



RAIMONDI

Through conduit valves ideally suited for hydrocarbon applications, including wet and sour gases.

Features

- Designed to meet API 6D specification. Full bore design suitable for pigging and hot tapping and to minimize turbulence and pressure drop.
- Designed to allow in-line valve maintenance. Seats are replaceable without removing the valve from the line.
- Body cavity isolated from flow stream. Designed acc. ASME Boiler and Pressure Vessel code Section VIII div. 1, and ASME B16.34.
- Flanges integral with valve body. Manufactured in accordance with ASME B16.5 and B16.47 "A" type. Flange face finishing available in raised or ring joint type.
- Butt weld end is acc. to ASME B16.25. Design of weld end to prevent any soft seal damage during field welding.
- Stem is completely covered during valve operation.
- Available as integral casting or as a combination of cast center section and fabricated lower section and bonnet (depending on size).
- Reinforcing ribs, where present, do not extend beyond the flange faces.
- Seats are floating, spring actuated and seal in the recess is achieved by o-rings.
- Double block-and-bleed option to facilitate complete flushing, draining and venting of the valve body cavity.
- Prevention of body cavity over-pressure achieved by self-relieving seat ring/ assemblies into the upstream line.



- Valves are supplied with vent and drain to release trapped body pressure and liquids.
- Gland packing repairable under full line pressure.

Technical data

Pressure ratings : ASME 150 to 2500
 Body materials : WCB and other material upon request.
 Temperature (°C) : from -10 to +200
 Sizes (inch) : from 2 to 60

Connection Standards

Flanges : ASME B16.5 and B16.47
 Butt weld : ASME B16.25

General application

Through conduit gate valves are typically suitable for wet, sour, liquid or gaseous hydrocarbon services.

