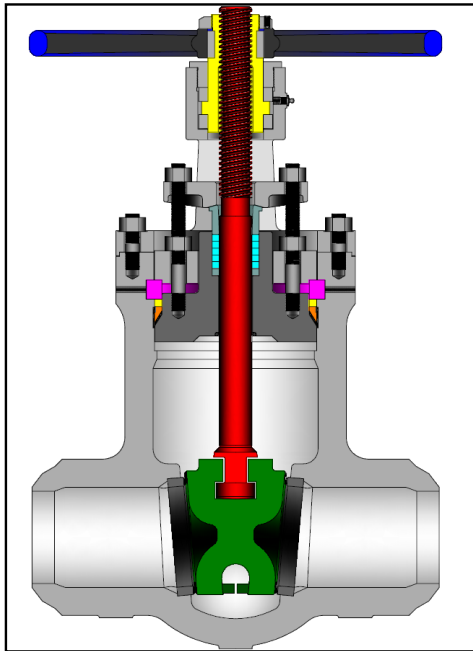


PRESSURE SEAL GATE VALVES

CAST, CARBON, STAINLESS STEEL OR ALLOY STEEL

2 - 24" (50 - 600 mm)

ASME CLASSES 600 - 2500



Class	Fig. No.
600	1603
900	1903
1500	1103
2500	1203

STANDARD MATERIALS (Other materials available)

PART	MATERIALS			
Body	A216 Gr. WCB (STANDARD)	A217 Gr. WC6	A217 Gr. WC9	A217 Gr. C12A
Bonnet	A105	A182 F11	A182 F22	A182 F91
Yokearm	A216 Gr. WCB			
Wedge	A216 WCB + Stellite 6 Faced	A217 WC6 + Stellite 6 Faced	A217 WC9 + Stellite 6 Faced	A217 C12A + Stellite 6 Faced
Seat Ring	Carbon Steel + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + Stellite 6 Faced	A182 F91 + Stellite 6 Faced
Stem	A182 F6a			
Stem Bushing	A 439 Ductile NI-Resist Gr. D2			
Stem Bushing Lock Nut	Steel			
Gland Flange	A216 Gr. WCB			
Eye Bolt	A193 Gr. B7			
Eye Bolt Nut	A194 Gr. 2H			
Gland	SST 410			
Packing	Graphite			
Packing Washer / Packing Spacer	SST 410			
Protective Ring	SST 410			
Segmental Thrust Ring	SST 410			
Support Plate	Steel			
Gasket	SST 304L			
Hand Wheel	Malleable Iron or Steel			
Hand Wheel Nut	Steel			
Key	Steel			
Lubricant Fitting	Steel			
Bonnet Takeup / Yoke Stud	A193 Gr. B7	A193 Gr. B16		
Bonnet Takeup / Yoke Nut	A194 Gr. 2H	A194 Gr. 7		

DESIGN FEATURES:

- Flexible Wedge for improved seating and ease of operation, especially in high temperature service. Wedges are accurately guided thru the entire stroke.
- Valves are full port design per ASME B16.34 Table A-1.
- Standard trim is stellite faced seat and disc seat surfaces, and 13% chrome stem (API trim 5). Other trims available on request.
- Seat faces lapped for smooth finish and superior sealing.
- Stems are non-rotating with surface finish to maximize packing seal for low fugitive emissions.
- Yoke arms designed for ease of gear, motor or cylinder actuator adaptation.
- Each valve is shell, seat and backseat pressure tested per industry standard API 598.
- Gland is two piece gland / gland flange design for optimal alignment and uniform packing compression.
- Each valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test report, inspection report and certificate of conformance.
- Valve sizes 4" and smaller have bonnet take up ring design instead of support plate design.
- Weld end valves are B16.10 short pattern design. Flanged end valves are available on request and are B16.10 long-pattern design. Weld end valve dimensions given in table on next page.
- Other available options as follows:
 - » Alternate valve materials such as chrome and stainless steel alloys

Design Specifications

Item	Applicable Specification
Wall thickness	API 600
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Butt Weld design	ASME B16.25
Materials	ASTM

