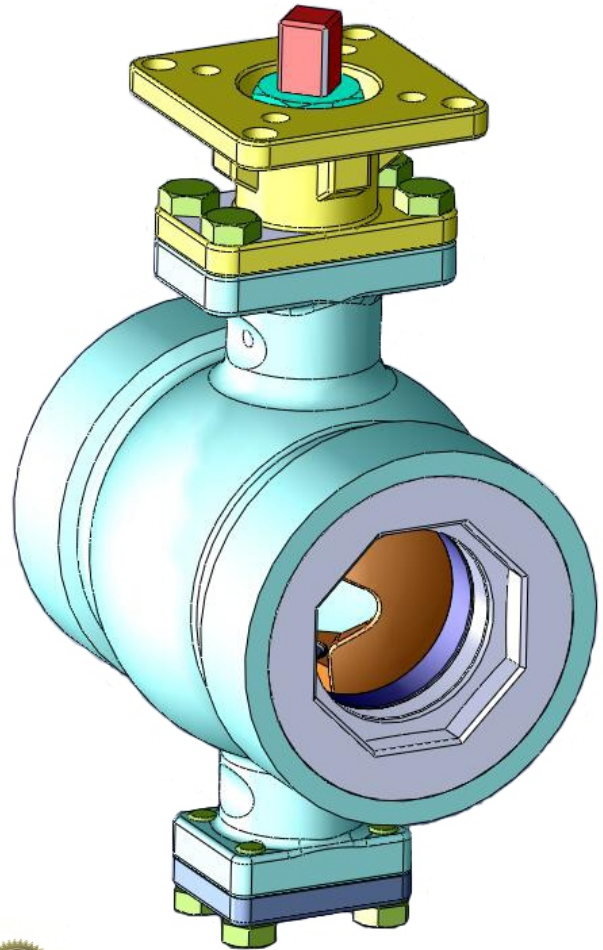


## DESIGN FEATURES

- Size Range 1-1/2" - 8"
- ISO 5211 Direct Mount Design
- ANSI Class 600
- Live Loaded Packing
- Protected Bearings, Top & Bottom
- Easy Installation and Versatility
- Standard ISA 75.04 face-to-face;  
Option: ANSI B16.10 short pattern
- Extremely low actuator torque
- Reduced trim option
- Cavitation trim option
- WCB, 316SS, 317SS, and other alloy materials
- Metal Seated



**Patent Number: US 8,398,055 B2**

## ORDERING SCHEMATIC

Series	Body	Trim	Port	Packing	Seat	End Connections																																		
DM 9900	<table border="1"> <tr><td>2</td><td>WCB</td></tr> <tr><td>3</td><td>316SS</td></tr> <tr><td>4</td><td>Alloy 20</td></tr> <tr><td>6</td><td>317SS</td></tr> <tr><td>7</td><td>Hastelloy C</td></tr> <tr><td>9</td><td>Duplex</td></tr> </table>	2	WCB	3	316SS	4	Alloy 20	6	317SS	7	Hastelloy C	9	Duplex	<table border="1"> <tr><td>2</td><td>WCB</td></tr> <tr><td>3</td><td>316SS</td></tr> <tr><td>4</td><td>Alloy 20</td></tr> <tr><td>6</td><td>317SS</td></tr> <tr><td>7</td><td>Hastelloy C</td></tr> <tr><td>9</td><td>Duplex</td></tr> </table>	2	WCB	3	316SS	4	Alloy 20	6	317SS	7	Hastelloy C	9	Duplex	<table border="1"> <tr><td>F</td><td>Full Port</td></tr> <tr><td>R</td><td>Red. Port</td></tr> </table>	F	Full Port	R	Red. Port	<table border="1"> <tr><td>G</td><td>Graphoil</td></tr> </table>	G	Graphoil	<table border="1"> <tr><td>M</td><td>Metal</td></tr> </table>	M	Metal	<table border="1"> <tr><td>W</td><td>ANSI 600 Wafer</td></tr> </table>	W	ANSI 600 Wafer
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M	Metal																																							
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## DESCRIPTION

The segmented V-port ball control valve provides excellent modulating control with obstruction free design.

The uni-body construction gives increases structural integrity and minimized leaks through body joints.

The specially designed compound V opening provides precise equal percentage flow control with small incremental opening in the lower end of the valve rotation and high flow capacity in the upper end. The nearly wide open at full open, along with recessed bearings virtually eliminates plugging/clogging of the valve.



