



SIZE		DISC PROTRUSION		FLANGE THICKNESS			BOLTING LENGTH		
DN	NPS	X	Y	EN 1092 PN 10	EN 1092 PN 16	ASME B16.5 CL	PN 10	PN 16	CL 150
50	2"	41	8	18	18	17.6	110	110	4"
65	2½"	59	14	18	18	19.1	110	110	4½"
80	3"	69	16	20	20	22.4	110	110	5"
100	4"	90	25	20	20	23.9	120	120	5"
125	5"	110	34	22	22	23.9	130	130	5½"
150	6"	136	43	22	22	23.9	130	130	5½"
200	8"	185	61	24	24	25.4	140	140	6"
250	10"	225	72	26	26	28.5	150	160	6½"
300	12"	278	97	26	28	30.3	160	180	6½"
350	14"	331	122	26	30	31.8	160	180	7"
400	16"	381	147	26	32	35.1	200	220	8½"
450	18"	428	152	28	40	36.6	220	220	9½"
500	20"	428	159	28	44	39.7	220	240	10"
600	24"	570	216	28	54	43.0	260	280	12"

FLANGE BOLTING LENGTH

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

$$L_{MIN} = Ft + 2 \times \text{Flange Thickness} + H_{NUT} + 2 \times H_{SPACER}$$

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 and ASME B16.5;
- use of hexagon head cap screws, two spacers and a nut;
- standard available bolt lengths.

Important: Any deviation requires recalculation of the bolt length.