aerosmith®
fastening systems

Ultimate Load Capacities for Machine Bolt Anchor in Normal-Weight Concrete[1,2,3,4,5,6]

Rod/Anchor Diameter in.	Minimum Embedment Depth in.	Minimum Concrete Compressive Strength					
		2,000 psi		4,000 psi		6,000 psi	
		Tension lbs.	Shear lbs.	Tension lbs.	Shear lbs.	Tension lbs.	Shear lbs.
1/4	1 3/8	165	555	390	565	450	670
5/16	1 5/8	825	1,535	1,250	1,780	1,465	1,900
3/8	1 5/8	1,155	3,050	2,020	3,225	2,350	4,570
1/2	2 1/2	1,480	3,475	2,440	4,000	2,540	6,435
5/8	2 3/4	2,220	6,425	3,680	6,845	3,965	7,720

1. Machine Bolt anchors are not recommended for use in life safety or overhead applications.
2. Ultimate load capacities must be reduced by a minimum safety factor of 4.0 or greater to determine the Allowable working load.
3. Consideration of safety factor of 20 or higher may be necessary depending upon the application such as sustained tensile loading applications.
4. Tables above are calculated for anchors installed in normal weight concrete.
5. Concrete compressive strength must be at the specified minimum at the time of installation.
6. Linear Interpolation may be use to determine loads for immediate compressive strength.

Allowable Load Capacities for Machine Bolt Anchor in Normal-Weight Concrete[1,2,3,4,5,6]

Rod/Anchor Diameter in.	Minimum Embedment Depth in.	Minimum Concrete Compressive Strength					
		2,000 psi		4,000 psi		6,000 psi	
		Tension lbs.	Shear lbs.	Tension lbs.	Shear lbs.	Tension lbs.	Shear lbs.
1/4	1 3/8	40	140	95	140	110	170
5/16	1 5/8	200	385	310	445	365	475
3/8	1 5/8	285	765	505	805	585	1,145
1/2	2 1/2	365	870	605	1,000	635	1,610
5/8	2 3/4	550	1,605	915	1,710	985	1,930

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