

# FIX EXPANSION PLUG WITH SCREW

Easy-to-install plug with screw 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

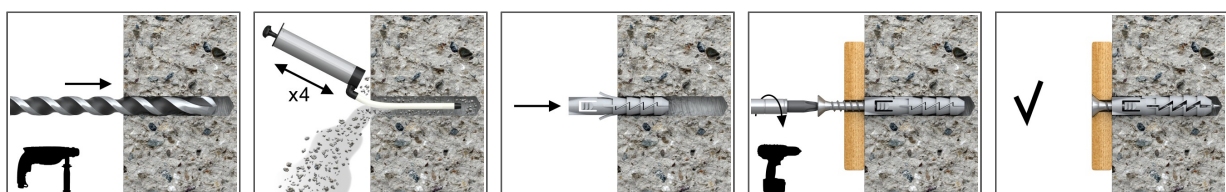
- Pictures
- Lighting
- Skirting / Dado railing
- Shelves
- Trunking
- Cable trays
- Electrical fittings
- Letterboxes

### Base materials

**Approved for use in:**

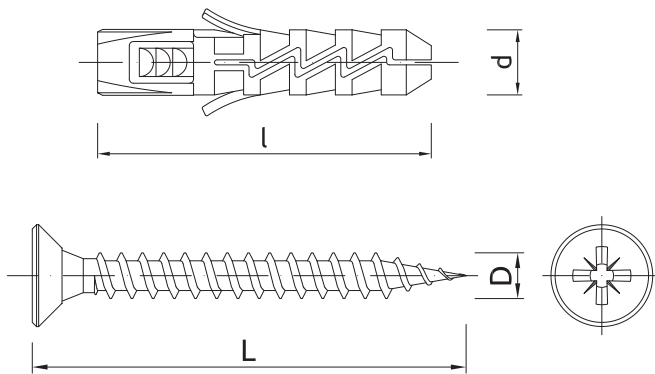
- Concrete
- Solid Brick
- Solid Sand-lime Brick
- Aerated Concrete Block

## Installation guide



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

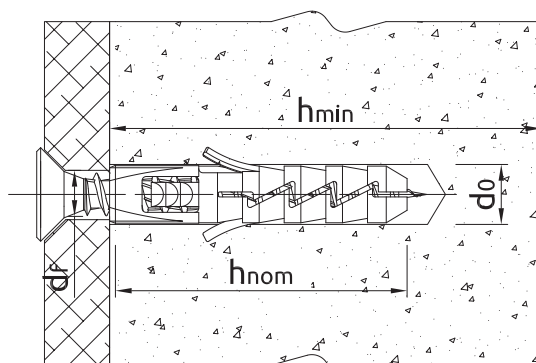
Product information



Product dimensions

Size	Product Code	Plug		Screw		Fixture	
		Diameter	Length	Diameter	Length	Max. thickness	Hole diameter
		d	l	D	L	t <sub>fix</sub>	d <sub>f</sub>
[mm]							
Ø5	FIX-05+	5	25	3,5	30	5	4
Ø6	FIX-06+	6	30	3,5	30	1	4
	FIX-06+340	6	30	3,5	40	10	4
	FIX-06+350	6	30	3,5	50	20	4
	FIX-06+435	6	30	4	35	5	5
	FIX-06+440	6	30	4	40	10	5
	FIX-06+450	6	30	4	50	20	5
Ø8	FIX-08+	8	40	5	45	5	6
	FIX-08+450	8	40	4,5	50	10	5
	FIX-08+460	8	40	4,5	60	20	5
	FIX-08+550	8	40	5	50	10	6
	FIX-08+560	8	40	5	60	20	6
	FIX-08+580	8	40	5	80	40	6
Ø10	FIX-08+100	8	40	5	100	60	6
	FIX-10+560	10	50	5	60	10	6
	FIX-10+660	10	50	6	60	10	7
	FIX-10+680	10	50	6	80	30	7
	FIX-10+100	10	50	6	100	50	7
	FIX-10+120	10	50	6	120	70	7
Ø12	FIX-10+160	10	50	6	160	110	7
	FIX-12+680	12	60	6	80	20	7
	FIX-12+100	12	60	6	100	40	7
	FIX-12+120	12	60	6	120	60	7

Installation data



Installation data

## Installation data

Size			Ø5	Ø6	Ø8	Ø10	Ø12
Fixing diameter	d	[mm]	5	6	8	10	12
Hole diameter in substrate	d <sub>0</sub>	[mm]	5	6	8	10	12
Min. hole depth in substrate	h <sub>0</sub>	[mm]	35	40	50	60	70
Min. installation depth	h <sub>nom</sub>	[mm]	25	30	40	50	60
Min. substrate thickness	h <sub>min</sub>	[mm]	55	60	70	80	90
Min. spacing	s <sub>min</sub>	[mm]	25	30	40	30	30
Min. edge distance	c <sub>min</sub>	[mm]	25	30	40	40	40

## 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 Mz20/2.0)	Sand-lime solid brick	Aerated concrete 600 Mark V
<b>MEAN ULTIMATE LOAD F<sub>Ru,m</sub></b>					
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
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
<b>CHARACTERISTIC LOAD F<sub>Rk</sub></b>					
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
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
<b>DESIGN LOAD F<sub>Rd</sub></b>					
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
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
<b>RECOMMENDED LOAD F<sub>rec</sub></b>					
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
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

## Product commercial data

Product Code	Plug	Screw	Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
FIX-05+	5	30	200	6400	153600	0.33	10.6	285.3	5906675050126
FIX-06+	6	30	200	3200	76800	0.36	5.8	169.0	5906675050225
FIX-06+340	6	40	200	4800	115200	0.44	10.6	284.0	5906675050027
FIX-06+350	6	50	200	4800	115200	0.51	12.2	323.8	5906675050423
FIX-06+435	6	35	200	4800	115200	0.49	11.6	309.4	5906675081328
FIX-06+440	6	40	200	4800	14400	0.54	13.0	69.1	5906675081427
FIX-06+450	6	50	200	3200	76800	0.64	10.2	274.2	5906675081625
FIX-08+	8	45	200	2400	57600	1.00	12.0	318.3	5906675081823
FIX-08+450	8	50	200	2400	57600	0.90	10.8	288.0	5906675081922
FIX-08+460	8	60	200	2400	57600	1.05	12.7	333.6	5906675082226
FIX-08+550	8	50	200	2400	57600	1.08	12.9	339.6	5906675082325

## Product commercial data

Product Code	Plug	Screw	Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
FIX-08+560	8	60	100	1200	28800	0.63	7.6	211.7	5906675082028
FIX-08+580	8	80	100	1600	38400	0.77	12.3	325.7	5906675083223
FIX-08+100	8	100	100	1600	38400	0.93	14.9	387.3	5906675083322
FIX-10+560	10	60	100	1200	28800	0.73	8.7	239.7	5906675082424
FIX-10+660	10	60	100	1200	28800	0.98	11.8	313.1	5906675082523
FIX-10+680	10	80	50	800	19200	0.73	11.7	311.1	5906675082622
FIX-10+100	10	100	50	600	14400	0.73	8.7	239.7	5906675082721
FIX-10+120	10	120	50	600	14400	0.84	10.1	271.8	5906675082820
FIX-10+160	10	160	50	600	14400	1.07	12.8	338.3	5906675082929
FIX-12+680	12	80	50	600	14400	0.70	8.4	231.6	5906675083728
FIX-12+100	12	100	50	600	14400	0.81	9.7	262.2	5906675083827
FIX-12+120	12	120	50	600	14400	0.92	11.0	294.8	5906675083926