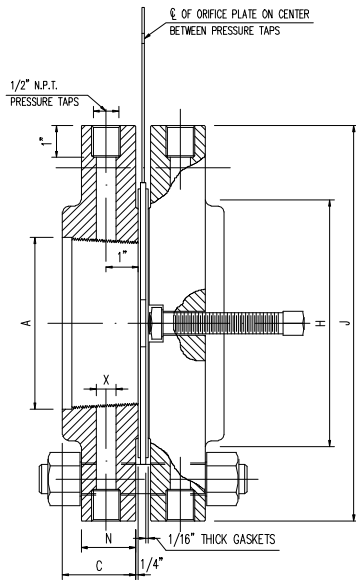


No.	Rev.	Description	Approved	Checked	Drawn	Date
1	1	UPDATING	MORRIS	MORRIS	MORRIS	SEP_2016



ORIFICE PLATE NOT INCLUDED

CATALOG No. THROF-CLASS 300

Size in Inches	Diam. Of Flange	Minimum Flange Thickness	Diam. Of Raised Face	Length Through Hub	Height to Counter Bore	Face Counter Bore Height	Hub Diam. at Base	Pressure Tap Hole Size	Flange Drilling Template				Jack Screw Size and Length
									Diam. Of Bolt Circle	Diam. Of Holes	Number Of Holes	Size and Length of Studs	
1/2	3 3/4	1 1/2	1 3/8	1 13/16	1 1/8	1/2	1 1/2	1/4	2 5/8	9/16	4	1/2 x 4 3/4	1/2 x 3
3/4	4 5/8	1 1/2	1 11/16	1 7/8	1 1/8	1/2	1 7/8	1/4	3 1/4	11/16	4	5/8 x 5	1/2 x 3
1	4 7/8	1 1/2	2	1 7/8	1 7/16	3/4	2 1/8	1/4	3 1/2	11/16	4	5/8 x 5	5/8 x 3
1 1/2	6 1/8	1 1/2	2 7/8	1 7/8	1 15/32	23/32	2 3/4	1/4	4 1/2	13/16	4	3/4 x 5 1/4	5/8 x 3
2	6 1/2	1 1/2	3 5/8	1 15/16	1 1/2	11/16	3 5/16	3/8	5	11/16	8	5/8 x 5	5/8 x 3
2 1/2	7 1/2	1 1/2	4 1/8	2	1 3/4	9/16	3 15/16	3/8	5 7/8	13/16	8	3/4 x 5 1/4	5/8 x 3
3	8 1/4	1 1/2	5	2 1/16	1 13/16	9/16	4 5/8	3/8	6 5/8	13/16	8	3/4 x 5 1/4	3/4 x 3
4	10	1 1/2	6 3/16	2 1/8	1 7/8	9/16	5 3/4	1/2	7 7/8	13/16	8	3/4 x 5 1/4	3/4 x 3

CATALOG No. THROF-CLASS 400 ††

4	10	1 3/8**	6 3/16	2**	1 11/16	...	5 3/4	1/2	7 7/8	1	8	7/8 x 5 3/4	3/4 x 4
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CATALOG No. THROF-CLASS 600 ††

4	10 3/4	1 1/2**	6 3/16	2 1/8**	1 7/8	...	6	1/2	8 1/2	1	8	7/8 x 6	3/4 x 4
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\* Class 300 Flanges C and N dimensions include 1/16" Raised Faces.

\*\* Class 400-600 Flanges C and N dimensions do not include 1/4" Raised Faces.

†† 3" and smaller, same as Class 300.

NOTE: 1/2" and 3/4" THR Flanges Class 300, THR Flanges Class 400, THR Flanges Class 600 Series Flanges are not recognized by ANSI B16.36.

REV.	MORRIS VALVES			Title: ORIFICE FLANGE. THRF		
Checked	MORRIS	Date	SEPT_2006	Material	ASTM A 105	Sheet
Designer	MORRIS	Scale		Dwg_No.	2016_THR_346_01.DWG	01 01
Drawn	MORRIS	Model	THR-346			

No.	Rev.	Description	Approved	Checked	Drawn	Date
1	1	UPDATING	MORRIS	MORRIS	MORRIS	SEP_2016