## DESIGN AND CONSTRUCTION

The valve's design allows control of the most fluids used in many industries. The valve is suitable for fibers, particles in suspension, dirty, clean, viscous, and corrosive fluids, gas, steam, and especially pulp and paper applications.

The valve can be supplied with a variety of actuators, positioners, limit switches/transmitters, or other top works accessories.



## OPERATION

The valve can be direct mounted (no mounting bracket or coupling) to:

- J-Flow's JFD spring & diaphragm actuators,
- J-Flow's JFC rack & pinion actuators, or
- J-Flow's JFE electric actuators

They can be controlled with a variety of J-Flow positioners:

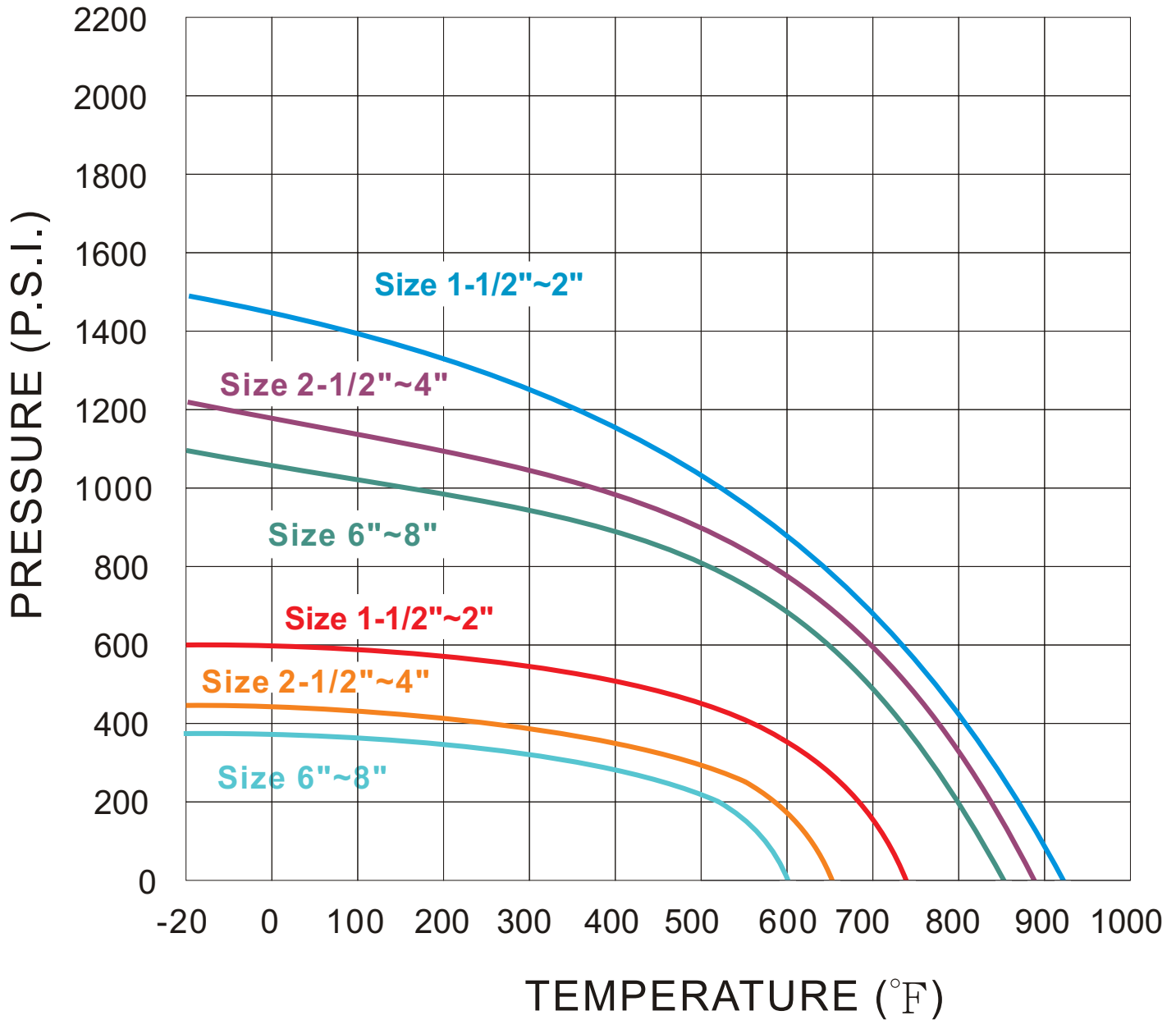
- Pneumatic
- Electro-pneumatic
- Digital Smart

There are two actuator mounting options.

