

# **M&J VALVE**

An SPX Process Equipment Operation

## **M303A Gate Valve**

### **Dimensions & Weights**



# M&J VALVE

An SPX Process Equipment Operation

M&J Valve  
19191 Hempstead Highway  
Houston, TX 77065

Telephone: 281-469-0550  
Fax: 281-894-1332

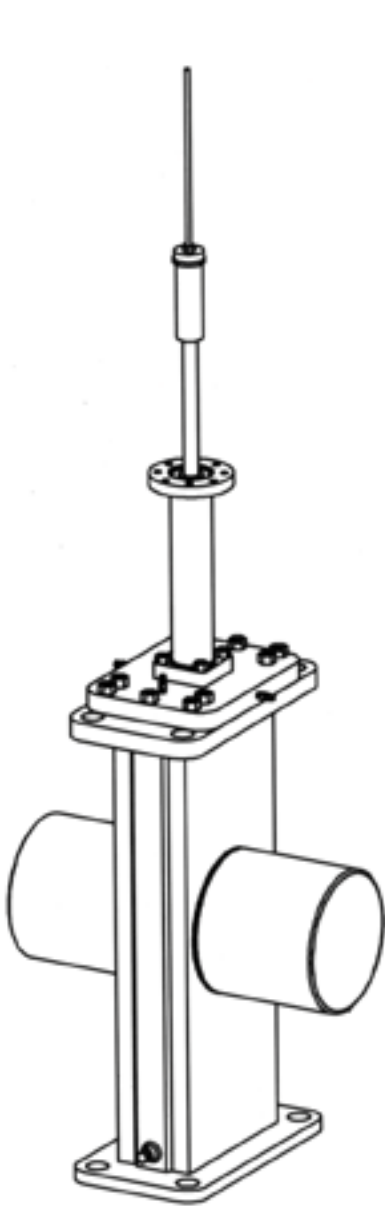
E-Mail: [mandjvalve@processequipment.spx.com](mailto:mandjvalve@processequipment.spx.com)  
Web Site: [www.mandjvalve.com](http://www.mandjvalve.com)

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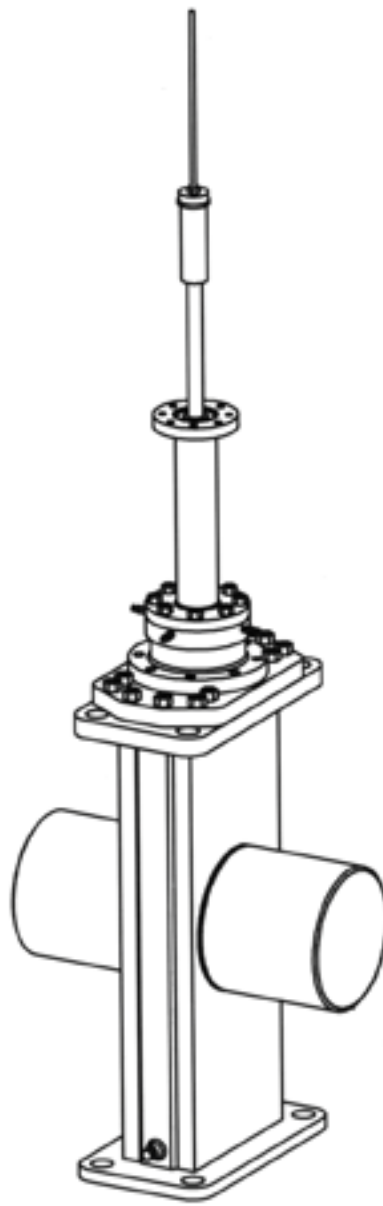
**Table of Contents**

Design Types.....	3
Comparison of M303 and M303A Topworks.....	4
M-303A API CLASS 150.....	5
M-303A API CLASS 300.....	6
M-303A API CLASS 400.....	7
M-303A API CLASS 600.....	8
M-303A API CLASS 900.....	9
M-303A API CLASS 1500.....	10
M-303A API CLASS 2500.....	11
Handwheel Operator (HWO).....	12
Bevel Gear Operator (BGO).....	12
Standard M303A Nominal Bore.....	13
M303A Optional Operator Mounting.....	14
Notes.....	15

