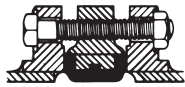


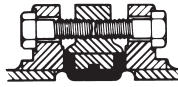
# FLANGE BOLTING



MACHINE BOLTS



STUD BOLTS



CAP SCREWS

VALVE STYLE	CLASS	VALVE SIZE	BOLT DIA.	THREADS PER INCH	NUMBER OF TAPPED HOLES		MACHINE BOLT				STUD				CAP SCREW	
							MACHINE BOLT		CAP SCREW-BLIND		STUD		STUD-BLIND HOLE		CAP SCREW	
							THROUGH	BLIND	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH	QTY	LENGTH
LUG	125	2	0.625	11	4	-	4	4.00	-	-	4	4.75	-	-	8	1.50
		2-1/2	0.625	11	4	-	4	4.50	-	-	4	5.00	-	-	8	1.50
		3	0.625	11	4	-	4	4.50	-	-	4	5.25	-	-	8	1.75
		4	0.625	11	8	-	8	5.00	-	-	8	5.75	-	-	16	1.75
		5	0.750	10	8	-	8	5.50	-	-	8	6.25	-	-	16	2.00
		6	0.750	10	8	-	8	5.50	-	-	8	6.25	-	-	16	2.00
		8	0.750	10	8	-	8	6.00	-	-	8	6.75	-	-	16	2.25
		10	0.875	9	12	-	12	6.50	-	-	12	7.50	-	-	24	2.25
		12	0.875	9	12	-	12	7.00	-	-	12	8.00	-	-	24	2.75
		14	1.000	8	12	-	12	7.50	-	-	12	8.50	-	-	24	2.75
		16	1.000	8	16	-	16	8.75	-	-	16	9.75	-	-	32	3.00
		18	1.125	7	16	-	16	9.50	-	-	16	10.75	-	-	32	3.50
		20	1.125	7	16	8	16	10.25	8	3.50	16	11.50	8	5.50	40	3.50
24	1.250	7	16	8	16	12.00	8	3.50	16	13.00	8	5.50	40	3.50		

WAFER	125	2	0.625	11	-	-	4	4.50	-	-	4	5.00	-	-		
		2-1/2	0.625	11	-	-	4	4.75	-	-	4	5.25	-	-		
		3	0.625	11	-	-	4	5.00	-	-	4	5.50	-	-		
		4	0.625	11	-	-	8	5.00	-	-	8	5.75	-	-		
		5	0.750	10	-	-	8	5.25	-	-	8	6.00	-	-		
		6	0.750	10	-	-	8	5.50	-	-	8	6.25	-	-		
		8	0.750	10	-	-	8	6.00	-	-	8	6.75	-	-		
		10	0.875	9	-	-	12	6.50	-	-	12	7.50	-	-		
		12	0.875	9	-	-	12	7.00	-	-	12	8.00	-	-		
		14	1.000	8	4	-	12	7.50	-	-	12	8.50	-	-		
		16	1.000	8	4	-	16	8.50	-	-	16	9.50	-	-		
		18	1.125	7	4	-	16	9.50	-	-	16	10.50	-	-		
		20	1.125	7	-	8	16	10.25	8	3.50	16	11.50	8	5.25		
24	1.250	7	-	8	16	12.00	8	3.50	16	13.00	8	5.25				

Bolting lengths are calculated based on ASME B16.5 Class 150 RF flanges. For 4" and larger ASME B16.1 Class 125# flanges, use bolt lengths above. Consult factory for 3" and smaller valves when using ASME B16.1 flanges.  
 Bolting lengths do not include clearance for washers. If washers are to be used their thickness must be added to the suggested bolting length  
 Bolting should be in accordance with ASME B18.2.1  
 Hex nuts should be in accordance with ASME B18.2.2 (Heavy hex used for calculation)  
 Bolting and hex nuts are Unified Coarse Thread Series (UNC) Class 2A (bolts) and Class 2B (hex nuts) per ASME B1.1  
 20 inch and 24 inch lug valves have 4 blind tapped holes each side (8 total)  
 14 inch through 18 inch wafer valves have 4 thru tapped holes, 20 inch and 24 inch wafer valves have 4 blind tapped holes each side (8 total)

## Large Diameter Butterfly Flange Bolting

Parameter	Size	30	36	42	48
#Tapped Holes (Thru)		24	28	32	40
#Tapped Holes (each side)		4	4	4	4
Blind, at stems, 2 at top and 2 at btm.					
<b>All Cap Screw Installation:</b>					
# of Cap Screws		48	56	64	80
Size (thd X length)		1-1/4-7x5.00	1-1/2-6x6.00	1-1/2-6x6.50	1-1/2-6x7.00
# of Cap Screws		8	8	8	8
Size (thd X length)		1-1/4-7x4.00	1-1/2-6x4.50	1-1/2-6x6.00	1-1/2-6x6.25

The information presented on this sheet is correct at time of publication. Milwaukee Valve reserves the right to change design and/or materials without notice. For our Installation, Operation and Maintenance Manual and the most current product information go to [www.milwaukeevalve.com](http://www.milwaukeevalve.com).

⚠ State of California Prop 65 **WARNING:** Cancer and Reproductive Harm. For more information visit [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).

