

Specification Data

RAWLOK® Loose Bolt/Countersunk Performance Data

SIZE	CONCRETE, $f_{ck,cube} = 30N/mm^2$ (C20/25)								
	CHARACTERISTIC RESISTANCE (kN)		DESIGN RESISTANCE (Factored) (kN)		RECOMMENDED LOAD (Unfactored) (kN)		CHARACTERISTIC EDGE DISTANCE (mm)		CHARACTERISTIC SPACING (mm)
	Tension (N_{Rk})	Shear (V_{Rk})	Tension (N_{Rd})	Shear (V_{Rd})	Tension (N_{rec})	Shear (V_{rec})	Tension ($C_{cr,N}$)	Shear ($C_{cr,V}$)	Tension & Shear ($S_{cr,N}$ ($S_{cr,V}$))
M5	4.8	3.4	2.2	1.9	1.8	1.6	60	60	60
M6	7.5	5.3	3.5	3.0	2.9	2.5	70	80	80
M8	8.8	9.1	4.1	5.0	3.4	4.2	80	100	100
M10	12.2	14.3	5.6	8.0	4.7	6.7	100	120	120

SIZE	BRICKWORK, $f_{ck} = 20.5N/mm^2$						BLOCKWORK, $f_{ck} = 14N/mm^2$						BLOCKWORK, $f_{ck} = 7N/mm^2$					
	CHARACTERISTIC RESISTANCE (kN)		DESIGN RESISTANCE (Factored) (kN)		RECOMMENDED LOAD (Unfactored) (kN)		CHARACTERISTIC RESISTANCE (kN)		DESIGN RESISTANCE (Factored) (kN)		RECOMMENDED LOAD (Unfactored) (kN)		CHARACTERISTIC RESISTANCE (kN)		DESIGN RESISTANCE (Factored) (kN)		RECOMMENDED LOAD (Unfactored) (kN)	
	TENSION (N_{Rk})	SHEAR (V_{Rk})	TENSION (N_{Rd})	SHEAR (V_{Rd})	TENSION (N_{rec})	SHEAR (V_{rec})	TENSION (N_{Rk})	SHEAR (V_{Rk})	TENSION (N_{Rd})	SHEAR (V_{Rd})	TENSION (N_{rec})	SHEAR (V_{rec})	TENSION (N_{Rk})	SHEAR (V_{Rk})	TENSION (N_{Rd})	SHEAR (V_{Rd})	TENSION (N_{rec})	SHEAR (V_{rec})
M5	2.4	3.4	1.1	1.9	0.9	1.6	1.3	3.4	0.6	1.9	0.5	1.6	1.6	2.4	0.7	1.3	0.6	1.1
M6	3.4	5.2	1.6	2.9	1.3	2.4	4.3	5.2	2.0	2.9	1.7	2.4	2.5	2.6	1.2	1.4	1.0	1.2
M8	4.7	9.1	2.2	5.0	1.8	4.2	5.4	9.1	2.5	5.0	2.1	4.2	3.2	2.8	1.5	1.5	1.3	1.3
M10	6.0	10.2	2.8	5.7	2.3	4.8	6.9	10.2	3.2	5.7	2.7	4.8	4.4	3.1	2.0	1.7	1.7	1.4

For further explanations on calculations please see pages 10 and 11

Reduction Factors - Edge and Spacing Distances for Rawlok® Loose Bolt.

The full characteristic edge and spacing distances shown in the table above are the minimum allowable for the quoted DESIGN RESISTANCE or RECOMMENDED LOAD, depending on your design method.

Where these dimensions are not achievable, the appropriate reduction factor/s from the tables below must be applied to the DESIGN RESISTANCE or RECOMMENDED LOAD. Choose the required bolt diameter across the top of the appropriate table and read down the left hand column until actual edge or spacing distance is found.

Read off the reduction factor where the two lines intersect (interpolate as required).

Multiply this factor by the DESIGN RESISTANCE or RECOMMENDED LOAD quoted in the table. On the occasion that multiple close edge and/or spacing distances occur, the appropriate reduction factors must be applied.

Edge Distance (Concrete)

EDGE (mm)	TENSILE: EDGE REDUCTION FACTORS				EDGE (mm)	SHEAR: EDGE REDUCTION FACTORS			
	M5	M6	M8	M10		M5	M6	M8	M10
40	0.75				40	0.58			
50	0.87	0.79			50	0.79	0.53		
60	1.00	0.89	0.81		60	1.00	0.69	0.50	
70		1.00	0.91	0.77	70		0.84	0.62	0.48
80			1.00	0.85	80		1.00	0.75	0.58
90				0.92	90			0.87	0.69
100				1.00	100			1.00	0.79
120					120				1.00

Spacing (Concrete)

SPACING (mm)	TENSILE & SHEAR REDUCTION FACTORS			
	M5	M6	M8	M10
40	0.80			
50	0.90	0.77		
60	1.00	0.85	0.76	
70		0.92	0.82	0.75
80		1.00	0.88	0.80
90			0.94	0.85
100			1.00	0.90
120				1.00