CATALOG No. WJOF-CLASS 300

Size in Inches	A.P.I. Ring Numbers	Diam. Internal Line Bore and Tolerance	Diam. Of Flange	Minimum Flange Thickness	Length Through Hub	Hub Diam. at Base	Diam. Of Hub at Point of Welding	Pitch diam. Of Ring and Groove	Depth of Groove	Pressure Tap Hole Size	Flange Drilling Template				Jack Screw Size and Length	Approx. Weight (Pounds)
											Diam. Of Bolt Circle	Diam. Of Holes	Number Of Holes	Size and Length of Studs		
1/2	R-11	622 ± .002	3 3/4	1 1/2	3	1 1/2	0.84	1 11/32	7/32	1/4	2 5/8	5/8	4	1/2 x 5 1/2	1/2 x 3	10
3/4	R-13	.824 ± .002	4 5/8	1 1/2	3 1/8	1 7/8	1.05	1 11/16	1/4	1/4	3 1/4	3/4	4	5/8 x 5 3/4	1/2 x 3 1/2	10
1	R-16	1.049 ± .003	4 7/8	1 1/2	3 1/4	2 1/8	1.32	2	1/4	1/4	3 1/2	3/4	4	5/8 x 5 1/2	5/8 x 4	15
1 1/2	R-20	1.610 ± .003	6 1/8	1 1/2	3 3/8	2 3/4	1.90	2 11/16	1/4	1/4	4 1/2	7/8	4	3/4 x 5 3/4	5/8 x 4	25
2	R-23	2.067 ± .003	6 1/2	1 1/2	3 3/8	3 5/16	2.38	3 1/4	5/16	3/8	5	3/4	8	5/8 x 5 1/2	5/8 x 4	30
2 1/2	R-26	2.469 ± .003	7 1/2	1 1/2	3 1/2	3 15/16	2.88	4	5/16	3/8	5 7/8	7/8	8	3/4 x 6 1/4	5/8 x 4	46
3	R-31	3.068 ± .003	8 1/4	1 1/2	3 1/2	4 5/8	3.50	4 7/8	5/16	3/8	6 5/8	7/8	8	3/4 x 5 3/4	3/4 x 4	56
4	R-37	4.026 ± .004	10	1 1/2	3 5/8	5 3/4	4.50	5 7/8	5/16	1/2	7 7/8	7/8	8	3/4 x 5 3/4	3/4 x 4	65
6	R-45	6.065 ± .004	12 1/2	1 7/16	3 7/8	8 1/8	6.63	8 5/16	5/16	1/2	10 5/8	7/8	12	3/4 x 6 1/4	3/4 x 4	107
8	R-49	† ± .004	15	1 5/8	4 3/8	10 1/4	8.63	10 5/8	5/16	1/2	13	1	12	7/8 x 6 3/4	3/4 x 4	169
10	R-53	† ± .005	17 1/2	1 7/8	4 5/8	12 5/8	10.75	12 3/4	5/16	1/2	15 1/4	1 1/8	16	1 x 7 3/4	1 x 4 1/2	250
12	R-57	† ± .005	20 1/2	2	5 1/8	14 3/4	12.75	15	5/16	1/2	17 3/4	1 1/4	16	1 1/8 x 8 1/4	1 x 5 1/2	365
14	R-61	† ± .005	23	2 1/8	5 5/8	16 3/4	14.00	16 1/2	5/16	1/2	20 1/4	1 1/4	20	1 1/8 x 8 1/2	1 x 5 1/2	490
16	R-65	† ± .005	25 1/2	2 1/4	5 3/4	19	16.00	18 1/2	5/16	1/2	22 1/2	1 3/8	20	1 1/4 x 6 1/4	1 x 5 1/2	640
18	R-69	† ± .007	28	2 3/8	6 1/4	21	18.00	21	5/16	1/2	24 3/4	1 3/8	24	1 1/4 x 9 1/2	1 x 5 1/2	785
20	R-73	† ± .007	30 1/2	2 1/2	6 3/8	23 1/8	20.00	23	3/8	1/2	27	1 3/8	24	1 1/4 x 10	1 x 5 1/2	960
24	R-77	† ± .007	36	2 3/4	6 5/8	27 5/8	24.00	27 1/4	7/16	1/2	32	1 5/8	24	1 1/2 x 11	1 x 7	1410

CATALOG No. WJOF-CLASS 400

4	R-37	4.026 ± .004	10	1 3/8	3 1/2	5 3/4	4.50	5 7/8	5/16	1/2	7 7/8	1	8	7/8 x 6 3/4	3/4 x 4	90
6	R-45	6.065 ± .004	12 1/2	1 5/8	4 1/16	8 1/8	6.63	8 5/16	5/16	1/2	10 5/8	1	12	7/8 x 6 3/4	3/4 x 4 1/2	145
8	R-49	† ± .004	15	1 7/8	4 5/8	10 1/4	8.63	10 5/8	5/16	1/2	13	1 1/8	12	1 x 7 1/2	3/4 x 5 1/2	220
10	R-53	† ± .005	17 1/2	2 1/8	4 7/8	12 5/8	10.75	12 3/4	5/16	1/2	15 1/4	1 1/4	16	1 1/8 x 8 1/2	1 x 5 1/2	325
12	R-57	† ± .005	20 1/2	2 1/4	5 3/8	14 3/4	12.75	15	5/16	1/2	17 3/4	1 3/8	16	1 1/4 x 9	1 x 5 1/2	450
14	R-61	† ± .005	23	2 3/8	6 7/8	16 3/4	14.00	16 1/2	5/16	1/2	20 1/4	1 3/8	20	1 1/4 x 9 1/4	1 x 5 1/2	590
16	R-65	† ± .005	25 1/2	2 1/2	6	19	16.00	18 1/2	5/16	1/2	22 1/2	1 1/2	20	1 3/8 x 10	1 x 5 1/2	745
18	R-69	† ± .007	28	2 5/8	6 1/2	21	18.00	21	5/16	1/2	24 3/4	1 1/2	24	1 3/8 x 10 1/4	1 x 7	910
20	R-73	† ± .007	30 1/2	2 3/4	6 5/8	23 1/8	20.00	23	3/8	1/2	27	1 5/8	24	1 1/2 x 11	1 x 7	1160
24	R-77	† ± .007	36	3	6 7/8	27 5/8	24.00	27 1/4	7/16	1/2	32	1 7/8	24	1 3/4 x 12 1/4	1 x 8	1665

