

TOZEN

A joint reliance

VALVE

for General Application
BUTTERFLY, CHECK, BALL, GATE, STRAINER



WAFER TYPE BUTTERFLY VALVE

SPECIFICATION

FOR BS EN 1092-2 PN10 / PN16 FLANGE MOUNTING
FACE-TO-FACE DIMENSION TO ISO 5752 / BS 5155 / BS EN 593
LEVER / WORM GEAR OPERATOR

PRESSURE / TEMPERATURE RATINGS

Working Pressure	16 bar
Testing Pressure	Shell : 24 bar Seat : 17.6 bar
Working Temperature	-20°C to 110°C (EPDM Seat) -10°C to 80°C (NBR Seat)
Suitable Media	Water, Oil & Gas

MATERIALS

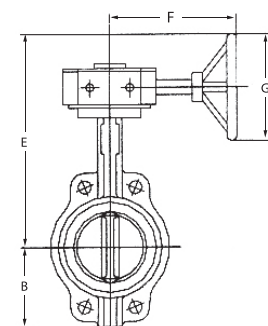
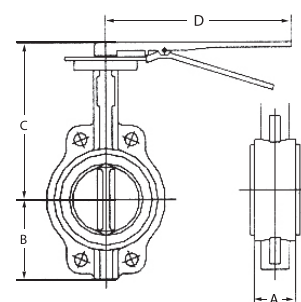
Part	Material	BS
Body	Cast Iron	1452 Gr. 220
	Ductile Iron	2789 Gr. 420/12
Disc	Ductile Iron	2789 Gr. 420/12
	Aluminum Bronze	1400 AB2
	Stainless Steel 304	304 C15
	Stainless Steel 316	316 C16
Seat Ring	EPDM	
	NBR	
	PTFE	
	Viton	
Shaft	Stainless Steel 410	410 S21
	Stainless Steel 431	431 S29
	Stainless Steel 316	316 S16
Taper Pins	Stainless Steel 316	316 S16
Key	Carbon Steel	
O-Ring	NBR	
Bushing	PTFE (DN50~600)	
	Luberized Bronze (DN50~1000)	

DIMENSIONS

Size mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Cv 90°
50	42	80	195	267	272	173	150	135
65	45	89	208	267	287	173	150	220
80	45	97	213	267	292	173	150	302
100	52	114	234	267	310	173	150	600
125	54	127	246	267	325	173	150	1022
150	56	140	259	267	338	173	150	1579
200	61	175	305	358	452	239	285	3136
250	66	203	338	358	485	239	285	5340
300	77	244	381	358	526	226	285	8250
350	77	269	-	-	556	226	285	11917

BFV-WB

PN16
DN50~350



WAFER TYPE BUTTERFLY VALVE

SPECIFICATION

DOUBLE-STAGE WORM GEAR OPERATOR

PRESSURE / TEMPERATURE RATINGS

Working Pressure	16 bar (400mm ~ 600mm) 10 bar (700mm ~ 1000mm)
Testing Pressure	Shell : 24 bar (400mm ~ 600mm) 15 bar (700mm ~ 1000mm) Seat : 17.6 bar (400mm - 600mm) 11 bar (700mm ~ 1000mm)
Working Temperature	-20°C to 110°C (EPDM Seat) -10°C to 80°C (NBR Seat)
Suitable Media	Water, Oil & Gas

DIMENSIONS

Size mm	A mm	B mm	Double-Stage Worm Gear Operator						Cv 90°
			C mm	D mm	E mm	F mm	G mm	H mm	
400	87/102	318	686	104	328	104	279	302	16388
450	106/114	333	709	104	328	104	279	302	21705
500	132	371	767	142	328	145	305	302	27908
600	152	556	851	142	394	145	305	391	43116
700	165	625	1011	173	457	173	358	424	49500
800	190	607	1046	173	457	173	358	424	68250
900	205	655	1196	201	480	203	409	424	86375
1000	218	718	1275	201	480	203	409	424	119750

Note

1. Actuator mounting flange conforms to ISO 5211 drilling.
2. The butterfly valve can be supplied with electric actuator.
3. For 50A-250A provide Universal Flange (PN16/ANSI150/JIS10K/TABLE E)
For 300A-500A provide PN16/ANSI 150
For 600A-1,000A provide ANSI 150
4. Other flange standards available upon request .
5. If used for gas application, please consult our sales office.
6. Design and specification are subject to change without prior notice

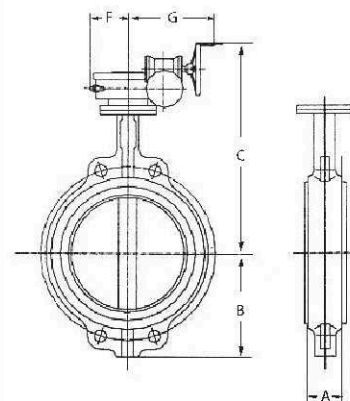
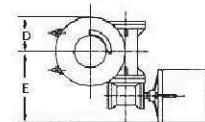
BFV-WB

PN16

DN400~600

PN10

DN700~1000



WAFER TYPE BUTTERFLY VALVE

SPECIFICATION

FOR BS 4504 PN25 FLANGE MOUNTING
FACE-TO-FACE DIMENSION TO ISO 5752 / BS 5155 / BS EN 593
LEVER / WORM GEAR OPERATOR

PRESSURE / TEMPERATURE RATINGS

Working Pressure	25 bar
Testing Pressure	Shell : 37.5 bar Seat : 27.5 bar
Working Temperature	-20°C to 110°C (EPDM Seat) -10°C to 80°C (NBR Seat)
Suitable Media	Water, Oil & Gas

MATERIALS

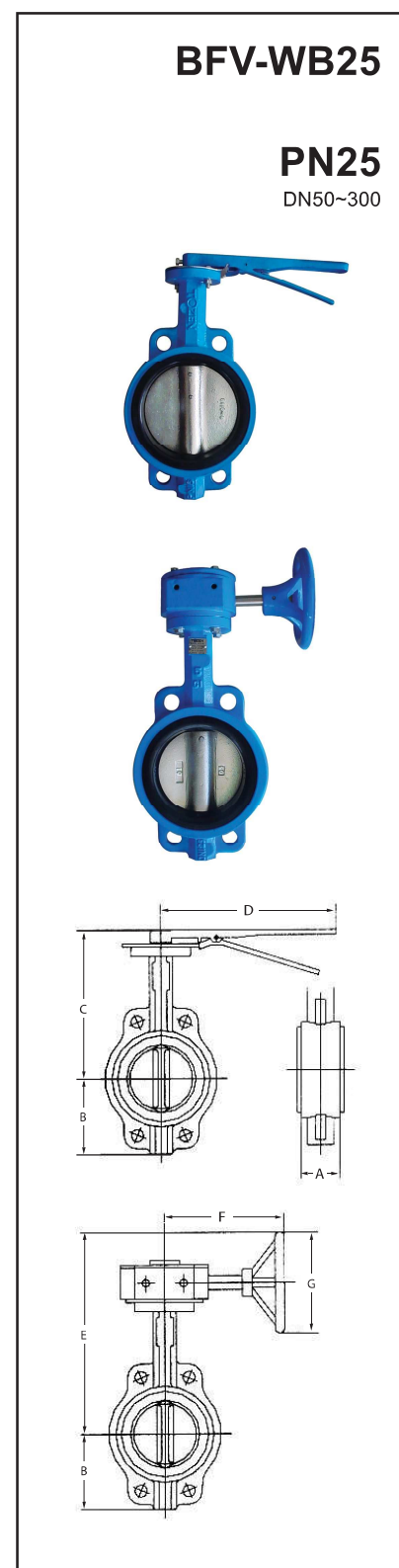
Part	Material	BS
Body	Ductile Iron	2789 Gr. 420/12
Disc	Ductile Iron Aluminum Bronze Stainless Steel 304 Stainless Steel 316	2789 Gr. 420/12 1400 AB2 304 C15 316 C16
Seat Ring	EPDM NBR PTFE Viton	
Shaft	Stainless Steel 410 Stainless Steel 431 Stainless Steel 316	410 S21 431 S29 316 S16
Taper Pins	Stainless Steel 316	316 S16
Key	Carbon Steel	
O-Ring	NBR	
Bushing	PTFE	

DIMENSIONS

Size mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Cv 90°
50	42	80	195	267	272	173	150	135
65	45	89	208	267	287	173	150	220
80	45	97	213	267	292	173	150	302
100	52	114	234	267	310	173	150	600
125	54	127	246	267	325	173	150	1022
150	56	140	259	267	338	173	150	1579
200	61	175	-	-	452	239	285	3136
250	66	203	-	-	485	239	285	5340
300	77	244	-	-	526	226	285	8250

Note:

1. Actuator mounting flange conforms to ISO 5211 drilling.



LUG TYPE BUTTERFLY VALVE

SPECIFICATION

FOR BS 4505 PN10 / PN16 FLANGE MOUNTING
FACE-TO-FACE DIMENSION TO ISO 5752 / BS 5155 / BS EN 593
LEVER / WORM GEAR OPERATOR

