



SIZE		DISC PROTRUSION		FLANGE THICKNESS			BOLTING LENGTH (L)		
DN	NPS	X	Y	EN 1092 PN 10	EN 1092 PN 16		PN 10	PN 16	
50	2"	25	4	18	18		100	100	
65	2½"	46	10	18	18		110	110	
80	3"	66	17	20	20		110	110	
100	4"	86	24	20	20		120	120	
125	5"	112	35	22	22		130	130	
150	6"	140	47	22	22		130	130	
200	8"	191	70	24	24		140	140	
250	10"	241	91	26	26		150	150	
300	12"	290	111	26	28		160	180	

FLANGE BOLTING LENGTH

The minimum bolting length of a wafer type valve between flanges with through bolting can be calculated with the formula:

$$L_{\text{MIN}} = 1 \times \text{FtoF} + 2 \times \text{Flange Thickness} + 1 \times H_{\text{NUT}} + 2 \times H_{\text{SPACER}} + 1 \times \text{pitch thread}$$

The table shows the calculated bolt lengths for ISO PN and ASME flanges, based on the following assumptions:

- flange thickness of a steel welding neck flange according EN 1092;
- use of hexagon head cap screws, two spacers and a nut;
- standard available bolt lengths.

Important: Only as guideline, any deviation requires recalculation of the bolt length.