Through Conduit Slab Type Bolted Bonnet Valves

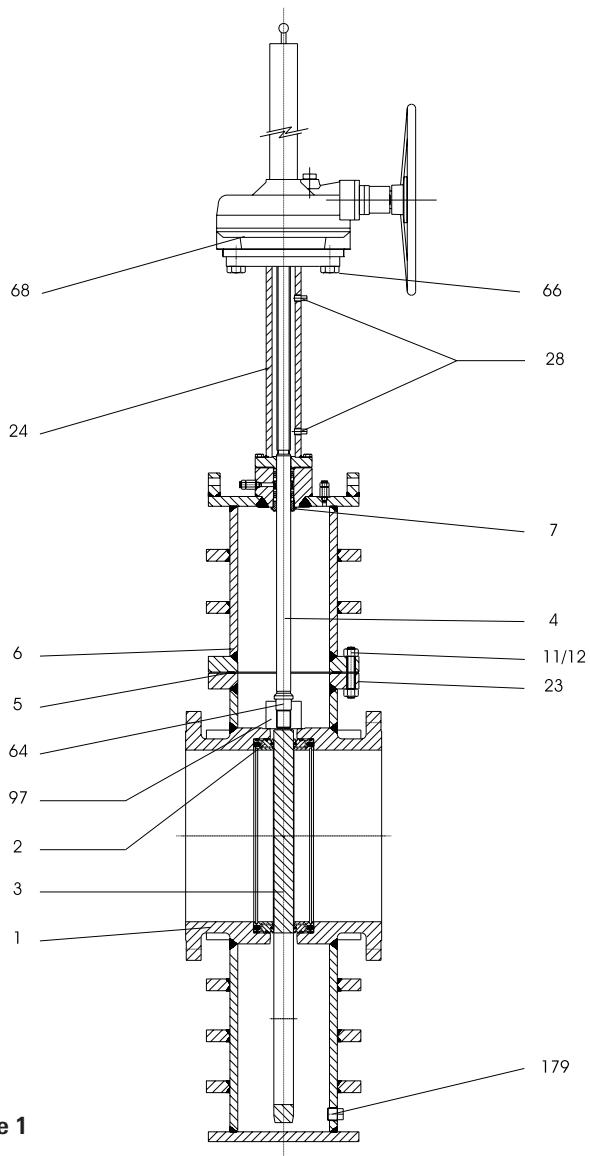


Figure 1

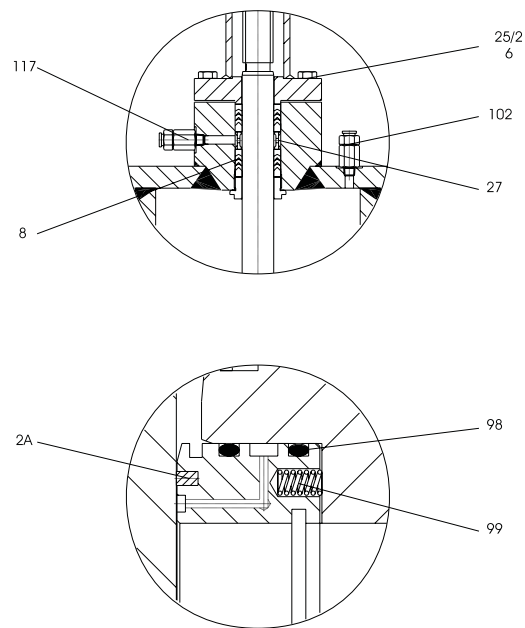


Figure 2

Materials specifications ASME Class 150

Ref.	Description	Material: Carbon Steel/F6	Material: Carbon Steel/F6 Nace
1	Body	A516 Gr 70 + A105	A516 Gr 70 + A105
2	Seat	A105 ENP (1)	A105 ENP (1)
2A	Insert seat	Nylon G12	Nylon G12
3	Gate	A516 Gr 70 ENP (1)	A516 Gr 70 ENP (1)
4	Stem	A182 F6a Cl 2	A564 Gr H1100
5	Gasket	316 reinforced graphite flat type	316 reinforced graphite flat type
6	Bonnet	A516 Gr 70 + A105	A516 Gr 70 + A105
7	Back-seat	A182 F6a Cl 2	A182 F316
8	Packing	PTFE Chevron* type	PTFE Chevron* type
11	Body-bonnet bolts	A193 B7	A193 B7M
12	Body-bonnet nuts	A194 2H	A194 2HM
23	Name plate	Stainless steel	Stainless steel
24	Yoke	A105 + A106 gr B	A105 + A106 gr B
25	Bonnet-yoke bolts	A193 B7	A193 B7M
26	Bonnet-yoke nuts	A194 2H	A194 2HM
27	Lantern ring	A182 F6a Cl 2	A182 F316
28	Plug	A307 Gr B	A307 Gr B
64	Split pin	Stainless steel	Stainless steel
66	Screw	A193 B7	A193 B7
68	Bevel gear	(2)	(2)
97	Stem head	A182 F6a Cl 2	A182 F316
98	O-Ring	Viton 70 sh	Viton 70 sh
99	Spring	Inconel X-750	Inconel X-750
102	Pressure relief	A182 F316	A182 F316
117	Sealant injection	A182 F316	A182 F316
179	Drain	A105	A105

Notes

- (1) ENP 0,75 micron in Thk.
- (2) Thrust bearing in steel; case in ductile iron.

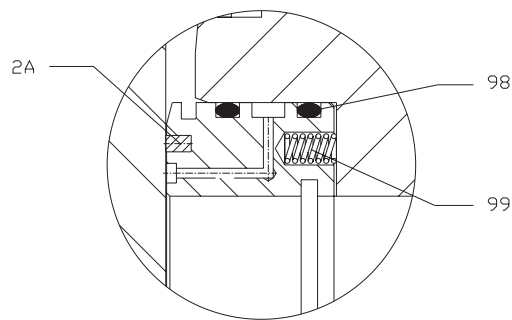
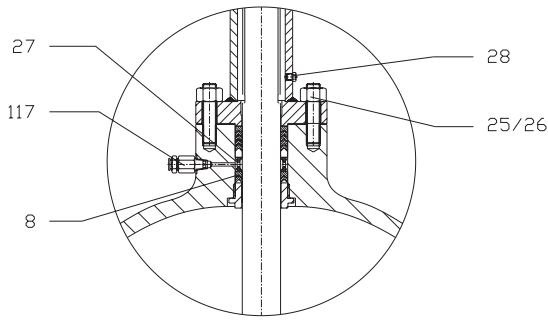


Figure 3

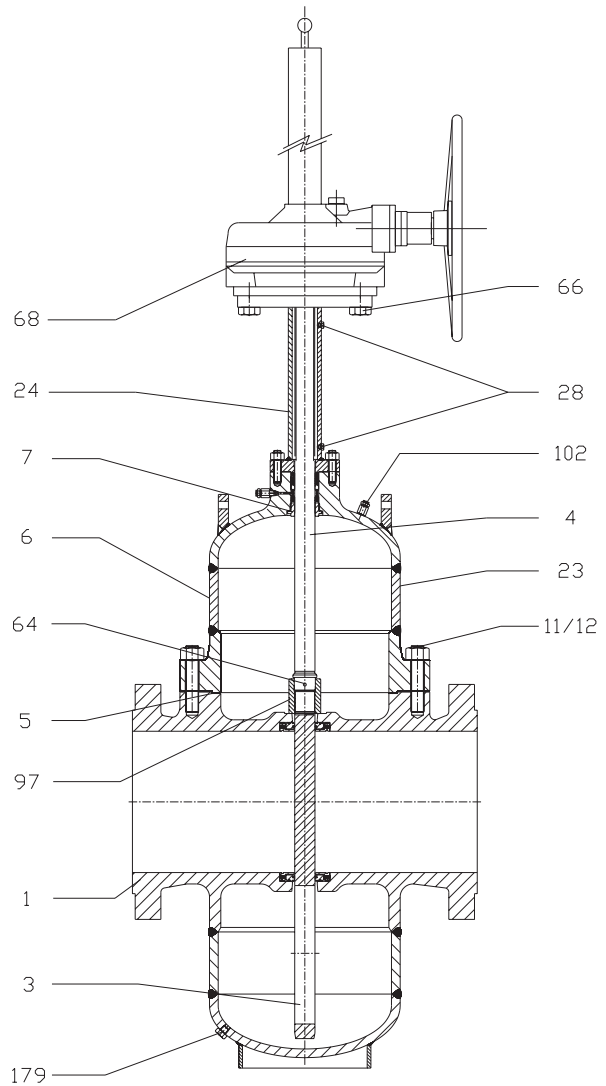


Figure 4

Notes

- (1) ENP 0,75 micron in Thk.
- (2) Thrust bearing in steel; case in ductile iron.