CATALOG No. WJOF-CLASS 600

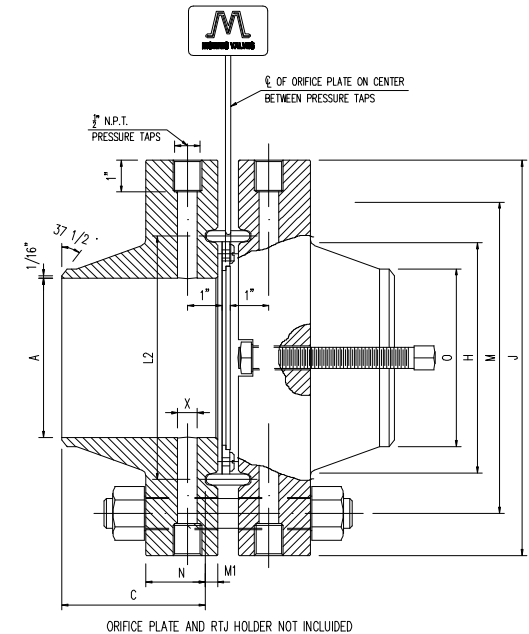
4	R-37	4.026 ± .004	10 3/4	1 1/2	4	6	4.50	5 7/8	5/16	1/2	8 1/2	1	8	7/8 x 6 1/2	3/4 x 4	90
6	R-45	6.065 ± .004	14	1 7/8	4 5/8	8 3/4	6.63	8 5/16	5/16	1/2	11 1/2	1 1/8	12	1 x 7 1/2	3/4 x 4 1/2	197
8	R-49	† ± .004	16 1/2	2 3/16	5 1/4	10 3/4	8.63	10 5/8	5/16	1/2	13 3/4	1 1/4	12	1 1/8 x 8 1/2	3/4 x 5 1/2	284
10	R-53	† ± .005	20	2 1/2	6	13 1/2	10.75	12 3/4	5/16	1/2	17	1 3/8	16	1 1/4 x 9	1 x 5 1/2	472
12	R-57	† ± .005	22	2 5/8	6 1/8	15 3/4	12.75	15	5/16	1/2	19 1/4	1 3/8	20	1 1/4 x 9 3/4	1 x 5 1/2	571
14	R-61	† ± .005	23 3/4	2 3/4	6 1/2	17	14.00	16 1/2	5/16	1/2	20 3/4	1 1/2	20	1 3/8 x 10 1/4	1 x 7	830
16	R-65	† ± .005	27	3	7	19 1/2	16.00	18 1/2	5/16	1/2	23 3/4	1 5/8	20	1 1/2 x 11 1/4	1 x 7	1135
18	R-69	† ± .007	29 1/4	3 1/4	7 1/4	21 1/2	18.00	21	5/16	1/2	25 3/4	1 3/4	20	1 5/8 x 12	1 x 7	1330
20	R-73	† ± .007	32	3 1/2	7 1/2	24	20.00	23	3/8	1/2	28 1/2	1 3/4	24	1 5/8 x 12 3/4	1 x 8	1660
24	R-77	† ± .007	37	4	8	28 1/4	24.00	27 1/4	7/16	1/2	33	2	24	1 7/8 x 14 1/2	1 x 9	2375

\* Does not include depth of Ring Groove.

† To be specified by purchaser.

†† 3" and smaller, same as Class 300.

NOTE: 24" WJ Class 400 Series Orifice Flanges are not recognized by ANSI B16.36.



REV.	MORRIS VALVES		Title: ORIFICE FLANGE. WNR			
Checked	MORRIS	Date	SEPT_2006	Material	ASTM A 105	Sheet
Designer	MORRIS	Scale		Dwg_No.	2016_WJOF_34681525_01.DWG	01 02
Drawn	MORRIS	Model	WJOF-34681525			

No.	Rev.	Description	Approved	Checked	Drawn	Date
1	1	UPDATING	MORRIS	MORRIS	MORRIS	SEP_2016