PRESSURE / TEMPERATURE RATINGS

Working Pressure	16 bar
Testing Pressure	Shell : 24 bar Seat : 17.6 bar
Working Temperature	-20°C to 110°C (EPDM Seat) -10°C to 80°C (NBR Seat)
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	BS
Body	Cast Iron	Gr. 220
	Ductile Iron	Gr. 420/12
Disc	Ductile Iron	Gr. 420/12
	Aluminum Bronze	1400 AB2
	Stainless Steel 304	304 C15
	Stainless Steel 316	316 C16
Seat Ring	EPDM	
	NBR	
	PTFE	
	Viton	
Shaft	Stainless Steel 410	410 S21
	Stainless Steel 431	431 S29
	Stainless Steel 316	316 S16
Taper Pins	Stainless Steel 316	316 S16
Key	Carbon Steel	
O-Ring	NBR	
Bushing	PTFE	
	Luberized Bronze	

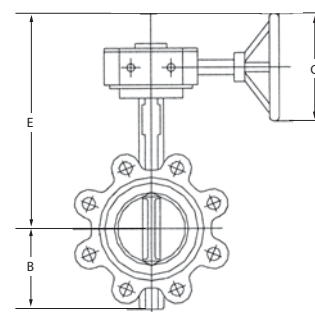
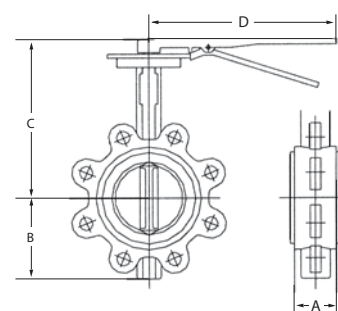
DIMENSIONS

Size mm	A mm	B mm	C mm	D mm	E mm	G mm	Cv 90°
50	42	80	193	267	274	150	135
65	45	89	207	267	288	150	220
80	44	95	213	267	294	150	302
100	51	114	232	267	313	150	600
125	55	127	245	267	326	150	1022
150	55	139	258	267	339	150	1579
200	60	175	295	358	448	300	3136
250	67	203	327	358	480	300	5340
300	76	242	372	358	526	300	8250
350	76	272	-	-	556	300	11917
400	102	333	-	-	648	385	16388
450	114	364	-	-	670	385	21705
500	130	389	-	-	744	385	27908
600	151	453	-	-	826	385	43116

BFV-LB

PN16

DN50~600



LUG TYPE BUTTERFLY VALVE

SPECIFICATION

FOR BS 4505 PN25 FLANGE MOUNTING
FACE-TO-FACE DIMENSION TO ISO 5752 / BS 5155 / BS EN 593
LEVER / WORM GEAR OPERATOR

PRESSURE / TEMPERATURE RATINGS

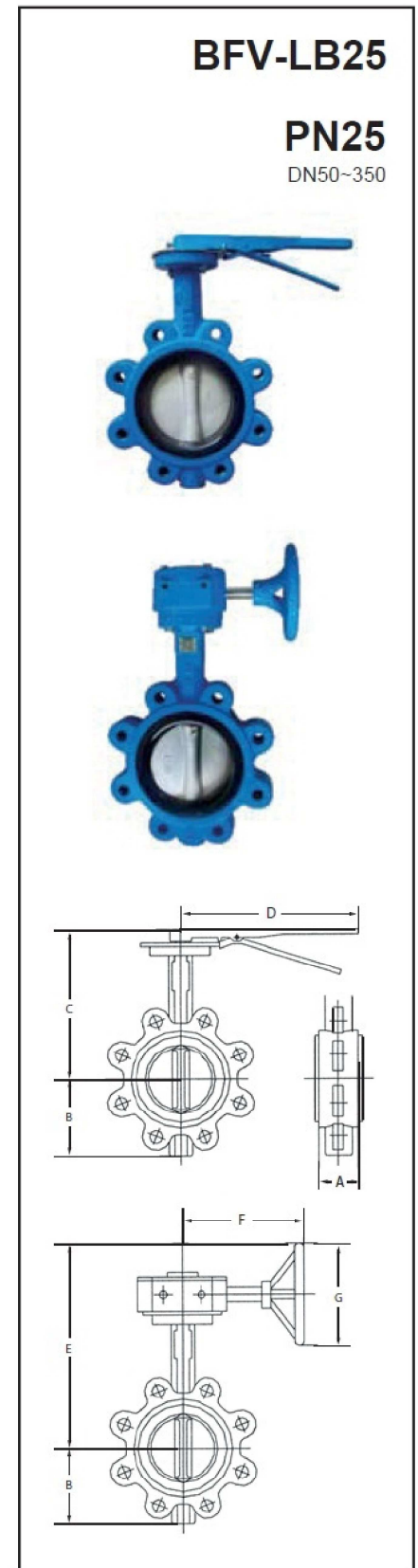
Working Pressure	25 bar
Testing Pressure	Shell : 37.5 bar Seat : 27.5 bar
Working Temperature	-20°C to 110°C (EPDM Seat) -10°C to 80°C (NBR Seat)
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	BS
Body	Ductile Iron	Gr. 420/12
Disc	Ductile Iron Aluminum Bronze Stainless Steel 304 Stainless Steel 316	Gr. 420/12 1400 AB2 304 C15 316 C16
Seat Ring	EPDM NBR PTFE Viton	
Shaft	Stainless Steel 410 (Size: 50mm to 100mm) Stainless Steel 431 (Size: 125mm to 600mm)	410 S21 431 S29
Taper Pins	Stainless Steel 316	316 S16
Key	Carbon Steel	
O-Ring	NBR	
Bushing	PTFE Luberized Bronze	

DIMENSIONS

Size mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Cv 90°
50	42	80	195	267	272	173	150	135
65	45	89	208	267	287	173	150	220
80	45	97	213	267	292	173	150	302
100	52	114	234	267	310	173	150	600
125	54	127	246	267	325	173	150	1022
150	56	140	259	267	338	173	150	1579
200	61	175	305	358	452	239	285	3136
250	66	203	338	358	485	239	285	5340
300	77	244	381	358	526	226	285	8250
350	77	269	-	-	556	226	285	11917



DUCTILE IRON Y TYPE STRAINER

SPECIFICATION

BOLTED COVER WITH BLOW-OFF DRAIN PLUG
STAINLESS STEEL PERFORATED SCREEN
FACE TO FACE DIMENSION CONFORMS TO BS EN558-1 SERIES 1
END FLANGE DRILLED TO ANSI 150

PRESSURE / TEMPERATURE RATINGS

Working Pressure	1.6 Mpa
Testing Pressure	2.4 Mpa
Working Temperature	-10°C to 120°C
Suitable Media	Water & Oil

MATERIALS

Part	Material	BS
Body	Ductile Iron	BS EN 1563 EN-GJS-400
Cover	Ductile Iron	BS EN 1563 EN-GJS-400
Screen	Stainless Steel	BS EN 10088 X5CrNi18-10
Drain Plug	Stainless Steel	BS EN 10088 X5CrNi18-10
Packing	EPDM	

STANDARD SCREENS

Size (mm)	Hole Dia. (mm)	No. of Holes (inch ²)
50~150	1.5	104
200~350	2.5	26
400	3.5	22

DIMENSIONS

Size mm	L mm	H mm	Plug Size inch
50	230	124	3/8
65	290	137	3/8
80	310	152	3/8
100	350	205	3/8
125	400	244	3/8
150	480	269	3/8
200	600	341	1/2
250	730	455	1/2
300	850	476	1/2
350	980	725	3/4
400	1100	820	3/4

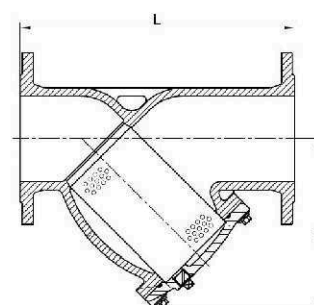
Note:

1. Other flange standards available upon request.
2. Design and specifications are subject to change without prior notice.

DYS-B

PN16

DN50~400



DUCTILE IRON Y TYPE STRAINER

SPECIFICATION

BOLTED COVER WITH BLOW-OFF DRAIN PLUG
STAINLESS STEEL PERFORATED SCREEN
FLANGED TO BS 4504 PN25

PRESSURE / TEMPERATURE RATINGS

Working Pressure	25 bar
Testing Pressure	37.5 bar
Working Temperature	-10°C to 120°C
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	BS
Body	Ductile Iron	Gr. 420/12
Cover	Ductile Iron	Gr. 420/12
Screen	Stainless Steel	970 S304
Blow-Off Plug	Carbon Steel	

STANDARD SCREENS

Size (mm)	Hole Dia. (mm)	Free Flow Area (inch ²)
50~150	1.5	104
200~350	2.5	26
400~600	3.5	22

DIMENSIONS

Size mm	L mm	H mm	Plug Size mm
50	230	160	25
65	290	180	25
80	310	215	25
100	350	235	40
125	400	275	40
150	480	305	40
200	600	390	50
250	730	540	50
300	850	680	50
350	980	740	50
400	1100	845	50
450	1200	838	50
500	1250	908	50
600	1450	1078	50

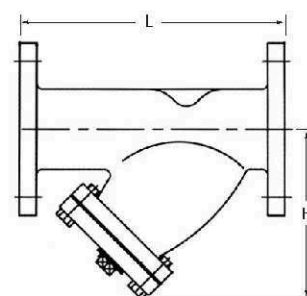
Note:

1. □ Other flange standards available upon request.
2. □ If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.