- The standard connection is direct mount compatible with any ISO5211 standard actuator. Optional splined connection for the installation of diaphragm actuators with DSY-DSZ conversions.



**PRESSURE DIFFERENTIAL / TEMPERATURE CHART**



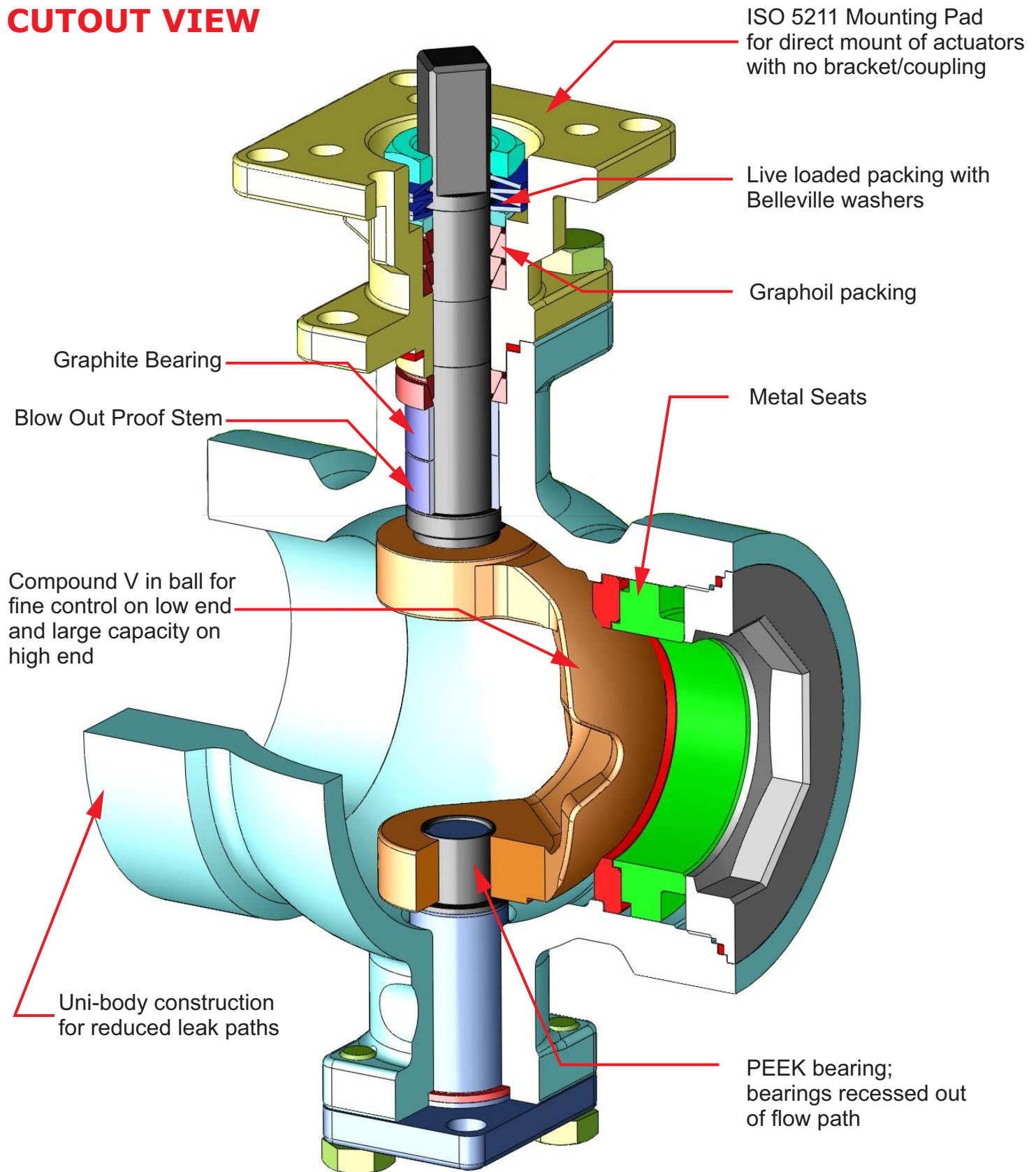
For seat in shut-off service

— 1-1/2"~2"    — 2-1/2"~4"    — 6"~8"