CATALOG No. WJOF-CLASS 900

Size in Inches	A.P.I. Ring Numbers	Diam. Internal Line Bore and Tolerance	Diam. Of Flange	Minimum Flange Thickness	Length Through Hub	Hub Diam. at Base	Diam. Of Hub at Point of Welding	Pitch diam. Of Ring and Groove	Depth of Groove	Pressure Tap Hole Size	Flange Drilling Template				Jack Screw Size and Length	Approx. Weight (Pounds)
											Diam. Of Bolt Circle	Diam. Of Holes	Number Of Holes	Size and Length of Studs		
		A	J	N*	C*	H	O	L2	Mt	X						
3	R-31	† ± .003	9 1/2	1 1/2	4	5	3.50	4 7/8	5/16	3/8	7 1/2	1	8	7/8 x 6 1/2	3/4 x 4	85
4	R-37	† ± .004	11 1/2	1 3/4	4 1/2	6 1/4	4.50	5 7/8	5/16	1/2	9 1/4	1 1/4	8	1 1/8 x 7 1/2	3/4 x 4 1/2	140
6	R-45	† ± .004	15	2 3/16	5 1/2	9 1/4	6.63	8 5/16	5/16	1/2	12 1/2	1 1/4	12	1 1/8 x 8 1/2	3/4 x 5 1/2	280
8	R-49	† ± .004	18 1/2	2 1/2	6 3/8	11 3/4	8.63	10 5/8	5/16	1/2	15 1/2	1 1/2	12	1 3/8 x 10	1 x 5 1/2	475
10	R-53	† ± .005	21 1/2	2 3/4	7 1/4	14 1/2	10.75	12 3/4	5/16	1/2	15 1/2	1 1/2	16	1 3/8 x 10 3/4	1 x 7	675
12	R-57	† ± .005	24	3 1/8	7 7/8	16 1/2	12.75	15	5/16	1/2	21	1 1/2	20	1 3/8 x 11	1 x 7	930

CATALOG No. WJOF-CLASS 1500

1	R-16	† ± .003	5 7/8	1 1/2	3 1/4	2 1/16	1.32	2	1/4	1/4	4	1	4	7/8 x 6	5/8 x 4	27
1 1/2	R-20	† ± .003	7	1 1/2	3 1/2	2 3/4	1.90	2 11/16	1/4	1/4	4 7/8	1 1/8	4	1 x 6 1/4	5/8 x 4	41
2	R-24	† ± .003	8 1/2	1 1/2	4	4 1/8	2.38	3 3/4	5/16	3/8	6 1/2	1	8	7/8 x 6 1/2	5/8 x 4	71
2 1/2	R-27	† ± .003	9 5/8	1 5/8	4 1/8	4 7/8	2.88	4 1/2	5/16	3/8	7 1/2	1 1/8	8	1 x 7	5/8 x 4 1/2	100
3	R-35	† ± .003	10 1/2	1 7/8	4 5/8	5 1/4	3.50	5 3/8	5/16	3/8	8	1 1/4	8	1 1/8 x 7 3/4	3/4 x 4 1/2	131
4	R-39	† ± .004	12 1/4	2 1/8	4 7/8	6 3/8	4.50	6 3/8	5/16	1/2	9 1/2	1 3/8	8	1 1/4 x 8 1/2	3/4 x 5 1/2	200
6	R-46	† ± .004	15 1/2	3 1/4	6 3/4	9	6.63	8 5/16	3/8	1/2	12 1/2	1 1/2	12	1 3/8 x 11	3/4 x 7	436
8	R-50	† ± .004	19	3 5/8	8 3/8	11 1/2	8.63	10 5/8	7/16	1/2	15 1/2	1 3/4	12	1 5/8 x 12 3/4	1 x 8	715
10	R-54	† ± .005	23	4 1/4	10	14 1/2	10.75	12 3/4	7/16	1/2	19	2	12	1 7/8 x 14 3/4	1 x 9	1165
12**	R-58	† ± .005	26 1/2	4 7/8	11 1/8	17 3/4	12.75	15	9/16	1/2	22 1/2	2 1/8	16	2 x 15 3/4	1 x 10	1790