Materials specifications ASME Class 600

Ref.	Description	Material: WCB/F6	Material: WCB/F6 Nace
1	Body	A216 WCB + A516 Gr 70	A216 WCB + A516 Gr 70
2	Seat	A105 ENP + Nylon G12 (1)	A105 ENP + Nylon G12 (1)
2A	Insert seat	Nylon G12	Nylon G12
3	Gate	A516 Gr 70 ENP (1)	A516 Gr 70 ENP (1)
4	Stem	A182 F6a Cl 2	A564 Gr H1100
5	Gasket	316 reinforced graphite flat type	316 reinforced graphite flat type
6	Bonnet	A516 Gr 70 + A105	A516 Gr 70 + A105
7	Back-seat	A182 F6a Cl 2	A182 F316
8	Packing	PTFE Chevron' type	PTFE Chevron' type
11	Body-bonnet bolts	A193 B7	A193 B7M
12	Body-bonnet nuts	A194 2H	A194 2HM
23	Name Plate	Stainless steel	Stainless steel
24	Yoke	A105 + A106 gr B	A105 + A106 gr B
25	Bonnet-yoke bolts	A193 B7	A193 B7M
26	Bonnet-yoke nuts	A194 2H	A194 2HM
27	Lantern ring	A182 F6a Cl 2	A182 F316
28	Plug	A307 Gr B	A307 Gr B
64	Split Pin	Stainless steel	Stainless steel
66	Screw	A193 B7	A193 B7
68	Bevel gear	(2)	(2)
97	Stem Head	A182 F6a Cl 2	A182 F316
98	O-Ring	Viton 70 sh	Viton 70 sh
99	Spring	Inconel X-750	Inconel X-750
102	Pressure relief	A182 F316	A182 F316
117	Sealant injection	A182 F316	A182 F316
179	Drain	A105	A105

