



Details of Stud Bolts and Machine Bolts for ASA Pipe Flanges
Number and Diameter of Stud Bolts and Machine Bolts for Flange Joints - ASA B16.5

Pressure Rating	Bolting	Flange Facing	Nominal Pipe Sizes																													
			1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	42"		
150 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	Diameter		1/2"	M14	1/2"	M14	1/2"	M14	1/2"	M14	1/2"	M14	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16
	Length of Stud Bolts	1/16" RF	2 1/4"	60	2 1/2"	65	2 5/8"	65	2 3/4"	75	2 3/4"	75	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85	3 1/4"	85
	Machine Bolts	1/16" RF	2"	55	2"	55	2 1/4"	60	2 1/4"	60	2 1/2"	65	2 3/4"	75	2 3/4"	75	3"	80	3"	80	3"	80	3"	80	3"	80	3"	80	3"	80	3"	80
300 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Diameter		1/2"	M14	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16
	Length of Stud Bolts	1/16" RF	3"	80	3 1/2"	95	3 1/2"	95	3 3/4"	100	3 3/4"	95	3 3/4"	100	4"	105	4"	105	4"	105	4"	105	4"	105	4"	105	4"	105	4"	105	4"	105
	Machine Bolts	1/16" RF	2 1/4"	60	2 1/2"	65	2 3/4"	75	3"	80	3"	80	3 1/4"	85	3 1/4"	85	3 1/2"	90	3 1/2"	90	3 1/2"	90	3 1/2"	90	3 1/2"	90	3 1/2"	90	3 1/2"	90	3 1/2"	90
400 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Diameter		1/2"	M14	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16
	Length of Stud Bolts	1/4" RF	3"	80	3 1/2"	95	3 1/2"	95	3 3/4"	100	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110
	Machine Bolts	M & F T & G	2 3/4"	75	3 1/4"	90	3 1/4"	90	3 1/2"	95	4"	105	4"	105	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120
600 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Diameter		1/2"	M14	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16	3/4"	M16
	Length of Stud Bolts	1/4" RF	3"	80	3 1/2"	95	3 1/2"	95	3 3/4"	100	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110	4 1/4"	110
	Machine Bolts	M & F T & G	2 3/4"	75	3 1/4"	90	3 1/4"	90	3 1/2"	95	4"	105	4"	105	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120	4 1/2"	120
900 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Diameter		3/4"	M20	3/4"	M20	7/8"	M22	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27
	Length of Stud Bolts	1/4" RF	4 1/4"	110	4 1/2"	120	5"	130	5"	130	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145
	Machine Bolts	M & F T & G	4"	105	4 1/4"	110	4 3/4"	125	4 3/4"	125	5 1/4"	140	5 1/4"	140	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150
1500 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Diameter		3/4"	M20	3/4"	M20	7/8"	M22	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27
	Length of Stud Bolts	1/4" RF	4 1/4"	110	4 1/2"	120	5"	130	5"	130	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145
	Machine Bolts	M & F T & G	4"	105	4 1/4"	110	4 3/4"	125	4 3/4"	125	5 1/4"	140	5 1/4"	140	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150
2500 Pound (psi)	Number		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
	Diameter		3/4"	M20	3/4"	M20	7/8"	M22	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27	7/8"	M22	1"	M27
	Length of Stud Bolts	1/4" RF	4 1/4"	110	4 1/2"	120	5"	130	5"	130	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145	5 1/2"	145
	Machine Bolts	M & F T & G	4 1/2"	120	4 3/4"	125	5 1/4"	140	5 1/4"	140	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150	5 1/2"	150