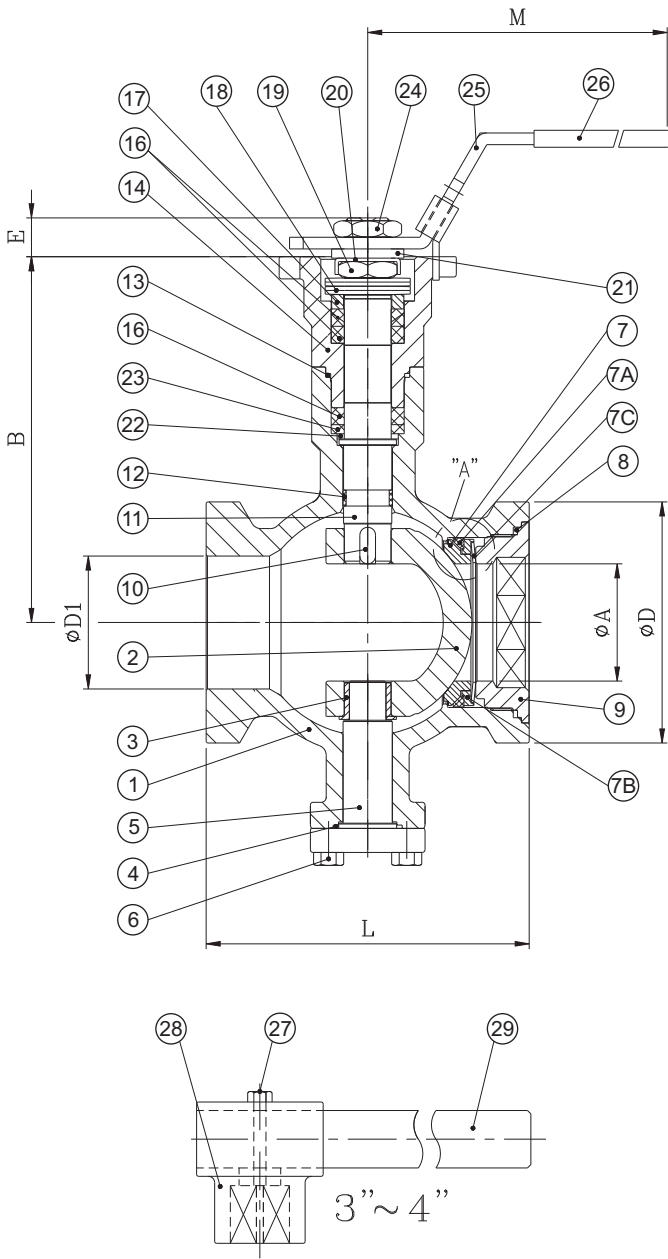
For seat in control service

— 1-1/2"~2"    — 2-1/2"~4"    — 6"~8"

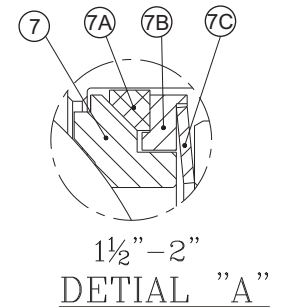
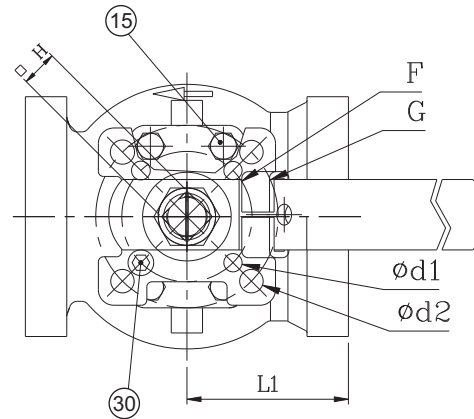
## CUTOUT VIEW