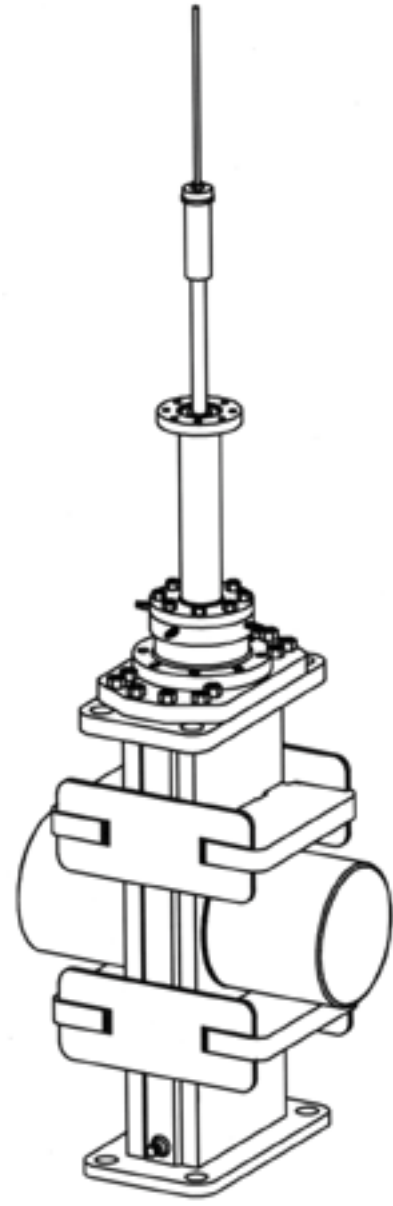
## Design Types



I  
VALVE WITHOUT CUPOLA

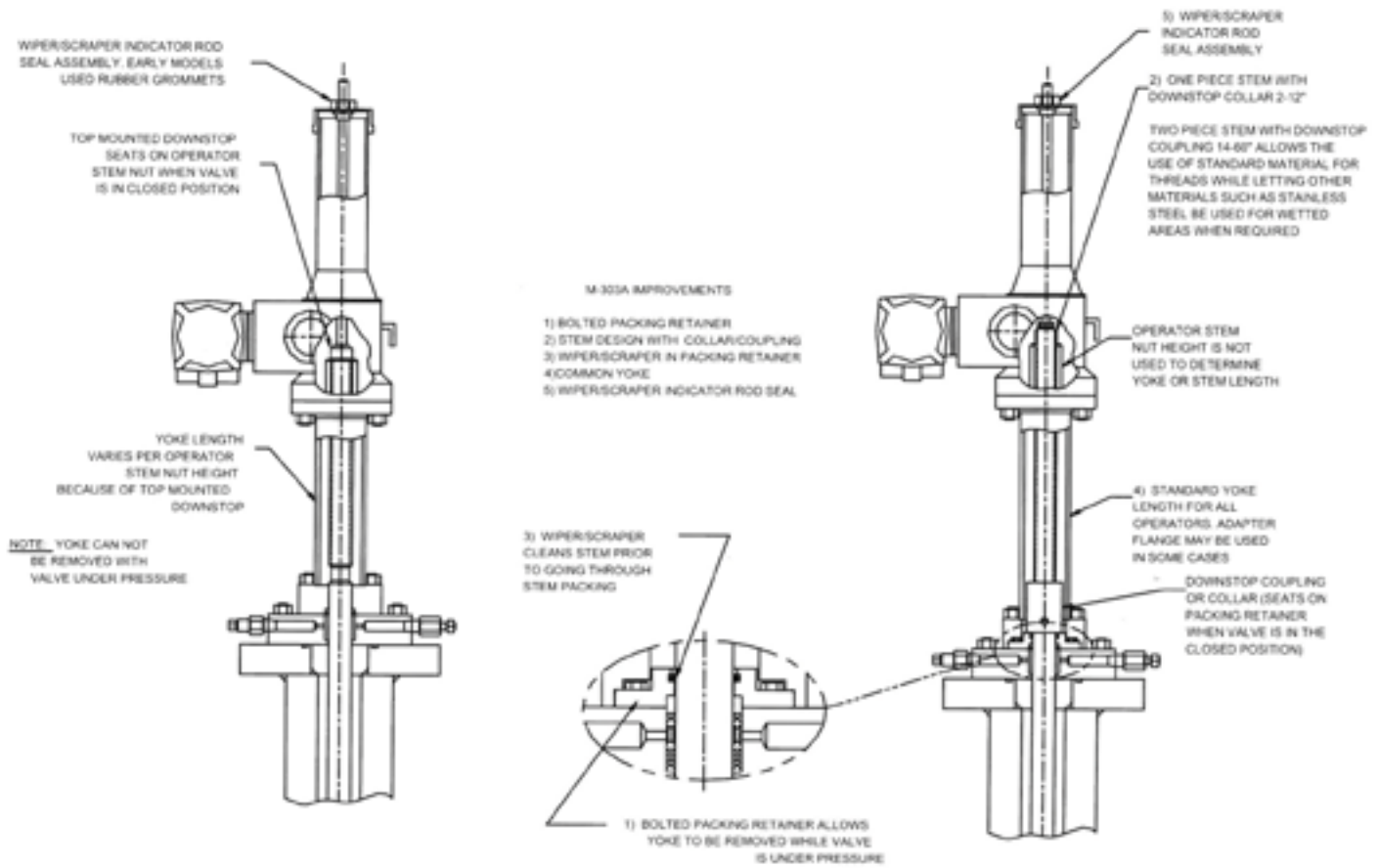


II  
VALVE WITH CUPOLA



III  
VALVE WITH CUPOLA & RIBS

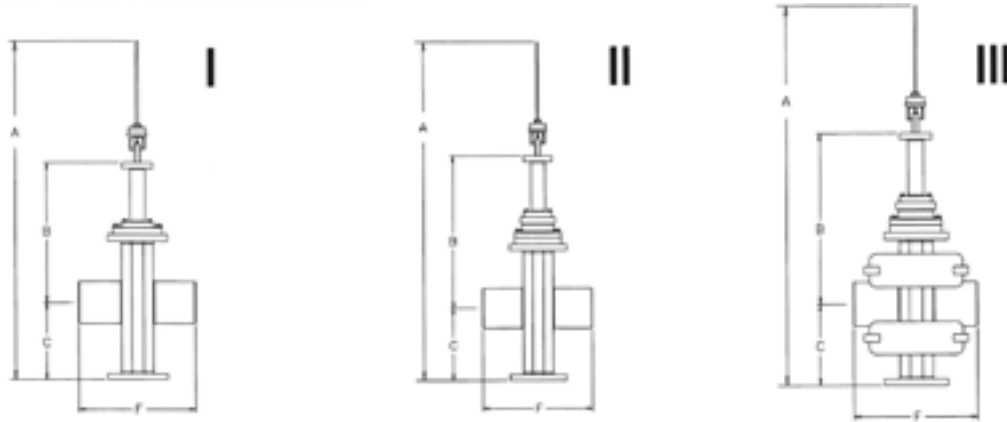
## Comparison of M-303 and M-303A topwork features, highlighting improvements made to the M-303A.



**M-303**  
1975-1996

**M-303A**  
Starting 1996

## M-303A API CLASS 150



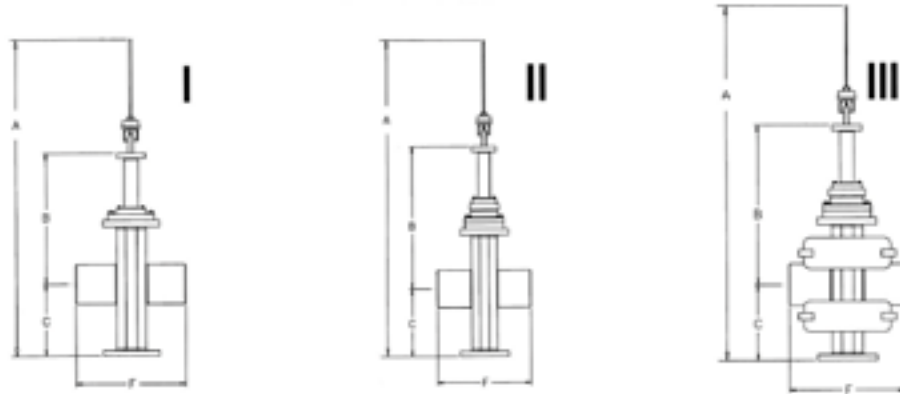
Dimensions In : in/(mm)