DYS-B25

PN25

DN50~600



DUAL DOOR CHECK VALVE

SPECIFICATION

FOR BS EN 1092-2 PN10 / PN16 / PN25 FLANGE MOUNTING
FACE-TO-FACE DIMENSION TO ISO 5752-82

PRESSURE / TEMPERATURE RATINGS

	CDCV-WB Cast Iron Body	DDCV-WB25 Ductile Iron Body
Working Pressure	16 bar (DN50~600) 10 bar (DN700~800)	25 bar
Testing Pressure	Shell : 24 bar (DN50~600) 15 bar (DN700~800) Seat : 17.6 bar (DN50~600) 11 bar (DN700~800)	Shell : 37.5 bar Seat : 27.5 bar
Working Temperature	-10°C to 120°C (EPDM Seat) -10°C to 80°C (NBR Seat)	
Suitable Media	Water, Oil & Gas	

MATERIALS

Part	Material	BS
Body	Cast Iron	1452 Gr. 220
	Ductile Iron	2789 Gr. 420/12
Disc	Ductile Iron	1452 Gr. 420/12
	Aluminum Bronze	1400 AB2
	Stainless Steel 304	304 C15
	Stainless Steel 316	316 C16
Spring	Stainless Steel 316	316 S16
Shaft	Stainless Steel 316	316 S16
Seat	EPDM	
	NBR	

DIMENSIONS

Size mm	A mm	B mm	C mm	D mm	E mm	Size mm	A mm	B mm	C mm	D mm	E mm
50	43	106	107	29	19	300	114	382	399	149	43
65	46	126	127	36	20	350	127	442	456	173	45
80	64	141	142	42	28	400	140	494	513	198	52
100	64	161	167	53	27	450	152	554	563	218	58
125	70	191	192	64	30	500	152	616	623	241	58
150	76	217	222	77	31	600	178	733	724	296	73
200	89	272	282	102	33	700	229	800	-	354	98
250	114	327	339	127	50	800	241	930	-	404	100

*B = Outside diameter for PN16(DN50-600) & PN10(DN700-800) flange mounting.

*C = Outside diameter for PN25 flange mounting.

Note:

1. Other flange standards available upon request.
2. If used for gas application, please contact our sales office.
3. Design and specifications are subject to change without prior notice.

CDCV-WB

PN16

DN50~600

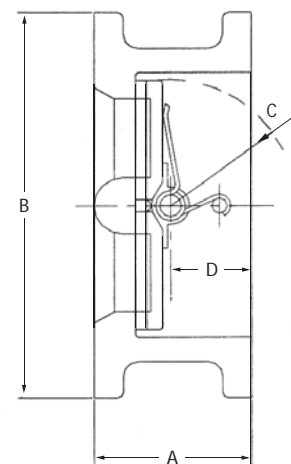
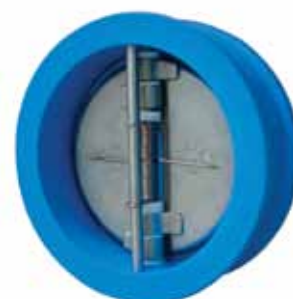
PN10

DN700~800

DDCV-WB25

PN25

DN50~600



CAST IRON SILENT CHECK VALVE (WAFER TYPE)

SPECIFICATION

FOR ANSI B16.1 CLASS 125 FLANGE MOUNTING

PRESSURE / TEMPERATURE RATINGS

Working Pressure	200 psi
Testing Pressure	Shell : 350 psi Seat : 220 psi
Working Temperature	14°F to 248°F (EPDM Seat) 14°F to 176°F (NBR Seat) 14°F to 302°F (Viton Seat)
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	ASTM
Body	Cast Iron	A126 Class B
Disc	Gunmetal	B62 C83600
	Stainless Steel	A351 CF8
Spring	Stainless Steel	AISI 304
Bushing	Gunmetal	B62 C83600
Seat	Gunmetal	B62 C83600
	Stainless Steel	A351 CF8
Seat O-ring	EPDM	
	NBR	
	Viton	

DIMENSIONS

Size inch	L inch	D inch
2	2.6	4.3
2-1/2	2.9	5
3	3.1	5.8
4	4	7.4
5	4.6	8.4
6	5.5	9.8
8	6.5	13.4
10	8.5	16.1
12	11.3	16.3
14	13.8	18.8

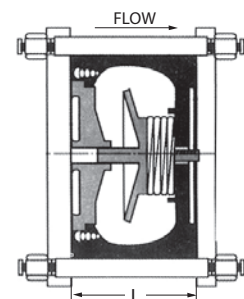
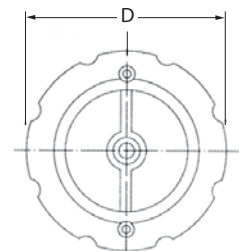
Note:

1. Other flange standards available upon request.
2. If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.

CSCV-WA

Class 125

2"~14"



DUCTILE IRON SILENT CHECK VALVE (WAFER TYPE)

SPECIFICATION

FOR ANSI B16.2 CLASS 250 FLANGE MOUNTING

PRESSURE / TEMPERATURE RATINGS

Working Pressure	350 psi
Testing Pressure	Shell : 525 psi Seat : 385 psi
Working Temperature	-4°F to 230°F (EPDM Seat) 14°F to 176°F (NBR Seat)
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	ASTM
Body	Ductile Iron	A536 65-45-12
Disc	Gunmetal Stainless Steel	B62 C83600 AISI 304
Spring	Stainless Steel	AISI 304
Bushing	Gunmetal	B62 C83600
Seat	Gunmetal Stainless Steel	B62 C83600 AISI 304
Seat Ring	EPDM NBR	

DIMENSIONS

Size inch	L inch	D inch
2	2.6	4.3
2-1/2	2.9	5
3	3.1	5.9
4	4	6.6
5	4.6	8.4
6	5.5	9.8
8	6.5	13.4
10	8.3	16.1
12	11.3	16.3
14	13.8	18.8

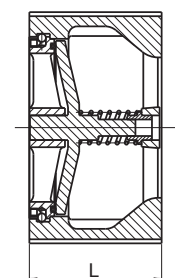
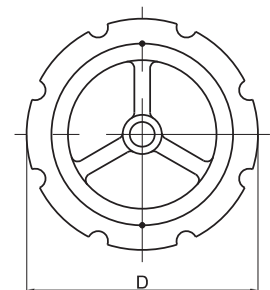
Note:

1. Other flange standards available upon request.
2. If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.

DSCV-WA250

Class 250

2"~14"



SILENT CHECK VALVE

SPECIFICATION

FLANGED TO BS EN 1092-2 PN16 / PN25
CONFORMS TO BS EN 12334

PRESSURE / TEMPERATURE RATINGS

	CSCV-FB Cast Iron Body	DSCV-FB25 Ductile Iron Body
Working Pressure	16 bar	25 bar
Testing Pressure	Shell : 24 bar Seat : 17.6 bar	Shell : 37.5 bar Seat : 27.5 bar
Working Temperature	-20°C to 110°C (EPDM) -10°C to 80°C (NBR)	
Suitable Media	Water, Oil & Gas	

MATERIALS

Part	Material	BS
Body	Cast Iron	1452 Gr. 220
	Ductile Iron	2789 Gr. 420/12
Disc	Ductile Iron	2789 Gr. 420/12
	Gunmetal	1400 LG2
	Stainless Steel 304	970 304S15
Spring	Stainless Steel 304	970 304S15
Stem	Stainless Steel 410	970 410S21
Bushing	Gunmetal	1400 LG2
Seat	Ductile Iron	2789 Gr. 420/12
	Gunmetal	1400 LG2
	Stainless Steel 304	970 304S15
Seat Ring	EPDM / NBR	

DIMENSIONS

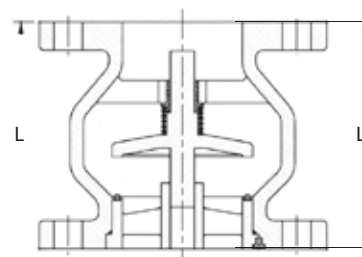
Size mm	L mm	Size mm	L mm
50	133	250	393
65	140	300	362
80	152	350	400
100	185	400	448
125	216	450	476
150	229	500	524
200	257	600	610

Note:

1. BS EN 12334 is equivalent to BS 5153
2. BS EN 1092-2 is equivalent to BS 4504 PN16
3. Other flange standards available upon request.
4. If used for gas application, please consult our sales office.
5. Design and specifications are subject to change without prior notice.