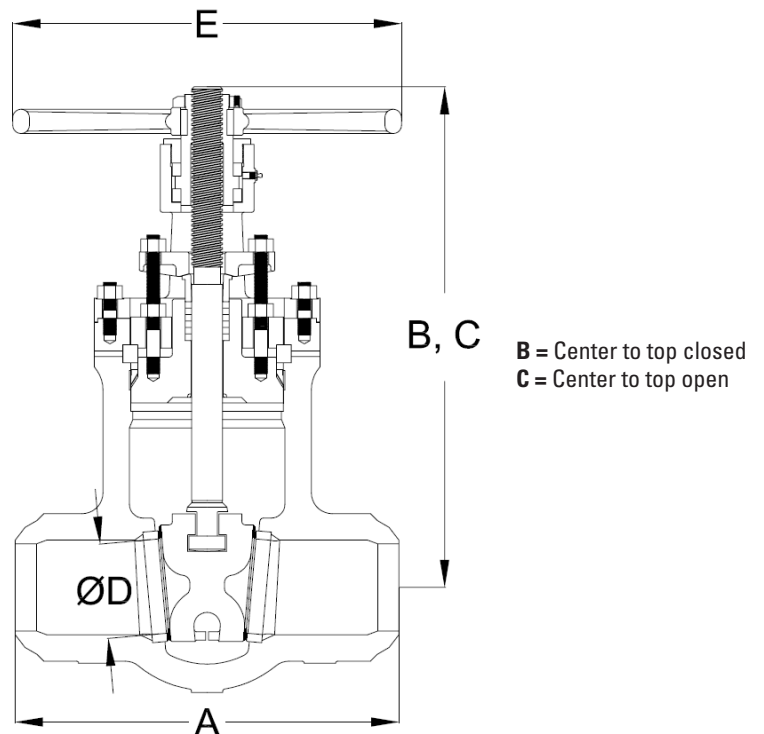
- » Alternate trim materials
- » Bypass, drain and other auxiliary connections
- » Gear, motor, and cylinder actuators available
- » NACE service
- » Special cleaning for applications such as oxygen or chlorine
- » Other options available as specified

GATE VALVE DIMENSIONS (CLASSES 600 - 2500)

SIZE in mm	ASME 600					ASME 900					ASME 1500				
	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E
2	7	15.7	18.2	2.00	8	8.5	19.7	22.0	1.87	14	8.5	19.7	22.0	1.87	14
50	178	399	462	51	200	216	499	558	48	356	216	499	558	48	356
2½	8.5	19.6	22.6	2.50	12	10.0	21.5	24.1	2.25	14	10.0	21.5	24.3	2.25	14
65	216	498	573	64	305	254	546	612	57	356	254	545	616	57	356
3	10	20.3	23.7	3.00	12	12.0	22.8	26.1	2.87	14	12.0	23.7	27.1	2.75	16
80	254	516	602	76	305	305	578	664	73	356	305	603	688	70	406
4	12	24.4	29.0	4.00	14	14.0	25.2	29.5	3.87	16	16.0	27.7	31.9	3.62	20
100	305	620	736	102	356	356	640	750	98	406	406	703	811	92	500
6	18	27.6	34.1	6.00	20	20.0	28.7	35.1	5.75	20	22.0	30.2	36.3	5.37	22
150	457	700	865	152	508	508	729	892	146	508	559	768	923	136	560
8	23	32.6	41.2	7.87	20	26.0	33.6	42.0	7.50	25	28.0	34.8	42.6	7.00	28
200	584	828	1047	200	508	660	854	1066	191	640	711	883	1083	178	720
10	28	38.4	49.0	9.75	25	31.0	44.2	53.5	9.37	30	34.0	44.5	53.3	8.75	28
250	711	975	1245	248	640	787	1122	1360	238	762	864	1131	1353	222	710
12	32	44.5	56.9	11.75	28	36.0	59.3	70.4	11.12	30	39.0	50.1	60.5	10.37	30
300	813	1129	1445	298	680	914	1505	1788	282	762	991	1272	1535	263	762
14	35	56.9	62.1	12.87	30	39.0	66.9	79.2	12.25	30	42.0	63.1	74.5	11.37	36
350	889	1445	1577	327	762	991	1700	2011	311	762	1067	1604	1892	289	914
16	39	74.9	14.75	18	43.0	76.1	14.00	24	47.0	76.1	13.00	24			
400	991	1903	375	460	1092	1933	356	610	1194	1933	330	610			
18	43	84.9	16.5	18	48.0	88.7	15.75	24	53.0	84.6	14.62	24			
450	1092	2157	419	460	1219	2255	400	610	1346	2149	371	610			
20	47	86.6	18.25	18	52.0	92.2	17.5	24	58.0	104	16.37	24			
500	1194	2200	464	460	1321	2342	445	610	1473	2626	416	610			
24	55	90.4	22.00	18	61.0	106.0	21.00	24	76.5	138	19.62	24			
600	1397	2295	559	460	1549	2680	533	610	1943	3490	498	610			

(1) Gear operators standard for 16" and up classes 600 to 1500 and 14" and up for class 2500.