VALVE DESIGN	VALVE SIZE	A		B	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			RF	WE	RTJ	FE	WE
I	6	69.56	62.56	31.31	13.13	10.50	15.88	11.00	486	440
	(150)	(1767)	(1589)	(795)	(333)	(267)	(403)	(279)	(220)	(200)
	8	81.44	72.38	36.13	16.00	11.50	16.50	12.00	788	710
	(200)	(2068)	(1838)	(918)	(406)	(292)	(419)	(305)	(357)	(322)
	10	97.38	86.00	42.63	19.75	13.00	18.00	13.50	1320	1220
	(250)	(2473)	(2184)	(1083)	(502)	(330)	(457)	(343)	(599)	(553)
	12	109.88	96.38	47.94	22.94	14.00	19.75	14.50	1768	1600
(300)	(2791)	(2448)	(1218)	(583)	(356)	(502)	(368)	(802)	(726)	
II	14	118.75	104.13	52.75	24.63	15.00	22.50	15.50	2152	1820
	(350)	(3016)	(2645)	(1340)	(625)	(381)	(572)	(394)	(976)	(825)
	16	130.00	113.38	57.50	27.13	16.00	24.00	16.50	2524	2140
	(400)	(3302)	(2880)	(1461)	(689)	(406)	(610)	(419)	(1145)	(971)
	18	143.69	124.88	63.63	30.44	17.00	26.00	17.50	3162	2760
	(450)	(3650)	(3172)	(1616)	(773)	(432)	(660)	(445)	(1434)	(1252)
	20	157.13	136.13	69.63	33.75	18.00	28.00	18.50	*	3310
	(500)	(3991)	(3458)	(1768)	(857)	(457)	(711)	(470)	*	(1501)
	22	171.38	148.38	76.00	36.88	20.00	30.00	20.50	5050	4500
	(550)	(4353)	(3769)	(1930)	(937)	(508)	(762)	(521)	(2290)	(2041)
	24	183.25	158.06	80.31	40.19	20.00	32.00	20.50	5898	5290
	(600)	(4655)	(4015)	(2040)	(1021)	(508)	(813)	(521)	(2675)	(2399)
	26	197.13	170.06	87.19	43.31	22.00	34.00	*	7344	6810
	(650)	(5007)	(4320)	(2215)	(1100)	(559)	(864)	*	(3331)	(3088)
	28	208.81	179.81	92.06	46.25	24.00	36.00	*	8590.0	8000.0
(700)	(5304)	(4567)	(2338)	(1175)	(610)	(914)	*	(3896)	(3628)	
30	223.50	192.25	99.00	49.75	26.00	36.00	*	9506	8880	
(750)	(5677)	(4883)	(2515)	(1264)	(660)	(914)	*	(4311)	(4027)	
32	236.81	203.56	105.69	52.94	28.00	38.00	*	11218	10400	
(800)	(6015)	(5170)	(2684)	(1345)	(711)	(965)	*	(5088)	(4717)	
34	250.75	215.50	112.56	56.00	30.00	40.00	*	12462	11630	
(850)	(6369)	(5474)	(2859)	(1422)	(762)	1016	*	(5652)	(5274)	
36	260.31	223.06	115.38	58.75	32.00	40.00	*	14306	13270	
(900)	(6612)	(5666)	(2931)	(1492)	(813)	(1016)	*	(6488)	(6018)	
38	*	*	*	*	60.00	60.00	*	*	*	
(950)					(1524)	(1524)				
40	*	*	*	*	62.00	62.00	*	*	*	
(1000)					(1574)	(1574)				
42	304.25	260.50	135.81	69.00	64.00	64.00	*	20562	192000	
(1050)	(7728)	(6617)	(3450)	(1753)	(1626)	(1626)	*	(9325)	(87075)	
44	*	*	*	*	66.00	66.00	*	*	*	
(1100)					(1676)	(1676)				
46	*	*	*	*	69.00	69.00	*	*	*	
(1150)					(1753)	(1753)				
48	*	*	*	*	71.00	71.00	*	*	*	
(1200)					(1803)	(1803)				
50	*	*	*	*	73.00	73.00	*	*	*	
(1250)					(1854)	(1854)				
52	*	*	*	*	76.00	76.00	*	*	*	
(1300)					(1930)	(1930)				
54	*	*	*	*	78.00	78.00	*	*	*	
(1350)					(1981)	(1981)				
56	*	*	*	*	80.00	80.00	*	*	*	
(1400)					(2032)	(2032)				
58	*	*	*	*	82.00	82.00	*	*	*	
(1450)					(2083)	(2083)				
60	*	*	*	*	84.00	84.00	*	*	*	
(1500)					(2134)	(2134)				

\*Contact M&J Valve for information on these items.

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**M-303A API CLASS 300**



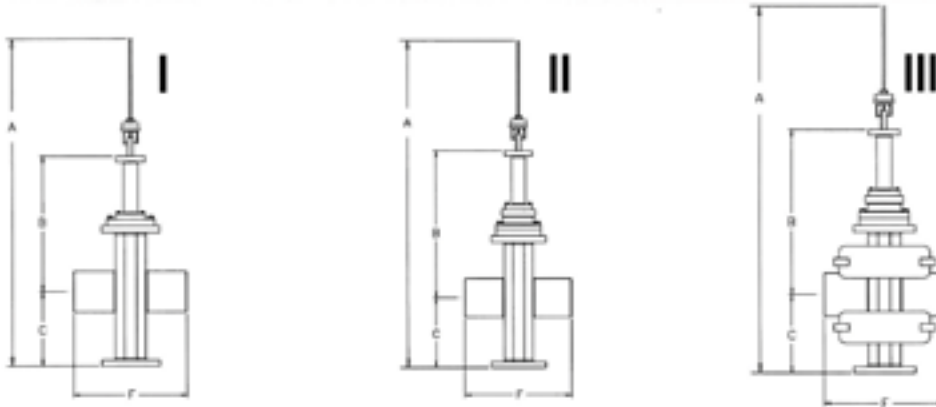
Dimensions In : in/(mm)

VALVE DESIGN	VALVE SIZE	A		B	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			RF	WE	RTJ	FE	WE
I	6	69.56	62.56	31.31	13.13	15.88	15.88	16.50	522	440
	(150)	(1767)	(1589)	(795)	(333)	(403)	(403)	(419)	(237)	(200)
	8	81.44	72.38	36.13	16.00	16.50	16.50	17.13	844	710
	(200)	(2068)	(1838)	(918)	(406)	(419)	(419)	(435)	(3828)	(322)
	10	97.38	86.00	42.63	19.75	18.00	18.00	18.63	1570	1410
	(250)	(2473)	(2184)	(1083)	(502)	(457)	(457)	(473)	(712)	(639)
II	12	109.88	96.38	47.94	22.94	19.75	19.75	20.38	2080	1850
	(300)	(2791)	(2448)	(1218)	(583)	(502)	(502)	(518)	(943)	(839)
	14	118.75	104.13	52.75	24.63	30.00	30.00	30.63	2292	1860
	(350)	(3016)	(2645)	(1340)	(625)	(762)	(762)	(778)	(1039)	(844)
	16	130.75	114.13	57.50	27.88	33.00	33.00	33.63	3130	2500
	(400)	(3321)	(2899)	(1461)	(708)	(838)	(838)	(854)	(1420)	(1134)
	18	144.19	125.38	63.63	30.94	36.00	36.00	36.63	4374	3630
	(450)	(3662)	(3185)	(1616)	(786)	(914)	(914)	(930)	(1984)	(1646)
	20	159.50	138.50	70.75	34.25	39.00	39.00	39.75	5374	4400
	(500)	(4051)	(3518)	(1797)	(870)	(991)	(991)	(1010)	(2437)	(1995)
	22	173.25	150.25	77.38	37.38	43.00	43.00	43.88	6418	5390
	(550)	(4401)	(3816)	(1965)	(949)	(1092)	(1092)	(1114)	(2911)	(2444)
	24	186.81	161.63	83.13	40.94	45.00	45.00	45.88	8200	6940
	(600)	(4745)	(4105)	(2111)	(1040)	(1143)	(1143)	(1165)	(3719)	(3147)
III	26	199.75	172.69	92.56	40.56	49.00	49.00	50.00	8974	8050
	(650)	(5074)	(4386)	(2351)	(1030)	(1245)	(1245)	(1270)	(4070)	(3651)
	28	*	*	*	*	53.00	53.00	54.00	*	*
	(700)					(1346)	(1346)	(1372)		
	30	225.31	194.06	101.38	49.75	55.00	55.00	56.00	11908	10700
	(750)	(5723)	(4929)	(2575)	(1264)	(1397)	(1397)	(1422)	(5400)	(4853)
	32	198.56	165.31	66.88	53.50	60.00	60.00	61.13	15466	14050
	(800)	(5043)	(4199)	(1359)	(1359)	(1524)	(1524)	(1553)	(7014)	(6372)
	34	252.44	217.19	114.00	56.25	64.00	64.00	65.13	18140	16620
	(850)	(6412)	(5517)	(2896)	(1429)	(1626)	(1626)	(1654)	(8227)	(7537)
	36	270.25	233.00	122.06	59.00	68.00	68.00	69.13	18822	17140
	(900)	(6864)	(5918)	(3100)	(1499)	(1727)	(1727)	(1756)	(8536)	(7773)
	38	*	*	*	*	80.00	80.00	*	*	*
	(950)					(2032)	(2032)			
	40	298.88	257.25	134.31	66.38	82.00	82.00	*	26382	25250
	(1000)	(7591)	(6534)	(3412)	(1686)	(2083)	(2083)		(11965)	(11451)
	42	309.88	266.13	138.19	69.25	84.00	84.00	*	28496	27230
	(1050)	(7871)	(6760)	(3510)	(1759)	(2134)	(2134)		(12923)	(12349)
	44	*	*	*	*	86.00	86.00	*	*	*
	(1100)					(2184)	(2184)			
46	272.88	225.25	87.19	75.38	88.00	88.00	*	35148	33450	
(1150)	(6931)	(5721)	(2215)	(1915)	(2235)	(2235)		(15940)	(15170)	
48	285.19	235.56	92.38	78.50	90.00	90.00	*	40774	39030	
(1200)	(7244)	(5983)	(2346)	(1994)	(2286)	(2286)		(18492)	(17701)	
50	*	*	*	*	92.00	92.00	*	*	*	
(1250)					(2337)	(2337)				
52	*	*	*	*	94.00	94.00	*	*	*	
(1300)					(2388)	(2388)				
54	*	*	*	*	96.00	96.00	*	*	*	
(1350)					(2438)	(2438)				
56	*	*	*	*	98.00	98.00	*	*	*	
(1400)					(2489)	(2489)				
58	*	*	*	*	100.00	100.00	*	*	*	
(1450)					(2540)	(2540)				
60	*	*	*	*	102.00	102.00	*	*	*	
(1500)					(2591)	(2591)				