CSCV-FB
PN16
DN50~600

DSCV-FB25
PN25
DN 50-600



CAST IRON SWING CHECK VALVE

SPECIFICATION

BRONZE / RESILIENT SEAT
MSS SP-71 • FLANGED TO ANSI CLASS 125

PRESSURE / TEMPERATURE RATINGS

Working Pressure	200 psi
Testing Pressure	Shell : 350 psi Seat : 220 psi
Working Temperature	14°F to 248°F (Gunmetal / EPDM) 14°F to 176°F (NBR)
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	ASTM
Body	Cast Iron	A126 Class B
Disc	Cast Iron	A126 Class B
Seat Ring	Gunmetal	B62 C83600
Disc Ring	Gunmetal EPDM NBR	B62 C83600

DIMENSIONS

Size inch	L inch	H inch
2	8	4.4
2-1/2	8.5	5.3
3	9.5	5.6
4	11.5	6.4
5	13	7.8
6	14	8.3
8	19.5	10.1
10	24.5	11.8
12	27.5	13
14	31	17.7
16	36	20.5
18	36	21.7
20	40	23.2
24	48	26.8

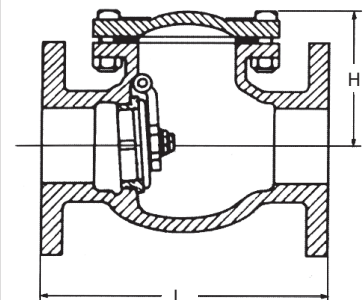
Note:

1. JIS B2239 10K and other flange standards available upon request.
2. If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.

CCV-A

Class 125

2"~24"



CAST IRON RISING STEM GATE VALVE

SPECIFICATION

RISING STEM • OUTSIDE SCREW AND YOKE
BS EN 1171 (BS 5150) • FLANGED TO BS EN 1092-2 PN16

PRESSURE / TEMPERATURE RATINGS

Working Pressure	16 bar
Testing Pressure	Shell : 24 bar Seat : 17.6 bar
Working Temperature	10°C to 120°C
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	BS
Body	Cast Iron	1452 Gr. 220
Bonnet	Cast Iron	1452 Gr. 220
Disc	Cast Iron	1452 Gr. 220
Seat Ring	Gunmetal	1400 LG 2
Stem	Brass Stainless Steel 420	2874 CZ 124 970 420 S37
Packing	Graphite	Non-Asbestos
Handwheel	Cast Iron	1452 Gr. 220

DIMENSIONS

Size mm	L mm	H (Open) mm	D mm
50	178	375	178
65	190	422	178
80	203	475	200
100	229	606	254
125	254	683	300
150	267	828	300
200	292	1003	348
250	330	1211	400
300	356	1421	457
350	381	1641	560
400	406	1828	560
450	432	2047	610
500	457	2246	610
600	508	2632	765

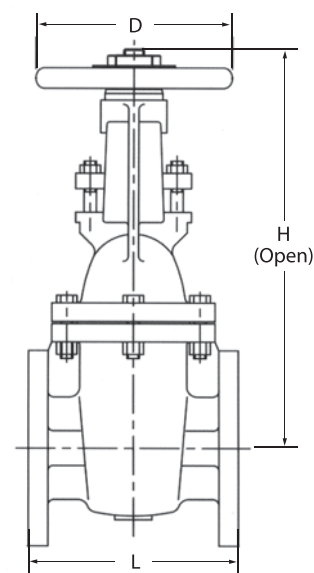
Note:

1. Other flange standards available upon request.
2. If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.

R-CGV-B

PN16

DN50~600



CAST IRON RISING STEM GATE VALVE

SPECIFICATION

RISING STEM • OUTSIDE SCREW AND YOKE
BS EN 1171 (BS 5150) • FLANGED TO BS EN 1092-2 PN25

PRESSURE / TEMPERATURE RATINGS

Working Pressure	25 bar
Testing Pressure	Shell : 37.5 bar Seat : 27.5 bar
Working Temperature	-10°C to 120°C
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	BS
Body	Cast Iron	1452 Gr. 220
Bonnet	Cast Iron	1452 Gr. 220
Disc	Cast Iron	1452 Gr. 220
Seat Ring	Gunmetal	1400 LG 2
Stem	Brass Stainless Steel	2874 CZ 124 970 420S37
Packing	Graphite	Non-Asbestos
Handwheel	Cast Iron	1452 Gr. 220

DIMENSIONS

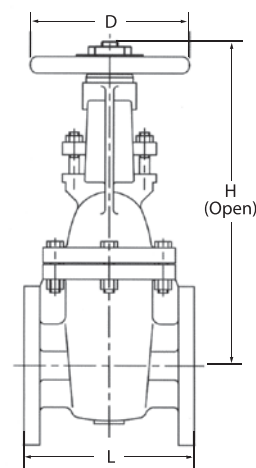
Size mm	L mm	H (Open) mm	D mm
50	216	384	175
65	241	436	200
80	283	492	254
100	305	610	300
125	381	715	300
150	403	812	348
200	419	1019	400
250	457	1211	457
300	502	1386	457

Note:

1. Other flange standards available upon request.
2. If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.

R-CGV-B25

PN25
DN50~300



CAST IRON GATE VALVE

SPECIFICATION

NON-RISING STEM • INSIDE SCREW
CONFORMS TO BS EN 1171 • FLANGED TO BS EN1092-2 PN16

PRESSURE / TEMPERATURE RATINGS

Working Pressure	16 bar
Testing Pressure	Shell : 24 bar Seat : 17.6 bar
Working Temperature	10°C to 120°C
Suitable Media	Water, Oil & Gas

MATERIALS

Part	Material	BS
Body	Cast Iron	1452 Gr. 220
Bonnet	Cast Iron	1452 Gr. 220
Disc	Cast Iron	1452 Gr. 220
Seat Ring	Gunmetal	1400 LG 2
Stem	Brass Stainless Steel	2874 CZ 124 970 420S37
Packing	Graphite	Non-Asbestos
Handwheel	Cast Iron	1452 Gr. 220

DIMENSIONS

Size mm	L mm	H mm	D mm
50	178	280	190
65	190	318	190
80	203	333	190
100	229	387	300
125	254	453	300
150	267	502	350
200	292	635	350
250	330	735	400
300	356	875	450
350	381	1015	508
400	406	1120	558
450	432	1210	610
500	457	1250	610
600	508	1390	762

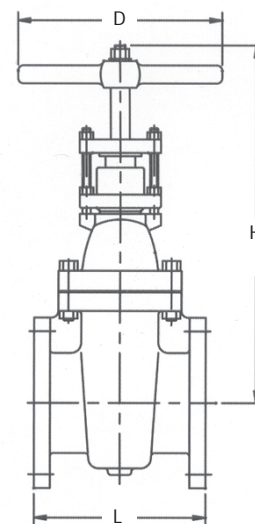
Note:

1. BS EN 1171 is equivalent to BS 5150.
2. BS EN 1092-2 PN16 is equivalent to BS 4504 PN16.
3. Other flange standards available upon request.
4. If used for gas application, please consult our sales office.
5. Design and specifications are subject to change without prior notice.

CGV-B

PN16

DN50~600



CAST IRON GLOBE VALVE

SPECIFICATION

RISING STEM • OUTSIDE SCREW AND YOKE
MSS SP-85 • FLANGED TO ANSI CLASS 125

PRESSURE / TEMPERATURE RATINGS

Working Pressure	200 psi
Testing Pressure	Shell : 350 psi Seat : 220 psi
Working Temperature	14°F to 248°F
Suitable Media	Water, Oil & Gas

MATERIALS

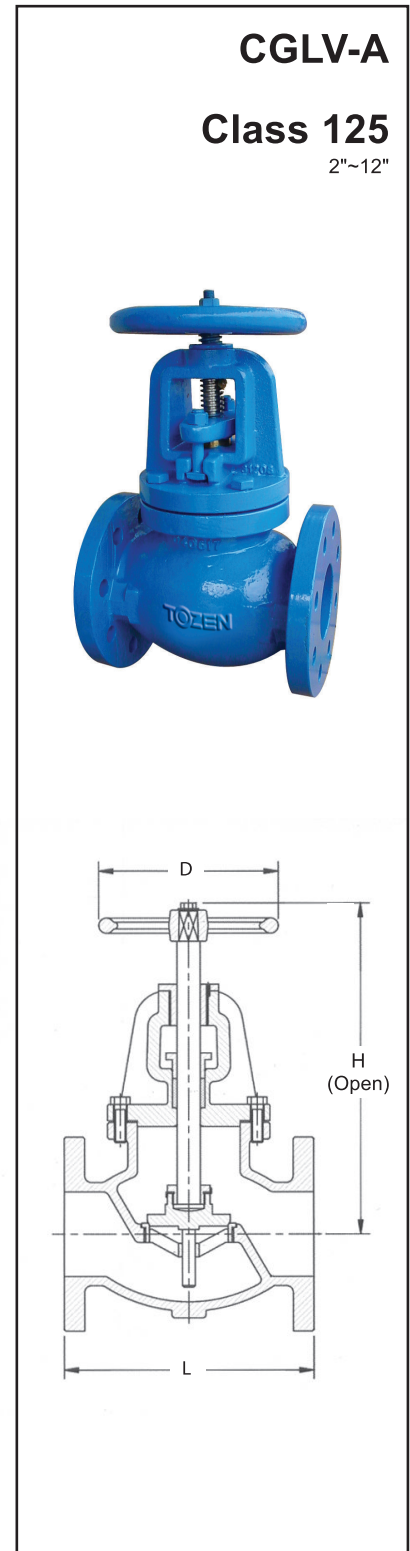
Part	Material	ASTM
Body	Cast Iron	A126 Class B
Bonnet	Cast Iron	A126 Class B
Disc	Gunmetal	B62 83600
Seat Ring	Gunmetal	B62 83600
Stem	Brass Stainless Steel	B16 C36000 AISI 420
Packing	Graphite	Non-Asbestos
Handwheel	Cast Iron	A126 Class B

DIMENSIONS

Size inch	L inch	H (Open) inch	D inch
2	8	3.2	7
2-1/2	8.5	12.9	7
3	9.5	13.5	8
4	11.5	15.2	10
5	13	16.6	12
6	14	20	12
8	19.5	22.8	13.7
10	24.5	26.9	16
12	27.5	33.6	18

Note:

1. JIS B2239 10K and other flange standards available upon request.
2. If used for gas application, please consult our sales office.
3. Design and specifications are subject to change without prior notice.