SIZE in mm	ASME 2500				
	A	B(1)	C(1)	D	E
2	11.0	18.6	20.5	1.50	12
50	279	473	521	38	300
2½	13.0	22.0	26.1	1.87	18
65	330	558	662	48	457
3	14.5	22.0	26.1	2.25	18
80	368	558	662	57	457
4	18.0	28.2	32.0	2.87	20
100	457	717	812	73	508
6	24.0	31.4	36.5	4.37	24
150	610	798	928	111	610
8	30.0	39.2	47.2	5.75	24
200	762	997	1200	146	610
10	36.0	45.3	52.6	7.25	30
250	914	1151	1335	184	762
12	41.0	52.7	66.7	8.62	36
300	1041	1339	1695	219	914
14	44.0	74.2	9.50	24	
350	1118	1885	241	610	
16	49.0	77.0	10.87	24	
400	1245	1956	276	610	
18	55.0	79.9	12.25	32	
450	1397	2030	311	800	



PRESSURE SEAL GATE VALVES

CAST CARBON, STAINLESS STEEL OR ALLOY STEEL

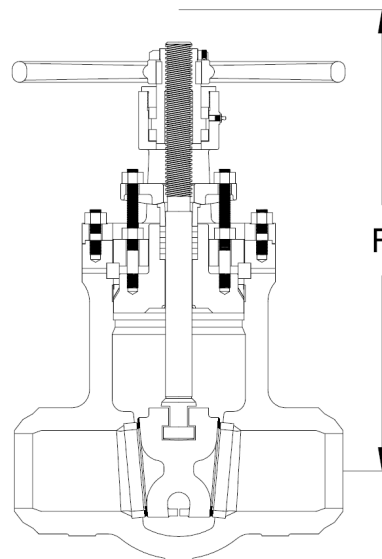
2 - 24" (50 - 600 mm)

ASME CLASSES 600 - 2500

SIZE	ASME 600					ASME 900					ASME 1500					ASME 2500				
	in mm	F	in mm	WT lb kg	CV	F	in mm	WT lb kg	CV	F	in mm	WT lb kg	CV	F	in mm	WT lb kg	CV			
2	27.5		95		240	30.2		95		210	30.2		95		210	30.6		176		140
50	699		43			766		43			766		43			778		80		
2½	30.2		125		390	30.3		125		310	32.8		135		310	34.6		348		220
65	768		56			769		56			832		61			878		158		
3	32.3		143		560	35.4		154		510	36.9		221		470	34.6		392		310
80	821		65			898		70			937		100			878		178		
4	39.0		181		1000	40.4		229		950	43.9		401		830	43.2		522		520
100	990		82			1025		104			1115		182			1098		237		
6	45.5		364		2400	46.9		518		2200	47.2		760		2000	50.3		772		1300
150	1155		165			1192		235			1199		345			1278		381		
8	54.5		712		4300	56.4		904		3900	57.1		1583		3400	60.2		1852		2300
200	1385		323			1433		410			1449		718			1530		840		
10	65.2		1091		6700	68.2		1820		6200	66.4		2787		5400	72.5		3504		3700
250	1655		495			1733		825			1687		1264			1841		1589		
12	76.6		1616		10000	78.0		2586		9000	78.0		3235		7800	82.6		5420		5400
300	1945		733			1982		1173			1980		1467			2098		2458		
14	84.5		2221		12000	81.5		3421		11000	89.8		5140		9400	94.1		7110		6600
350	2146		1007			2069		1552			2282		2336			2391		3225		
16	94.2		2898		16000	99.4		4291		14000	101.9		6477		12000	111.8		4016		8600
400	2393		1314			2523		1946			2588		2937			2840		4801		
18	105.3		3646		21000	111.5		5164		19000	114.9		7857		16000	114.7		10587		11000
450	2675		1654			2832		2342			2917		3563			2913		4801		
20	116.4		4456		25000	122.3		6005		23000	129.0		9256		20000					
500	2958		2021			3106		2723			3275		4198							
24	141.9		6231		37000	147.5		7463		33000	161.3		11983		29000					
600	3605		2826			3747		3385			4098		5434							

Note: Does not include weight of gear.

