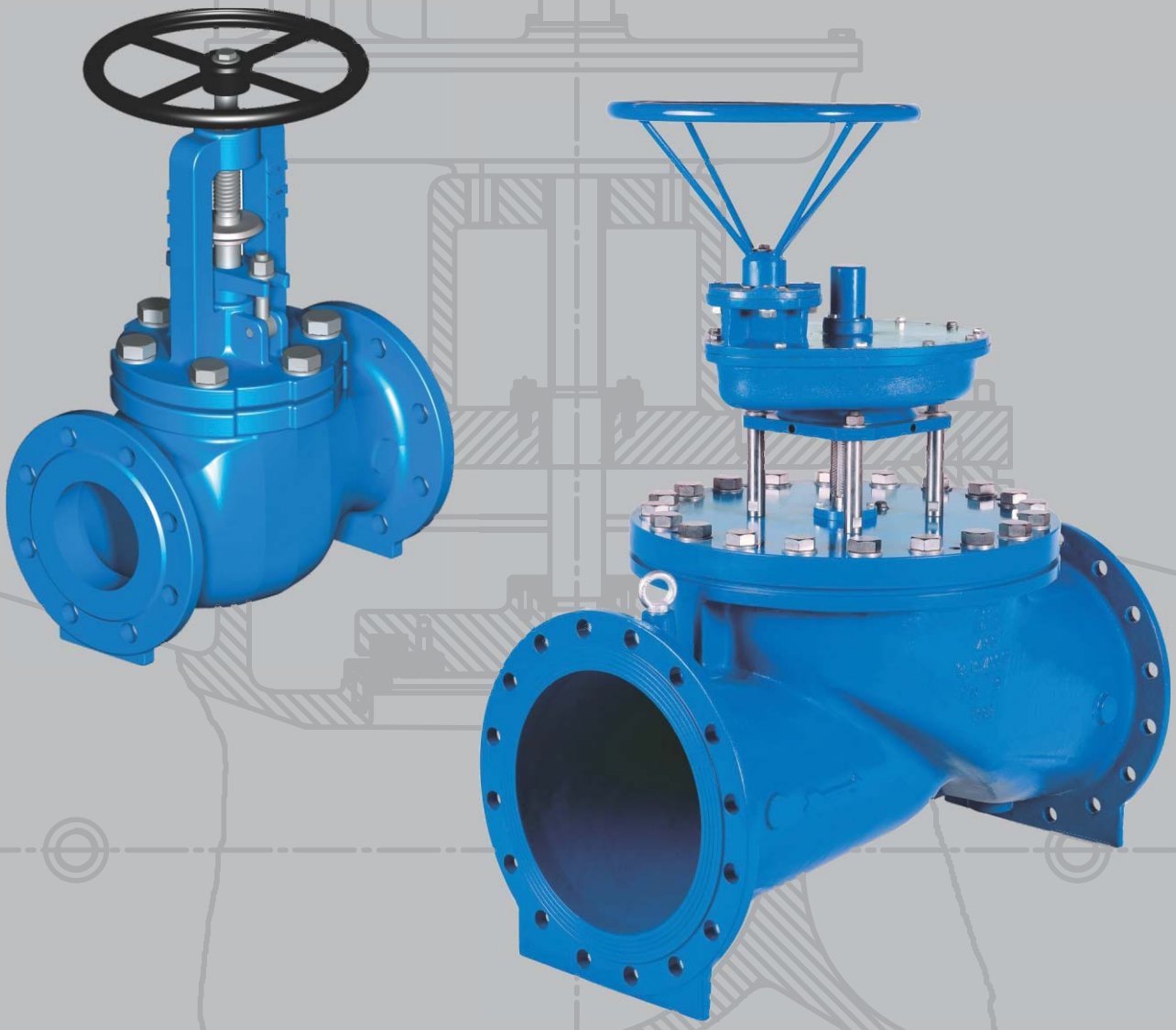
MIRAB CO.

Manufacturer of Industrial Valves
and Relevant Equipment

Globe Valves



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Globe Valves

Size: DN 50 – DN 1000 mm
Pressure: PN 10 – PN 25 bar
Face to Face according to: DIN EN 558 – 1 series 1 (DIN 3202 – F1)
Flanges according to: DIN EN 1092-2 (DIN 2501)

Product Features:
Mirab Globe Valves are made of cast iron in body & stainless steel in seat ring, profile sealing ring is EPDM or NBR. These valves are designed for easy repair or changing part without dismantling from pipe line. These valves are available with manual hand-wheel or electrical actuator for operation.