Through Conduit Slab Type Bolted Bonnet Valves

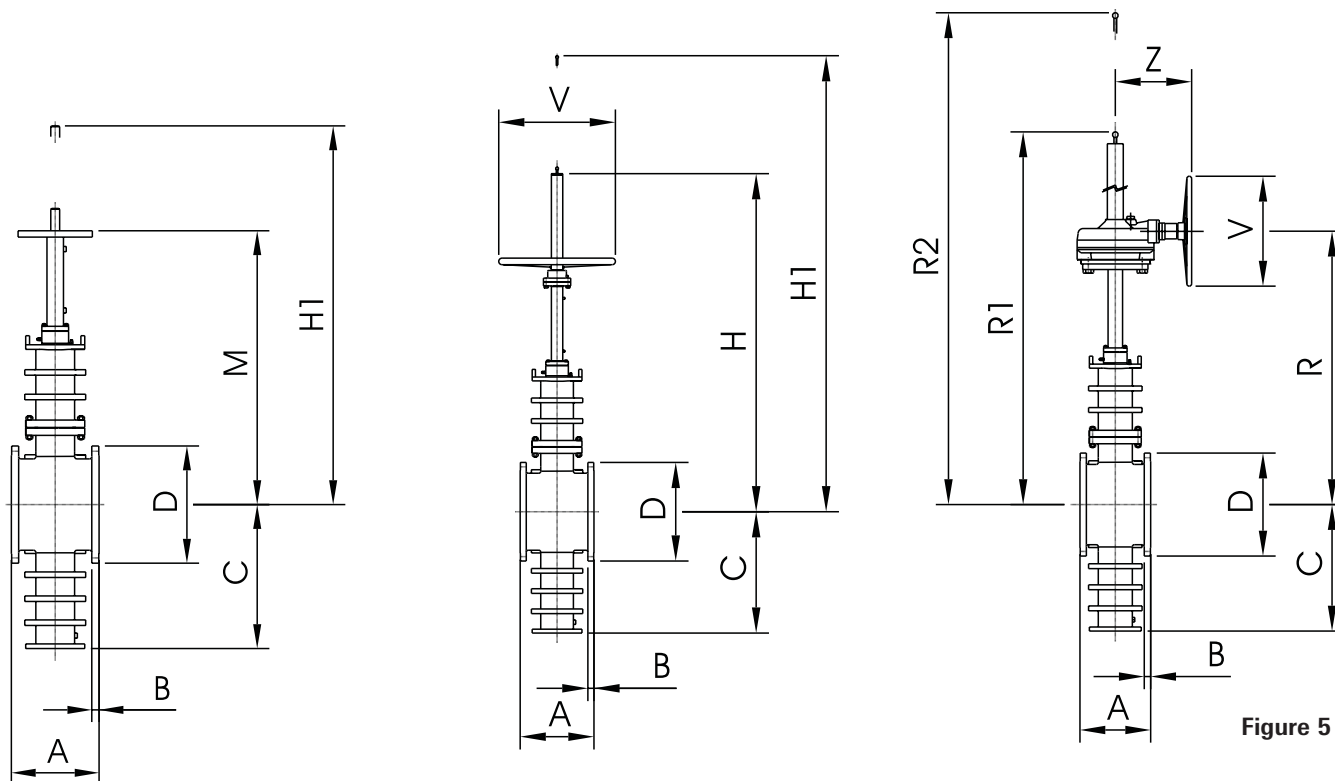


Figure 5

Dimensions and weights ASME Cl. 150

DN (in.)	Dim. A		B	D	C	H	H1	M	R	R1	R2	V	Z	Weight	
	Flanged	Buttweld												Flanged	Buttweld
2	178	216	16	152	220	670	780					200		29	26
2 1/2	190	241	18	178	235	700	830					200		38	33
3	203	282	19	191	255	750	890					250		48	43
4	229	305	24	229	295	850	1010					300		73	63
6	267	403	25	279	370	1030	1240					350		123	103
8	292	419	28	343	450	1220	1480					400		175	155
10	330	457	30	406	525	1400	1710					450		240	215
12	356	502	32	483	605	1590	1950					500		305	265
14	381	572	35	533	650				1150	1595	1965	500	150	513	458
16	406	610	37	597	730				1290	1785	2205	600	150	758	683
18	432	660	40	635	805				1440	1985	2455	600	185	1050	970
20	457	711	43	699	885				1570	2165	2690	600	185	1370	1270
22	508	762	46	749	960				1710	2355	2930	600	185	1825	1710
24	508	813	48	813	1040				1850	2545	3170	600	185	2040	1900
26	559	864	68	870	1105		2910	1975						2450	2225
28	610	914	71	927	1185		3100	2115						2850	2590
30	660	914	75	984	1260		3280	2250						3050	2750
32	711	965	81	1060	1330		3460	2380						3200	2800
34	762	1016	83	1111	1405		3640	2515						4175	3745
36	813	1016	90	1168	1475		3810	2640						4550	4030
38	864	1067	87	1238	1550		4000	2775						5780	5205
40	914	1118	90	1289	1630		4200	2925						6540	5925
42	965	1168	97	1346	1695		4350	3035						7300	6575
48	1118	1321	108	1511	1915		4890	3430						10100	9135
54	1270	1473	120	1683	2140		5450	3840						12300	11000
60	1422	1626	132	1854	2360		5990	4235						14000	12315

Notes

1. Where not indicated, all dimensions are in mm and weight is in kilos.
2. For the diameters not indicated in the tables, please contact supplier.
3. The weight is always referred to the valve completed with the type of actuation indicated by the relevant overall dimensions.