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## M-303A API CLASS 400



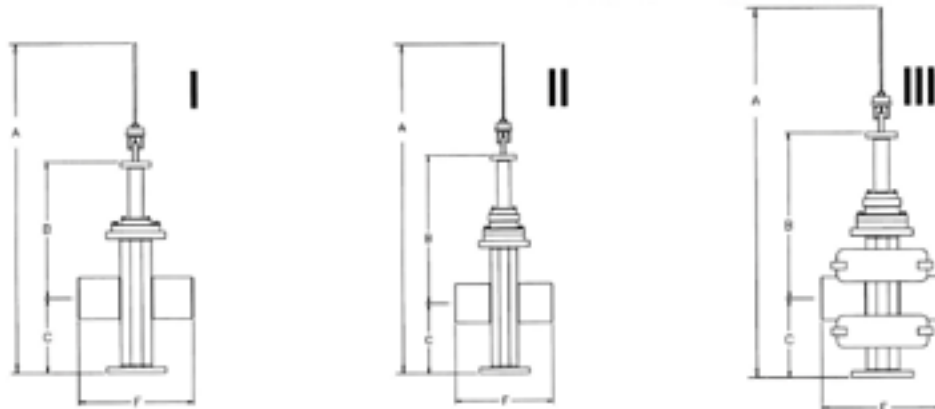
Dimensions In : in/(mm)

VALVE DESIGN	VALVE SIZE	A		B**	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			FE	WE	RTJ	FE	WE
I	6	69.56	62.56	31.31	13.13	19.50	19.50	19.63	552	450
	(150)	(1767)	(1589)	(795)	(333)	(495)	(495)	(498)	(250)	(204)
	8	81.44	72.38	36.13	16.00	23.50	23.50	23.63	888	725
	(200)	(2068)	(1838)	(918)	(406)	(597)	(597)	(600)	(403)	(329)
	10	97.38	86.00	42.63	19.75	26.50	26.50	26.63	1590	1410
	(250)	(2473)	(2184)	(1083)	(502)	(673)	(673)	(676)	(721)	(639)
II	12	109.88	96.38	47.94	22.94	30.00	30.00	30.13	2110	1850
	(300)	(2791)	(2448)	(1218)	(583)	(762)	(762)	(765)	(957)	(839)
	14	118.75	104.13	52.75	24.63	32.50	32.50	32.63	2392	1880
	(350)	(3016)	(2645)	(1340)	(625)	(826)	(826)	(829)	(1085)	(853)
	16	130.75	114.13	57.50	27.88	35.50	35.50	35.63	3220	2550
	(400)	(3321)	(2899)	(1461)	(708)	(902)	(902)	(905)	(1460)	(1156)
	18	145.63	126.81	65.06	31.19	38.50	38.50	38.63	4434	3780
	(450)	(3699)	(3221)	(1653)	(792)	(978)	(978)	(981)	(2011)	(1714)
	20	161.00	140.00	71.75	34.75	41.50	41.50	41.75	5392	4540
	(500)	(4089)	(3556)	(1822)	(883)	(1054)	(1054)	(1060)	(2445)	(2059)
	22	*	*	*	*	45.00	45.00	45.38	*	*
	(550)					(1143)	(1143)	(1153)		
24	188.19	163.00	84.50	40.94	48.50	48.50	48.88	9254	7910	
(600)	(4780)	(4140)	(2146)	(1040)	(1232)	(1232)	(1241)	(4197)	(3587)	
26	199.44	172.38	89.75	43.81	51.50	51.50	52.00	10636	9340	
(650)	(5066)	(4378)	(2280)	(1113)	(1308)	(1308)	(1321)	(4824)	(4236)	
III	28	*	*	*	*	55.00	55.00	55.50	*	*
	(700)					(1397)	(1397)	(1410)		
	30	229.44	198.19	102.00	50.25	60.00	60.00	60.50	14568	12920
	(750)	(5828)	(5034)	(2591)	(1276)	(1524)	(1524)	(1537)	(6607)	(5859)
	32	*	*	*	*	65.00	65.00	65.63	*	*
	(800)					(1651)	(1651)	(1667)		
	34	*	*	*	*	70.00	70.00	70.63	*	*
	(850)					(1778)	(1778)	(1794)		
	36	269.31	232.06	120.38	59.75	74.00	74.00	74.63	23534	21180
	(900)	(6841)	(5894)	(3058)	(1518)	(1880)	(1880)	(1895)	(10673)	(9605)
	38	*	*	*	*	84.00	84.00	*	*	*
	(950)					(2134)	(2134)			
	40	*	*	*	*	86.00	86.00	*	*	*
	(1000)					(2184)	(2184)			
	42	*	*	*	*	89.00	89.00	*	*	*
	(1050)					(2261)	(2261)			
	44	*	*	*	*	92.00	92.00	*	*	*
	(1100)					(2337)	(2337)			
	46	*	*	*	*	94.00	94.00	*	*	*
	(1150)					(2388)	(2388)			
	48	*	*	*	*	97.00	97.00	*	*	*
	(1200)					(2464)	(2464)			
50	*	*	*	*	*	*	*	*	*	
(1250)										
52	*	*	*	*	*	*	*	*	*	
(1300)										
54	*	*	*	*	*	*	*	*	*	
(1350)										
56	*	*	*	*	*	*	*	*	*	
(1400)										
58	*	*	*	*	*	*	*	*	*	
(1450)										
60	*	*	*	*	*	*	*	*	*	
(1500)										