**DM9900-W SERIES - 1.5" - 4" ANSI 600 WAFER  
(METAL SEATED)**

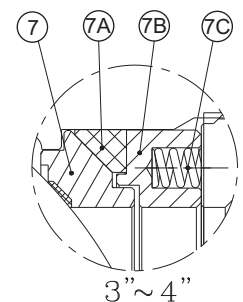


NO.	NAME OF PARTS	MATERIALS	OPTION
1	BODY	A351 Gr. CF8M	A216 Gr. WCB
2	BALL SEGMENT	CF8M+HARD CHROME	-
3	BEARING	PEEK	-
4	GASKET	GRAPHITE	-
5	BOTTOM CAP	A351 Gr. CF8M	A216 Gr. WCB
6	BOTTOM CAP BOLTS	SS 304	-
7	METAL SEAT	SS316+STELLITED	-
7A	SEAT BACK SEAL	GRAPHITE	-
7B	SEAT HOUSING	SS 316	-
7C	SPRING DISK(1-1/2"~2")	INCONEL	-
	SEAT SPRING(3"~4")	INCONEL	-
8	INSERT GASKET	GRAPHITE	-
9	INSERT CAP	A351 Gr. CF8M	A216 Gr. WCB
10	KEY	SS 316	-
11	STEM	SS 630(17-4PH)	-
12	BEARING	PEEK	-
13	BONNET GASKET	GRAPHITE	-
14	BONNET	A351 Gr. CF8M	A216 Gr. WCB
15	BONNET BOLTS	SS 304	-
16	STEM PACKING	GRAPHITE	-
17	GLAND	SS 304	-
18	BELLEVILLE WASHER	17-7PH	-
19	STEM NUT	SS 304	-
20	NUT STOP	SS 304	-
21	SPACE WASHER	SS 316	-
22	THRUST WASHER	PEEK	-
23	THRUST BACK	SS316	-
24	HANDLE NUT	SS 304	-
25	LOCK HANDLE	SS 304	-
26	HANDLE COVER	PLASTISOL	-
27	SET BOLT	SS 304	-
28	LEVER HEAD	A351 CF8	-
29	LEVER	STEEL PIPE	-
30	STOP PIN	SS 304	-