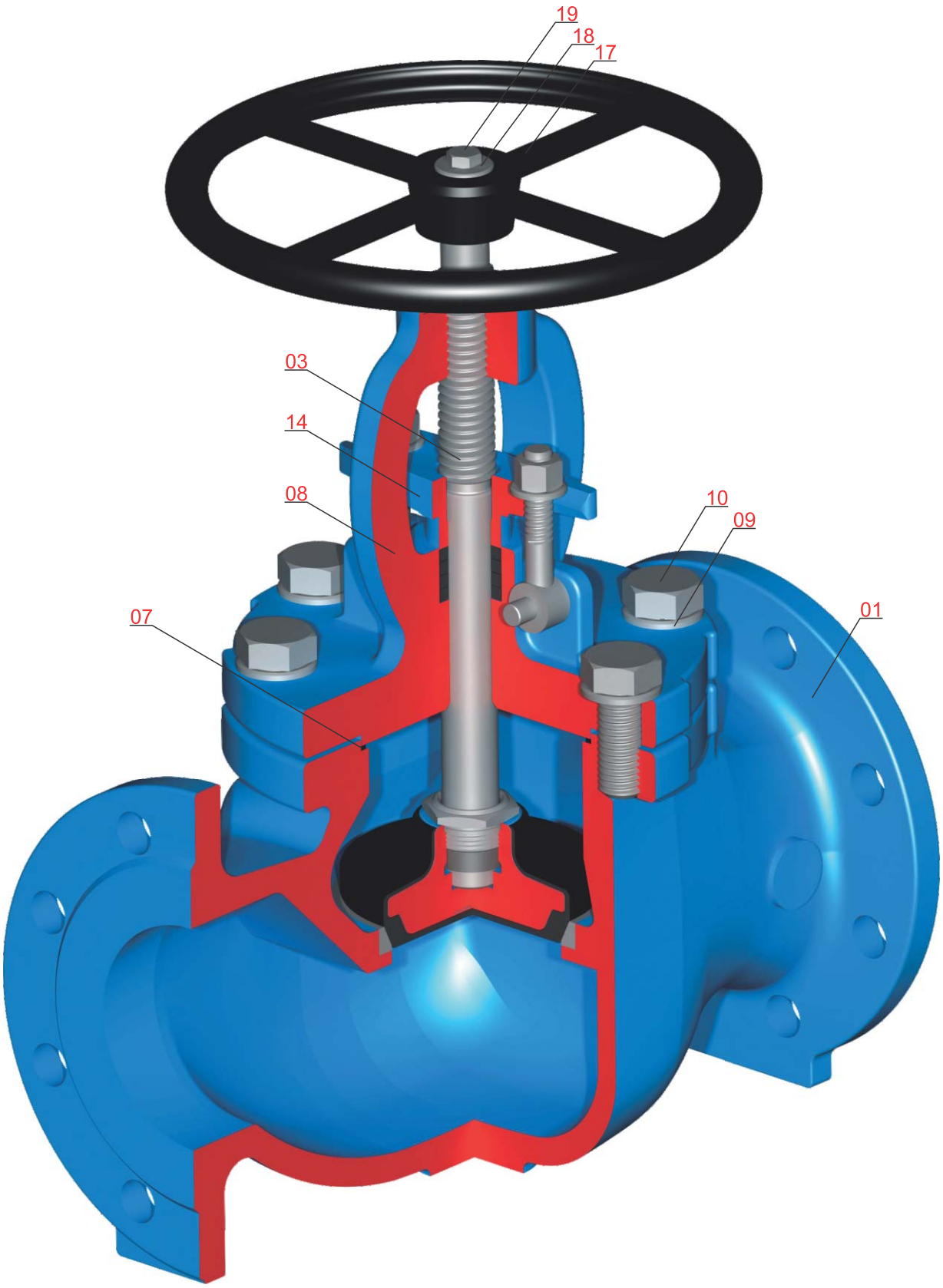
Application:
Globe Valve is used as a flow rate regulating valve. This valve can be used in water supply networks – pipelines - industrial piping and …

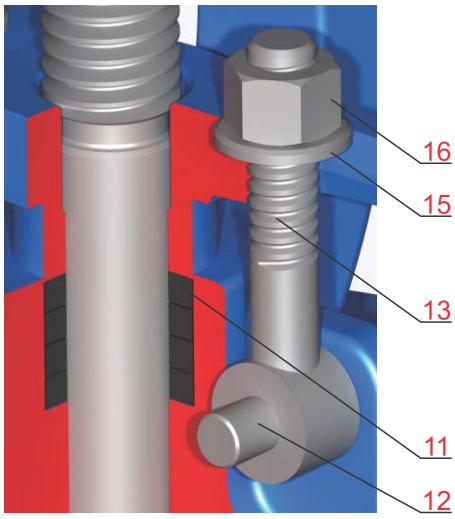
Corrosion Protection:
Body is fully coated with blue electrostatic powder coating (min 250µ thickness).

