

General notes:

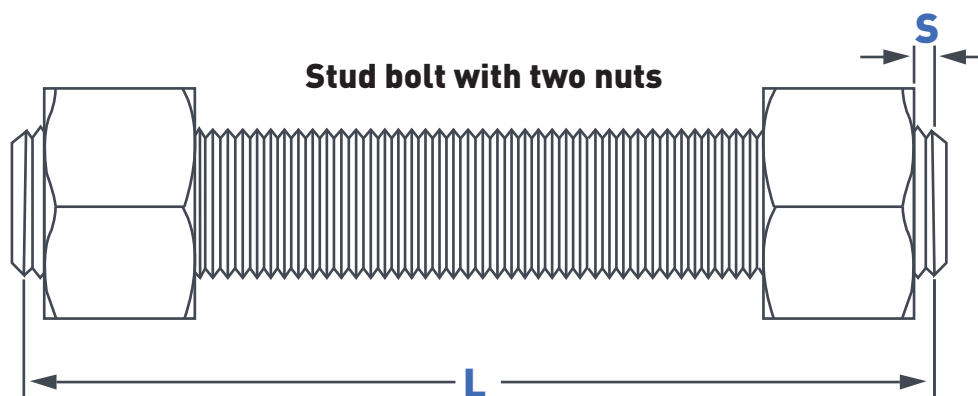
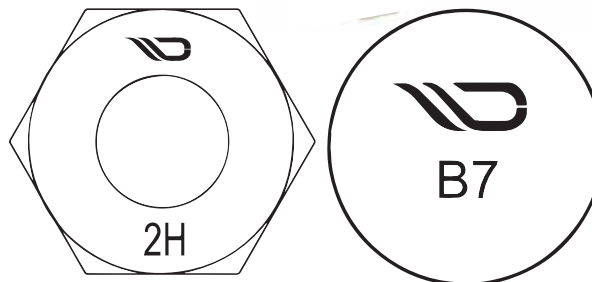
Stud material according to ASTM A193 Gr.B7

Nut material according to ASTM 94 Gr.2H

Yellow Zinc Plated

Length to 12 inch tolerance = 3.16 mm

Dimensions are expressed in inches



S = free threads equals 1/3 time bolt dia

Studs are measured parallel to the axis (**L**)
from the first to the thread without the chamfers (points).