WT = Weight
F = Dismantling Dimension
CV = Flow Coefficient

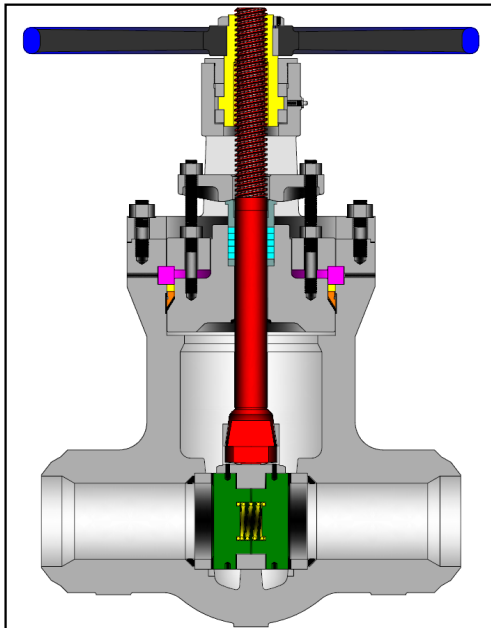


PRESSURE SEAL PARALLEL SEAT GATE VALVES

CAST CARBON, STAINLESS STEEL OR ALLOY STEEL

2 - 24" (50 - 600 mm)

ASME CLASSES 600 - 2500



Class	Fig. No.
600	1607
900	1907
1500	1107
2500	1207

DESIGN FEATURES:

- Standard trim is stellite faced seat and disc seat surfaces, and 13% chrome stem (API trim 5). Other trims available on request.
- Valves are full port design per ASME B16.34 Table A-1.
- Seat faces lapped for smooth finish and superior sealing.
- Stems are non-rotating with surface finish to maximize packing seal for low fugitive emissions.
- Yoke arms designed for ease of gear, motor or cylinder actuator adaptation.
- Each valve is shell, seat and backseat pressure tested per industry standard API 598.
- Gland is two piece gland / gland flange design for optimal alignment and uniform packing compression.
- Parallel Discs are spring supported, offering a more refined seal.
- Weld end valves are B16.10 short pattern design. Flanged end valves are available on request and are B16.10 long pattern design. Weld end valve dimensions given in table on next page.

STANDARD MATERIALS (Other materials available)

PART	MATERIALS			
	A216 Gr. WCB (STANDARD)	A217 Gr. WC6	A217 Gr. WC9	A217 Gr. C12A
Body	A216 Gr. WCB (STANDARD)	A217 Gr. WC6	A217 Gr. WC9	A217 Gr. C12A
Bonnet	A105	A182 F11	A182 F22	A182 F91
Yokearm	A216 Gr. WCB			
Disc	A105 + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + Stellite 6 Faced	A182 F91 + Stellite 6 Faced
Screw	SST 304			
Disc Holder	A105	A182 F11	A182 F22	A182 F91
Spring	Inconel			
Seat Ring	Carbon Steel + Stellite 6 Faced	A182 F11 + Stellite 6 Faced	A182 F22 + Stellite 6 Faced	A182 F91 + Stellite 6 Faced
Stem	A182 F6a			
Stem Bushing	A 439 Ductile NI-Resist Gr. D2			
Stem Bushing Lock Nut	Steel			
Gland Flange	A216 Gr. WCB			
Eye Bolt	A193 Gr. B7			
Eye Bolt Nut	A194 Gr. 2H			
Gland	SST 410			
Packing	Graphite			
Packing Washer / Packing Spacer	SST 410			
Protective Ring	SST 410			
Segmental Thrust Ring	SST 410			
Support Plate	Steel			
Gasket	SST 304L			
Hand Wheel	Malleable Iron or Steel			
Hand Wheel Nut	Steel			
Key	Steel			
Lubricant Fitting	Steel			
Bonnet Takeup / Yoke Stud	A193 Gr. B7	A193 Gr. B16		
Bonnet Takeup / Yoke Nut	A194 Gr. 2H	A194 Gr. 7		

- Each valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test report, inspection report and certificate of conformance.
- Valve sizes 4" and smaller have bonnet take up ring design instead of support plate design.
- Other available options as follows:
 - » Alternate valve materials such as chrome and stainless steel alloys
 - » Alternate trim materials
 - » Bypass, drain and other auxiliary connections
 - » Bypass, drain and other auxiliary connections

Design Specifications

Item	Applicable Specification
Wall thickness	API 600
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Butt Weld design	ASME B16.25
Materials	ASTM