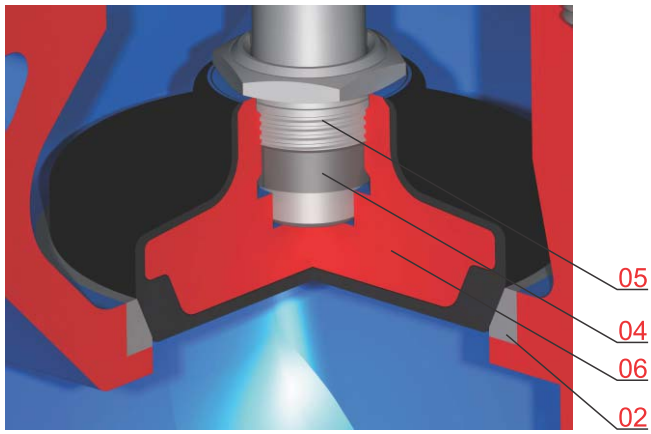
Actuators:
These valves are produced by hand-wheel as default, other types such as hydraulic, pneumatic & electrical actuators are available upon request.

Hydrostatic test Pressure (bar) according to DIN EN 12266-1		
Nominal Pressure (bar)	Pressure Test with water (bar)	
	Shell Test	Closure Test
10	17	11
16	25	18
25	38	28