PRIMARY SERVICE PRESSURE RATING	BOLTING	FLANGE FACING	N O M I N A L P I P E S I Z E																			
			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	24
CLASS 150	Number		4	4	4	4	4	4	4	4	8	8	8	8	8	12	12	12	16	16	20	20
	Diameter		1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8	1	1	1 1/8	1 1/8	1 1/4
	Length of Stud Bolts	1/16" RF	2 1/4	2 1/2	2 1/2	2 3/4	2 3/4	3 1/4	3 1/2	3 1/2	3 1/2	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5 1/4	5 1/4	5 3/4	6 1/4	6 3/4
		RTJ			3	3 1/4	3 1/4	3 3/4	4	4	4	4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 3/4	6 1/4	6 1/4	6 3/4	7 1/4
	"Length of Mach. Bolts"	1/16" RF	2	2	2 1/4	2 1/4	2 1/2	2 3/4	3	3	3	3	3 1/4	3 1/4	3 1/2	4	4	4 1/2	4 1/2	5	5 1/2	6
Ring No.				R15	R17	R19	R22	R25	R29	R33	R36	R40	R43	R48	R52	R56	R59	R64	R68	R72	R76	
CLASS 300	Number		4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24
	Diameter		1/2	5/8	5/8	5/8	3/4	5/8	3/4	3/4	3/4	3/4	3/4	3/4	7/8	1	1 1/8	1 1/8	1 1/4	1 1/4	1 1/4	1 1/2
	Length of Stud Bolts	1/16" RF	2 1/2	3	3	3 1/4	3 1/2	3 1/2	4	4 1/4	4 1/4	4 1/2	4 3/4	4 3/4	5 1/2	6 1/4	6 3/4	7	7 1/2	7 3/4	8	9
		RTJ	3	3 1/2	3 1/2	3 3/4	4	4	4 1/2	4 3/4	5	5	5 1/4	5 1/2	6	6 3/4	7 1/4	7 1/2	8	8 1/4	8 3/4	10
	Length of Mach. Bolts	1/16" RF	2 1/4	2 1/2	2 1/2	2 3/4	3	3	3 1/4	3 1/2	3 3/4	3 3/4	4 1/4	4 1/4	4 3/4	5 1/2	5 3/4	6 1/4	6 1/2	6 3/4	7 1/4	8
Ring No.		R11	R13	R16	R18	R20	R23	R26	R31	R34	R37	R41	R45	R49	R53	R57	R61	R65	R69	R73	R77	
CLASS 400	Number		4	4	4	4	4	8	8	8	8	8	8	12	12	16	16	20	20	24	24	24
	Diameter		1/2	5/8	5/8	5/8	3/4	5/8	3/4	3/4	7/8	7/8	7/8	7/8	1	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 1/2	1 3/4
	Length of Stud Bolts	1/4" RF	3	3 1/2	3 1/2	3 3/4	4 1/4	4 1/4	4 3/4	5	5 1/2	5 1/2	5 3/4	6	6 3/4	7 1/2	8	8 1/4	8 3/4	9	9 1/2	10 1/2
		M & F T & G	2 3/4	3 1/4	3 1/4	3 1/2	4	4	4 1/2	4 3/4	5 1/4	5 1/4	5 1/4	5 3/4	6 1/2	7 1/4	7 3/4	8	8 1/2	8 3/4	9 1/4	10 1/4
		RTJ	3	3 1/2	3 1/2	3 3/4	4 1/4	4 1/4	4 3/4	5	5 1/2	5 1/2	5 3/4	6	6 3/4	7 1/2	8	8 1/4	8 3/4	9	9 3/4	11
Ring No.		R11	R13	R16	R18	R20	R23	R26	R31	R34	R37	R41	R45	R49	R53	R57	R61	R65	R69	R73	R77	
CLASS 600	Number		4	4	4	4	4	8	8	8	8	8	8	12	12	16	20	20	20	20	24	24
	Diameter		1/2	5/8	5/8	5/8	3/4	5/8	3/4	3/4	7/8	7/8	7/8	1	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 1/2	1 5/8	1 7/8
	Length of Stud Bolts	1/4" RF	3	3 1/2	3 1/2	3 3/4	4 1/4	4 1/4	4 3/4	5	5 1/2	5 3/4	6 1/2	6 3/4	7 1/2	8 1/2	8 3/4	9 1/4	10	10 3/4	11 1/4	13
		M & F T & G	2 3/4	3 1/4	3 1/4	3 1/2	4	4	4 1/2	4 3/4	5 1/4	5 1/2	6 1/4	6 1/2	7 1/4	8 1/4	8 1/2	9	9 3/4	10 1/2	11	12 3/4
		RTJ	3	3 1/2	3 1/2	3 3/4	4 1/4	4 1/4	4 3/4	5	5 1/2	5 3/4	6 1/2	6 3/4	7 3/4	8 1/2	8 3/4	9 1/4	10	10 3/4	11 1/2	13 1/4
Ring No.		R11	R13	R16	R18	R20	R23	R26	R31	R34	R37	R41	R45	R49	R53	R57	R61	R65	R69	R73	R77	
CLASS 900	Number		4	4	4	4	4	8	8	8		8	8	12	12	16	20	20	20	20	20	20
	Diameter		3/4	3/4	7/8	7/8	1	7/8	1	7/8		1 1/8	1 1/4	1 1/8	1 3/8	1 3/8	1 3/8	1 1/2	1 5/8	1 7/8	2	2 1/2
	Length of Stud Bolts	1/4" RF	4 1/4	4 1/2	5	5	5 1/2	5 3/4	6 1/4	5 3/4		6 3/4	7 1/2	7 1/2	8 3/4	9 1/4	10	10 3/4	11 1/4	12 3/4	13 3/4	17 1/4
		M & F T & G	4	4 1/4	4 3/4	4 3/4	5 1/4	5 1/2	6	5 1/2		6 1/2	7 1/4	7 1/4	8 1/2	9	9 3/4	10 1/2	11	12 1/2	13 1/2	17
		RTJ	4 1/4	4 1/2	5	5	5 1/2	5 3/4	6 1/4	5 3/4		6 3/4	7 1/2	7 3/4	8 3/4	9 1/4	10	11	11 1/2	13 1/4	14 1/4	18
Ring No.		R12	R14	R16	R18	R20	R24	R27	R31		R37	R41	R45	R49	R53	R57	R62	R66	R70	R74	R78	
CLASS 1500	Number		4	4	4	4	4	8	8	8		8	8	12	12	12	16	16	16	16	16	16
	Diameter		3/4	3/4	7/8	7/8	1	7/8	1	1 1/8		1 1/4	1 1/2	1 3/8	1 5/8	1 7/8	2	2 1/4	2 1/2	2 3/4	3	3 1/2
	Length of Stud Bolts	1/4" RF	4 1/4	4 1/2	5	5	5 1/2	5 3/4	6 1/4	7		7 3/4	9 3/4	10 1/4	11 1/2	13 1/4	14 3/4	16	17 1/2	19 1/2	21 1/4	24 1/4
		M & F T & G	4	4 1/4	4 3/4	4 3/4	5 1/4	5 1/2	6	6 3/4		7 1/2	9 1/2	10	11 1/4	13	14 1/2	15 3/4	17 1/4	19 1/4	21	24
		RTJ	4 1/4	4 1/2	5	5	5 1/2	5 3/4	6 1/4	7		7 3/4	9 3/4	10 1/2	12 3/4	13 1/2	15 1/4	16 3/4	18 1/2	20 3/4	22 1/4	25 1/2
Ring No.		R12	R14	R16	R18	R20	R24	R27	R35		R39	R44	R46	R50	R54	R58	R63	R67	R71	R75	R79	
CLASS 2500	Number		4	4	4	4	4	8	8	8		8	8	8	12	12	12					
	Diameter		3/4	3/4	7/8	1	1 1/8	1	1 1/8	1 1/4		1 1/2	1 3/4	2	2	2 1/2	2 3/4					
	Length of Stud Bolts	1/4" RF	4 3/4	5	5 1/2	6	6 3/4	7	7 3/4	8 3/4		10	11 3/4	13 1/2	15	19 1/4	21 1/4					
		M & F T & G	4 1/2	4 3/4	5 1/4	5 3/4	6 1/2	6 3/4	7 1/2	8 1/2		9 3/4	11 1/2	13 1/4	14 3/4	19	21					
		RTJ	4 3/4	5	5 1/2	6	6 3/4	7	8	9		10 1/4	12 1/4	14	15 1/2	20	22					
Ring No.		R13	R16	R18	R21	R23	R26	R28	R32		R38	R42	R47	R51	R55	R60						