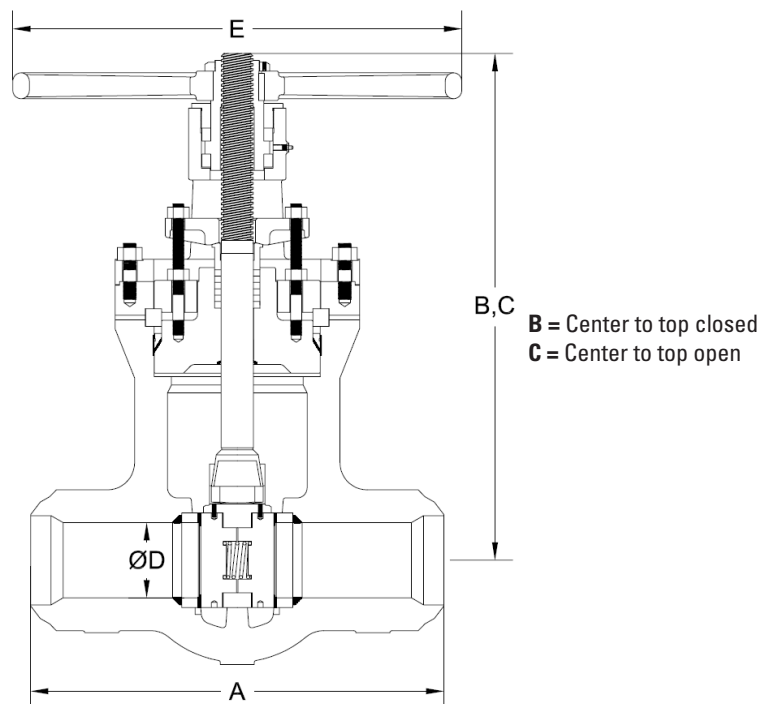
- » Gear, motor, and cylinder actuators available
- » NACE service
- » Special cleaning for applications such as oxygen or chlorine
- » Other options available as specified

PARALLEL SLIDE GATE VALVE DIMENSIONS (CLASSES 600 - 2500)

SIZE in mm	ASME 600					ASME 900					ASME 1500				
	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E	A	B(1)	C(1)	D	E
2	7.0	16.7	19.2	2.00	8.0	8.5	20.7	23.0	1.87	14.0	8.5	21.6	24.0	1.87	14.0
50	178	424	488	51	200	216	526	584	48	356	216	549	608	48	356
2½	8.5	20.6	23.6	2.50	12.0	10.0	22.5	25.1	2.25	14.0	10.0	22.5	25.3	2.25	14.0
65	216	523	599	64	305	254	572	638	57	356	254	572	643	57	356
3	10.0	21.3	24.7	3.00	12.0	12.0	23.8	26.1	2.87	14.0	12.0	24.7	28.1	2.75	16.0
80	254	541	627	76	305	305	605	663	73	356	305	627	714	70	406
4	12.0	25.4	30.0	4.00	14.0	14.0	25.2	29.5	3.87	16.0	16.0	28.7	32.9	3.62	20.0
100	305	645	762	102	356	356	640	750	98	406	406	729	836	92	500
6	18.0	29.6	36.1	6.00	20.0	20.0	30.7	37.1	5.75	20.0	22.0	31.9	38.0	5.37	22.0
150	457	752	917	152	508	508	780	942	146	508	559	810	965	136	560
8	23.0	34.6	43.2	7.88	20.0	26.0	35.6	44.0	7.50	25.0	28.0	36.8	44.6	7.00	28.0
200	584	879	1097	200	508	660	904	1118	191	640	711	935	1133	178	720
10	28.0	40.4	51.0	9.75	25.0	31.0	46.2	55.5	9.37	30.0	34.0	46.5	55.3	8.75	28.0
250	711	1026	1295	248	640	787	1173	1410	238	762	864	1181	1405	222	710
12	32.0	46.5	58.9	11.75	28.0	36.0	61.3	72.4	11.12	30.0	39.0	52.1	62.5	10.37	30.0
300	813	1181	1496	298	680	914	1557	1839	282	762	991	1323	1588	263	762
14	35.0	59.9	65.1	12.88	30.0	39.0	69.9	82.2	12.25	30.0	42.0	66.1	77.5	11.37	36.0
350	889	1521	1654	327	762	991	1775	2088	311	762	1067	1679	1969	289	914
16	39.0	73.2	14.75	18.0	43.0	91.3	14.00	24.0	47.0	79.0	13.00	24.0			
400	991	1859	375	460	1092	2311	356	610	1194	2007	330	610			
18	43.0	80.6	16.50	18.0	48.0	96.7	15.75	24.0	53.0	87.6	14.62	24.0			
450	1092	2047	419	460	1219	2202	400	610	1346	2225	371	610			
20	47.0	91.9	18.25	18.0	52.0	124.7	17.50	24.0	58.0	106.4	16.37	24.0			
500	1194	2334	464	460	1321	3167	445	610	1473	2703	416	610			
24	55.0	116.6	22.00	18.0	61.0	160.1	21.00	24.0	76.5	140.4	19.62	24.0			
600	1397	2962	559	460	1549	4067	533	610	1943	3566	498	610			