Part List DN50-DN250



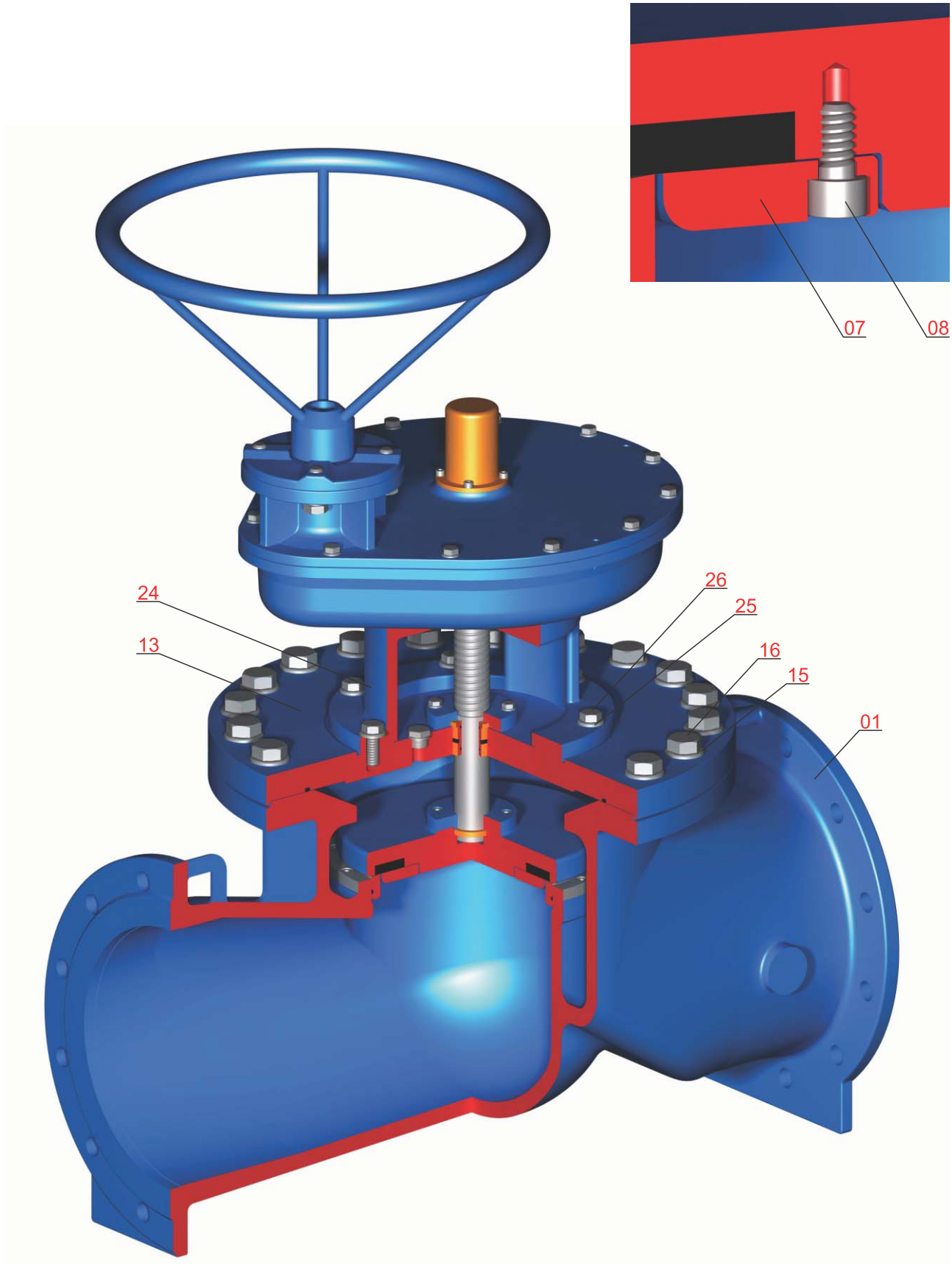


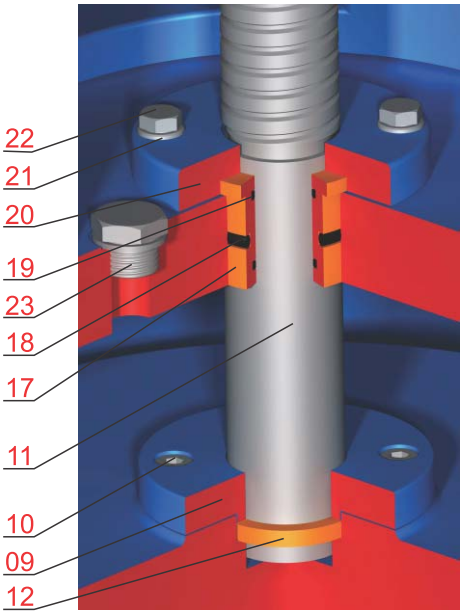


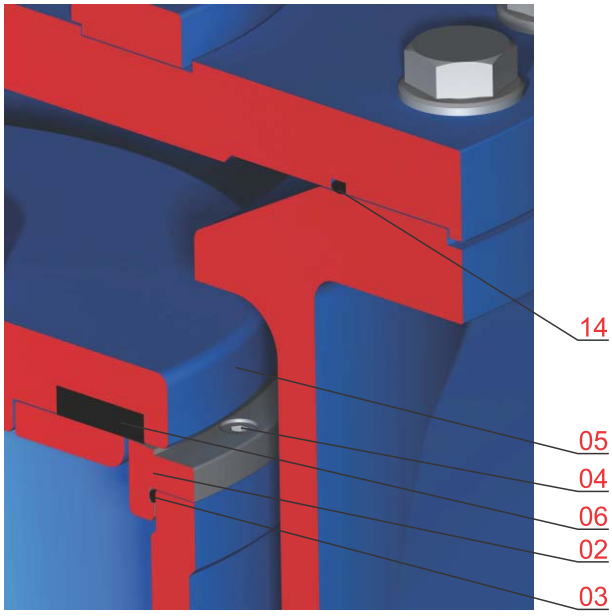
Part No.	Part Name	Part Material	1	2
01	Body	*EN 1563/ EN-GJS-400-15		
02	Seat Ring	DIN EN 10088-3/ 1.4301		
03	Stem	DIN EN 10088-3/ 1.4021	●	
04	Washer	DIN EN 10088-3/ 1.4301	●	
05	Luck nut	DIN EN 10088-3/ 1.4301	●	
06	Disc fully covered with Rubber	EN 1563/ EN-GJS-400-15/EPDM (NBR on Request)	●	●
07	O-Ring	NBR (EPDM on Reqeust)	●	●
08	Bonnet	*EN 1563/ EN-GJS-400-15		
09	Washer	ISO 3506-2, Gr. A2, Property Class 70		
10	Hexagonal Bolt	ISO 3506-1, Gr. A2, Property Class 70		
11	Packing	Graphite	●	●
12	Pin	DIN EN 10088-3/ 1.4021		
13	Eye bolt	ISO 898-1, Property Class 8.8, Zinc Plated		
14	Gland	EN 1563/ EN-GJS-400-15		
15	Washer	ISO 898-2, Property Class 8, Zinc Plated		
16	Nut	ISO 898-2, Property Class 8, Zinc Plated		
17	Handwheel	EN 1563/ EN-GJS-400-15		
18	Washer	ISO 898-2, Property Class 8, Zinc Plated		
19	Nut	ISO 898-2, Property Class 8, Zinc Plated		

1-Recommended Spare Parts
2-Parts Subjected to Wear
*EN-GJS-500-7 available on request.