CAST IRON AUTOMATIC AIR VENT

SPECIFICATION

THREADED TO BS21

PRESSURE / TEMPERATURE RATINGS

Working Pressure	16 bar
Testing Pressure	24 bar
Working Temperature	-10°C to 120°C
Suitable Media	Water

MATERIALS

Part	Material	BS
Body	Cast Iron	1452 Gr. 220
Cover	Cast Iron	1452 Gr. 220
Level	Stainless Steel	970 304S15
Seat	Stainless Steel	970 304S15
Float	Stainless Steel	970 304S15
Float Arm	Stainless Steel	970 304S15
Orifice Button	Viton	

DIMENSIONS

Size mm	Inlet mm	Outlet mm	Orifice mm
15	15	15	1.6
20	20	15	1.6
25	25	15	1.6

Note:

1. Other thread standards available upon request.
2. Design and specifications are subject to change without prior notice.

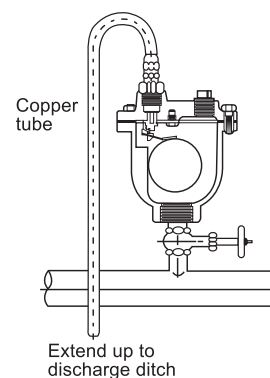
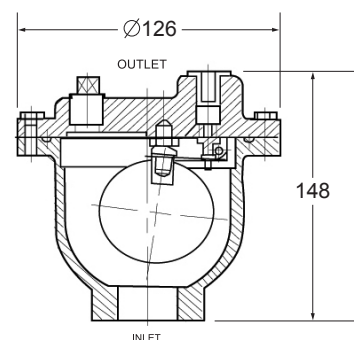
Installation Guide:

1. Air vent shall be installed vertically with allowance of within 5° from the horizontal pipe line.
2. Install a gate valve or ball valve at the inlet for maintenance purposes.
3. A copper tube to be connected from the outlet of the air vent up to drainage ditch, to prevent any leakage of the water, if any.
4. Insulate the air vent and gate valve / ball valve to prevent condensation.

CAAV-B

PN16

DN15~25



GDRV-101

**FIXED ORIFICE
DOUBLE REGULATING VALVE**



PRODUCT DATA SHEET

FIXED ORIFICE DOUBLE REGULATING VALVE

Model : GDRV-101

15mm (1/2") ~ 50mm (2")



APPLICATION

Tozen Double Regulating Valves are installed and used in centralised heating and cooling systems to obtain design flow rates of each terminal units and balancing the circuits in the building.

FUNCTION

- Balancing
- Measuring
- Pre-setting
- Isolating

FEATURES

- Y-pattern globe design.
- Integral fixed orifice plate to form a fixed orifice flow measurement unit with regulation and isolation function.
- Accuracy of +/-5% at full open position of the valve.
- Equipped with 2 measuring nipples for differential pressure measurement.
- Microset handwheel adjustment with easily readable settings.
- Multi-turn adjustment range for maximum flow control.
- Double regulating feature allows valve opening to be set with allen key.
- Long neck for thermal insulation.
- Bronze body of PN25 pressure rating.
- Comply to BS 7350.

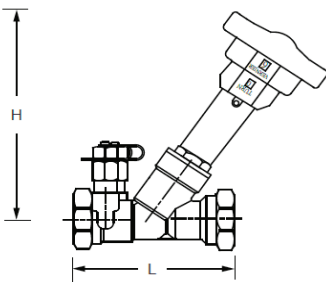
SPECIFICATION

- | | |
|-------------------------|---------------------------------------|
| • Type | : Fixed orifice |
| • Size range | : 15mm ~ 50mm |
| • Max. working pressure | : 25bar |
| • Testing pressure | : 37.5bar (Shell)
: 27.5bar (Seat) |
| • Working temperature | : -10°C to 120°C |
| • Connection | : BS 21 (ISO 7)
: ANSI B1.20.1 |
| • Standard | : Comply to BS 7350 |

MATERIALS

Part	Material	ASTM	EN
Body	Bronze	B62 B83600	EN1982 CC491K
Bonnet	DZR Brass	B453 C35330	EN12164 CW602N
Stem	DZR Brass	B453 C35330	EN12164 CW602N
Disc (15mm ~ 20mm)	DZR Brass	B453 C35330	EN12164 CW602N
Disc (25mm ~ 50mm)	DZR Brass + PTFE	B453 C35330	EN12164 CW602N
Orifice Insert	DZR Brass	B453 C35330	EN12164 CW602N
Measuring Nipples	DZR Brass	B453 C35330	EN12164 CW602N
O-Ring	EPDM	-	-
Handwheel	ABS	-	-

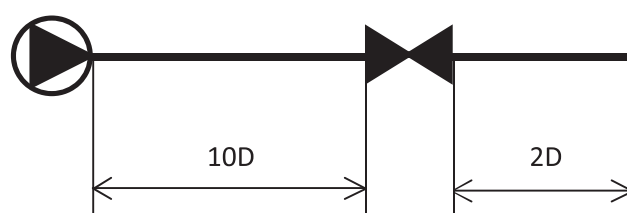
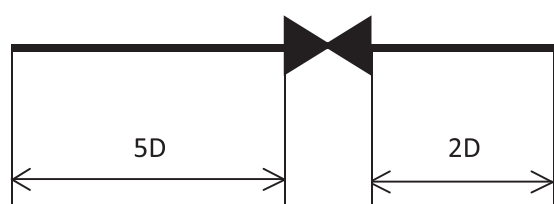
DIMENSIONS & COEFFICIENTS

	Size (mm)	L (mm)	H (mm)	Weight (kg)	Kvs
	15	90	109	0.6	2.1
20	98	110	0.6	4.4	
25	105	125	0.8	9.1	
32	120	128	1.1	17.5	
40	130	145	1.4	26.3	
50	150	148	2.0	49.3	

Note: Kvs at fully open position.

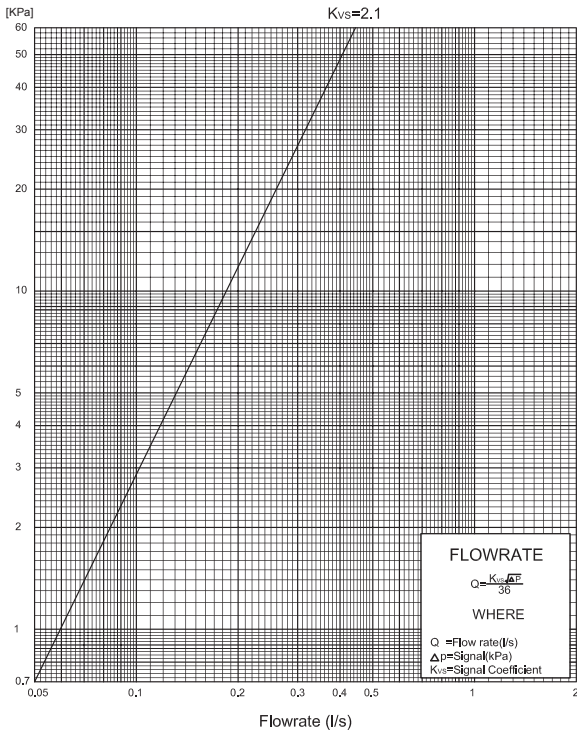
Installation

- The Double Regulating Valve shall be installed with the arrow marking on the valve body in accord to the same flow direction in the pipe. It may be installed at any angle.
- Use adequate seal material to protect the thread on pipe side from leaking or rusting. For connection, use proper tool (spanner, etc) to screw correctly in accordance to thread standard. Do not connect by using wrench on valve side.
- Up and down stream from the valve is required to avoid turbulence which will affect the accuracy.

