

## 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

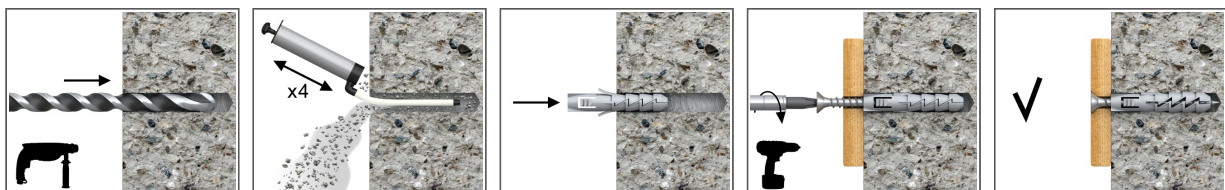
- Pictures
- Lighting
- Skirting / Dado railing
- Shelves
- Trunking
- Cable trays
- Electrical fittings
- Letterboxes

#### Base materials

##### Approved for use in:

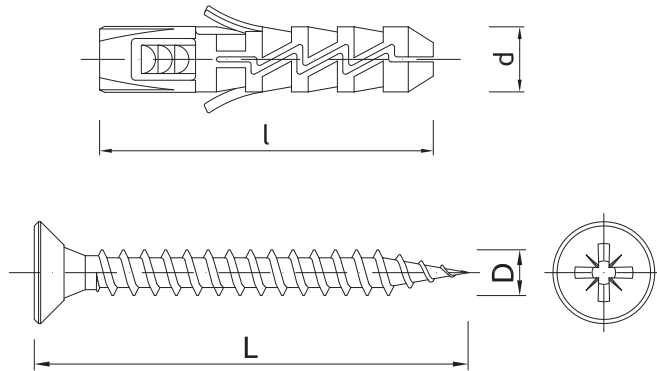
- Concrete
- Solid Brick
- Solid Sand-lime Brick
- Aerated Concrete Block

### 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.

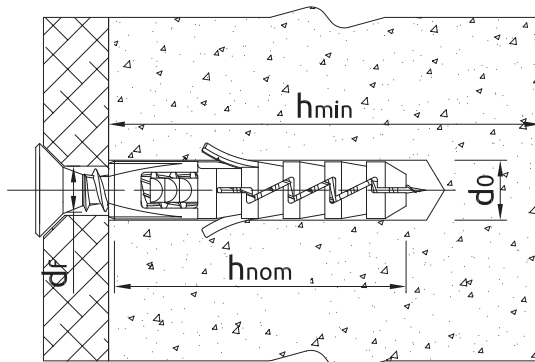
**Product information**



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	R-FIX-05+	5	25	3,5	30	5	4
Ø6	R-FIX-06+	6	30	3,5	30	1	4
	R-FIX-06+340	6	30	3,5	40	10	4
	R-FIX-06+350	6	30	3,5	50	20	4
	R-FIX-06+435	6	30	4	35	5	5
	R-FIX-06+440	6	30	4	40	10	5
	R-FIX-06+450	6	30	4	50	20	5
Ø8	R-FIX-08+	8	40	5	45	5	6
	R-FIX-08+450	8	40	4,5	50	10	5
	R-FIX-08+460	8	40	4,5	60	20	5
	R-FIX-08+550	8	40	5	50	10	6
	R-FIX-08+560	8	40	5	60	20	6
	R-FIX-08+580	8	40	5	80	40	6
Ø10	R-FIX-10+100	8	40	5	100	60	6
	R-FIX-10+560	10	50	5	60	10	6
	R-FIX-10+660	10	50	6	60	10	7
	R-FIX-10+680	10	50	6	80	30	7
	R-FIX-10+100	10	50	6	100	50	7
	R-FIX-10+120	10	50	6	120	70	7
Ø12	R-FIX-10+160	10	50	6	160	110	7
	R-FIX-12+680	12	60	6	80	20	7
	R-FIX-12+100	12	60	6	100	40	7
	R-FIX-12+120	12	60	6	120	60	7

## Installation data



Installation data

Size			Ø5	Ø6	Ø8	Ø10	Ø12
Hole diameter in substrate	$d_0$	[mm]	5	6	8	10	12
Min. hole depth in substrate	$h_0$	[mm]	35	40	50	60	70
Min. installation depth	$h_{nom}$	[mm]	25	30	40	50	60
Min. substrate thickness	$h_{min}$	[mm]	55	60	70	80	90
Min. spacing	$s_{min}$	[mm]	25	30	40	30	30
Min. edge distance	$c_{min}$	[mm]	25	30	40	40	40
Fixing diameter	$d$	[mm]	5	6	8	10	12

## 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 <math>F_{R,u,m}</math></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 <math>F_{R,k}</math></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 <math>F_{R,d}</math></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 <math>F_{R,ec}</math></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	
R-FIX-05+	5	30	200	6400	153600	0.37	11.8	314.2	5906675168142
R-FIX-06+	6	30	200	6400	153600	0.37	11.8	314.2	5906675135540
R-FIX-06+340	6	40	200	6400	153600	0.78	25.0	629.0	5906675168166
R-FIX-06+350	6	50	200	6400	153600	0.51	16.3	421.7	5906675135571
R-FIX-06+435	6	35	200	4800	115200	0.55	13.2	346.8	5906675135588
R-FIX-06+440	6	40	200	4800	115200	0.58	13.9	364.1	5906675135595
R-FIX-06+450	6	50	200	3200	76800	0.63	10.1	271.9	5906675135601
R-FIX-08+	8	45	200	2400	86400	0.66	7.9	315.1	5906675168227
R-FIX-08+450	8	50	200	2400	57600	0.90	10.8	289.2	5906675135618
R-FIX-08+460	8	60	200	2400	57600	1.04	12.5	329.5	5906675135694
R-FIX-08+550	8	50	200	2400	57600	1.34	16.1	415.9	5906675135717
R-FIX-08+560	8	60	100	1200	28800	0.69	8.3	228.7	5906675135748
R-FIX-08+580	8	80	100	1600	38400	0.77	12.3	325.7	5906675135755
R-FIX-08+100	8	100	100	1600	38400	0.92	14.7	383.3	5906675135762
R-FIX-10+560	10	60	100	1200	43200	0.74	8.9	349.7	5906675168289
R-FIX-10+660	10	60							
R-FIX-10+680	10	80	50	800	19200	0.63	10.1	271.9	5906675090719
R-FIX-10+100	10	100	50	600	14400	0.72	8.6	237.4	5906675133669
R-FIX-10+120	10	120	50	600	14400	0.85	10.2	274.8	5906675133843
R-FIX-10+160	10	160	50	600	14400	0.95	11.4	303.6	5906675133850
R-FIX-12+680	12	80	50	600	14400	0.70	8.4	231.6	5906675133904
R-FIX-12+100	12	100	50	600	14400	0.80	9.6	260.4	5906675133928
R-FIX-12+120	12	120	50	600	14400	0.89	10.7	286.3	5906675133935