



Technical Data

Trubolt Wedge Anchors Performance Table
Recommended Spacing And Edge Distance Requirements For Shear Loads*

Anchor Dia. In. (mm)	Embedment Depth In. (mm)	Anchor Type	Edge Distance Required To Obtain Max. Working Load In. (mm)	Min. Edge Distance At Which The Load Factor Applied = .60 In. (mm)	Min. Edge Distance At Which The Load Factor Applied = .20 In. (mm)	Spacing Required to Obtain Max. Working Load In. (mm)	Min. Allowable Spacing Between Anchors In. (mm) Load Factor Applied = .40
1/4 (6.4)	1-1/8 (28.6)	Carbon Steel With Zinc Plating or Carbon Steel With Hot-Dipped Galvanizing or Type 304 Stainless Steel or Type 316 Stainless Steel	2 (50.8)	1-5/16 (33.3)	-- --	3-15/16 (100.0)	2 (50.8)
	1-15/16 (49.2)		1-15/16 (49.2)	1 (25.4)	-- --	3-7/8 (98.4)	1-15/16 (49.2)
3/8 (9.5)	1-1/2 (38.1)		2-5/8 (66.7)	1-3/4 (44.5)	-- --	5-1/4 (133.4)	2-5/8 (66.7)
	3 (76.2)		3-3/4 (95.3)	3 (76.2)	1-1/2 (38.1)	6 (152.4)	3 (76.2)
1/2 (12.7)	2-1/4 (57.2)		3-15/16 (100.0)	2-9/16 (65.1)	-- --	7-7/8 (200.0)	3-15/16 (100.0)
	4-1/8 (104.8)		5-3/16 (131.8)	3-1/8 (79.4)	1-9/16 (39.7)	6-3/16 (157.2)	3-1/8 (79.4)
5/8 (15.9)	2-3/4 (69.9)	4-13/16 (122.2)	3-1/8 (79.4)	-- --	9-5/8 (244.5)	4-13/16 (122.2)	
	5-1/8 (130.2)	6-7/16 (163.5)	3-7/8 (98.4)	1-15/16 (49.2)	7-11/16 (195.3)	3-7/8 (98.4)	
3/4 (19.1)	3-1/4 (82.6)	5-11/16 (144.5)	3-3/4 (95.3)	-- --	11-3/8 (288.9)	5-11/16 (144.5)	
	6-5/8 (168.3)	6-5/16 (160.3)	5 (127.0)	2-1/2 (63.5)	9-15/16 (252.4)	5 (127.0)	
7/8 (22.2)	3-3/4 (95.3)	6-9/16 (166.7)	4-5/16 (109.5)	-- --	13-1/8 (333.4)	6-9/16 (166.7)	
	6-1/4 (158.8)	8-1/2 (215.9)	6-1/4 (158.8)	3-1/8 (79.4)	12-1/2 (317.5)	6-1/4 (158.8)	
1 (25.4)	4-1/4 (108.0)	7-7/8 (200.0)	5-1/8 (130.2)	-- --	15-3/4 (400.1)	7-7/8 (200.0)	
	7-3/8 (187.3)	10-1/16 (255.6)	7-3/8 (187.3)	3-11/16 (93.7)	14-3/4 (374.7)	7-3/8 (187.3)	
1-1/4 (31.8)	5-1/2 (139.7)	9-5/8 (244.5)	6-1/4 (158.8)	-- --	19-1/4 (489.0)	9-5/8 (244.5)	
	8 (203.2)	11-7/16 (290.5)	8 (203.2)	4 (101.6)	16 (406.4)	8 (203.2)	

* Spacing and edge distances shall be divided by 0.75 when anchors are placed in structural lightweight concrete. Linear interpolation may be used for intermediate spacing and edge distances.