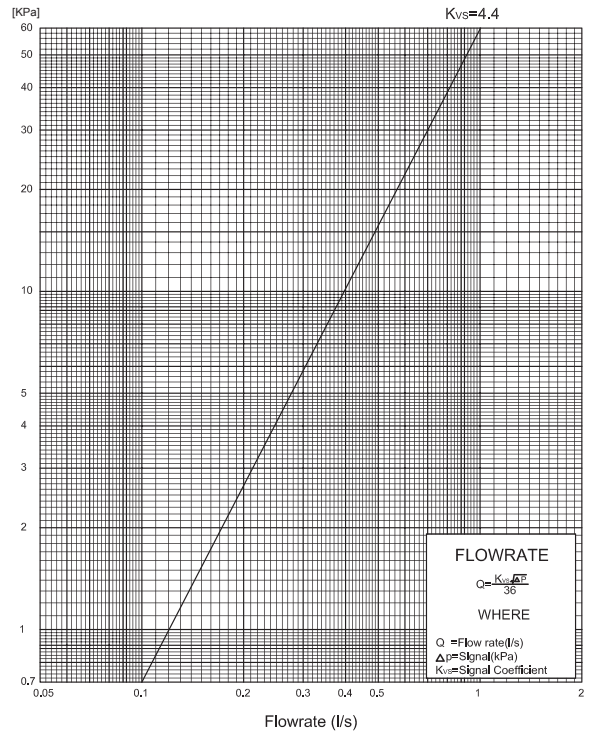


FLOW MEASUREMENT GRAPHS

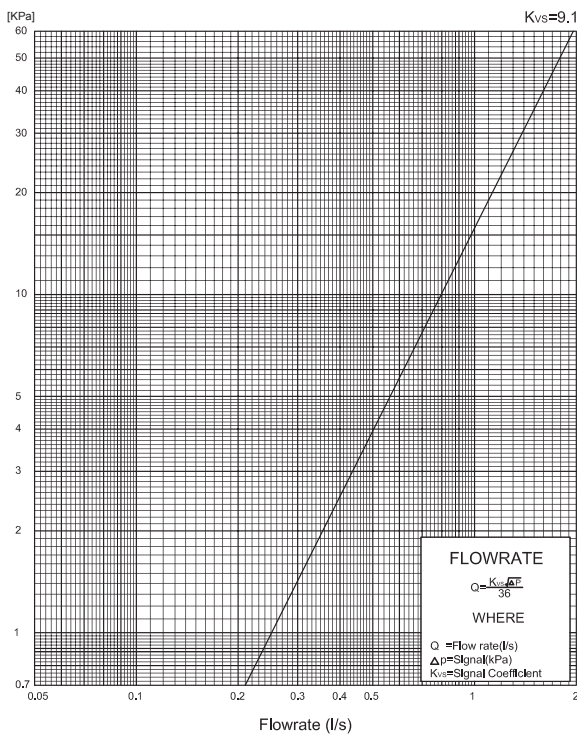
GDRV-101
Diameter : 15mm



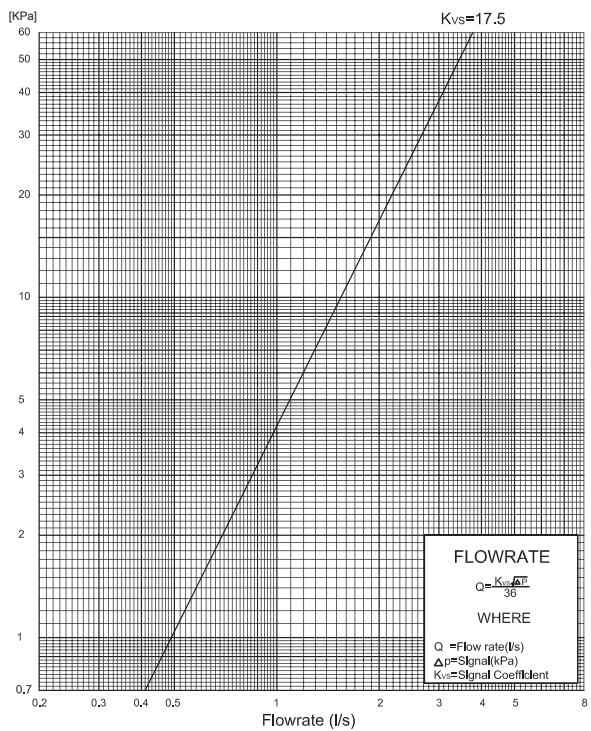
GDRV-101
Diameter : 20mm



GDRV-101
Diameter : 25mm

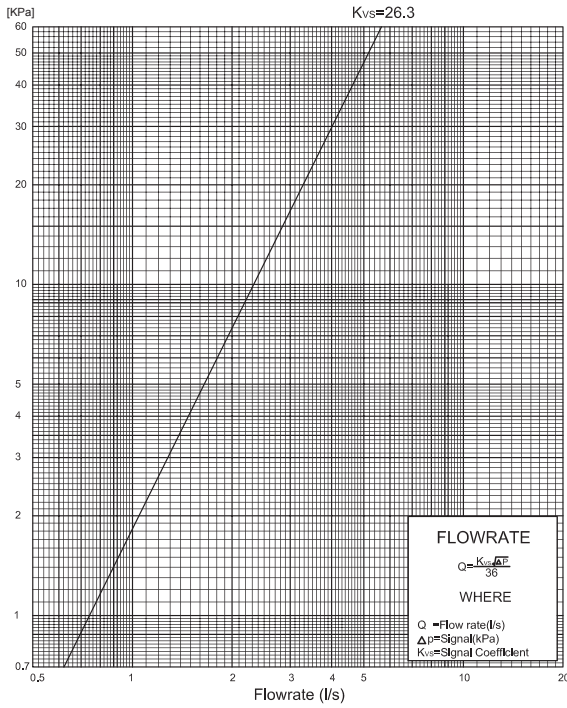


GDRV-101
Diameter : 32mm

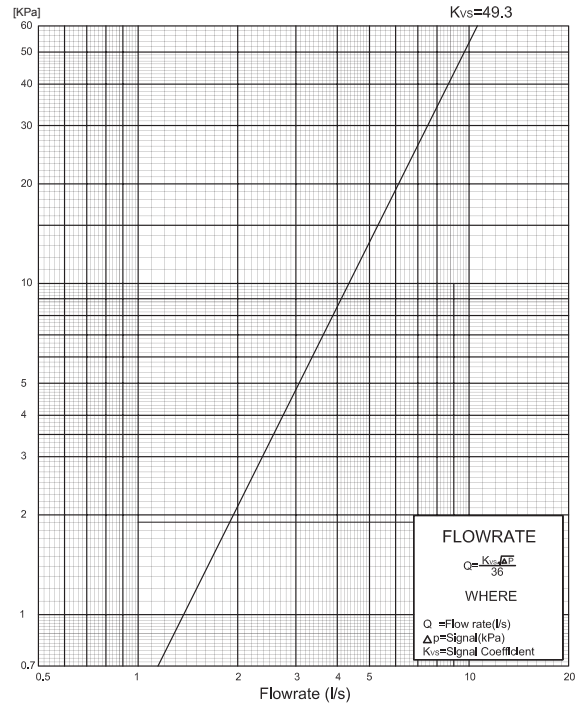


FLOW MEASUREMENT GRAPHS

GDRV-101
Diameter : 40mm



GDRV-101
Diameter : 50mm



DDRV-B
DDRV-B25

**FIXED ORIFICE
DOUBLE REGULATING VALVE**



PRODUCT DATA SHEET

FIXED ORIFICE DOUBLE REGULATING VALVE

**Model : DDRV-B
DDRV-B25**

65mm (2½") ~ 300mm (12")



APPLICATION

Tozen Double Regulating Valves are installed and used in centralised heating and cooling systems to obtain design flow rates of each terminal units and balancing the circuits in the building.

FUNCTION

- Balancing
- Measuring
- Pre-setting
- Isolating

FEATURES

- Y-pattern globe design.
- Integral fixed orifice plate to form a fixed orifice flow measurement unit with regulation and isolation function.
- Accuracy of +/-5% at full open position of the valve.
- Equipped with 2 measuring nipples for differential pressure measurement.
- Microset handwheel adjustment with easily readable settings.
- Multi-turn adjustment range for maximum flow control.
- Double regulating feature allows valve opening to be set with allen key.
- Long neck for thermal insulation.
- Ductile iron body of PN16 & PN 25 pressure rating.
- Comply to BS 7350.