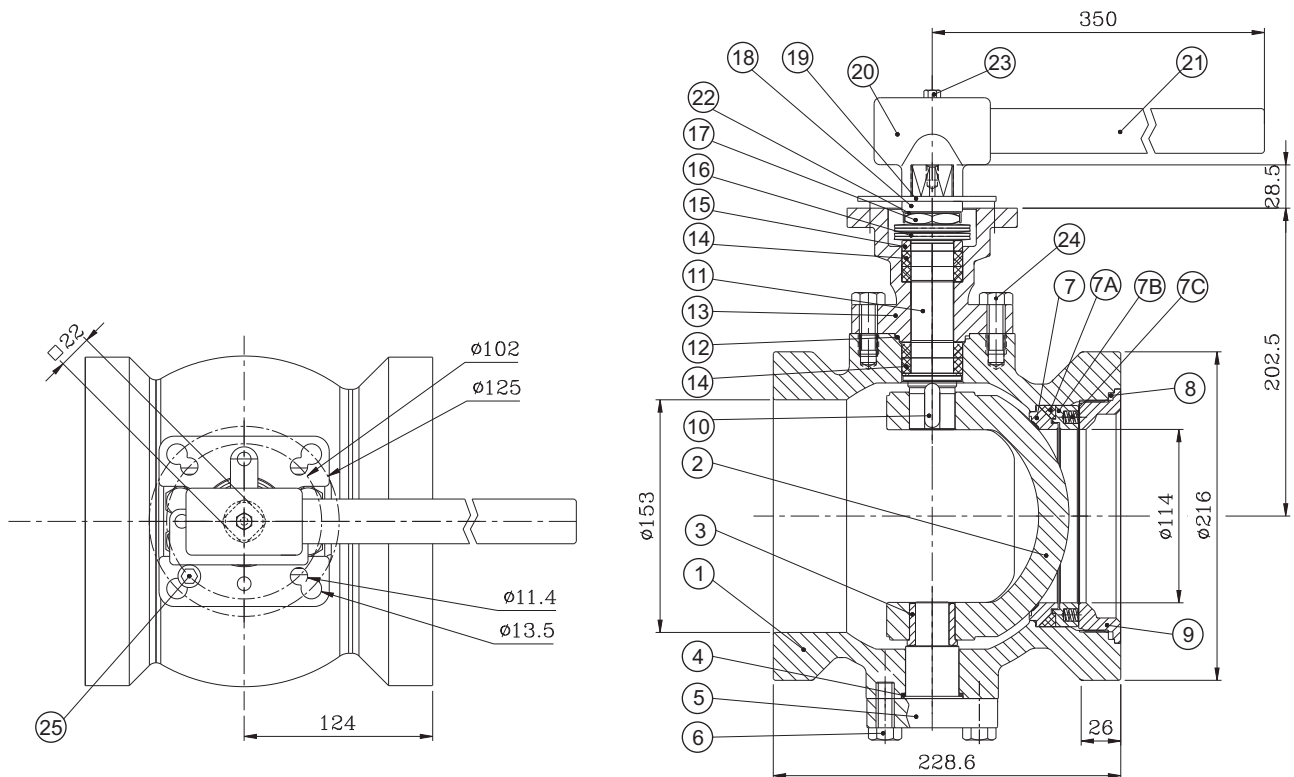


UNIT: MM/INCH

SIZE		A	B	D	E	M	L(ISA)	L1	H	D1	F	G	d1	d2
1 1/2"	MM	34	121.6	73.2	14	205	114	57	14	38.1	50	70	7.2	9.3
	INCH	1.338	4.787	2.88	0.551	8.070	4.50	2.244	0.551	1.500	1.969	2.756	0.283	0.366
2"	MM	45	140.3	91.9	14	205	124	62	14	50.8	50	70	7.2	9.3
	INCH	1.772	5.523	3.62	0.551	8.070	4.88	2.441	0.551	2.000	1.969	2.756	0.283	0.366
3"	MM	66	169	127	21	310	165.1	87	17	83.5	70	102	9.2	11.4
	INCH	2.598	6.653	5.00	0.826	12.204	6.50	0.425	0.669	3.287	2.756	4.016	0.362	0.449
4"	MM	80.2	183	157.2	21	310	193.5	102.8	17	98.5	70	102	9.2	11.4
	INCH	3.157	7.204	6.19	0.826	12.204	7.62	4.047	0.669	3.877	2.756	4.016	0.362	0.449

