kN]	0.19	0.57	0.34	0.26
Ø10, Embedment depth 50mm	[kN]	0.16	0.26	0.17	0.32
Ø12, Embedment depth 60mm	[kN]	0.47	1.14	0.86	0.71
Ø14, Embedment depth 70mm	[kN]	0.47	0.71	0.34	0.41

Product commercial data

Product Code	Plug	Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
R-FIX-K-05	5	400	9600	230400	0.14	3.4	110.6	5906675135373
R-FIX-K-06	6	100	6400	153600	0.08	5.2	155.4	5906675252957
R-FIX-K-07	7							
R-FIX-K-08	8	200	2400	57600	0.26	3.1	104.9	5906675135380
R-FIX-K-10	10	100	1200	28800	0.24	2.9	99.1	5906675135434
R-FIX-K-12	12	50	800	19200	0.20	3.2	106.8	5906675135458
R-FIX-K-14	14	25	600	14400	0.15	3.6	116.4	5906675135465