CATALOG No. WJOF-CLASS 2500

1	R-18	† ± .003	6 1/4	1 1/2	3 5/8	2 1/4	1.32	2 3/8	1/4	1/4	4 1/4	1	4	7/8 x 6 1/4	5/8 x 4	26
1 1/2	R-23	† ± .003	8	1 3/4	4 3/8	3 1/8	1.90	3 1/4	5/16	1/4	5 3/4	1 1/4	4	1 1/8 x 7 1/2	3/4 x 4 1/2	56
2	R-26	† ± .003	9 1/4	2	5	3 3/4	2.38	4	5/16	3/8	6 3/4	1 1/8	8	1 x 7 3/4	3/4 x 4 1/2	84
2 1/2	R-28	† ± .003	10 1/2	2 1/4	5 5/8	4 1/2	2.88	4 3/8	3/8	3/8	7 3/4	1 1/4	8	1 1/8 x 8 3/4	3/4 x 5 1/2	104
3	R-32	† ± .003	12	2 5/8	6 5/8	5 1/4	3.50	5	3/8	3/8	9	1 3/8	8	1 1/4 x 9 3/4	3/4 x 7	188
4	R-38	† ± .004	14	3	7 1/2	6 1/2	4.50	6 1 5/8	7/16	1/2	10 3/4	1 5/8	8	1 1/2 x 11	3/4 x 7	292
6**	R-47	† ± .004	19	4 1/2	10 3/4	9 1/4	6.63	9	1/2	1/2	14 1/2	2 1/8	8	2 x 14 3/4	3/4 x 9	756
8**	R-51	† ± .004	21 3/4	5	12 1/2	12	8.63	11	9/16	1/2	17 1/4	2 1/8	12	2 x 16 3/4	1 x 10	1152
10**	R-55	† ± .005	26 1/2	6 1/2	16 1/2	14 3/4	10.75	13 1/2	1 1/16	1/2	21 1/4	2 5/8	12	2 1/2 x 21 1/4	1 x 13	2136
12**	R-60	† ± .005	30	7 1/4	18 1/4	17 3/8	12.75	16	1 1/16	1/2	22 3/8	2 7/8	12	2 3/4 x 23 3/4	1 x 13	3216

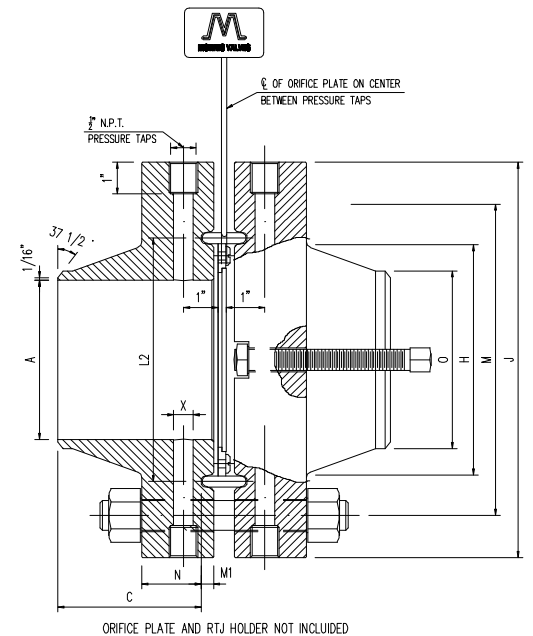
\* Does not include depth of Ring Groove.

\*\* Tap hole angled drilled from bore per ANSI B.16.36.

† To be specified by purchaser.

†† 2 1/2" and smaller, same as Class 1500.

NOTE: 8"-12" WJ Class 1500 Series Orifice Flanges are not recognized by ANSI B16.36.



REV.	MORRIS VALVES		Title: ORIFICE FLANGE. WNRf			
Checked	MORRIS	Date	SEPT_2006	Material	ASTM A 105	Sheet
Designer	MORRIS	Scale		Dwg_No.	2016_WJOF_34681525_02.DWG	02 02
Drawn	MORRIS	Model	WJOF-34681525			

No.	Rev.	Description	Approved	Checked	Drawn	Date
1	1	UPDATING	MORRIS	MORRIS	MORRIS	SEP_2016