Trubolt Wedge Anchors Performance Table
Recommended Spacing and Edge Distance Requirements for Tension Loads*

Anchor Dia. In. (mm)	Embedment Depth In. (mm)	Anchor Type	Edge Distance Required To Obtain Max. Working Load In. (mm)	Min. Allowable Edge Distance At Which The Load Factor Applied = .65 In. (mm)	Spacing Required To Obtain Max. Working Load In. (mm)	Min. Allowable Spacing At Which The Load Factor Applied = .70 In. (mm)
1/4 (6.4)	1-1/8 (28.6)	Carbon Steel With Zinc Plating or Carbon Steel With Hot-Dipped Galvanizing or Type 304 Stainless Steel or Type 316 Stainless Steel	2 (50.8)	1 (25.4)	3-15/16 (100.0)	2 (50.8)
	1-15/16 (49.2)		1-15/16 (49.2)	1 (25.4)	3-7/8 (98.4)	1-15/16 (49.2)
	2-1/8 (54.0)		1-5/8 (41.3)	13/16 (20.6)	3-3/16 (81.0)	1-5/8 (41.3)
3/8 (9.5)	1-1/2 (38.1)		2-5/8 (66.7)	1-5/16 (33.3)	5-1/4 (133.4)	2-5/8 (66.7)
	3 (76.2)		3 (76.2)	1-1/2 (38.1)	6 (152.4)	3 (76.2)
	4 (101.6)		3 (76.2)	1-1/2 (38.1)	6 (152.4)	3 (76.2)
1/2 (12.7)	2-1/4 (57.2)		3-15/16 (100.0)	2 (50.8)	7-7/8 (200.0)	3-15/16 (100.0)
	4-1/8 (104.8)		3-1/8 (79.4)	1-9/16 (39.7)	6-3/16 (157.2)	3-1/8 (79.4)
	6 (152.4)		4-1/2 (114.3)	2-1/4 (57.2)	9 (228.6)	4-1/2 (114.3)
5/8 (15.9)	2-3/4 (69.9)		4-13/16 (122.2)	2-7/16 (61.9)	9-5/8 (244.5)	4-13/16 (122.2)
	5-1/8 (130.2)		3-7/8 (98.4)	1-15/16 (49.2)	7-1/16 (195.3)	3-7/8 (98.4)
	7-1/2 (190.5)		5-5/8 (142.9)	2-13/16 (71.4)	11-1/4 (285.8)	5-5/8 (142.9)
3/4 (19.1)	3-1/4 (82.6)	5-11/16 (144.5)	2-7/8 (73.0)	11-3/8 (288.9)	5-11/16 (144.5)	
	6-5/8 (168.3)	5 (127.0)	2-1/2 (63.5)	9-15/16 (252.4)	5 (127.0)	
	10 (254.0)	7-1/2 (190.5)	3-3/4 (95.3)	15 (381.0)	7-1/2 (190.5)	
7/8 (22.2)	3-3/4 (95.3)	6-9/16 (166.7)	3-5/16 (84.1)	13-1/8 (333.4)	6-9/16 (166.7)	
	6-1/4 (158.8)	6-1/4 (158.8)	3-1/8 (79.4)	12-1/2 (317.5)	6-1/4 (158.8)	
	8 (203.2)	6 (152.4)	3 (76.2)	12 (304.8)	6 (152.4)	
1 (25.4)	4-1/2 (114.3)	7-7/8 (200.0)	3-15/16 (100.0)	15-3/4 (400.1)	7-7/8 (200.0)	
	7-3/8 (187.3)	7-3/8 (187.3)	3-11/16 (93.7)	14-3/4 (374.7)	7-3/8 (187.3)	
	9-1/2 (241.3)	7-1/8 (181.0)	3-9/16 (90.5)	14-1/4 (362.0)	7-1/8 (181.0)	
1-1/4 (31.8)	5-1/2 (139.7)	9-5/8 (244.5)	4-13/16 (122.2)	19-1/4 (489.0)	9-5/8 (244.5)	
	8 (203.2)	8 (203.2)	4 (101.6)	16 (406.4)	8 (203.2)	

* Spacing and edge distances shall be divided by 0.75 when anchors are placed in structural lightweight concrete. Linear interpolation may be used for intermediate spacing and edge distances.

Combined Shear and Tension Loading for Trubolt Anchors

Allowable loads for anchors subjected to combined shear and tension forces are determined by the following equation:

$$(Ps/Pt)5/3 + (Vs/Vt)5/3 \leq 1$$

Ps = Applied tension load

Vs = Applied shear load

Pt = Allowable tension load

Vt = Allowable shear load