

**CONCRETE AND BRICK ANCHORAGE FASTENERS**



**INSTALLATION OF FASTENER INTO CONCRETE**



**Heavy Duty Concrete Fastener**

This state-of-the-art product line of heavy duty screw anchors which is available in Zinc and Galvalised coating. The one piece design makes it easy to install and the preferred choice for fast but reliable anchoring which is fully removable. This anchor is designed to resist structural and nonstructural loading in cracked and uncracked concrete. Ideal temporary and permanent fixture attaching steel/wood to concrete, ventilation systems, racking and shelving, temporary supports, base plates, substructures, scaffolding, façade.

Size (mm)	Length (mm)	Nominal Embedment Depth (mm)	Maximum Fixture Thickness (mm)	Drilled Hole $\phi$ (mm)	Fixture Hole $\phi$ (mm)	Socket Size (mm)	Box Qty	Carton Qty
16	100	95	5	16	20	24	10	40
16	150	95 / 130	55 / 20	16	20	24	10	40
16	200	95 / 130	105 / 70	16	20	24	10	40

Size (mm)	Nominal Embedment Depth $h_e$ (mm)	Drill Hole Depth $h_d$ (mm)	Drill Hole Dia. $h_c$ (mm)	Clearance Hole Dia. $d_i$ (mm)	Concrete Thickness (mm)	20MPa		32MPa		40MPa		50MPa	
						Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6	40	50	6	9	80	2.6	2.3	3.2	2.3	3.6	2.3	4.0	2.3
	55	65			100	4.8	3.5	6.0	3.5	6.7	3.5	7.5	3.5
8	50	60	8	12	100	4.8	4.6	6.0	4.6	6.7	4.6	7.5	4.6
	75	85			120	7.9	7.0	10.0	7.0	11.2	7.0	12.5	7.0
10	60	70	10	14	105	7.1	7.1	9.0	7.1	10.0	7.1	11.2	7.1
	85	95			140	10.5	10.6	13.3	10.6	14.9	10.6	16.7	10.6
12	75	85	12	16	125	8.3	10.0	10.5	12.7	11.8	14.1	13.2	15.8
	100	110			160	16.1	18.9	20.4	18.9	22.8	18.9	25.5	18.9
16	95	115	16	20	160	11.7	28.0	14.7	35.4	16.5	37.1	18.4	37.1
	130	150			195	16.9	37.1	21.4	37.1	23.9	37.1	26.7	37.1



**ALLOWABLE LOADS:** Static / Quasi-Static Load Capacities in Uncracked Concrete

Size (mm)	Nominal Embedment Depth $h_e$ (mm)	Drill Hole Depth $h_d$ (mm)	Drill Hole Dia. $h_c$ (mm)	Clearance Hole Dia. $d_i$ (mm)	Concrete Thickness (mm)	20MPa		32MPa		40MPa		50MPa	
						Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6	40	50	6	9	80	1.2	2.3	1.5	2.3	1.7	2.3	1.9	2.3
	55	65			100	1.8	3.5	2.3	3.5	2.5	3.5	2.8	3.5
8	50	60	8	12	100	1.0	3.8	1.2	4.6	1.3	4.6	1.5	4.6
	75	85			120	3.6	7.0	4.5	7.0	5.1	7.0	5.6	7.0
10	60	70	10	14	105	2.4	5.0	3.0	6.3	3.4	7.0	3.8	7.1
	85	95			140	4.4	10.6	5.5	10.6	6.2	10.6	6.9	10.6
12	75	85	12	16	125	5.6	7.0	7.0	8.9	7.9	9.9	8.8	11.1
	100	110			160	7.1	18.9	9.0	18.9	10.1	18.9	11.3	18.9
16	95	115	16	20	160	4.0	19.6	5.0	24.8	5.6	27.7	6.3	31.0
	130	150			195	9.5	33.1	12.0	37.1	13.5	37.1	15.1	37.1



**ALLOWABLE LOADS:** Static / Quasi-Static Load Capacities in Cracked Concrete

Size (mm)	Nominal Embedment Depth $h_e$ (mm)	Drill Hole Depth $h_d$ (mm)	Drill Hole Dia. $h_c$ (mm)	Clearance Hole Dia. $d_i$ (mm)	Concrete Thickness (mm)	20MPa		32MPa		40MPa		50MPa	
						Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6	40	50	6	9	80	1.2	2.3	1.5	2.3	1.7	2.3	1.9	2.3
	55	65			100	1.8	3.5	2.3	3.5	2.5	3.5	2.8	3.5
8	50	60	8	12	100	1.0	3.8	1.2	4.6	1.3	4.6	1.5	4.6
	75	85			120	3.6	7.0	4.5	7.0	5.1	7.0	5.6	7.0
10	60	70	10	14	105	2.4	5.0	3.0	6.3	3.4	7.0	3.8	7.1
	85	95			140	4.4	10.6	5.5	10.6	6.2	10.6	6.9	10.6
12	75	85	12	16	125	5.6	7.0	7.0	8.9	7.9	9.9	8.8	11.1
	100	110			160	7.1	18.9	9.0	18.9	10.1	18.9	11.3	18.9
16	95	115	16	20	160	4.0	19.6	5.0	24.8	5.6	27.7	6.3	31.0
	130	150			195	9.5	33.1	12.0	37.1	13.5	37.1	15.1	37.1

**NOTES:**

- Allowable loads incorporate capacity reduction factors as per AS5216:2018 and ETA-16/0867 and are inclusive of partial safety factor  $\gamma=1.4$  for load actions. Refer to relevant national codes regarding load types and associated factors for further guidance.
- The given capacities are for single anchor not influenced by spacing from other anchors and distance from edge/s of concrete.