CATALOG No. WROF-CLASS 300

Size in Inches	Diam. Internal Line Bore and Tolerance	Diam. Of Flange	Minimum Flange Thickness	Diam. Of Raised Face	Length Through Hub	Hub Diam. at Base	Diam. Of Hub at Point of Welding	Pressure Tap Hole Size	Flange Drilling Template				Jack Screw Size and Length	Approx. Wweight (Pounds)
									Diam. Of Bolt Circle	Diam. Of Holes	Number Of Holes	Size and Length of Studs		
A	J	N*		C*	H	O	X							
1/2	.622 ± .002	3 3/4	1 1/2	1 3/8	3	1 1/2	0.84	1/4	2 5/8	9/16	4	1/2 x 4 3/4	1/2 x 3	10
3/4	.824 ± .002	4 5/8	1 1/2	1 11/16	3 1/8	1 7/8	1.05	1/4	3 1/4	11/16	4	5/8 x 5	1/2 x 3	10
1	1.049 ± .003	4 7/8	1 1/2	2	3 1/4	2 1/8	1.32	1/4	3 1/2	11/16	4	5/8 x 5	5/8 x 3	18
1 1/2	1.610 ± .003	6 1/8	1 1/2	2 7/8	3 3/8	2 3/4	1.90	1/4	4 1/2	13/16	4	3/4 x 5 1/4	5/8 x 3	25
2	2.067 ± .003	6 1/2	1 1/2	3 5/8	3 5/8	3 5/16	2.38	3/8	5	11/16	8	5/8 x 5	5/8 x 3	27
2 1/2	2.469 ± .003	7 1/2	1 1/2	4 1/8	3 1/2	3 15/16	2.88	3/8	5 7/8	13/16	8	3/4 x 5 1/4	5/8 x 3	35
3	3.068 ± .003	8 1/4	1 1/2	5	3 1/2	4 5/8	3.50	3/8	6 5/8	13/16	8	3/4 x 5 1/4	3/4 x 3	43
4	4.026 ± .004	10	1 1/2	6 3/16	3 5/8	5 3/4	4.50	1/2	7 7/8	13/16	8	3/4 x 5 1/4	3/4 x 3	66
6	6.065 ± .004	12 1/2	1 1/2	8 1/2	3 15/16	8 1/8	6.63	1/2	10 5/8	7/8	12	3/4 x 5 1/4	3/4 x 3	106
8	† ± .004	15	1 5/8	10 5/8	4 3/8	10 1/4	8.63	1/2	13	1	12	7/8 x 5 3/4	3/4 x 3	152
10	† ± .005	17 1/2	1 7/8	12 3/4	4 5/8	12 5/8	10.75	1/2	15 1/4	1 1/8	16	1 x 6 1/2	1 x 4 1/2	216
12	† ± .005	20 1/2	2	15	5 1/8	14 3/4	12.75	1/2	17 3/4	1 1/4	16	1 1/8 x 7 1/4	1 x 4 1/2	327
14	† ± .005	23	2 1/8	16 1/4	5 5/8	16 3/4	14.00	1/2	20 1/4	1 1/4	20	2 1/8 x 7 1/2	1 x 4 1/2	448
16	† ± .005	25 1/2	2 1/4	18 1/2	5 3/4	19	16.00	1/2	22 1/2	1 3/8	20	1 1/4 x 8	1 x 4 1/2	596
18	† ± .007	28	2 3/8	21	6 1/4	21	18.00	1/2	24 3/4	1 3/8	24	1 1/4 x 8 1/2	1 x 4 1/2	741
20	† ± .007	30 1/2	2 1/2	23	6 3/8	23 1/8	20.00	1/2	27	1 3/8	24	1 1/4 x 8 1/2	1 x 4 1/2	887
24	† ± .007	36	2 3/4	27 1/4	6 5/8	27 5/8	24.00	1/2	32	1 5/8	24	1 1/2 x 9 1/2	1 x 5 1/2	1311

CATALOG No. WROF-CLASS 400

4	4.026 ± .004	10	1 3/8	6 3/16	3 1/2	5 3/4	4.50	1/2	7 7/8	1	8	7/8 x 5 3/4	3/4 x 4	82
6	6.065 ± .004	12 1/2	1 5/8	8 1/2	4 1/16	8 1/8	6.63	1/2	10 5/8	1	12	7/8 x 6 1/4	3/4 x 4	136
8	† ± .004	15	1 7/8	10 5/8	4 5/8	10 1/4	8.63	1/2	13	1 1/8	12	1 x 7	3/4 x 4 1/2	213
10	† ± .005	17 1/2	2 1/8	12 3/4	4 7/8	12 5/8	10.75	1/2	15 1/4	1 1/4	16	1 1/8 x 8	1 x 4 1/2	309
12	† ± .005	20 1/2	2 1/4	15	5 3/8	14 3/4	12.75	1/2	17 3/4	1 3/8	16	1 1/4 x 8 1/2	1 x 4 1/2	429
14	† ± .005	23	2 3/8	16 1/4	5 7/8	16 3/4	14.00	1/2	20 1/4	1 3/8	20	1 1/4 x 8 3/4	1 x 4 1/2	554
16	† ± .005	25 1/2	2 1/2	18 1/2	6	19	16.00	1/2	22 1/2	1 1/2	20	1 3/8 x 9 1/2	1 x 5 1/2	705
18	† ± .007	28	2 5/8	21	6 1/2	21	18.00	1/2	24 3/4	1 1/2	24	1 3/8 x 9 3/4	1 x 5 1/2	863
20	† ± .007	30 1/2	2 3/4	23	6 5/8	23 1/8	20.00	1/2	27	1 5/8	24	1 1/2 x 10 1/4	1 x 5 1/2	1066
24	† ± .007	36	3	27 1/4	6 7/8	27 5/8	24.00	1/2	32	1 7/8	24	1 3/4 x 11 1/2	1 x 6 1/2	1555