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**M-303A API CLASS 600**



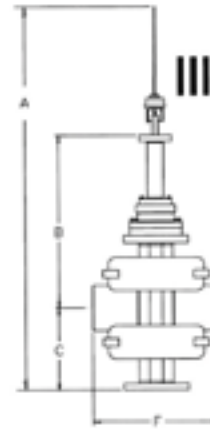
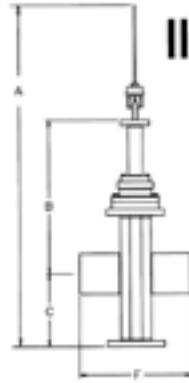
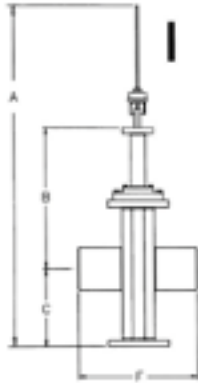
Dimensions In : in/(mm)

VALVE DESIGN	VALVE SIZE	A		B	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			RF	WE	RTJ	FE	WE
I	6	68.56	61.56	31.31	13.13	22.00	22.00	22.13	600	460
	(150)	(1742)	(1564)	(795)	(333)	(559)	(559)	(562)	(272)	(209)
	8	81.44	72.38	36.13	16.00	26.00	26.00	26.13	950	730
	(200)	(2068)	(1838)	(918)	(406)	(660)	(660)	(664)	(431)	(331)
	10	97.38	86.00	42.63	19.75	31.00	31.00	31.13	1750	1410
	(250)	(2473)	(2184)	(1083)	(502)	(787)	(787)	(791)	(794)	(639)
II	12	110.38	96.88	47.94	23.44	33.00	33.00	33.13	2520	2100
	(300)	(2804)	(2461)	(1218)	(595)	(838)	(838)	(841)	(1143)	(952)
	14	119.25	104.63	52.75	25.13	35.00	35.00	35.13	3274	2610
	(350)	(3029)	(2657)	(1340)	(638)	(889)	(889)	(892)	(1485)	(1184)
	16	131.50	114.88	58.25	28.13	39.00	39.00	39.13	4042	3160
	(400)	(3340)	(2918)	(1480)	(714)	(991)	(991)	(994)	(1833)	(1433)
	18	147.56	128.75	66.50	31.69	43.00	43.00	43.13	5462	4400
	(450)	(3748)	(3270)	(1689)	(805)	(1092)	(1092)	1095.375	(2477)	(1995)
	20	161.00	140.00	71.75	34.75	47.00	47.00	47.25	7426	6200
	(500)	(4089)	(3556)	(1822)	(883)	(1194)	(1194)	(1200)	(3368)	(2812)
	22	175.19	152.19	78.81	37.88	51.00	51.00	51.38	8958	7400
	(550)	(4450)	(3866)	(2002)	(962)	(1295)	(1295)	(1305)	(4063)	(3356)
	24	190.50	165.31	83.94	41.44	55.00	55.00	55.38	11374	9610
	(600)	(4839)	(4199)	(2132)	(1052)	(1397)	(1397)	(1407)	(5158)	(4358)
III	26	204.44	177.38	91.38	44.31	57.00	57.00	57.50	12996	11140
	(650)	(5193)	(4505)	(2321)	(1126)	(1448)	(1448)	(1461)	(5894)	(5052)
	28	*	*	*	*	61.00	61.00	61.50	*	*
	(700)					(1549)	(1549)	(1562)		
	30	232.44	201.19	104.50	50.75	65.00	65.00	65.50	17950	15750
	(750)	(5904)	(5110)	(2654)	(1289)	(1651)	(1651)	(1664)	(8141)	(7143)
	32	*	*	*	*	70.00	70.00	70.63	*	*
	(800)					(1778)	(1778)	(1794)		
	34	258.00	222.75	115.81	57.00	76.00	76.00	76.63	25560	23000
	(850)	(6553)	(5658)	(2942)	(1448)	(1930)	(1930)	(1946)	(11592)	(10431)
	36	270.31	233.06	120.88	60.25	82.00	82.00	85.63	30194	27200
	(900)	(6866)	(5920)	(3070)	(1530)	(2083)	(2083)	(2175)	(13693)	(12336)
	38	*	*	*	*	90.00	90.00	*	*	*
	(950)					(2286)	(2286)			
	40	301.69	260.06	134.88	67.38	94.00	94.00	94.00	36920	33720
	(1000)	(7663)	(6606)	(3426)	(1711)	(2388)	(2388)	*	(16744)	(15293)
	42	311.50	267.75	138.81	70.25	98.00	98.00	*	40384	36940
	(1050)	(7912)	(6801)	(3526)	(1784)	(2489)	(2489)		(18315)	(16753)
44	*	*	*	*	101.00	101.00	*	*	*	
(1100)					(2565)	(2565)				
46	*	*	*	*	105.00	105.00	*	*	*	
(1150)					(2667)	(2667)				
48	283.56	233.94	89.75	79.50	109.00	109.00	*	*	54660	
(1200)	(7202)	(5942)	(2280)	(2019)	(2769)	(2769)			(24789)	
50	*	*	*	*	113.00	113.00	*	*	*	
(1250)					(2870)	(2870)				
52	*	*	*	*	117.00	117.00	*	*	*	
(1300)					(2972)	(2972)				
54	*	*	*	*	120.00	120.00	*	*	*	
(1350)					(3048)	(3048)				
56	*	*	*	*	124.00	124.00	*	*	*	
(1400)					(3150)	(3150)				
58	*	*	*	*	128.00	128.00	*	*	*	
(1450)					(3251)	(3251)				
60	*	*	*	*	132.00	132.00	*	*	*	
(1500)					(3353)	(3353)				

\*Contact M&J Valve for information on these items.

