

# Heavy Duty Anchor

## Non-Cracked concrete

Performance Data (20/25 Concrete)									
Thread Diam mm	Characteristic Resistance kN		Design Resistance ( $\gamma_{Ms}$ frpm ETA) kN		Approved Resistance( $\gamma_F=1.4$ ) kN		Design Spacing mm	Design Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile & Shear	Tensile
6	16.0	18.0	10.6	14.3	7.5	10.2	120	105	150
8	20.0	30.0	13.3	23.9	9.5	17.0	130	120	230
10	30.0	48.0	19.9	38.3	14.2	27.3	210	170	345
12	35.0	72.5	23.3	48.1	16.6	34.3	225	200	400
16	50.0	101.0	33.3	67.2	23.7	48.0	295	250	485
20	70.0	140.9	46.9	93.9	33.5	67.0	375	315	590

Shear Loads towards a free edge are for single anchors where Spacing  $\geq 3 \times$  Edge Distance

## Cracked concrete

Performance Data (20/25 Concrete)									
Thread Diam mm	Characteristic Resistance kN		Design Resistance ( $\gamma_{Ms}$ frpm ETA) kN		Approved Resistance ( $\gamma_F=1.4$ ) kN		Design Spacing mm	Design Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Tensile
6	5.0	18.0	3.3	14.3	2.3	10.2	50 ( $C_{min} \geq 80$ )	50 ( $S_{min} \geq 100$ )	220
8	12.0	33.4	7.9	22.3	5.6	15.9	60 ( $C_{min} \geq 100$ )	60 ( $S_{min} \geq 120$ )	315
10	16.0	43.0	10.6	28.7	7.5	20.5	115 ( $C_{min} \geq 110$ )	70 ( $S_{min} \geq 215$ )	365
12	25.0	51.5	16.6	34.3	11.8	24.5	225 ( $C_{min} \geq 120$ )	115 ( $S_{min} \geq 245$ )	405
16	36.0	72.0	23.9	48.0	17.0	34.2	300 ( $C_{min} \geq 150$ )	150 ( $S_{min} \geq 300$ )	490
20	50.0	100.5	33.3	67.0	23.7	47.8	370 ( $C_{min} \geq 230$ )	190 ( $S_{min} \geq 540$ )	600

(  $C_{min}$  = Minimum Edge Distance for Spacing,  $S_{min}$  = Minimum Spacing for Edge Distance )

Shear Loads towards a free edge are for single anchors where Spacing  $\geq 3 \times$  Edge Distance