Part List DN300-DN1000



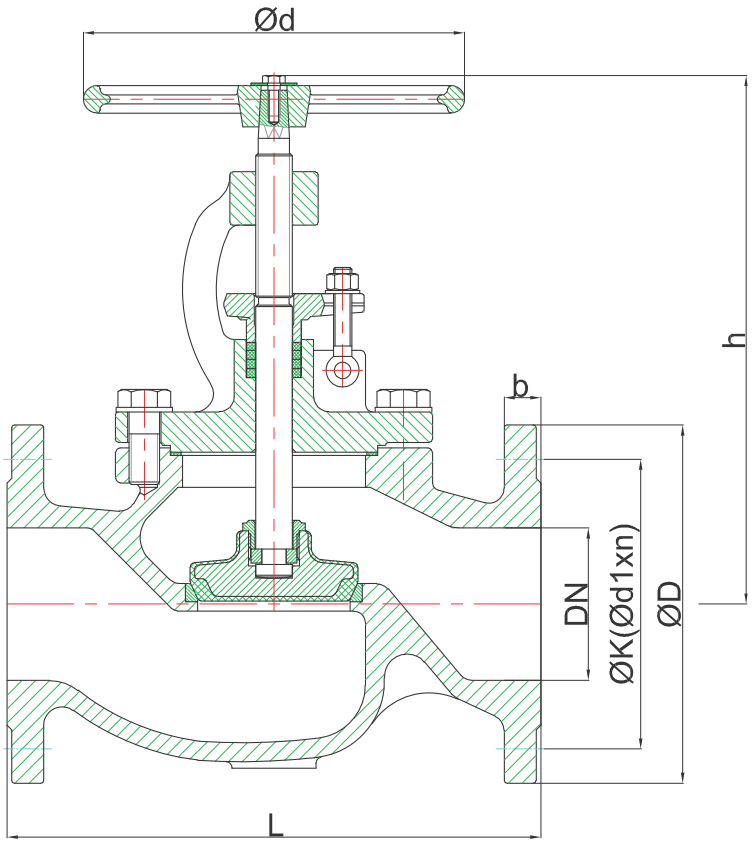




Part No.	Part Name	Part Material	1	2
01	Body	*EN 1563/ EN-GJS-400-15		
02	Seat Ring	DIN EN 10088-3/ 1.4301		
03	O-Ring	NBR /(EPDM on Reqeust)	●	●
04	Bolt	ISO 3506-1, Gr. A2, Property Class 70		
05	Retainer	EN 1563/ EN-GJS-400-15		
06	Sealing ring	EPDM /(NBR on Reqeust)	●	●
07	Guide Disc	EN 1563/ EN-GJS-400-15	●	
08	Socket Screw	ISO 3506-1, Gr. A2, Property Class 70		
09	Socket washer	EN 1563/ EN-GJS-400-15		
10	Socket Screw	ISO 3506-1, Gr. A2, Property Class 70		
11	Stem	DIN EN 10088-3/ 1.4021	●	
12	Washer	ASTM B148 UNS 95200	●	
13	Bonnet	*EN 1563/ EN-GJS-400-15/St 37-2		
14	O-Ring	NBR /(EPDM on Reqeust)	●	●
15	Washer	ISO 3506-2, Gr. A2, Property Class 70		
16	Hexagonal Bolt	ISO 3506-1, Gr. A2, Property Class 70		
17	Bush	ASTM B148 UNS 95200	●	
18	O-Ring	NBR /(EPDM on Reqeust)	●	●
19	O-Ring	NBR /(EPDM on Reqeust)	●	●
20	Guide bush	EN 1563/ EN-GJS-400-15		
21	Washer	ISO 898-2, Property Class 8, Zinc Plated		
22	Hexagonal Bolt	ISO 898-1, Property Class 8.8, Zinc Plated		
23	Air Cap	ISO 3506-1, Gr. A2, Property Class 70	●	
24	Pedestal	EN 1563/ EN-GJS-400-15		
25	Washer	ISO 898-2, Property Class 8.8, Zinc Plated		
26	Hexagonal Bolt	ISO 898-1, Property Class 8.8, Zinc Plated		

1-Recommended Spare Parts
2-Parts Subjected to Wear
*EN-GJS-500-7 available on request.

Dimensions & Weight (DN50-DN250)



DN mm	PN mm	L mm	ØD mm	ØK mm	Ød1 mm	n	b mm	h mm	Ød mm	Turns	Weight (Kg)
50	10,16,25	230	165	125	19	4	19	203	150	9	12
65	10,16,25	290	185	145	19	PN10,16=4 PN25=8	19	285	180	11	23
80	10,16,25	310	200	160	19	8	19	285	180	12	26
100	10,16,25	350	PN10,16=220 PN25=235	PN10,16=180 PN25=190	PN10,16=19 PN25=23	8	19	347	240	15	41.5
125	10,16,25	400	PN10,16=250 PN25=270	PN10,16=210 PN25=220	PN10,16=19 PN25=28	8	PN10,16=19 PN25=23.5	430	320	13	61
150	10,16,25	480	PN10,16=285 PN25=300	PN10,16=240 PN25=250	PN10,16=23 PN25=28	8	19	445	320	15.5	80
200	10,16,25	600	PN10,16=340 PN25=360	PN10,16=295 PN25=310	PN10,16=23 PN25=28	PN10=8 PN16,25=12	PN10,16=20 PN25=22	510	320	13	136
250	10,16,25	730	PN10,16=400 PN25=425	PN10=350 PN16=355 PN25=370	PN10=23 PN16=28 PN25=31	12	PN10,16=22 PN25=24.5	540	320	16.5	204

Metal Seat Globe Valve

Size: DN 50 - DN 200
Pressure: PN 10 - PN 40
Flanges: DIN EN 1092-2(DIN 2501)
Face to Face: DIN EN 558-1 Series 1 (DIN 3202-F1)