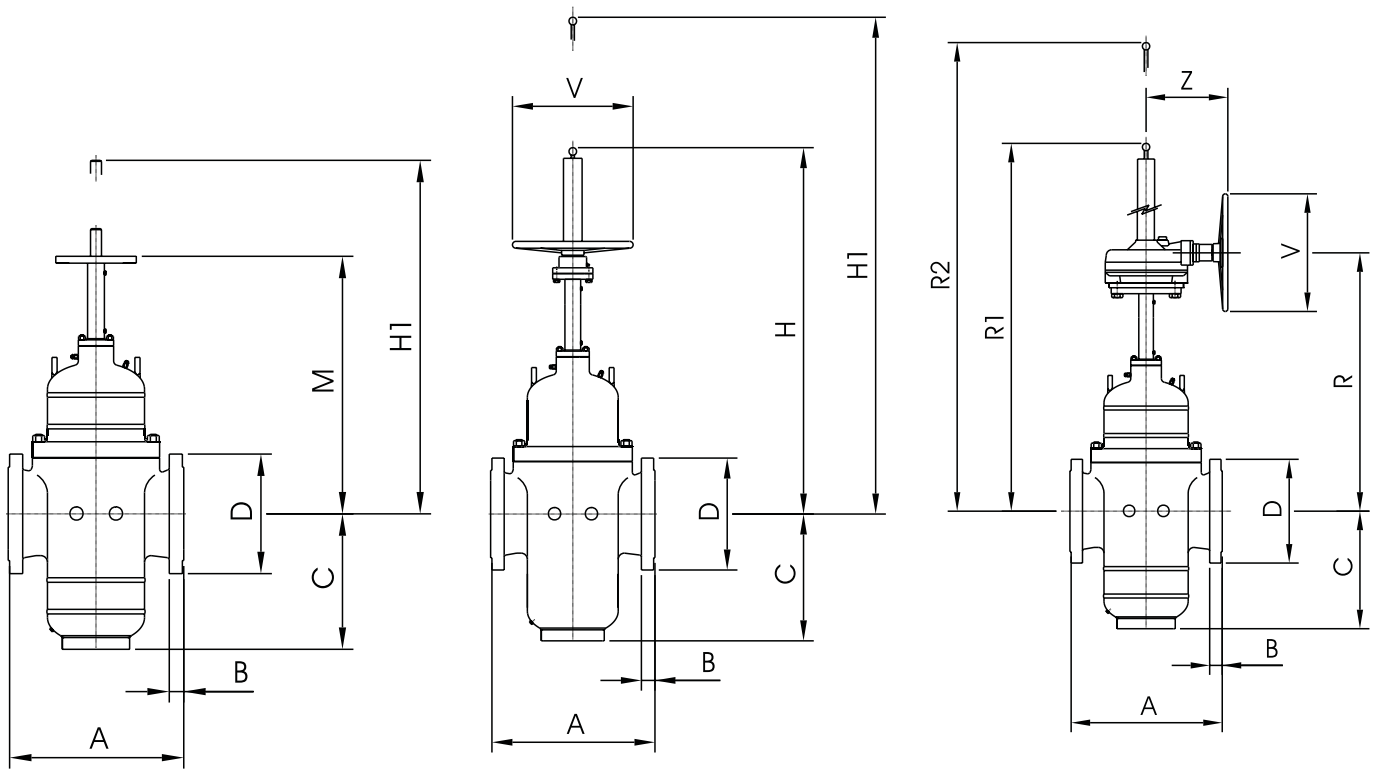


Figure 6

Dimensions and weights ASME Cl. 300

DN (in.)	Dim. A		B	D	C	H	H1	M	R	R1	R2	V	Z	Weight	
	Flanged	Buttweld												Flanged	Buttweld
2	216	216	22	165	220	670	780					200		43	38
2 1/2	242	241	25	191	240	710	830					250		58	51
3	282	282	28	210	260	760	900					250		93	83
4	305	305	32	254	295	850	1010					300		138	121
6	403	403	37	318	375	1030	1250					400		185	160
8	419	419	41	381	455	1230	1500					500		285	245
10	457	457	48	445	535	1430	1740					500		405	345
12	502	502	51	521	610				1115	1510	1850	600	185	575	490
14	762	762	54	584	660				1205	1651	2021	600	185	725	605
16	838	838	57	648	740				1345	1842	2262	600	185	1045	895
18	914	914	60	711	815				1515	2095	2565	800	205	1461	1281
20	991	991	64	775	895				1655	2286	2811	800	205	1831	1611
22	1092	1092	67	838	975				1800	2482	3057	800	205	2331	2066
24	1143	1143	70	914	1050				2105	2680	3305	800	320	2805	2475
26	1245	1245	79	972	1120			2990	2055					3150	2735
28	1346	1346	86	1035	1200			3190	2205					3800	3300
30	1397	1397	92	1092	1275			3370	2340					4500	3925
32	1524	1524	99	1149	1345			3550	2470					4850	4175
34	1626	1626	101	1206	1425			3740	2615					6300	5565
36	1727	1727	105	1270	1490			3900	2730					7000	6145
38	1829	1829	108	1168	1570			4100	2880					8670	8270
40	1930	1930	114	1238	1650			4290	3020					9800	9300
42	2007	2007	119	1289	1715			4470	3150					10950	10395
48	2286	2286	133	1467	1940			5020	3560					15150	14340
54	2489	2489	152	1657	2165			5580	3970					18450	17210
60	2640	2640	132	1854	2390			6140	4380					21000	19570

Notes

1. Where not indicated, all dimensions are in mm and weight is in kilos.
2. For the diameters not indicated in the tables, please contact supplier.
3. The weight is always referred to the valve completed with the type of actuation indicated by the relevant overall dimensions.

