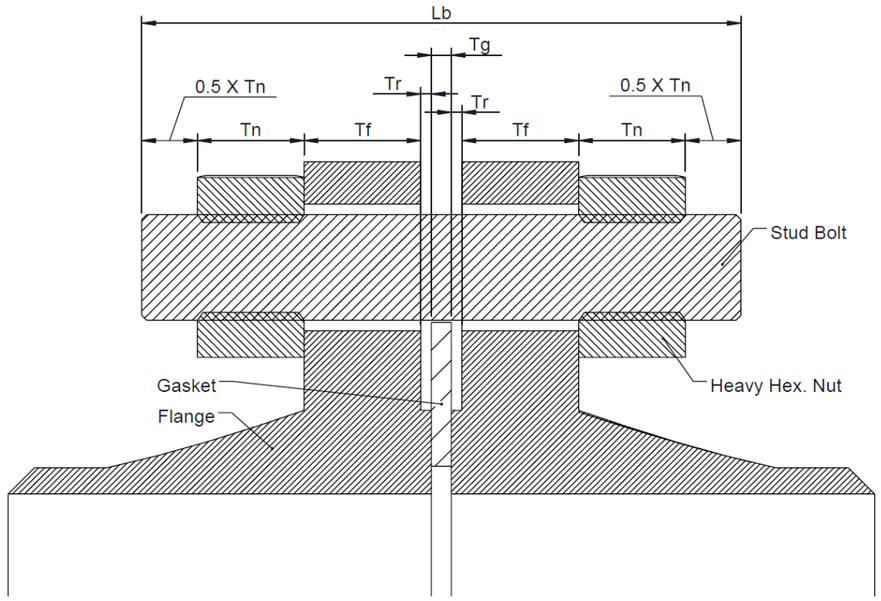
STUD BOLT LENGTH FOR FLANGE JOINTS

The stud bolt length
mentioned below is calculated based on ASME B16.5-2009, Non-Mandatory Appendix-C



Formula used for calculation:

$$L_b = 2(T_f) + 2(T_n) + 2(T_r) + T_g + 2(0.5(T_n))$$

L_b – Length of Stud Bolt
T_f – Flange Thickness
T_r – Raised Face Thickness (2mm for #150 & #300; 7mm for #400 to #2500)
T_n – Heavy Hex. Nut Thickness (As per ANSI B18.22)
T_g – Gasket Thickness (3mm used for calculation)
The calculated L_b value is rounded off to nearest integer divisible by 5

Flange Size		Class 150			Class 300			Class 600			Class 900		
DN(mm)	NPS (in)	No. of Bolts	Bolt Dia (in)	Stud Bolt Length (mm)	No. of Bolts	Bolt Dia (in)	Stud Bolt Length (mm)	No. of Bolts	Bolt Dia (in)	Stud Bolt Length (mm)	No. of Bolts	Bolt Dia (in)	Stud Bolt Length (mm)
15	**1/2**	4	1/2	**65**	4	1/2	**70**	4	1/2	**85**	4	3/4	**120**
20	**3/4**	4	1/2	**70**	4	5/8	**85**	4	5/8	**95**	4	3/4	**125**
25	**1**	4	1/2	**70**	4	5/8	**85**	4	5/8	**100**	4	7/8	**140**
32	**1-1/4**	4	1/2	**75**	4	5/8	**90**	4	5/8	**105**	4	7/8	**140**
40	**1-1/2**	4	1/2	**75**	4	3/4	**105**	4	3/4	**120**	4	1	**160**
50	**2**	4	5/8	**90**	8	5/8	**95**	8	5/8	**115**	8	7/8	**160**
65	**2-1/2**	4	5/8	**95**	8	3/4	**115**	8	3/4	**130**	8	1	**175**
80	**3**	4	5/8	**100**	8	3/4	**120**	8	3/4	**140**	8	7/8	**160**
90	**3-1/2**	8	5/8	**100**	8	3/4	**120**	8	7/8	**155**	~	~	**~**
100	**4**	8	5/8	**100**	8	3/4	**125**	8	7/8	**160**	8	1-1/8	**195**
125	**5**	8	3/4	**110**	8	3/4	**130**	8	1	**185**	8	1-1/4	**215**
150	**6**	8	3/4	**115**	12	3/4	**135**	12	1	**190**	12	1-1/8	**215**
200	**8**	8	3/4	**120**	12	7/8	**155**	12	1-1/8	**215**	12	1-3/8	**250**
250	**10**	12	7/8	**130**	16	1	**175**	16	1-1/4	**240**	16	1-3/8	**260**
300	**12**	12	7/8	**135**	16	1-1/8	**190**	20	1-1/4	**245**	20	1-3/8	**280**
350	**14**	12	1	**150**	20	1-1/8	**200**	20	1-3/8	**260**	20	1-1/2	**305**
400	**16**	16	1	**155**	20	1-1/4	**215**	20	1-1/2	**285**	20	1-5/8	**320**
450	**18**	16	1-1/8	**170**	24	1-1/4	**220**	20	1-5/8	**305**	20	1-7/8	**365**
500	**20**	20	1-1/8	**175**	24	1-1/4	**225**	24	1-5/8	**320**	20	2	**385**
600	**24**	20	1-1/4	**195**	24	1-1/2	**260**	24	1-7/8	**365**	20	2-1/2	**485**

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