CATALOG No. WROF-CLASS 600

4	4.026 ± .004	10 3/4	1 1/2	6 3/16	4	6	4.50	1/2	8 1/2	1	8	7/8 x 6 1/4	3/4 x 4	103
6	6.065 ± .004	14	1 7/8	8 1/2	4 5/8	8 3/4	6.63	1/2	11 1/2	1 1/8	12	1 x 7	3/4 x 4	195
8	† ± .004	16 1/2	2 3/16	10 5/8	5 1/4	10 3/4	8.63	1/2	13 3/4	1 1/4	12	1 1/8 x 8	3/4 x 4 1/2	278
10	† ± .005	20	2 1/2	12 3/4	6	13 1/2	10.75	1/2	17	1 3/8	16	1 1/4 x 8 3/4	1 x 5 1/2	454
12	† ± .005	22	2 5/8	15	6 1/8	15 3/4	12.75	1/2	19 1/4	1 3/8	20	1 1/4 x 9	1 x 5 1/2	553
14	† ± .005	23 3/4	2 3/4	16 1/4	6 1/2	17	14.00	1/2	20 3/4	1 1/2	20	1 3/8 x 9 3/4	1 x 5 1/2	815
16	† ± .005	27	3	18 1/2	7	19 1/2	16.00	1/2	23 3/4	1 5/8	20	1 1/2 x 10 3/4	1 x 5 1/2	1113
18	† ± .007	29 1/4	3 1/4	21	7 1/4	21 1/2	18.00	1/2	25 3/4	1 3/4	20	1 5/8 x 11 1/2	1 x 6 1/2	1306
20	† ± .007	32	3 1/2	23	7 1/2	24	20.00	1/2	28 1/2	1 3/4	24	1 5/8 x 12	1 x 6 1/2	1522
24	† ± .007	37	4	27 1/4	8	28 1/4	24.00	1/2	33	2	24	1 7/8 x 13 3/4	8	2320

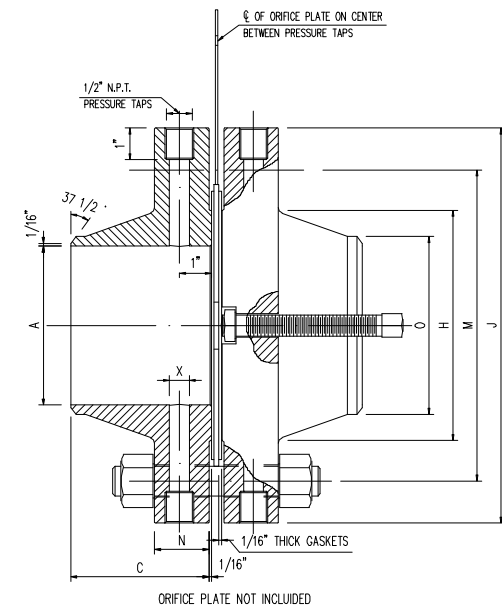
\* Class 300 Flange C and N dimensions include 1/16" Raised Face.

4" and larger. Class 400-600 Flange C and N dimensions do not include 1/4" Raised Face.

† To be specified by purchaser.

†† 4" and smaller, same as Class 300.

NOTE: 1/2" and 3/4" orifice flanges are not recognized by ANSI B16.36.



REV.	MORRIS VALVES		Title: ORIFICE FLANGE. WRF			
Checked	MORRIS	Date	SEPT_2006	Material	ASTM A 105	Sheet
Designer	MORRIS	Scale		Dwg_No.	2016_WNRF_34691525_01.DWG	01 02
Drawn	MORRIS	Model	WROF-34681525			

No.	Rev.	Description	Approved	Checked	Drawn	Date
1	1	UPDATING	MORRIS	MORRIS	MORRIS	SEP_2016

CATALOG No. WROF-CLASS 900

Size in Inches	Diam. Internal Line Bore and Tolerance	Diam. Of Flange	Minimum Flange Thickness	Diam. Of Raised Face	Length Through Hub	Hub Diam. at Base	Diam. Of Hub at Point of Welding	Pressure Tap Hole Size	Flangee Drilling Template				Jack Screw Size and Length	Approx. Wsweigh (Pounds)
									Diam. Of Bolts Circle	Diam. Of Holes	Number Of Holes	Size and Length of Studs		
A	J	N*			C*	H	O	X						
3	† ± .003	9 1/2	1 1/2	5	4	5	3.50	3/8	7 1/2	1	8	7/8 x 6 1/4	3/4 x 4	79
4	† ± .004	11 1/2	1 3/4	6 3/16	4 1/2	6 1/4	4.5	1/2	9 1/4	1 1/4	8	1 1/8 x 7	3/4 x 4	129
6	† ± .004	15	2 3/16	8 1/2	5 1/2	9 1/4	6.63	1/2	12.5	1 1/4	12	1 1/8 x 8	3/4 x 4 1/2	263
8	† ± .004	18 1/2	2 1/2	10 5/8	6 3/8	11 3/4	8.63	1/2	15 1/2	1 1/2	12	1 3/8 x 9	1 x 5 1/2	445
10	† ± .005	21 1/2	2 3/4	12 3/4	7 1/4	14 1/2	10.75	1/2	18 1/2	1 1/2	16	1 3/8 x 9 3/4	1 x 5 1/2	634
12	† ± .005	24	3 1/8	15	7 7/8	16 1/2	12.75	1/2	21	1 1/2	20	1 3/8 x 10 1/2	1 x 5 1/2	872