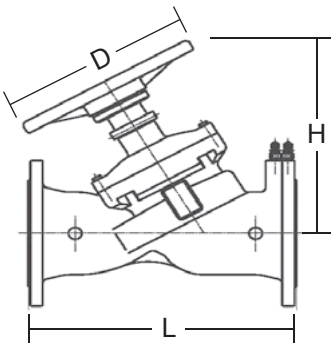
SPECIFICATION

- Type : Fixed orifice
- Size range : 65mm ~ 300mm
- Max. working pressure : 16bar (DDRV-B)
: 25bar (DDRV-B25)
- Testing pressure (Shell) : 24bar (DDRV-B)
: 37.5bar (DDRV-B25)
- Testing pressure (Seat) : 17.6bar (DDRV-B)
: 27.5bar (DDRV-B25)
- Working temperature : -10°C to 120°C
- Connection : EN1092-2 PN16/25
(Other flange standard available upon request)
- Standard : Comply to BS 7350

MATERIALS

Part	Material	ASTM	EN
Body	Ductile Iron	A536 65-45-12	EN-JS 1050
Bonnet	Ductile Iron	A536 65-45-12	EN-JS 1050
Stem	Stainless Steel 410	S41000	BS970 410S21
Disc	EPDM Coated Ductile Iron	A536 65-45-12	EN-JS 1050
Gland (65 - 150mm)	DZR Brass	B453 C35330	EN 12164 CW602N
Gland (200 - 300mm)	Ductile Iron	A536 65-45-12	EN-JS 1050
Gland Nut	DZR Brass	B453 C35330	EN 12164 CW602N
Measuring Nipples	DZR Brass	B453 C35330	EN 12164 CW602N
Handwheel	Ductile Iron	A536 65-45-12	EN-JS 1050
Orifice Insert	DZR Brass	B453 C35330	EN 12164 CW602N
Packing	EPDM	-	-

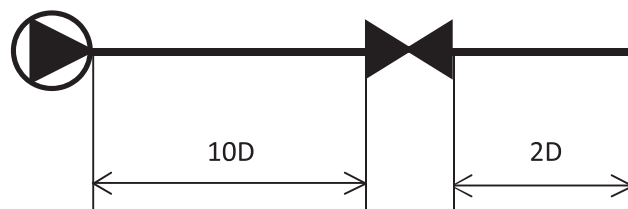
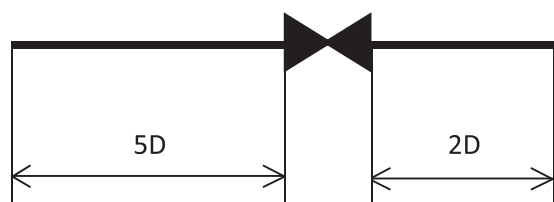
DIMENSIONS & COEFFICIENTS

	Size (mm)	L (mm)	H (mm)	D (mm)	Weight (kg)	Kvs
	65	290	265	200	17	98.40
80	310	270	200	20	131.24	
100	350	310	240	29	189.33	
125	400	340	290	40	354.73	
150	480	340	290	52	472.39	
200	600	537	350	113	735.55	
250	730	570	420	185	1153.21	
300	850	690	420	248	1712.62	

Note: Kvs at fully open position.

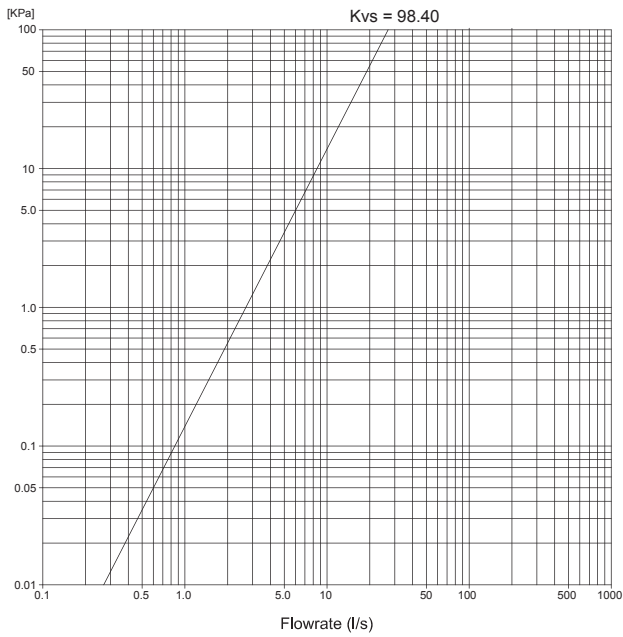
Installation

- The Double Regulating Valve shall be installed with the arrow marking on the valve body in accord to the same flow direction in the pipe. It may be installed at any angle.
- The gasket must be assembled between the flanges when the valve is installed. It can ensure that the valve is concentric with the pipe and the exact measurement data can be read.
- Avoid welding with pipe while it is connected. Tighten flanges bolts alternately, diagonally and repeatedly with the same force.
- Up and down stream from the valve is required to avoid turbulence which will affect the accuracy.

