Loads

Bolt Anchor FWA

Recommended loads of a single anchor[1] in normal concrete of strength class 3000 Psi.

							Non-cracked concrete			
	Material / surface[3]	Effective anchorage depth	Minimum member thickness	Drill hole diameter	Drill hole diameter in fixture[2]	Installation torque	Recommended tension (N_{rec}), shear loads (V_{rec}), minimum spacing (s_{min}) and edge distances (c_{min})			
Type		$h_{ef} \geq$ [in]	h_{min} [in]	d_0 [in]	d_f [in]	T_{inst} [lbf-ft]	N_{rec}[3] [lb]	V_{rec}[3] [lb]	s_{min}[3] [in]	c_{min}[3] [in]
FWA 1/4	gvz	1	4	1/4	3/8	3	202	-	3	1 1/2
	gvz	1 1/8	4	1/4	3/8	3	540	315	3 1/2	1 3/4
FWA 5/16	gvz	1 1/4	4	5/16	7/16	7	719	427	3 3/4	1 7/8
FWA 3/8	gvz	1 1/8	4	3/8	1/2	19	472	-	3 1/2	1 3/4
	gvz	1 5/16	4	3/8	1/2	19	944	562	4	2
FWA 1/2	gvz	1 3/8	4	1/2	5/8	30	764	-	4 1/8	2 1/8
	gvz	1 7/8	4	1/2	5/8	30	1461	854	5 3/4	2 7/8
FWA 5/8	gvz	2	4	5/8	7/8	74	1124	-	6	3 1/8
	gvz	2 3/8	4 3/4	5/8	7/8	74	2158	1281	7 1/8	3 5/8
FWA 3/4	gvz	2 1/2	5	3/4	1	148	2428	-	7 5/8	3 7/8
	gvz	2 3/4	5 1/2	3/4	1	148	3147	1866	8 1/4	4 1/8
FWA 1"	gvz	3 3/4	7 1/2	1	1 1/4	192	4406	-	11 1/4	5 5/8
	gvz	3 7/8	7 3/4	1	1 1/4	192	4676	-	11 5/8	5 7/8

[1] The partial safety factors for material resistance 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 $c \geq 1.5 \times h_{ef}$.

[2] For push-throught installation.

[3] As recommended loades are given in the table, combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups) can not be carried out.