Through Conduit Slab Type Bolted Bonnet Valves

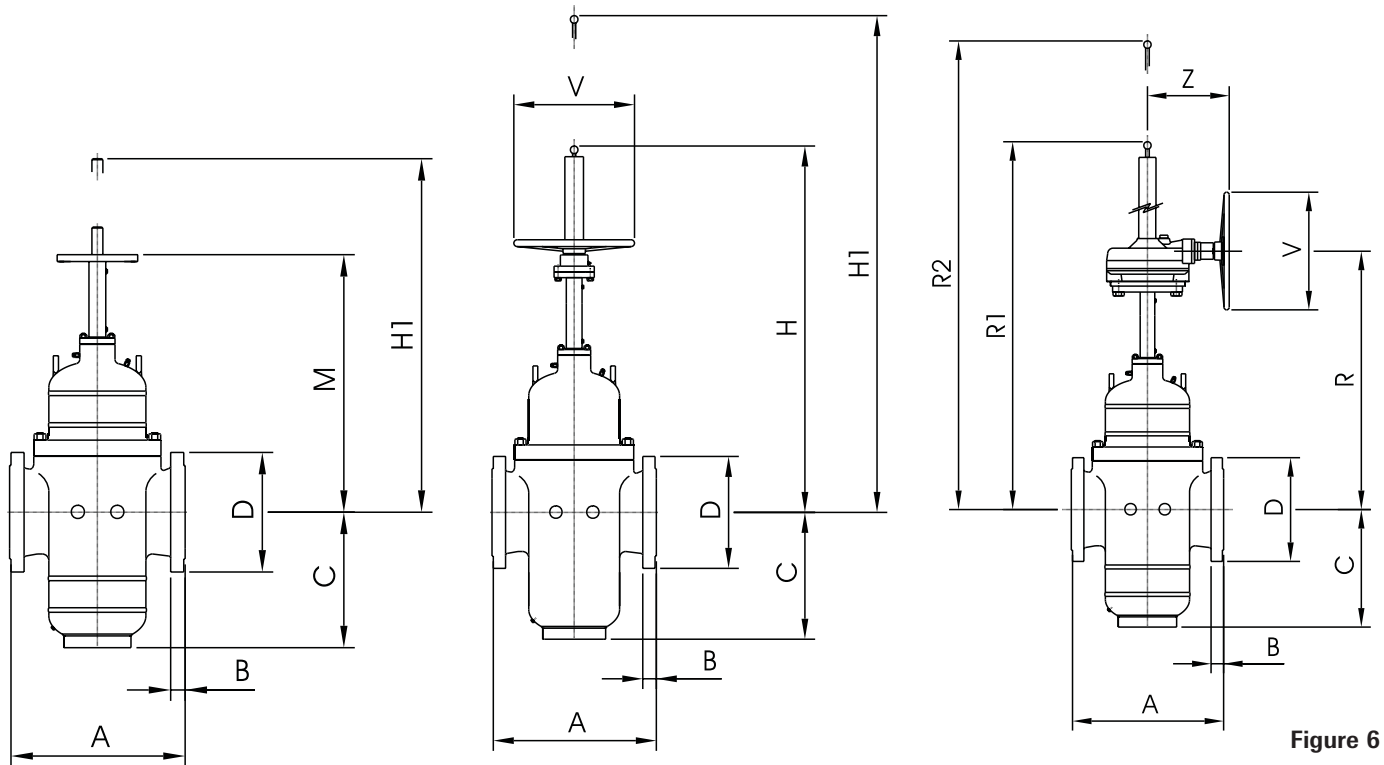


Figure 6

Dimensions and weights ASME Cl. 600

DN (in.)	Dim. A		B	D	C	H	H1	M	R	R1	R2	V	Z	Weight	
	Flanged	Buttweld												Flanged	Buttweld
2	292	292	25	165	225	670	790					200		73	68
2 1/2	330	330	28	191	240	710	830					250		103	95
3	356	356	32	210	265	760	900					300		160	150
4	432	432	38	273	300	850	1020					350		235	212
6	559	559	48	356	385	1060	1270					600		315	267
8	660	660	56	419	465				845	1140	1375	500	150	493	423
10	787	787	64	508	545				1005	1340	1630	600	185	725	608
12	838	838	67	559	625				1155	1550	1890	600	185	975	845
14	889	889	70	603	675				1245	1690	2060	600	185	1355	1195
16	991	991	76	686	755				1425	1955	2375	800	205	1781	1561
18	1092	1092	83	743	835				1730	2155	2625	800	320	2520	2255
20	1194	1194	89	813	915				1915	2395	2920	800	360	3155	2825
22	1295	1295	95	876	995				2150	2645	3220	800	425	4121	3731
24	1397	1397	102	940	1075				2300	2845	3470	800	425	5191	4721
26	1448	1448	108	1016	1145			3080	2145					5720	5125
28	1549	1549	111	1073	1230			3280	2300					6230	5585
30	1651	1651	114	1130	1305			3480	2445					7200	6495
32	1778	1778	117	1194	1380			3650	2575					7770	6965
34	1930	1930	120	1244	1460			3850	2725					10100	9260
36	2083	2083	124	1314	1530			4030	2855					11490	10505
38	2184	2184	152	1270	1610			4230	3010					13900	13130
40	2286	2286	159	1321	1690			4430	3155					15720	14915
42	2438	2438	168	1403	1760			4600	3280					17650	16580
48	2794	2794	189	1594	1990			5180	3715					24250	
54	2950		210	1780	2220			5750	4135					29550	
60	3100		233	1995	2455			6330	4575					33600	

Notes

- Where not indicated, all dimensions are in mm and weight is in kilos.
- For the diameters not indicated in the tables, please contact supplier.
- The weight is always referred to the valve completed with the type of actuation indicated by the relevant overall dimensions.

