



Steel Anchors - Ultimate Load Capacities

ASTM A36 Steel, ASTM A572 Purlins

Anchor Size / Rod Dia. (in.)	Direction	Screw Thread Size & Length (in.)	Minimum Steel Gauge (Thickness)				
			20	18	16	14	12
1/4	Vertical	1/4-20 x 1-1/2	315	513	720	900	1,800
3/8	Vertical	1/4 x 1	1,170	1,710	3,060	3,420	3,375
3/8	Vertical	1/4 x 1-1/2	1,170	1,710	3,060	3,420	3,375
3/8	Vertical	12-20 x 1-1/2	1,170	1,710	1,800	1,800	2,250

1. Allowable load capacities for Vertical Steel Threaded Rod Anchor were calculated using an safety factor of 4:1
2. In some states, design codes may accept lower allowable loads- please make sure to check your local codes to see what applies.
3. Minimum edge distance must be 1" and spacing must be 2" or greater.
4. Consideration of safety factor of 20 or higher may be necessary depending on certain applications, such as, sustained tensile loading applications.

Steel Anchors - Allowable Load Capacities

ASTM A36 Steel, ASTM A572 Purlins

Anchor Size / Rod Dia. (in.)	Direction	Screw Thread Size & Length (in.)	Minimum Steel Gauge (Thickness)				
			20	18	16	14	12
1/4	Vertical	1/4-20 x 1-1/2	80	130	180	225	450
3/8	Vertical	1/4 x 1	290	425	765	855	840
3/8	Vertical	1/4 x 1-1/2	290	425	765	855	840
3/8	Vertical	12-20 x 1-1/2	290	425	450	450	560

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