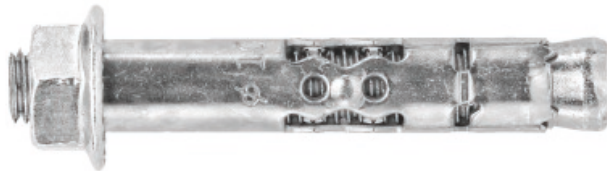


## R-RLK-P Rawlok - Bolt Projecting

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
- Satellite dishes
- Wall plates
- Shutter
- Garage doors

#### Base materials

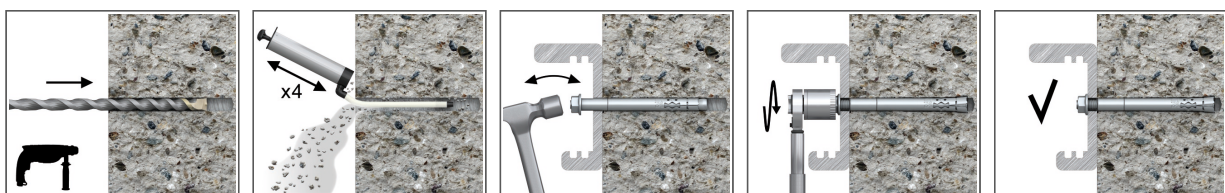
##### Approved for use in:

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

##### Also suitable for use in:

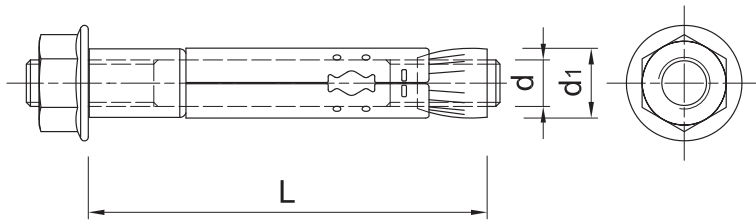
- Natural Stone (after site testing)

### Installation guide



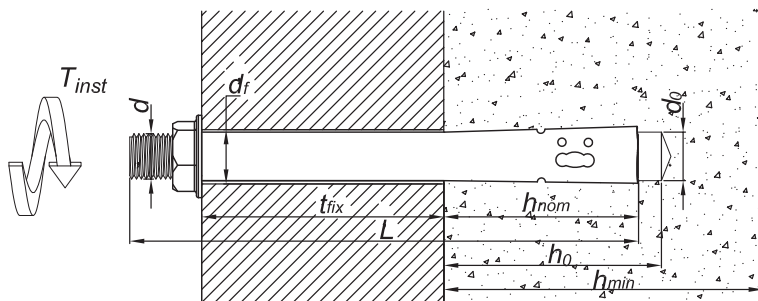
1. Drill a hole of required diameter and depth. Note: When fixing into brickwork, mortar joints should be avoided
2. Remove debris and thoroughly clean hole with brush and pum
3. Insert Rawlock through the fixture into the hole
4. Tighten to the recommended torque

Product information



Size	Product Code	Anchor		Fixture	
		Diameter	Length	Max. thickness	Hole diameter
		$d$	$L$	$t_{fix}$	$d_f$
		[mm]	[mm]	[mm]	[mm]
M5	R-RLK-P-05056	5	56	25	8
M6	R-RLK-P-06040	6	40	10	10
	R-RLK-P-06065	6	65	35	10
M8	R-RLK-P-08075	8	75	36	12
	R-RLK-P-08095	8	95	55	12
M10	R-RLK-P-08050	8	50	10	12
	R-RLK-P-10100	10	100	50	14
	R-RLK-P-10130	10	130	80	14
	R-RLK-P-10060	10	60	10	14
M12	R-RLK-P-10070	10	70	27	14
	R-RLK-P-12110	12	110	55	18
	R-RLK-P-12145	12	145	85	18

Installation data



Size			M6	M8	M10	M5	M12
Thread diameter	$d$	[mm]	6	8	10	5	12
Hole diameter in substrate	$d_o$	[mm]	8	10	12	6.5	16
Installation torque (Concrete)	$T_{inst}$	[Nm]	6	11	22	2.5	38
Installation torque (Blockwork 14.0MPa)	$T_{inst}$	[Nm]	3	6	11	1.5	25
Installation torque (Blockwork 7.0MPa)	$T_{inst}$	[Nm]	2	4	8	1	12
Min. hole depth in substrate	$h_o$	[mm]	35	45	55	30	60
Min. installation depth	$h_{nom}$	[mm]	35	45	55	30	60
Min. substrate thickness	$h_{min}$	[mm]	55	65	85	50	90
Min. spacing	$s_{min}$	[mm]	50	60	70	40	90
Min. edge distance	$c_{min}$	[mm]	50	60	70	40	90