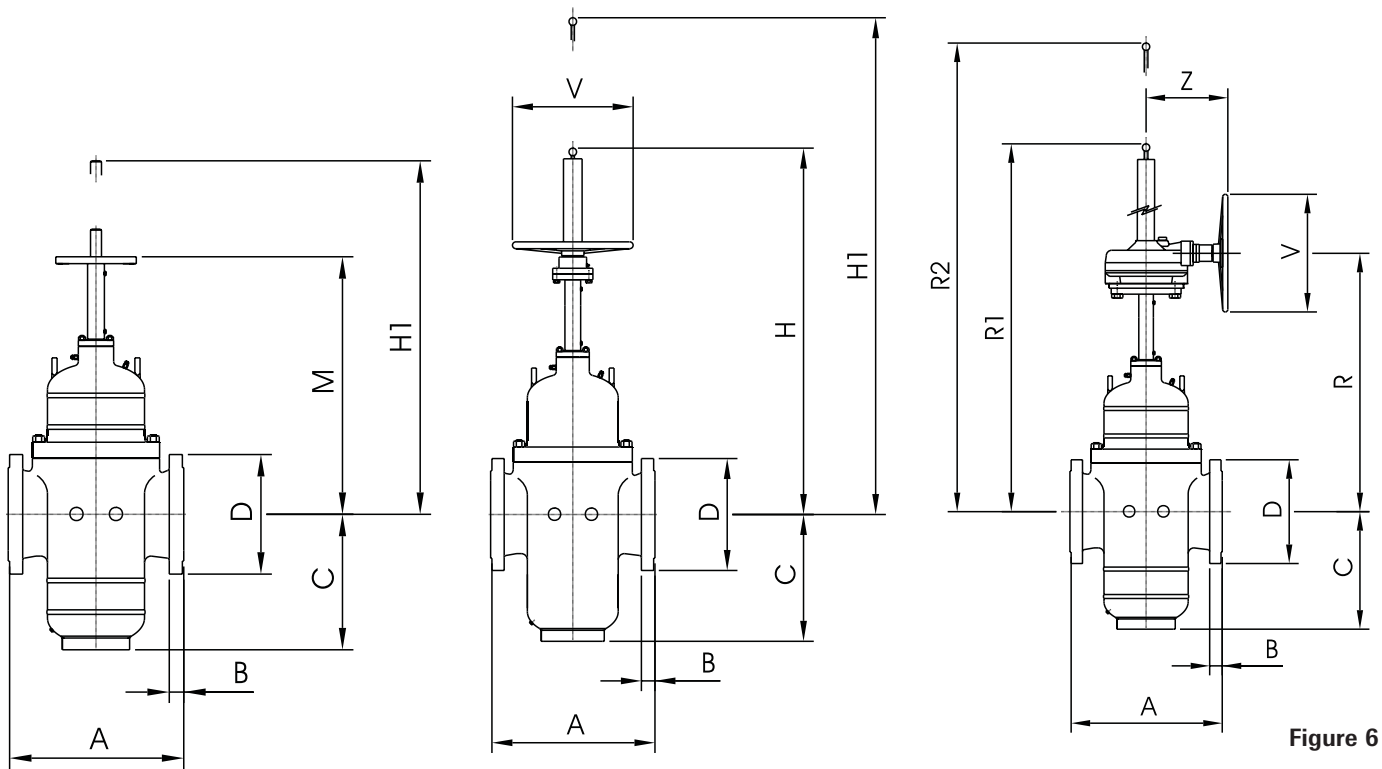


Figure 6

Dimensions and weights ASME Cl. 900

DN (in.)	Dim. A		B	D	C	H	H1	M	R	R1	R2	V	Z	Weight	
	Flanged	Buttweld												Flanged	Buttweld
2	371	368	38	216	225	670	790					300		108	93
2 1/2	422	419	41	244	245	720	850					400		183	163
3	384	381	38	241	270	770	910					400		215	195
4	460	457	44	292	310	870	1040					500		325	295
6	613	610	56	381	390				795	1040	1125	500	150	453	389
8	740	737	64	470	475				965	1260	1355	600	185	715	608
10	841	838	70	546	555				1115	1460	1570	600	185	1040	890
12	965	965	79	610	640				1290	1720	1855	800	205	1421	1227
14	1039	1029	86	641	670				1525	1850	2035	800	320	1970	1738
16	1140	1130	89	705	750				1710	2090	2325	800	360	2630	2360
18	1232	1219	102	787	835				1865	2295	2585	800	360	3645	3262
20	1334	1321	108	857	910				2095	2540	2880	800	425	4596	4128
24	1568	1549	140	1041	1070				2445	2990	3400	800	465	7535	6604
26	1724	1702	140	1086	1150		3090	2170						8375	7433
28	1851	1829	143	1168	1225		3280	2315						9115	7996
30	1981	1959	149	1232	1305		3470	2460						10530	9263
32	2054	2032	159	1314	1380		3660	2605						11435	9887
34	2137	2108	165	1397	1460		3870	2760						14855	13026
36	2213	2184	171	1461	1535		4050	2900						16990	14963

Notes

1. Where not indicated, all dimensions are in mm and weight is in kilos.
2. For the diameters not indicated in the tables, please contact supplier.
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Through Conduit Slab Type Bolted Bonnet Valves