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## M-303A API CLASS 900



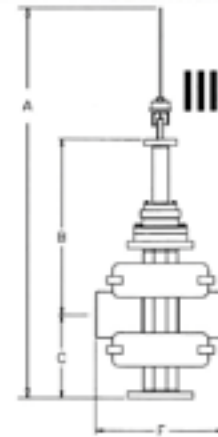
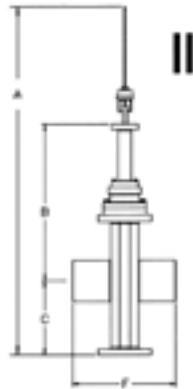
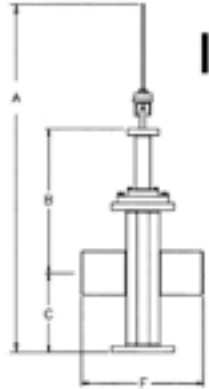
Dimensions In : in/(mm)

VALVE DESIGN	VALVE SIZE	A		B	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			FE	WE	RTJ	FE	WE
I	6	69.06	62.06	30.81	13.13	24.00	24.00	24.13	658	470
	(150)	(1754)	(1576)	(783)	(333)	(610)	(610)	(613)	(298)	(213)
	8	81.94	72.88	36.13	16.50	29.00	29.00	29.13	1172	820
	(200)	(2081)	(1851)	(918)	(419)	(737)	(737)	(740)	(532)	(372)
	10	97.88	86.50	42.63	20.25	33.00	33.00	33.13	2050	1560
	(250)	(2486)	(2197)	(1083)	(514)	(838)	(838)	(841)	(930)	(707)
II	12	110.63	97.13	47.94	23.69	38.00	38.00	38.13	3110	2460
	(300)	(2810)	(2467)	(1218)	(602)	(965)	(965)	(968)	(1410)	(1116)
	14	119.69	105.06	54.00	25.38	40.50	40.50	40.88	3682	2780
	(350)	(3040)	(2669)	(1372)	(645)	(1029)	(1029)	(1038)	(1670)	(1261)
	16	135.19	118.56	61.06	29.00	44.50	44.50	44.88	5152	4060
	(400)	(3434)	(3012)	(1551)	(737)	(1130)	(1130)	(1140)	(2337)	(1841)
	18	*	*	*	*	48.00	48.00	48.50	*	*
	(450)					(1219)	(1219)	(1232)		
	20	167.19	146.19	74.25	36.25	52.00	52.00	52.50	9618	7860
	(500)	(4247)	(3713)	(1886)	(921)	(1321)	(1321)	(1334)	(4362)	(3565)
	22	*	*	*	*	56.50	56.50	57.00	*	*
	(550)					(1435)	(1435)	(1448)		
III	24	194.75	169.56	87.06	42.56	61.00	61.00	61.75	15680	12580
	(600)	(4947)	(4307)	(2211)	(1081)	(1549)	(1549)	(1568)	(7111)	(5705)
	26	*	*	*	*	80.00	80.00	*	*	*
	(650)					(2032)	(2032)			
	28	*	*	*	*	83.00	83.00	*	*	*
	(700)					(2108)	(2108)			
	30	235.00	203.75	106.06	51.75	85.00	85.00	*	25980	22000
	(750)	(5969)	(5175)	(2694)	(1314)	(2159)	(2159)		(11782)	(9977)
	32	*	*	*	*	88.00	88.00	*	*	*
	(800)					(2235)	(2235)			
	34	*	*	*	*	90.00	90.00	*	*	*
	(850)					(2286)	(2286)			
36	*	*	*	*	92.00	90.00	*	*	*	
(900)					(2337)	(2286)				
38	*	*	*	*	*	*	*	*	*	
(950)										
40	*	*	*	*	*	*	*	*	*	
(1000)										
42	*	*	*	*	*	*	*	*	*	
(1050)										
44	*	*	*	*	*	*	*	*	*	
(1100)										
46	*	*	*	*	*	*	*	*	*	
(1150)										
48	*	*	*	*	*	*	*	*	*	
(1200)										
50	*	*	*	*	*	*	*	*	*	
(1250)										
52	*	*	*	*	*	*	*	*	*	
(1300)										
54	*	*	*	*	*	*	*	*	*	
(1350)										
56	*	*	*	*	*	*	*	*	*	
(1400)										
58	*	*	*	*	*	*	*	*	*	
(1450)										
60	*	*	*	*	*	*	*	*	*	
(1500)										

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**M-303A API CLASS 1500**



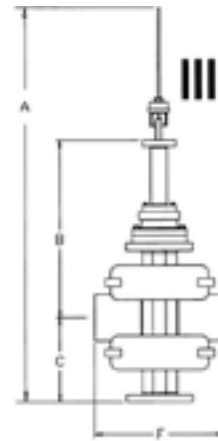
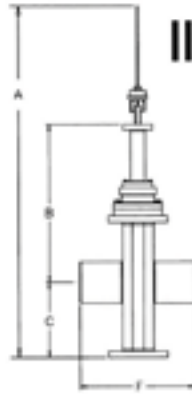
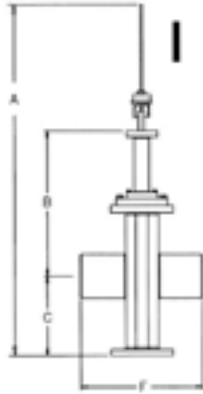
Dimensions In : in/(mm)

VALVE DESIGN	VALVE SIZE	A		B	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			FE	WE	RTJ	FE	WE
II	6	60.63	53.63	29.13	12.88	27.75	27.75	28.00	1022	600
	(150)	(1540)	(1362)	(740)	(327)	(705)	(705)	(711)	(463)	(272)
	8	85.44	75.44	41.06	18.25	32.75	32.75	33.13	2594	1940
	(200)	(2170)	(1916)	(1043)	(464)	(832)	(832)	(842)	(1176)	(880)
	10	99.38	87.13	46.16	21.75	39.00	39.00	39.38	4136	3100
	(250)	(2524)	(2213)	(1172)	(552)	(991)	(991)	(1000)	(1876)	(1406)
	12	111.13	97.13	53.41	24.56	44.50	44.50	45.13	5970	4660
	(300)	(2823)	(2467)	(1357)	(624)	(1130)	(1130)	(1146)	(2707)	(2113)
	14	116.31	101.69	55.56	26.00	49.50	49.50	50.25	6658	4680
	(350)	(2954)	(2583)	(1411)	(660)	(1257)	(1257)	(1276)	(3020)	(2122)
III	16	130.00	113.38	61.63	29.44	54.50	54.50	55.38	9388	6690
	(400)	(3302)	(2880)	(1565)	(748)	(1384)	(1384)	(1407)	(4258)	(3034)
	18	*	*	*	*	*	*	*	*	9690
	(450)									(4395)
	20	157.00	136.00	73.66	35.75	65.50	65.50	66.38	15782	11580
	(500)	(3988)	(3454)	(1871)	(908)	(1664)	(1664)	(1686)	(7157)	(5252)
	22	*	*	*	*	*	*	*	*	*
	(550)									
	24	184.00	159.68	86.19	42.69	76.50	76.50	77.63	24754	18000
	(600)	(4674)	(4056)	(2189)	(1084)	(1943)	(1943)	(1972)	(11226)	(8163)
	26	199.88	172.81	*	46.06	*	*	*	*	21000
	(650)	(5077)	(4389)		(1170)					(9524)
	28	*	*	*	*	*	*	*	*	*
	(700)									
	30	*	*	*	*	*	*	*	*	*
	(750)									
	32	*	*	*	*	*	*	*	*	*
	(800)									
	34	*	*	*	*	*	*	*	*	*
	(850)									
	36	*	*	*	*	*	*	*	*	*
	(900)									
	38	*	*	*	*	*	*	*	*	*
	(950)									
	40	*	*	*	*	*	*	*	*	*
	(1000)									
	42	*	*	*	*	*	*	*	*	*
	(1050)									
	44	*	*	*	*	*	*	*	*	*
	(1100)									
46	*	*	*	*	*	*	*	*	*	
(1150)										
48	*	*	*	*	*	*	*	*	*	
(1200)										
50	*	*	*	*	*	*	*	*	*	
(1250)										
52	*	*	*	*	*	*	*	*	*	
(1300)										
54	*	*	*	*	*	*	*	*	*	
(1350)										
56	*	*	*	*	*	*	*	*	*	
(1400)										
58	*	*	*	*	*	*	*	*	*	
(1450)										
60	*	*	*	*	*	*	*	*	*	
(1500)										