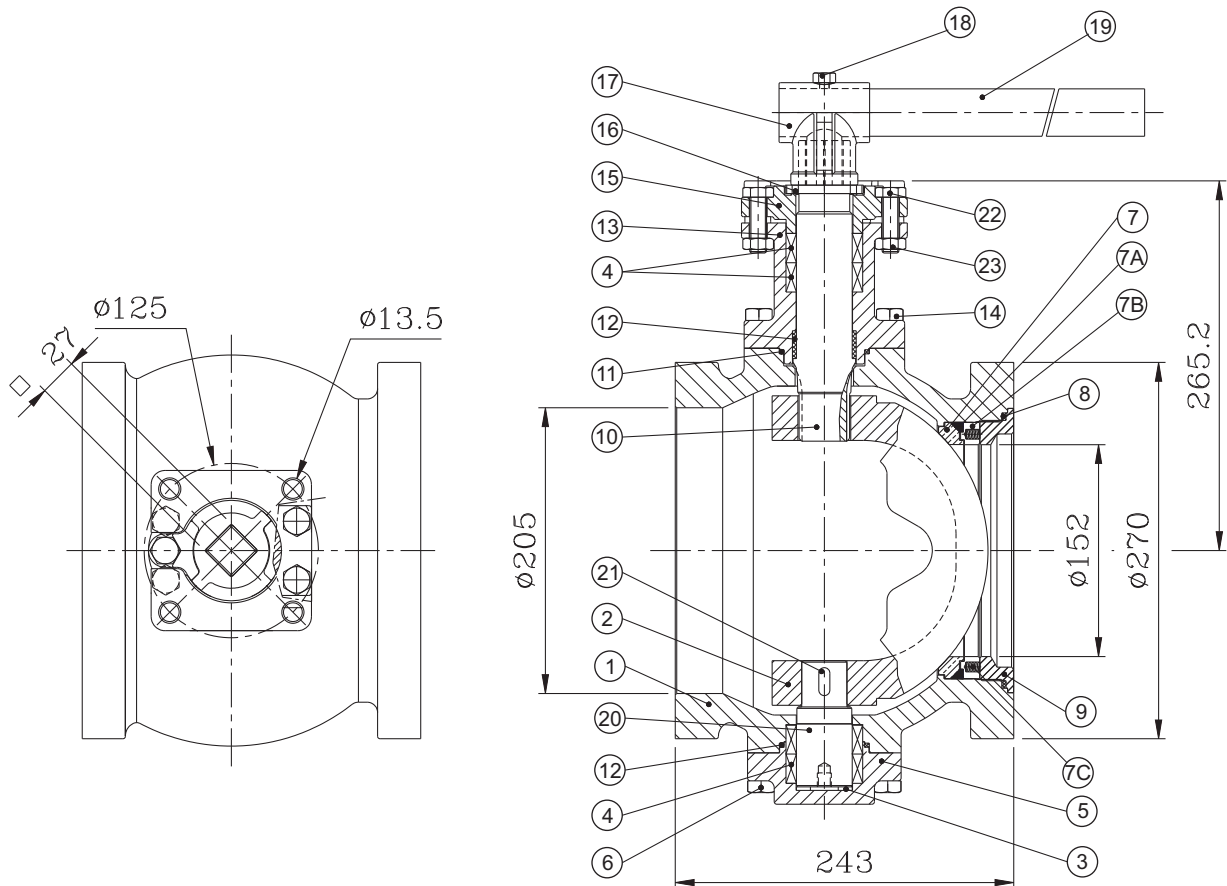


**DM9900-W SERIES - 6" ANSI 600 WAFER  
(METAL SEATED)**



NO.	NAME OF PARTS	MATERIALS OPTION	
1	BODY	A351 Gr. CF8M	A216 Gr. WCB
2	BALL SEGMENT	CF8M+HARD CHROME	-
3	BEARING	PEEK	-
4	GASKET	GRAPHITE	-
5	BOTTOM CAP	A351 Gr. CF8M	A216 Gr. WCB
6	BOTTOM CAP BOLTS	SS 304	-
7	METAL SEAT	SS316+STELLITED	-
7A	BACK SEAL	GRAPHITE	-
7B	HOUSING	SS 316	-
7C	COMPRESSION SPRING	INCONEL	-
8	INSERT GASKET	GRAPHITE	-
9	INSERT CAP	A351 Gr. CF8M	A216 Gr. WCB
10	KEY	SS 316	-
11	STEM	SS 630(17-4PH)	-
12	BONNET GASKET	GRAPHITE	-
13	BONNET	A351 Gr. CF8M	A216 Gr. WCB
14	STEM PACKING	GRAPHITE	-
15	GLAND	SS 304	-
16	BELLEVILLE WASHER	17-7PH	-
17	STEM NUT	SS 304	-
18	GLAND SPACE	SS 304	-
19	STOP PLATE	SS 304	-
20	HANDLE HEAD	A351 Gr. CF8	-
21	HANDLE TUBE	CARBON STEEL	-
22	NUT STOP	SS 304	-
23	SET BOLT	SS 304	-
24	BONNET BOLTS	SS 304	-
25	STOP PIN	SS 304	-

**DM9900-W SERIES - 8" ANSI 600 WAFER  
(METAL SEATED)**



NO.	NAME OF PARTS	MATERIALS OPTION	
1	BODY	A351 Gr. CF8M	A216 Gr. WCB
2	BALL SEGMENT	CF8M+HARD CHROME PLATE	
3	THRUST WASHER	17-4PH	
4	STEM PACKING	GRAPHITE	
5	BOTTOM CAP	A351 Gr. CF8M	A216 Gr. WCB
6	BOTTOM BOLTS	SS 304	
7	SEAT	SS316+STELLITED	
7A	SEAT BACK SEAL	GRAPHITE	
7B	SEAT HOUSING	SS 316	
7C	SEAT SPRING	INCONEL	
8	INSERT GASKET	GRAPHITE	
9	INSERT CAP	A351 Gr. CF8M	A216 Gr. WCB
10	STEM	17-4PH	
11	BONNET GASKET	GRAPHITE	
12	BEARING	PEEK	
13	BONNET	A351 Gr. CF8M	A216 Gr. WCB
14	BONNET BOLTS	SS 304	
15	GLAND	A351 Gr. CF8	
16	STOP PLATE	SS 304	
17	HANDLE HEAD	SS 304	
18	SET BOLT	SS 304	
19	HANDLE TUBE	CARBON STEEL	
20	BOTTOM STEM	SS 316	
21	KEY	SS 316	
22	GLAND BOLTS	SS 304	
23	NUTS	SS 304	