## Basic performance data

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

Size		M6	M8	M10	M5	M12
<b>NON-CRACKED CONCRETE</b>						
Effective embedment depth $h_{ef}$	[mm]	26.00	36.00	43.00	26.00	50.00
<b>BLOCKWORK 7.0MPA</b>						
Effective embedment depth $h_{ef}$	[mm]	26.00	36.00	43.00	26.00	50.00
<b>CHARACTERISTIC LOAD</b>						
<b>TENSION LOAD <math>N_{Rk}</math></b>						
NON-CRACKED CONCRETE	[kN]	6.90	9.30	11.40	5.00	14.50
BLOCKWORK 7.0MPA	[kN]	2.40	3.50	4.50	1.50	5.80
<b>SHEAR LOAD <math>V_{Rk}</math></b>						
NON-CRACKED CONCRETE	[kN]	5.40	9.00	12.60	3.60	19.80
BLOCKWORK 7.0MPA	[kN]	2.50	2.70	3.10	2.30	3.40
<b>DESIGN LOAD</b>						
<b>TENSION LOAD <math>N_{Rd}</math></b>						
NON-CRACKED CONCRETE	[kN]	3.19	4.31	5.28	2.31	6.71
BLOCKWORK 7.0MPA	[kN]	1.11	1.62	2.08	0.69	2.69
<b>SHEAR LOAD <math>V_{Rd}</math></b>						
NON-CRACKED CONCRETE	[kN]	3.00	5.00	7.00	2.00	11.00
BLOCKWORK 7.0MPA	[kN]	1.39	1.50	1.72	1.28	1.89

## Design performance data

Data based on AT-15-7555/2011

Size		M5	M6	M8	M10	M12
Effective embedment depth	$h_{ef}$ [mm]	26.00	26.00	36.00	43.00	50.00
<b>TENSION LOAD</b>						
<b>PULL-OUT FAILURE; NON-CRACKED CONCRETE C20/25</b>						
Characteristic resistance	$N_{Rk,p}$ [kN]	5.00	6.90	9.30	11.40	14.50
Design resistance $\gamma_M^* = 2.16$	$N_{Rd,p}$ [kN]	2.31	3.19	4.31	5.28	6.71
<b>PULL-OUT FAILURE; BLOCKWORK 7.0MPA</b>						
Characteristic resistance	$N_{Rk,p}$ [kN]	1.50	2.40	3.50	4.50	5.80
Design resistance $\gamma_M^* = 2.16$	$N_{Rd,p}$ [kN]	0.69	1.11	1.62	2.08	2.69
<b>PULL-OUT FAILURE; BLOCKWORK 14.0MPA</b>						
Characteristic resistance	$N_{Rk,p}$ [kN]	1.90	3.20	4.50	5.60	6.90
Design resistance $\gamma_M^* = 2.16$	$N_{Rd,p}$ [kN]	0.88	1.48	2.08	2.59	3.19
<b>PULL-OUT FAILURE; BLOCKWORK 20.5MPA</b>						
Characteristic resistance	$N_{Rk,p}$ [kN]	2.40	3.70	5.00	6.00	7.30
Design resistance $\gamma_M^* = 2.16$	$N_{Rd,p}$ [kN]	1.11	1.71	2.31	2.78	3.38
<b>SHEAR LOAD</b>						
<b>NON-CRACKED CONCRETE C20/25</b>						
Characteristic resistance	$V_{Rk}$ [kN]	3.60	5.40	9.00	12.60	19.80
Design resistance $\gamma_{Mc} = 1.8$	$V_{Rd}$ [kN]	2.00	3.00	5.00	7.00	11.00
<b>BLOCKWORK 7.0MPA</b>						
Characteristic resistance	$V_{Rk}$ [kN]	2.30	2.50	2.70	3.10	3.40
Design resistance $\gamma_{Mc} = 1.8$	$V_{Rd}$ [kN]	1.28	1.39	1.50	1.72	1.89
<b>BLOCKWORK 14.0MPA</b>						
Characteristic resistance	$V_{Rk}$ [kN]	3.40	5.20	8.60	10.30	13.10
Design resistance $\gamma_{Mc} = 1.8$	$V_{Rd}$ [kN]	1.89	2.89	4.78	5.72	7.28
<b>BLOCKWORK 20.5MPA</b>						
Characteristic resistance	$V_{Rk}$ [kN]	3.40	5.20	8.60	10.30	13.10
Design resistance $\gamma_{Mc} = 1.8$	$V_{Rd}$ [kN]	1.89	2.89	4.78	5.72	7.28

## Product commercial data

Product Code	Anchor		Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
R-RLK-P-05056	5	56	100	100	18000	1.30	1.30	264.0	5010445695063
R-RLK-P-06040	6	40	100	100	18000	1.80	1.80	354.0	5010445695087
R-RLK-P-06065	6	65	50	50	9000	1.30	1.30	264.0	5010445695100
R-RLK-P-08075	8	75	50	50	15000	2.4	2.4	750.0	5010445695162
R-RLK-P-08095	8	95	25	25	7500	1.53	1.53	487.5	5010445695186
R-RLK-P-08050	8	50	50	50	9000	1.75	1.75	345.0	5010445695148
R-RLK-P-10100	10	100	10	10	3000	0.90	0.90	298.8	5010445695247
R-RLK-P-10130	10	130	10	10	3000	1.14	1.14	372.0	5010445695254
R-RLK-P-10060	10	60	25	25	7500	1.58	1.58	502.5	5010445695209
R-RLK-P-10070	10	70	25	25	7500	1.75	1.75	555.0	5010445695223
R-RLK-P-12110	12	110	10	10	3000	1.63	1.63	519.0	5010445695285
R-RLK-P-12145	12	145	10	10	1800	2.1	2.1	406.2	5010445695308