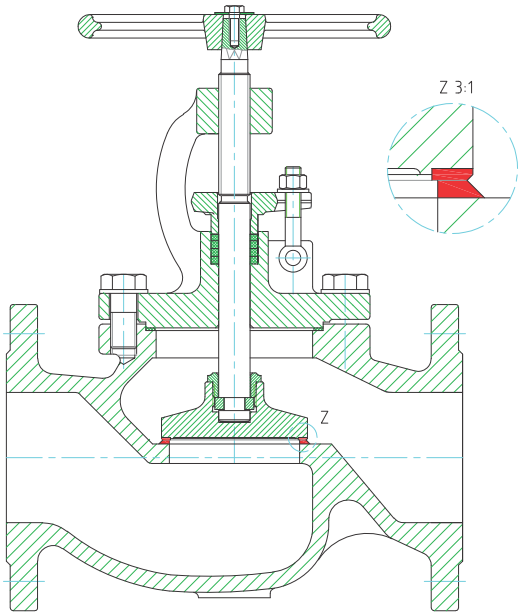
Product Features:
This type of globe valves are metal seated design with carbon steel material in body & bonnet which has a smooth & corrosion resistant stainless steel seat ring.

Corrosion Protection:
Body and disc are fully coated with blue electrostatic powder paint (ral 5005 or 5015) with minimum 250 micron thickness. Special order for heat resistant coating (up to 150° C) for carbon steel parts is available as request.

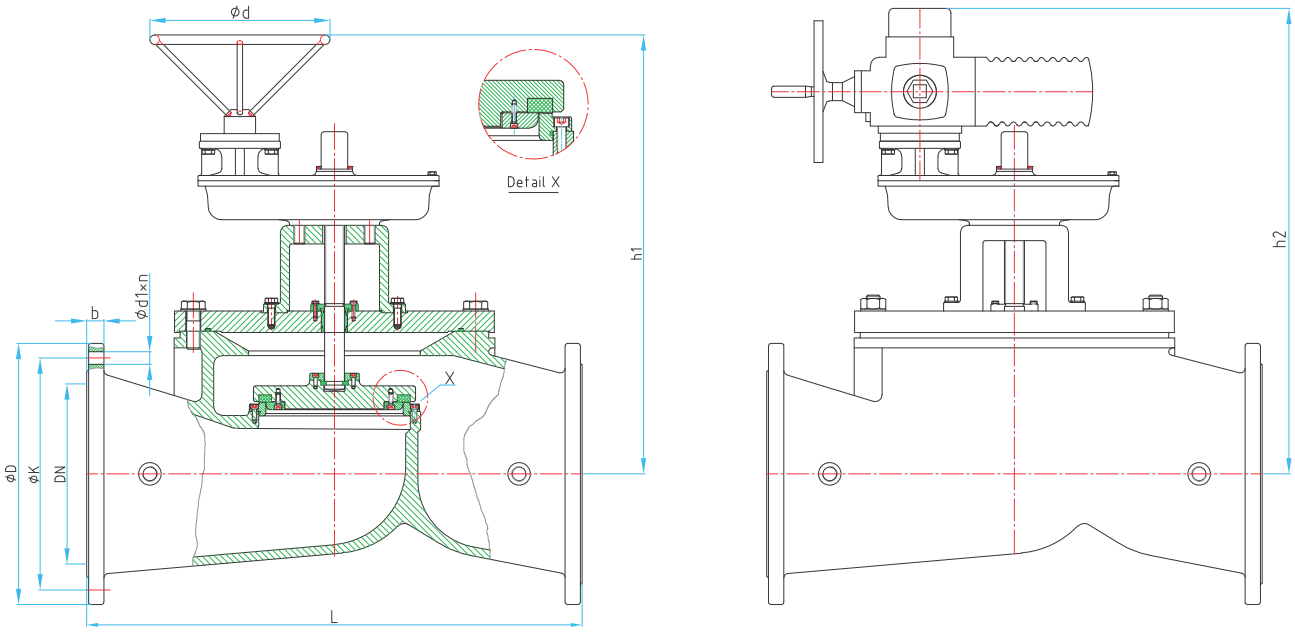
Application:
This valve is a kind of control valve which is used to control the pressure & flow of fluid. It is so ordinary to use of this type of valves in main pipe lines, raw water, drinking water, steam, pressured air and industrial fields.

Operating Actuators:
This type of valve is produced with hand wheel as actuating system, but is available with pneumatic & electrical actuators upon request too.