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## M-303A API CLASS 2500



Dimensions In : in/(mm)

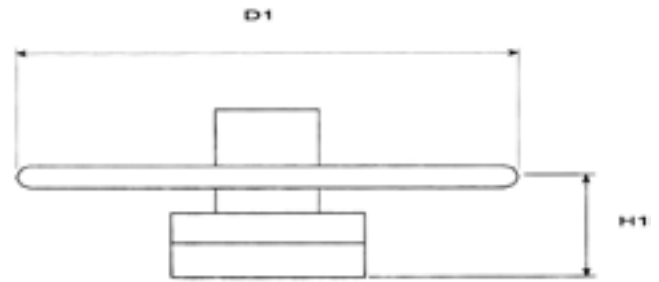
VALVE DESIGN	VALVE SIZE	A		B	C	F			WEIGHT lb/(kg)	
		A OPEN	A CLOSE			FE	WE	RTJ	FE	WE
II	6	61.50	54.50	29.13	12.88	36.00	36.00	36.50	2020	1270
	(150)	(1562)	(1384)	(740)	(327)	(914)	(914)	(927)	(916)	(576)
	8	80.19	71.00	41.06	18.25	40.25	40.25	40.88	4750	3610
	(200)	(2037)	(1803)	(1043)	(464)	(1022)	(1022)	(1038)	(2154)	(1637)
	10	95.56	84.19	49.31	21.75	50.00	50.00	50.88	5739	4618
	(250)	(2427)	(2138)	(1253)	(552)	(1270)	(1270)	(1292)	(2603)	(2094)
	12	111.25	97.75	53.38	24.31	56.00	56.00	56.88	10016	6800
(300)	(2826)	(2483)	(1356)	(618)	(1422)	(1422)	(1445)	(4542)	(3084)	
III	14	*	*	*	*	*	*	*	*	*
	(350)									
	16	142.25	125.38	61.63	29.44	72.00	72.00	72.88	18500	13130
	(400)	(3613)	(3185)	(1565)	(748)	(1829)	(1829)	(1851)	(8390)	(5955)
	18	*	*	*	*	*	*	*	*	*
	(450)									
	20	*	*	*	*	*	*	*	*	*
	(500)									
	22	*	*	*	*	*	*	*	*	*
	(550)									
	24	*	*	*	*	*	*	*	*	*
	(600)									
	26	*	*	*	*	*	*	*	*	*
	(650)									
	28	*	*	*	*	*	*	*	*	*
	(700)									
	30	*	*	*	*	*	*	*	*	*
	(750)									
	32	*	*	*	*	*	*	*	*	*
	(800)									
	34	*	*	*	*	*	*	*	*	*
	(850)									
	36	*	*	*	*	*	*	*	*	*
	(900)									
	38	*	*	*	*	*	*	*	*	*
	(950)									
	40	*	*	*	*	*	*	*	*	*
	(1000)									
	42	*	*	*	*	*	*	*	*	*
	(1050)									
	44	*	*	*	*	*	*	*	*	*
	(1100)									
46	*	*	*	*	*	*	*	*	*	
(1150)										
48	*	*	*	*	*	*	*	*	*	
(1200)										
50	*	*	*	*	*	*	*	*	*	
(1250)										
52	*	*	*	*	*	*	*	*	*	
(1300)										
54	*	*	*	*	*	*	*	*	*	
(1350)										
56	*	*	*	*	*	*	*	*	*	
(1400)										
58	*	*	*	*	*	*	*	*	*	
(1450)										
60	*	*	*	*	*	*	*	*	*	
(1500)										

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**Handwheel Operator (HWO)**

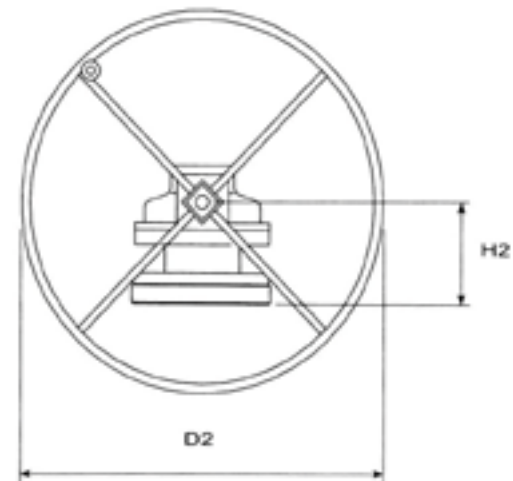
VALVE SIZE	VALVE SERIES											
	150			300			400			600		
	D1	H1	NT	D1	H1	NT	D1	H1	NT	D1	H1	NT
6	20.00	4.438	21	20.00	4.438	21	20.00	4.438	21	32.00	4.438	21
(150)	(508)	(113)		(508)	(113)		(508)	(113)		(813)	(113)	
8	26.00	4.438	27	26.00	4.438	27	32.00	4.438	21			
(200)	(660)	(113)		(660)	(113)		(813)	(113)				
10	32.00	4.438	34	32.00	4.438	34						
(250)	(813)	(113)		(813)	(113)							



