

Ultimate Load Capacities for Carbon Steel Wedge Anchor in Normal-Weight Concrete $^{1,2,3,4}\,$

		Concrete Compressive Strength										
Nominal Anchor	Minimum Embedment	4,00	0 psi	6,00	0 psi							
Diameter (in.)	Depth (in.)	UltimateTension Load Capacity (lbs.)	Ultimate Shear Load Capacity (lbs.)	Ultimate Tension Load Capacity (lbs.)	Ultimate Shear Load Capacity (lbs.)							
	1-1/8"	1,368	1,377	1,950	1,377							
1/4"	1-3/4"	1,565	1,704	1,949	1,704							
	1-5/8"	2,744	3,644	4,529	3,644							
3/8"	2-3/8"	3,703	3,664	5,577	3,664							
4 (0)	2-1/4"	4,413	6,456	7,735	6,456							
1/2"	3-3/4"	6,788	6,276	9,565	6,276							
	2-3/4"	7,938	11,043	9,108	11,043							
5/8"	4-5/8"	10,094	9,909	11,982	9,909							
	3-3/8"	10,283	14,863	11,661	14,863							
3/4"	5-5/8"	10,668	14,596	12,350	14,596							
1"	4-1/2"	16,612	28,429	22,902	28,429							
	8"	22,457	29,099	25,538	29,099							
Performance Data for Aerosmith's Carbon Steel Wedge Anchor Zinc Plated WAG12512CF and WAG34700CFConcrete Compressive Strength 2,000 psi												
1/2" x 51/2"	2-1/4"			2999	5564							
WAG12512CF												
3/4" x 7"	3-1/4"			4978	9378							
WAG34700CF												

^{1.} Ultimate load capacities must be reduced by a minimum factor of safety of 4.0 to determine allowable loads. 2. Consideration of safety factors of 10 or higher may be necessary depending on application, such as life safety or overhead.

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Tabulated load values are for anchors installed in uncracked concrete.
 The concrete compressive strength must be at the specified minimum at the time of installation.



Allowable Load Capacities for Carbon Steel Wedge Anchor in Normal-Weight Concrete 1,2,3,4

		Concrete Compressive Strength									
Nominal Anchor Diameter (in.)	Minimum Embedment	4,00	0 psi	6,000 psi							
	Depth (in.)	Allowable Tension Load Capacity (lbs.)	Allowable Shear Load Capacity (lbs.)	Allowable Tension Load Capacity (lbs.)	Allowable Shear Load Capacity (lbs.)						
	1-1/8"	342	344	488	344						
1/4"	1-3/4"	392	426	487	301						
3/8"	1-5/8"	686	911	1,132	911						
	2-3/8"	926	916	1,394	916						
4.60	2-1/4"	1,103	1,614	1,934	1,614						
1/2"	3-3/4"	1,697	1,569	2,391	1,569						
5/8"	2-3/4"	1,985	2,761	2,277	2,761						
3/0	4-5/8"	2,524	2,477	2,996	2,477						
	3-3/8"	2,571	3,716	2,915	3,716						
3/4"	5-5/8"	2,667	3,649	3,088	3,649						
1"	4-1/2"	4,153	7,107	5,726	7,107						
'	8"	5,619	7,275	6,385	7,275						
		Aerosmith Carbo	•								
1/2" x 5-1/2"	2-1/4"			750	1366						
3/4" x 7"	3-1/4"			1244	2344						
3/4" x 7" WAG34700CF	3-1/4"			1244							

1/2" x 5-1/2"	2-1/4"		750	1366
WAG12512CF				
3/4" x 7"	3-1/4"		1244	2344
WAG34700CF				

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Allowable load capacities in this table are calculated using a factor of safety of 4.0.

Consideration of safety factors of 10 or higher may be necessary depending on application, such as life safety or overhead.

Tabulated load values are for anchors installed in uncracked concrete.

The concrete compressive strength must be at the specified minimum at the time of installation.



Anchor Spacing and Edge Distance for Wedge Anchors

Anchor _	Wedge Anchors											
Diameter in.	Nominal Embedment	Min. Anchor Spacing	Min. Edge Distance									
1/4"	1-1/2"	2-1/2"	1-1/4"									
3/8"	2-7/16"	3-3/4"	1-7/8"									
1/2"	2-9/16"	5"	2-1/2"									
5/8"	3-3/8"	6-1/4"	3-1/8"									
3/4"	4-5/8"	7-1/2"	3-3/8"									
7/8"	4"	8-3/4"	4-3/8"									
1"	4-1/2"	10"	5"									
1-1/4"	6-1/2"	12-1/2"	6-1/4"									

Wedge Anchor Length Identification Codes

Mark	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т
From	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	11"	12"
Up to but not including		2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	11"	12"	13"
Length identification mark indicates overall length of anchor.																				

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