Hydrostatic test Pressure (bar) according to DIN EN 12266-1		
Nominal Pressure (bar)	Pressure Test with water (bar)	
	Shell Test	Closure Test
10	17	11
16	25	18
25	38	28
40	60	44



Dimensions & Weight (DN300-DN1000)



	DN mm	L mm	ØD mm	ØK mm	Ød1 mm	n	b mm	h1 mm	h2 mm	Ød mm	Turns	Weight (Kg)
PN 10	300	850	445	400	23	12	24.5	883	942	400	105	411
	350	980	505	460	23	16	24.5	975	1074	400	108	624
	400	1100	565	515	28	16	24.5	975	1074	400	108	700
	450	1200	615	565	28	20	25.5	1055	1115	400	103	808
	500	1250	670	620	28	20	26.5	1074	1133	400	117	1030
	600	1450	780	725	31	20	30	1074	1133	400	117	1144
	700	1650	895	840	31	24	32.5	1658	1738	400	290	2287
	800	1850	1015	950	34	24	35	1658	1738	400	290	2415
	900	2050	1115	1050	34	28	37.5	1786	1850	500	324	4425
	1000	2250	1230	1160	36	28	40	1846	1945	500	421	4915

Dimensions & Weight

	DN mm	L mm	ØD mm	ØK mm	Ød1 mm	n	b mm	h1 mm	h2 mm	Ød mm	Turns	Weight (Kg)
PN 16	300	850	460	410	28	12	24.5	883	942	400	105	419
	350	980	520	470	28	16	26.5	975	1074	400	108	640
	400	1100	580	525	31	16	28	975	1074	400	108	721
	450	1200	640	585	31	20	30	1055	1115	400	103	850
	500	1250	715	650	34	20	31.5	1074	1133	400	117	1100
	600	1450	840	770	37	20	36	1074	1133	400	117	1265
	700	1650	910	840	37	24	39.5	1658	1738	400	290	2331
	800	1850	1025	950	41	24	43	1658	1738	400	290	2463
	900	2050	1125	1050	41	28	46.5	1786	1850	500	324	4471
	1000	2250	1255	1170	41	28	50	1846	1945	500	421	5010
PN 25	300	850	485	430	31	16	27.5	883	942	400	105	438
	350	980	555	490	34	16	30	975	1074	400	108	671
	400	1100	620	550	37	16	32	975	1074	400	108	767
	450	1200	670	600	37	20	34.5	1055	1115	400	103	891
	500	1250	730	660	37	20	36.5	1445	1525	400	117	1144
	600	1450	845	770	41	20	42	1445	1525	400	117	1310
	700	1650	960	875	44	24	46.5	1658	1738	400	290	2444
	800	1850	1085	990	50	24	51	1658	1738	400	290	2628
	900	2050	1185	1090	50	28	55.5	1786	1850	500	324	4687
	1000	2250	1320	1210	56	28	60	1846	1945	500	421	5291

Important Specification to Size Selecting

The maximum and minimum rate of flow is the major element in the choice of control valves such as globe valves and pressure reducing valves in particular, whereas pipe diameter is not a significant factor. The following table shows the minimum, normal and maximum flow rate for different size of valves. These values are very important for the correct performance of the valves.

Minimum, normal & maximum flow rate of globe valves

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
l/S min.	1.6	2.7	4	6	10	14	25	39	56	77	100	127	157	226	307	402	508	628
l/S norm.	6	10	15	24	37	53	94	147	212	289	377	477	589	848	1154	1508	1907	2355
l/S max.	10	17	25	40	61	88	157	245	353	481	628	795	982	1414	1924	2513	3180	3925

Note: For valves under continuous operation the maximum flow rate should be considered 20% less than the Valves mentioned in the above table.

Determination of pressure loss (ΔP)

