R-RLK-L Rawlok - Loose Bolt

All purpose expansion anchor for use in medium weight applications







Product information

Features and benefits

- Medium weight applications anchor
- Anchor designed for optimum performance in most base materials
- Integral collapse feature to ensure maximum clamping force is applied to the fixture
- Bolt and drill size marked on sleeve for accurate installation

Applications

- Radiators
- Signs
- Stadium seating
- Satelite dishes
- Wall plates
- Shutter
- Garage doors

Base materials

Approved for use in:

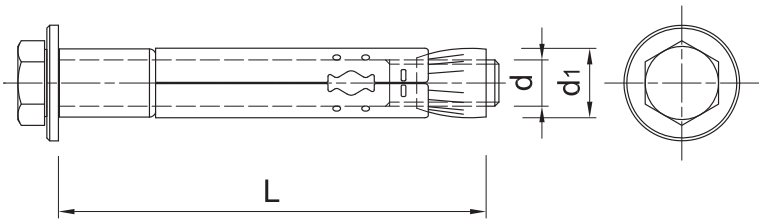
- Non-cracked concrete C20/25-C50/60
- Solid Brick
- Reinforced concrete

Installation guide



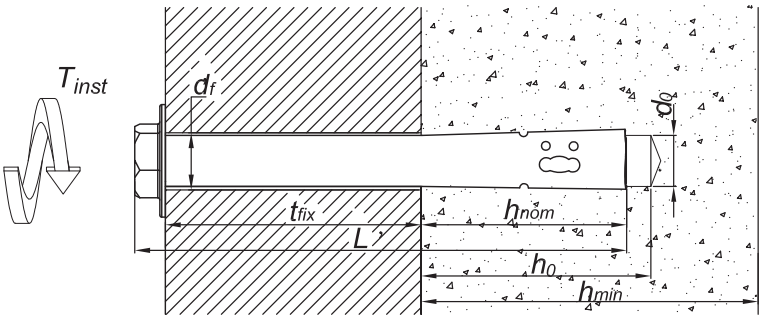
1. Drill a hole of required diameter and depth. Note: When fixing into brickwork, mortar joints should be avoided
2. Remove debris and thoroughly clean hole with brush and pum
3. Insert Rawlock through the fixture into the hole
4. Tighten to the recommended torque

Product information



Size	Product Code	Anchor		Fixture	
		Diameter	Length	Max. thickness	Hole diameter
		d	L	t_{fix}	d_f
		[mm]	[mm]	[mm]	[mm]
M8	R-RLK-L-08080	8	80	35	12
M10	R-RLK-L-10070	10	70	14	14
	R-RLK-L-10100	10	100	44	14

Installation data



Size			M8	M10
Thread diameter	d	[mm]	8	10
Hole diameter in substrate	d_0	[mm]	10	12
Installation torque (Concrete)	T_{inst}	[Nm]	11	22
Installation torque (Blockwork 14.0MPa)	T_{inst}	[Nm]	6	11
Installation torque (Blockwork 7.0MPa)	T_{inst}	[Nm]	4	8
Min. hole depth in substrate	h_0	[mm]	45	55
Min. installation depth	h_{nom}	[mm]	45	55
Min. substrate thickness	h_{min}	[mm]	65	85
Min. spacing	s_{min}	[mm]	60	70
Min. edge distance	c_{min}	[mm]	60	70

Basic performance data

Performance data for single anchor without influence of edge distance and spacing - ETAG 001

Size		M8	M10
BLOCKWORK 7.0MPA			
Effective embedment depth h_{ef}	[mm]	36.00	43.00
NON-CRACKED CONCRETE			
Effective embedment depth h_{ef}	[mm]	36.00	43.00
CHARACTERISTIC LOAD			
TENSION LOAD N_{Rk}			
BLOCKWORK 7.0MPA	[kN]	3.50	4.50
NON-CRACKED CONCRETE	[kN]	9.30	11.40
SHEAR LOAD V_{Rk}			
BLOCKWORK 7.0MPA	[kN]	2.70	3.10
NON-CRACKED CONCRETE	[kN]	9.00	12.60

Basic performance data

Size		M8	M10
DESIGN LOAD			
TENSION LOAD N_{Rd}			
BLOCKWORK 7.0MPA	[kN]	1.62	2.08
NON-CRACKED CONCRETE	[kN]	4.31	5.28
SHEAR LOAD V_{Rd}			
BLOCKWORK 7.0MPA	[kN]	1.50	1.72
NON-CRACKED CONCRETE	[kN]	5.00	7.00
RECOMMENDED LOAD			
TENSION LOAD N_{rec}			
BLOCKWORK 7.0MPA	[kN]	1.16	1.49
NON-CRACKED CONCRETE	[kN]	3.08	3.77
SHEAR LOAD V_{rec}			
BLOCKWORK 7.0MPA	[kN]	1.07	1.23
NON-CRACKED CONCRETE	[kN]	3.57	5.00

Design performance data

Size			M8	M10
Effective embedment depth	h_{ef}	[mm]	36.00	43.00
TENSION LOAD				
PULL-OUT FAILURE; NON-CRACKED CONCRETE C20/25				
Characteristic resistance	$N_{Rk,p}$	[kN]	9.30	11.40
Design resistance γ_M*= 2.16	$N_{Rd,p}$	[kN]	4.31	5.28
PULL-OUT FAILURE; BLOCKWORK 7.0MPA				
Characteristic resistance	$N_{Rk,p}$	[kN]	3.50	4.50
Design resistance γ_M*= 2.16	$N_{Rd,p}$	[kN]	1.62	2.08
PULL-OUT FAILURE; BLOCKWORK 14.0MPA				
Characteristic resistance	$N_{Rk,p}$	[kN]	4.50	5.60
Design resistance γ_M*= 2.16	$N_{Rd,p}$	[kN]	2.08	2.59
PULL-OUT FAILURE; BLOCKWORK 20.5MPA				
Characteristic resistance	$N_{Rk,p}$	[kN]	5.00	6.00
Design resistance γ_M*= 2.16	$N_{Rd,p}$	[kN]	2.31	2.78
SHEAR LOAD				
NON-CRACKED CONCRETE C20/25				
Characteristic resistance	V_{Rk}	[kN]	9.00	12.60
Design resistance γ_{Mc}= 1.8	V_{Rd}	[kN]	5.00	7.00
BLOCKWORK 7.0MPA				
Characteristic resistance	V_{Rk}	[kN]	2.70	3.10
Design resistance γ_{Mc}= 1.8	V_{Rd}	[kN]	1.50	1.72
BLOCKWORK 14.0MPA				
Characteristic resistance	V_{Rk}	[kN]	8.60	10.30
Design resistance γ_{Mc}= 1.8	V_{Rd}	[kN]	4.78	5.72
BLOCKWORK 20.5MPA				
Characteristic resistance	V_{Rk}	[kN]	8.60	10.30
Design resistance γ_{Mc}= 1.8	V_{Rd}	[kN]	4.78	5.72

Product commercial data

Size	Product Code	Anchor		Quantity [pcs]			Weight [kg]			Bar Codes
		Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
M8	R-RLK-L-08080	8	80	50	50	9000	2.7	2.7	507.0	5010445697166
M10	R-RLK-L-10070	10	70	25	25	7500	2.0	2.0	615.0	5010445697227
	R-RLK-L-10100	10	100	25	25	4500	1.40	1.40	282.0	5010445697210