Dimensions In : in/(mm)  
 R: Ratio  
 NT: No of turns

**Bevel Gear Operator (BGO)**

VALVE SIZE	VALVE SERIES														
	150			300			400			600			900		
	D2	H2	R/NT	D2	H2	R/NT	D2	H2	R/NT	D2	H2	R/NT	D2	H2	R/NT
6	12.00	4.44	4:1/21	12.00	4.44	4:1/21	12.00	4.44	4:1/21	12.00	4.44	4:1/21	18.00	4.44	4:1/21
(150)	(305)	(113)		(305)	(113)		(305)	(113)		(305)	(113)		(457)	(113)	
8	12.00	4.44	4:1/27	12.00	4.44	4:1/27	12.00	4.44	4:1/27	18.00	4.44	4:1/27	24.00	4.44	4:1/27
(200)	(305)	(113)		(305)	(113)		(305)	(113)		(457)	(113)		(610)	(113)	
10	12.00	4.44	4:1/34	12.00	4.44	4:1/34	18.00	4.44	4:1/34	24.00	4.44	4:1/34	30.00	4.44	4:1/34
(250)	(305)	(113)		(305)	(113)		(457)	(113)		(610)	(113)		(762)	(113)	
12	12.00	4.44	4:1/41	18.00	4.44	4:1/41	30.00	4.44	4:1/41	30.00	4.44	4:1/41	24.00	6.44	9:1/41
(300)	(305)	(113)		(457)	(113)		(762)	(113)		(762)	(113)		(610)	(164)	
14	12.00	4.44	4:1/44	24.00	4.44	4:1/44	30.00	4.44	4:1/44	24.00	6.44	9:1/44	36.00	6.44	9:1/37
(350)	(305)	(113)		(610)	(113)		(762)	(113)		(610)	(164)		(914)	(164)	
16	12.00	4.44	4:1/50	30.00	4.44	4:1/50	30.00	6.44	4:1/50	30.00	6.440	9:1/42			
(400)	(305)	(113)		(762)	(113)		(762)	(164)		(762)	(164)				
18	18.00	4.44	4:1/56	36.00	6.44	4:1/56	24.00	6.44	9:1/47	24.00	6.44	9:1/42			
(450)	(457)	(113)		(914)	(164)		(610)	(164)		(610)	(164)				
20	18.00	4.44	4:1/63	24.00	6.44	9:1/53	36.00	6.44	9:1/42	36.00	6.44	9:1/42			
(500)	(457)	(113)		(610)	(164)		(914)	(164)		(914)	(164)				
22	24.00	6.44	4:1/58	30.00	6.44	9:1/46									
(550)	(610)	(164)		(762)	(164)										
24	30.00	6.44	4:1/63	36.00	6.44	9:1/50									
(600)	(762)	(164)		(914)	(164)										



## Standard M303A Nominal Bore Size

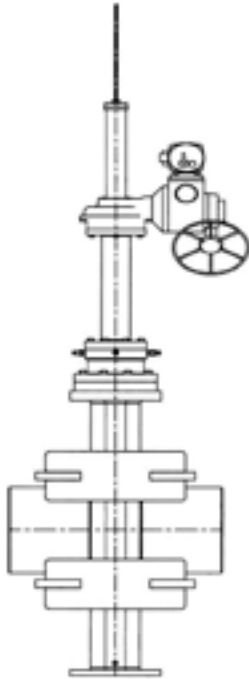
Dimensions In : in/(mm)

NOMINAL VALVE SIZE	NOMINAL BORE IN (MM)							
	CLASS 150 THROUGH 600		CLASS 900		CLASS 1500		CLASS 2500	
2	2	(50.8)	2	(50.8)	2	(50.8)	1-3/4	(44.5)
2-1/2	2-1/2	(63.5)	2-1/2	(63.5)	2-1/2	(63.5)	2-1/8	(54.0)
3	3	(76.2)	3	(76.2)	3	(76.2)	2-1/2	(63.5)
4	4	(101.6)	4	(101.6)	4	(101.6)	3.5	(88.9)
6	6	(152.4)	6	(152.4)	5-3/4	(146.1)	5-1/4	(133.4)
8	8	(203.2)	8	(203.2)	7-5/8	(193.7)	7-1/8	(181.0)
10	10	(254.0)	10	(254.0)	9-1/2	(241.3)	8-7/8	(225.4)
12	12	(304.8)	12	(304.8)	11-3/8	(288.9)	10-1/2	(266.7)
14	13-1/4	(336.6)	12 3/4	(323.9)	12-1/2	(317.5)		
16	15-1/4	(387.4)	14-3/4	(374.7)	14-1/4	(362.0)		
18	17-1/4	(438.2)	16-3/4	(435.5)				
20	19-1/4	(489.0)	18-5/8	(473.1)				
22	21-1/4	(523.9)	20-5/8	(523.9)				
24	23-1/4	(590.6)	22-1/2	(571.5)				
26	25	(635.0)	24-3/8	(619.1)				
28	27	(685.8)	26-1/4	(666.8)				
30	29	(736.6)	28-1/8	(714.4)				
32	30-3/4	(781.1)	30	(762.0)				
34	32-3/4	(831.9)	31-7/8	(809.6)				
36	34-1/2	(876.3)	33-3/4	(857.3)				
38	36-1/2	(927.1)						
40	38-1/2	(977.9)						
42	40-1/4	(1022.4)						
48	46	(1168.4)						
54	51-3/4	(1314.5)						
60	57-1/2	(1460.5)						

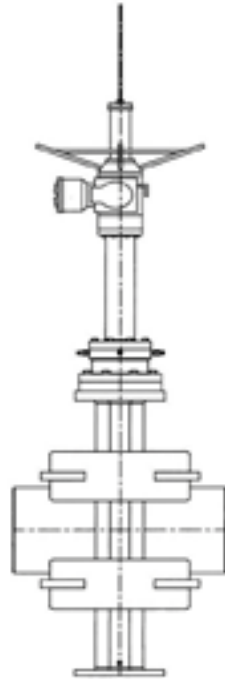
As Specified In Api 6d Table 4.0

Tolerance:-1/16 In. (-1.6 MM)

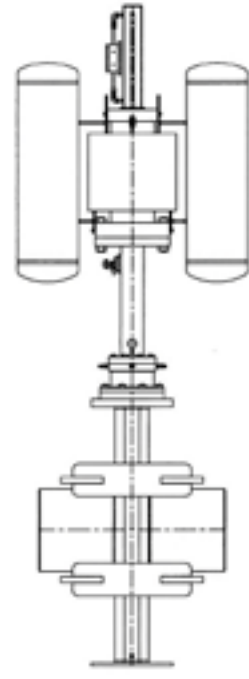
**M-303A  
Optional Operator Mounting**



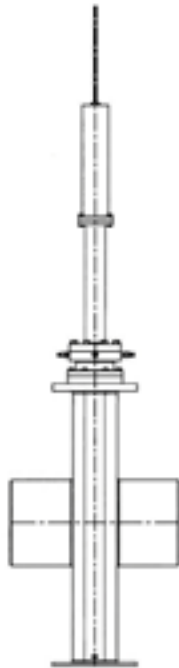
Bevel Gear Operator  
Side Mounted  
Electric Operator



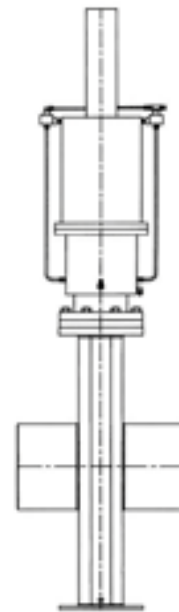
Top Mounted  
Electric Operator



Top Mounted  
Gas/Oil Hydraulic  
Operator



Top Mounted  
Hydraulic  
Operator



Reverse Acting  
(Safety/Fail Close)  
Operator

For more information about our worldwide locations, approvals and certifications, and local representatives, please visit our web site.

**Web Site:** [www.spxprocessequipment.com](http://www.spxprocessequipment.com)

**E-Mail:** [mandjvalve@processequipment.spx.com](mailto:mandjvalve@processequipment.spx.com)

## **SPX** Process Equipment

### Your local contact

19191 Hempstead Highway, Houston, TX 77065 Telephone: (281) 469-0550, Outside Texas (800) 231-3690 Fax (281) 894-1332

SPX Process Equipment reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Certified drawings are available upon request.

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