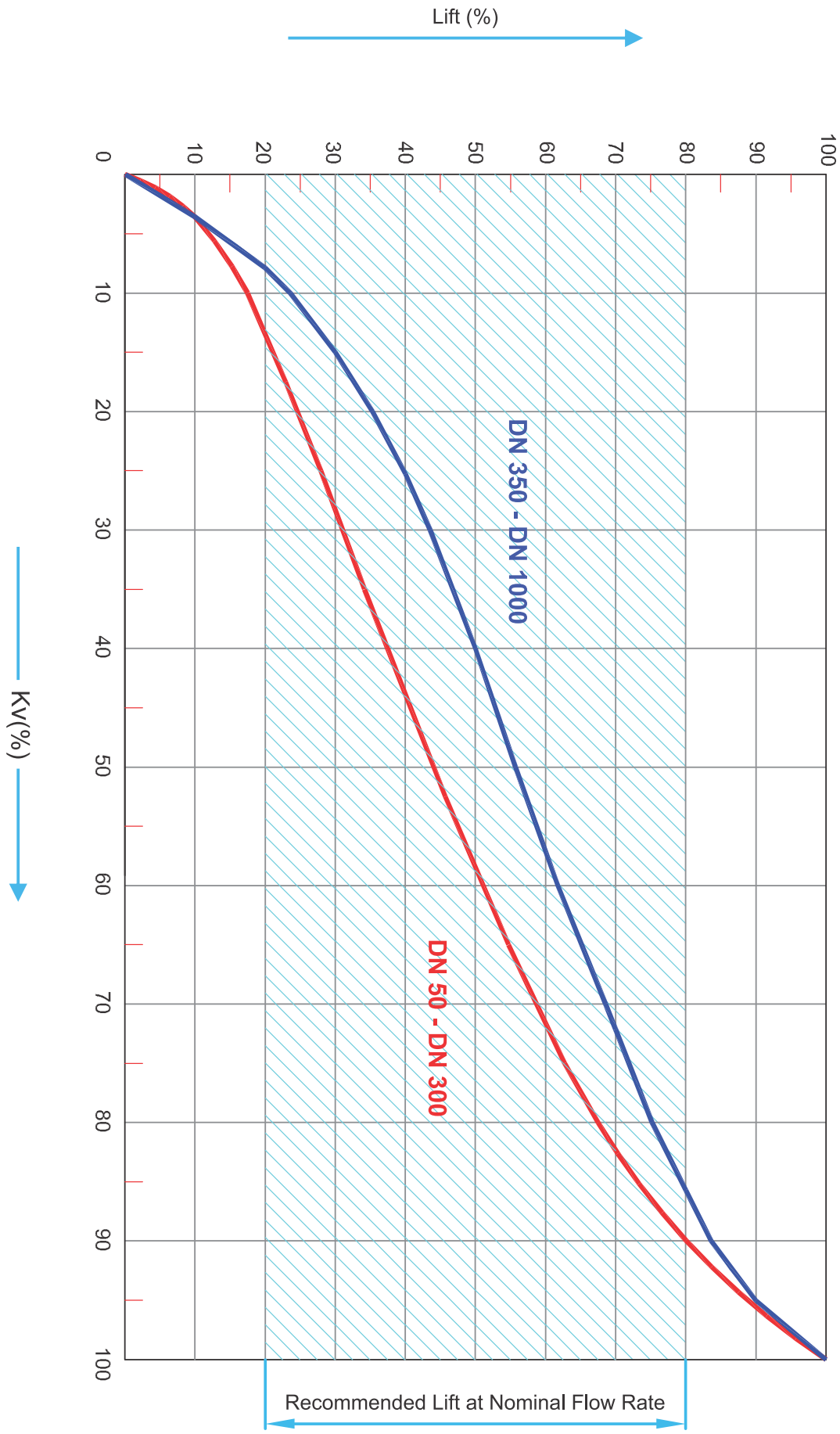
ΔP = Pressure loss (bar)
Kv = Flow coefficient (m^3/h)
Q = Flow rate (m^3/h)

$$Q = Kv\sqrt{\Delta P} \qquad \Delta P = (\frac{Q}{Kv})^2$$

Definition of Kv:
The amount of flow in m^3 that passes through the valve in one hour in ambient temperature of 20°C, causing a pressure loss of 1 bar when the valve is fully open.

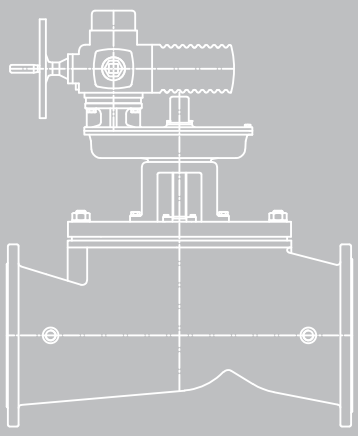
DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
Kv	35	61.5	78	104	171	250	422	860	1640	1650	1790	2298	3050	3250	6200	6820	11520	12600

Lift / Kv Diagram



MIRAB Co' PRODUCTS

Butterfly Valves Family: Double Flanged Type, Butt-weld End, Wafer Type, Lug Type, Hydraulic Actuated, Pneumatic Actuated.
Gate Valves Family: Soft-Sealing Gate Valve, Metal Seat Gate Valve, Knife Gate Valve, Sluice Gate Valve.
Non Return Valves Family: Tilting Disc with Counter Weight, Tilting Disk with Counter Weight and Hydraulic Damper, Swing Check Valve, Silent Check Valve, Foot Valve, Nozzle Check Valve, Wafer Pattern Check Valve, FlapValve.
Air Vent Family: Single Chamber - Double Orifices , Double Chambers - Double Orifices, Sewage Air Valves, Large - Orifice Air Valve.
Control Valves Family: Automatic Control Valves, Needle Valve, Globe Valve, Fixed Cone Free Discharge Valve, Hollow Jet Valve, Sleeve Valve.
Hydrant Valves Family: Standing Type, Pit Type, Wet Barrel Fire Fighting Valve, Post Indicator Valve.
Strainers Family: Y Type, T Type, One Side Flanged Type.
Fittings Family: Dismantling Joint F1&F2, Pipe Coupling, Flange.
Actuators: Electrical, Hydraulic, Penumatic, Portable Electrical.



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