

Bolt anchor IMC

Load table

Permissible loads of a single anchor¹⁾ in normal concrete of strength class C20/25

For the design the complete current assessment ETA-10/0169 has to be considered.

Type	Material / surface ²⁾	Effective anchor- ogedepth	Minimum member thickness	Installation torque T_{inst} [Nm]	Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
		h_{ef} [mm]	h_{min} [mm]		N_{perm} ³⁾ [kN]	V_{perm} ³⁾ [kN]	s_{min} ³⁾ [mm]	c_{min} ³⁾ [mm]
IMC 8	zp	30	100	15	2.9	6.9	40	40
	zp	40	100	15	5.9	7.6	40	40
	R	30	100	10	2.9	6.9	50	45
	R	40	100	10	5.9	7.3	40	45
IMC 10	zp	40	100	30	5.9	12	50	80
	zp	50	100	30	8.3	12	50	50
	R	40	100	20	5.9	11.6	50	80
	R	50	100	20	8.3	11.6	70	55
IMC 12	zp	50	100	50	8.3	17.9	70	100
	zp	65	120	50	12.3	17.9	70	70
	R	50	100	35	8.3	15.7	70	100
	R	65	120	35	12.3	15.7	70	70
IMC 16	zp	65	120	100	12.3	28.2	90	120
	zp	80	160	100	16.8	31.5	90	90
	R	65	120	80	12.3	28.2	90	120
	R	80	160	80	16.8	29.1	120	80
IMC 20	zp	80	160	200	16.8	38.3	120	120
	zp	105	200	200	25.2	38.3	120	120
	R	80	160	150	16.8	38.6	140	120
	R	105	200	150	25.2	19.1	120	120

¹⁾ Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

²⁾ Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, galvanised steel zp; for damp interior stainless steel R and exterior conditions, e.g. material 1.4362, 1.4401.

³⁾ In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor design software DesignFiX.