(1) Gear operators standard for 16" and up classes 600 to 1500 and 14" and up for class 2500.

SIZE in mm	ASME 2500				
	A	B(1)	C(1)	D	E
2	11.0	19.3	21.4	1.50	12.0
50	279	490	543	38	300
2½	13.0	23.0	27.1	1.87	18.0
65	330	584	688	48	457
3	14.5	23.5	26.4	2.25	18.0
80	368	596	670	57	457
4	18.0	29.2	33.0	2.87	20.0
100	457	742	838	73	508
6	24.0	31.4	36.5	4.37	24.0
150	610	798	928	111	610
8	30.0	41.2	49.2	5.75	24.0
200	762	1069	1250	146	610
10	36.0	47.3	52.6	7.25	30.0
250	914	1201	1336	184	762
12	41.0	54.7	68.7	8.62	36.0
300	1041	1389	1745	219	914
14	44.0	72.2	9.50	24.0	
350	1118	1834	241	610	
16	49.0	80.0	10.87	24.0	
400	1245	2032	276	610	
18	55.0	82.9	12.25	32.0	
450	1397	2106	311	800	



PRESSURE SEAL PARALLEL SEAT GATE VALVES

CAST CARBON, STAINLESS STEEL OR ALLOY STEEL

2 - 24" (5 - 600mm)

ASME CLASSES 600 - 2500

SIZE	ASME 600					ASME 900					ASME 1500					ASME 2500				
	in mm	F	in mm	WT lb kg	CV	F	in mm	WT lb kg	CV	F	in mm	WT lb kg	CV	F	in mm	WT lb kg	CV			
2	28.5		95		240	31.2		95		210	32.2		93		210	32.6		176		140
50	724		43			792		43			817		42			829		80		
2½	31.2		125		390	31.3		125		310	33.8		135		310	35.6		331		220
65	792		56			795		56			859		61			904		150		
3	33.3		143		560	36.4		154		510	37.9		221		470	36.6		331		310
80	846		65			925		70			963		100			929		150		
4	40.0		181		1000	41.4		229		950	44.9		401		830	45.3		522		520
100	1016		82			1052		104			1140		182			1148		237		
6	47.5		364		2400	48.9		518		2200	47.7		760		2000	53.3		840		1300
150	1207		165			1242		235			1212		345			1354		381		
8	56.5		712		4300	58.4		904		3900	59.0		1583		3400	62.2		1852		2300
200	1435		323			1483		410			1499		718			1580		840		
10	67.2		1091		6700	70.2		1820		6200	68.4		2787		5400	74.5		3504		3700
250	1707		495			1783		825			1737		1264			1892		1589		
12	78.6		1616		10000	80.0		2586		9000	80.0		3235		7800	84.6		5420		5400
300	1996		733			2032		1173			2032		1467			2149		2458		
14	87.5		2221		12000	84.5		3421		11000	92.3		5140		9400	98.1		7584		6600
350	2223		1007			2146		1552			2344		2336			2493		3440		
16	97.2		2898		16000	102.4		4291		14000	104.9		6477		12000	114.8		10587		8600
400	2469		1314			2601		1946			2664		2937			2916		4801		
18	108.3		3646		21000	114.5		5164		19000	117.9		7857		16000	117.7		10587		11000
450	2751		1654			2908		2342			2995		3563			2990		4801		
20	119.4		4456		25000	125.3		6005		23000	132.0		9256		20000					
500	3033		2021			3183		2723			3353		4198							
24	144.9		6231		37000	150.5		7463		33000	164.3		11983		29000					
600	3680		2826			3823		3385			4173		5434							

Note: Does not include weight of gear.

WT = Weight
 F = Dismantling Dimension
 CV = Flow Coefficient