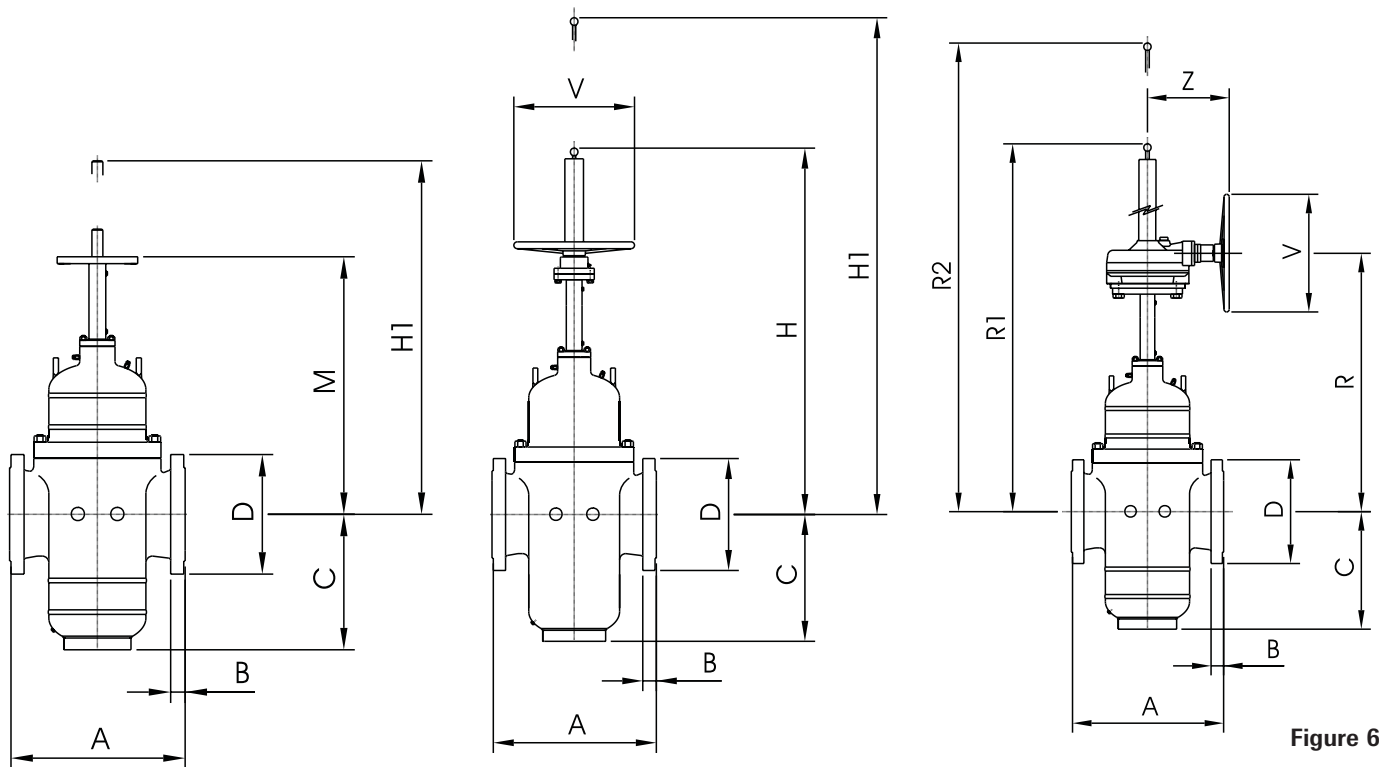


Figure 6

Dimensions and weights ASME Cl. 1500

DN (in.)	Dim. A		B	D	C	H	H1	R	R1	R2	V	Z	Weight	
	Flanged	Buttweld											Flanged	Buttweld
2	371	368	38	216	235	680	800				350		108	93
2 1/2	422	419	41	244	255	730	860				350		188	163
3	473	470	48	267	275	790	930				500		215	190
4	549	546	54	311	320	890	1060				575		395	355
6	711	705	83	394	395			820	1115	1295	600	185	725	635
8	842	832	92	483	480			1005	1385	1610	800	205	1231	1081
10	1001	991	108	584	560			1325	1600	1875	800	320	1725	1475
12	1146	1130	124	673	640			1510	1840	2160	800	360	2415	2030
14	1276	1257	133	749	690			1695	2040	2390	800	425	3401	2871
16	1406	1384	146	826	765			1830	2225	2620	800	425	4401	3716
18	1559	1537	162	914	835			2030	2425	2865	800	465	6090	4425
20	1686	1664	178	984	910			2165	2560	3040	800	465	7590	5465
24	1971	1943	203	1168	1060			2445	2940	3510	800	505	12500	9085

Dimensions and weights ASME Cl. 2500

DN (in.)	Dim. A		B	D	C	H	H1	R	R1	R2	V	Z	Weight	
	Flanged	Buttweld											Flanged	Buttweld
2	233	451	51	235	230	680	790				350		223	198
2 1/2	256	508	57	267	250	730	850				350		353	318
3	271	578	67	305	265	760	890				500		400	345
4	325	673	76	356	315			690	735	860	600	185	625	550
6	408	914	108	483	395			865	945	1110	600	205	1426	1226
8	501	1022	127	552	485			1235	1165	1380	800	320	2375	2110
10	587	1270	165	673	565			1485	1380	1640	800	425	4051	3526
12	662	1422	184	762	640			1680	1575	1875	800	465	5090	4365

Notes

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2. For the diameters not indicated in the tables, please contact supplier.
3. The weight is always referred to the valve completed with the type of actuation indicated by the relevant overall dimensions.