CATALOG No. WROF-CLASS 1500

1	† ± .003	5 7/8	1 1/2	2	3 1/4	2 1/16	1.32	1/4	4	1	4	7/8 x 6	5/8 x 4	26
1 1/2	† ± .003	7	1 1/2	2 7/8	3 1/2	2 3/4	1.90	1/4	4 7/8	1 1/8	4	1 x 6 1/4	5/8 x 4	45
2	† ± .003	8 1/2	1 1/2	3 5/8	4	4 1/8	2.38	3/8	6 1/2	1	8	7/8 x 6	5/8 x 4	65
2 1/2	† ± .003	9 5/8	1 5/8	4 1/8	4 1/8	4 7/8	2.88	3/8	7 1/2	1 1/8	8	1 x 6 1/2	5/8 x 4	98
3	† ± .003	10 1/2	1 7/8	5	4 5/8	5 1/4	3.50	3/8	8	1 1/4	8	1 1/8 x 7 1/4	3/4 x 4	123
4	† ± .004	12 1/4	2 1/8	6 3/16	4 7/8	6 3/8	4.50	1/2	9 1/2	1 3/8	8	1 1/4 x 8	3/4 x 4 1/2	182
6	† ± .004	15 1/2	3 1/4	8 1/2	6 3/4	9	6.63	1/2	12 1/2	1 1/2	12	1 3/8 x 10 3/4	3/4 x 5 1/2	407
8	† ± .004	19	3 5/8	10 5/8	8 3/8	11 1/2	8.63	1/2	15 1/2	1 3/4	12	1 5/8 x 12	1 x 7	675
10	† ± .005	23	4 1/4	12 3/4	10	14 1/2	10.75	1/2	19	2	12	1 7/8 x 14	1 x 8	1099
12	† ± .005	26 1/2	4 7/8	15	11 1/8	17 3/4	12.75	1/2	22 1/2	2 1/8	16	2 x 15 3/4	1 x 9	1706

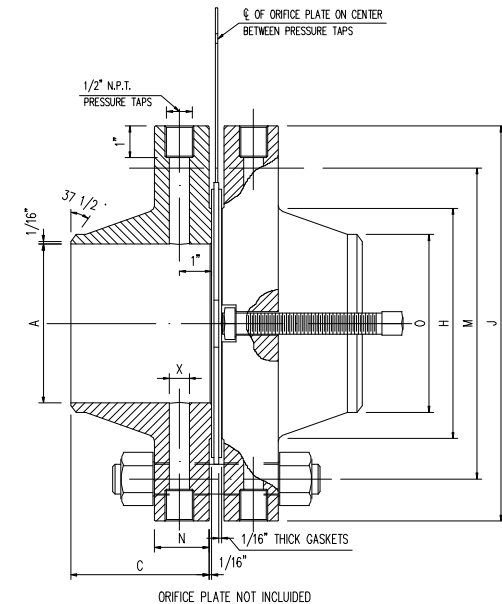
CATALOG No. WROF-CLASS 2500

1	† ± .003	6 1/4	1 1/2	2	3 5/8	2 1/4	1.32	1/4	4 1/4	1	4	7/8 x 6	5/8 x 4	26
1 1/2	† ± .003	8	1 3/4	2 7/8	4 3/8	2 1/8	1.90	1/4	5 3/4	1 1/4	4	1 1/8 x 7	3/4 x 4	56
2	† ± .003	9 1/4	2	3 5/8	5	3 3/4	2.38	3/8	6 3/4	1 1/8	8	1 x 7 1/4	3/4 x 4	84
2 1/2	† ± .003	10 1/2	2 1/4	4 1/8	5 5/8	4 1/2	2.88	3/8	7 3/4	1 1/4	8	1 1/8 x 8	3/4 x 4 1/2	104
3	† ± .003	12	2 5/8	5	6 5/8	5 1/4	3.50	3/8	9	1 3/8	8	1 1/4 x 9 1/4	3/4 x 5 1/2	188
4	† ± .004	14	3	6 3/16	7 1/2	6 1/2	4.50	1/2	10 3/4	1 5/8	8	1 1/2 x 10 1/2	3/4 x 5 1/2	292
6	† ± .004	19	4 1/4	8 1/2	10 3/4	9 1/4	6.63	1/2	14 1/2	2 1/8	8	2 x 14 1/4	3/4 x 8	756
8	† ± .004	21 3/4	5	10 5/8	12 1/2	12	8.63	1/2	17 1/4	2 1/8	12	2 x 15 3/4	1 x 9	1152
10	† ± .005	26 1/2	6 1/2	12 3/4	16 1/2	14 3/4	10.75	1/2	21 1/4	2 5/8	12	2 1/2 x 20	1 x 11	2136
12	† ± .005	30	7 1/4	15	18 1/4	17 3/8	12.75	1/2	24 3/8	2 7/8	12	2 3/4 x 22	1 x 12	3216

\* Does not include 1/4" Raised Face.

† To be specified by purchaser.

†† 2 1/2" and smaller, same as Class 1500.



REV.	MORRIS VALVES			Title: ORIFICE FLANGE. WNR		
Checked	MORRIS	Date	SEPT_2006	Material	ASTM A 105	Sheet
Designer	MORRIS	Scale		Dwg_No.	2016_WJOF_34691525_02.DWG	02 02
Drawn	MORRIS	Model	WJOF-34681525			