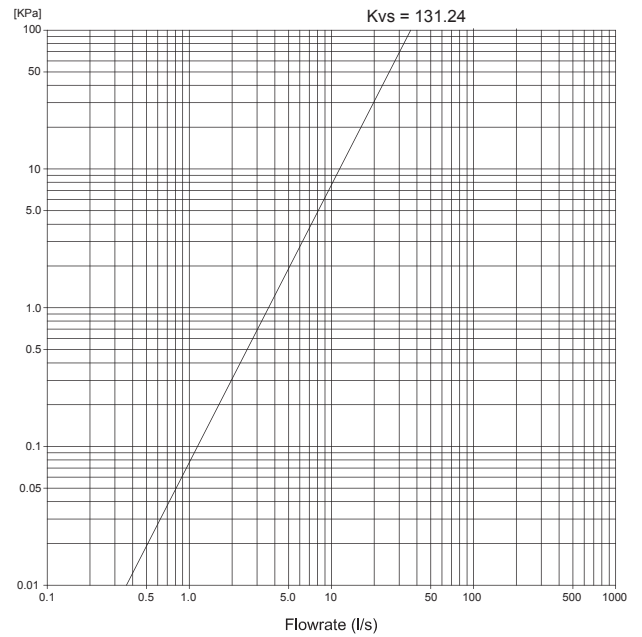


FLOW MEASUREMENT GRAPHS

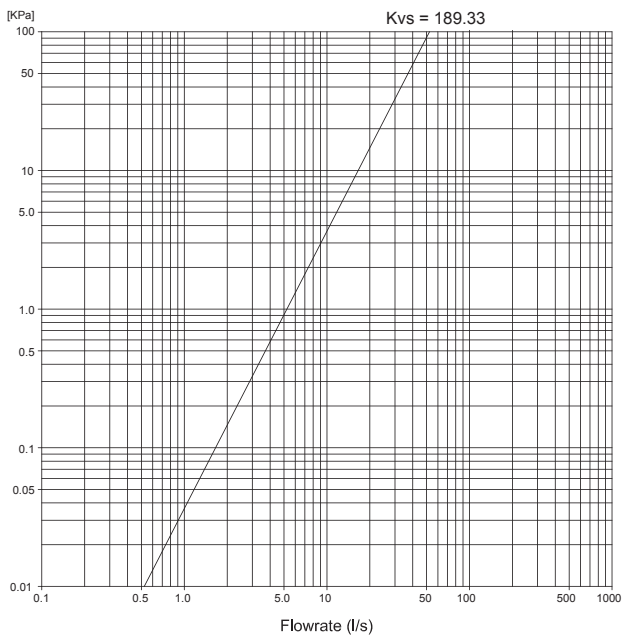
DDRV-B / DDRV-B25
Diameter : 65mm



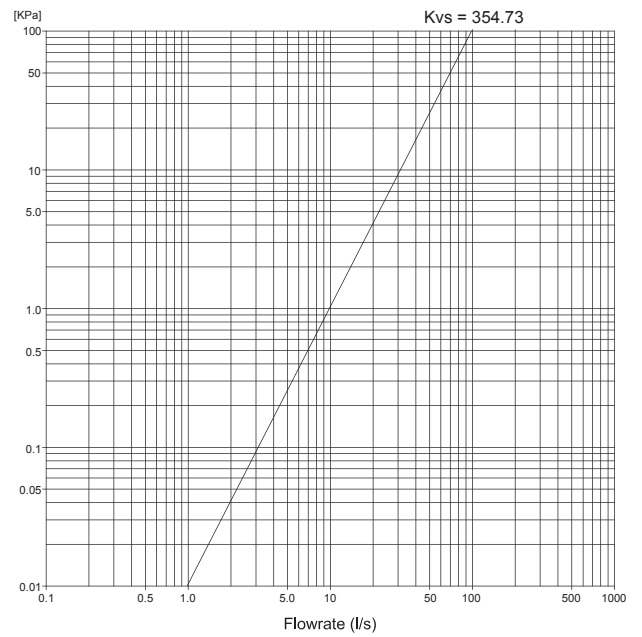
DDRV-B / DDRV-B25
Diameter : 80mm



DDRV-B / DDRV-B25
Diameter : 100mm

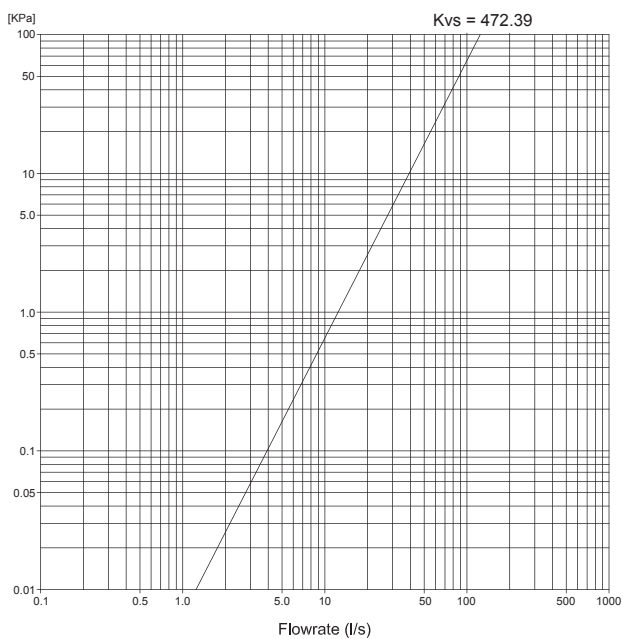


DDRV-B / DDRV-B25
Diameter : 125mm

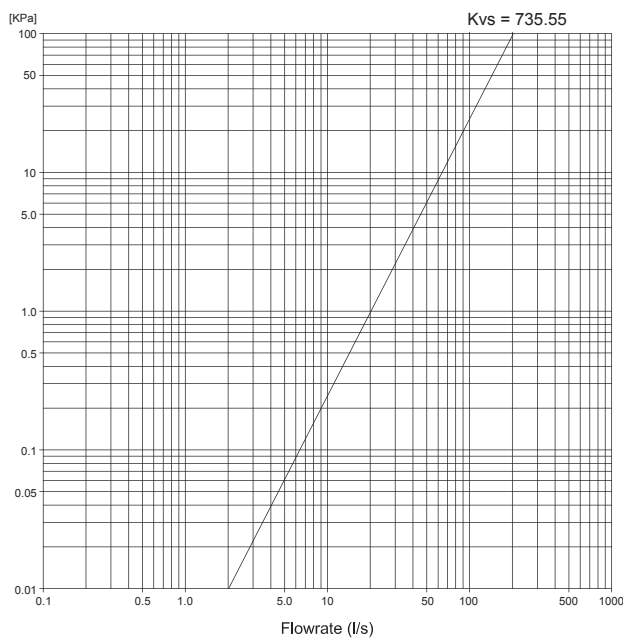


FLOW MEASUREMENT GRAPHS

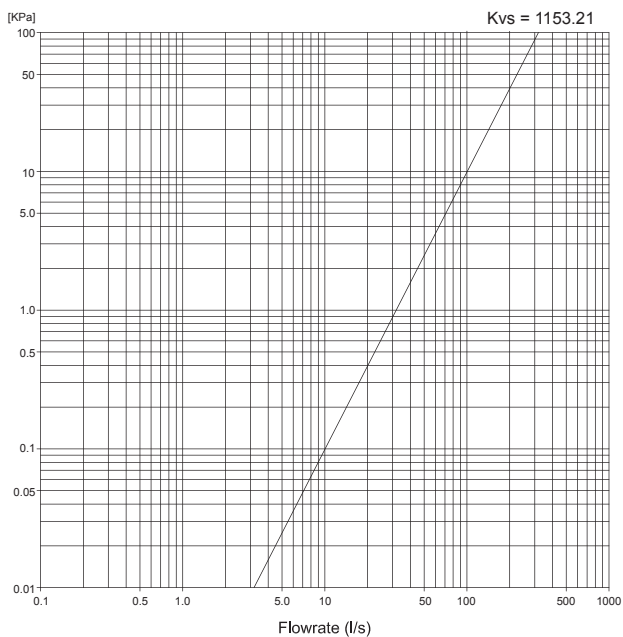
DDRV-B / DDRV-B25
Diameter : 150mm



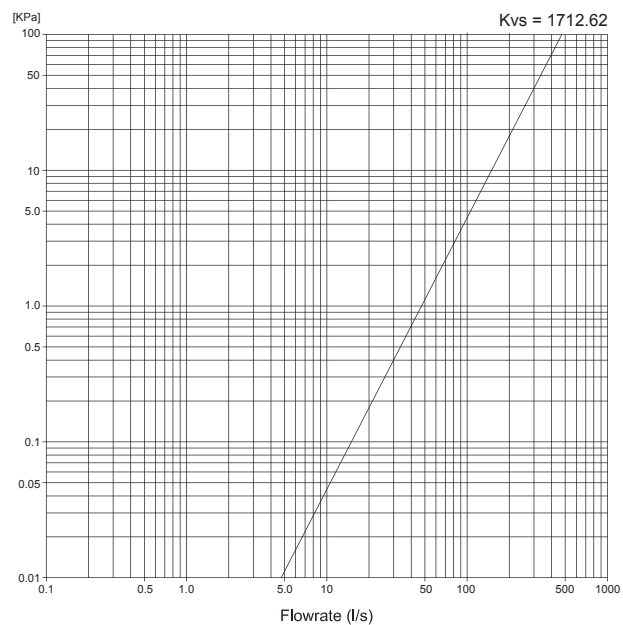
DDRV-B / DDRV-B25
Diameter : 200mm



DDRV-B / DDRV-B25
Diameter : 250mm



DDRV-B / DDRV-B25
Diameter : 300mm



TOZEN

A joint reliance

ELECTRONIC MANOMETER

TOCA6

The TOZEN TOCA6 electronic manometer Unit has been developed in response to demand from discerning commissioning engineers requiring an improvement in measuring techniques for differential pressures measurements primarily on balancing valves in heating and air conditioning systems. The nine button design allows simple navigation of the easy-to follow menu system with all parameters visible on screen.



TECHNICAL SPECIFICATION

Measurement accuracy Differential Pressure

Range 0.3-1kPa — Accuracy ± 0.03 kPa
Range 1-10kPa — Accuracy ± 0.05 kPa
Range 10-250kPa — Accuracy $\pm 0.5\%$ reading
Hysteresis 0.2% span

Static Pressure

10 Bar Maximum with hoses supplied as standard
High pressure options available

Measurement Range

0.1kPa to 250kPa

Effective operating time

20 hour with standard Alkaline PP3 battery

manometer



balancing valve



■ Structure



■ DESCRIPTION

TOZEN TOCA6 Manometer unit comprise the following
Hand held transducer and display unit in rubber protection sleeve.
Quick connect tubing set complete with manually operated isolation valves.
Quick connect angle pattern 3.3mm insertion probes units.

Toolkit

Instruction manual

Quick start instruction set and menu map, which has been set up with default valves for all the editable function and are listed.

■ FUNCTIONS

Flow/Pressure Display: Shows valve type, Kvs value, handwheel setting (when use with variable orifice), differential pressure, flow, valve type, valve size. Flow and pressure are shown in large text format.

Multi Display: Shows valve type, Kvs value, handwheel setting (when use with variable orifice), design flow, target flow, differential pressure, flow, valve type, valve size.

Pressure Display: Large text differential pressure.

Predictive Handwheel Position: For adjusting variable orifice valves.

Valve Storage: Up to 100 storage locations are available for manually storing valve information on-site.

Units

Differential Pressure: Pa, kPa, PSI, BAR, feet H₂O, Inches H₂O, mtrs H₂O, mm H₂O, cm H₂O

Flow : l/s, l/M, l/h, USGPM, UKGPM

Edit Functions

Design flow, target flow, specific gravity, Kvs, valve maker, valve group, valve model, valve size, handwheel position.

NEUMAX[®]

QT SERIES QUARTER TURN ELECTRIC ACTUATOR



"NEUMAX" QT Series Quarter Turn Electric Actuator

'QT' series electric actuators are designed & engineered for robust, reliable and for high performance duty onto quarter turn valves. The unique reliable motor module, adjustable cam plate limit switch, self locking mechanism, precision gearing system and ball bearings, the auto declutching mechanism, light force load on the hand-wheel, the adaptor drive bushing and bottom ISO 5211 mounting dimension, are added advantages against others in the field of valve automation. CE approved. FM & UL pending.

Features

1. **ENCLOSURE**
Standard enclosure to water jet proof & water tight proof IP 67, NEMA 4 & 6.
2. **MOTOR**
Squirrel cage motor is of encapsulated type, on high stall torque and low inherent force for seating & unseating of valves. All motors are integrated with build-in thermal protection.
3. **TERMINAL CONNECTION & WIRING**
Terminal connections are of "WAGO" push on type, making wiring connection very easy & without fuss. Electrical wiring circuit is standardized for single & three phase voltage. Addition termination is available on request.
4. **INTERNAL COMPONENTS ARRANGEMENT**
Internal mechanical and electrical components are designed in modular mounting arrangement, and can be easily removed for maintenance purposes. Addition optional accessories are also possible.
5. **LIMIT SWITCHES**
A pair of limit switches are activated by means of simple, reliable & adjustable cam plates, mounted directly onto, and driven by center column. The unique cam plate design does not allow over travel of limit switches.
6. **TORQUE SWITCHES**
Electric actuators on 100 Nm and above, are installed with torque switches for over-load protection.
7. **HEATER**
For prevention of condensation due to weather & temperature changes, and also keeps internal components clean & dry, a 20 watt space heater is provided inside all the electric actuators.
8. **SELF LOCKING MECHANISM**
Because of the worm gear design system, all the electric actuators are self locking.
9. **HANDWHEEL**
Correct size of hand-wheel on the electric actuator ensure adequate strength for safe and efficient emergency operation.
10. **MANUAL OVER-RIDE**
Engage by pulling the lever & turning the hand-wheel. Lever is auto declutch when power supply is switched on, and hand-wheel does not turn as extra safety feature.
11. **VISUAL POSITION INDICATOR**
The visual position indicator is directly mounted onto the center drive column to provide the visual position of the valve.
12. **END STOPPERS**
1 each for open & close position (adjustable), are for over travel protection.
13. **POTENTIOMETER - optional**
Is available on request, is to provide & transmit remote indication of valve position.
14. **MOUNTING & ADAPTATION**
Bottom flange mounting dimension conform to ISO 5211. A adaptor drive bushing is provided for every electric actuator, is removable and for machining to suite valve stem size.



Modulating Service with TCM



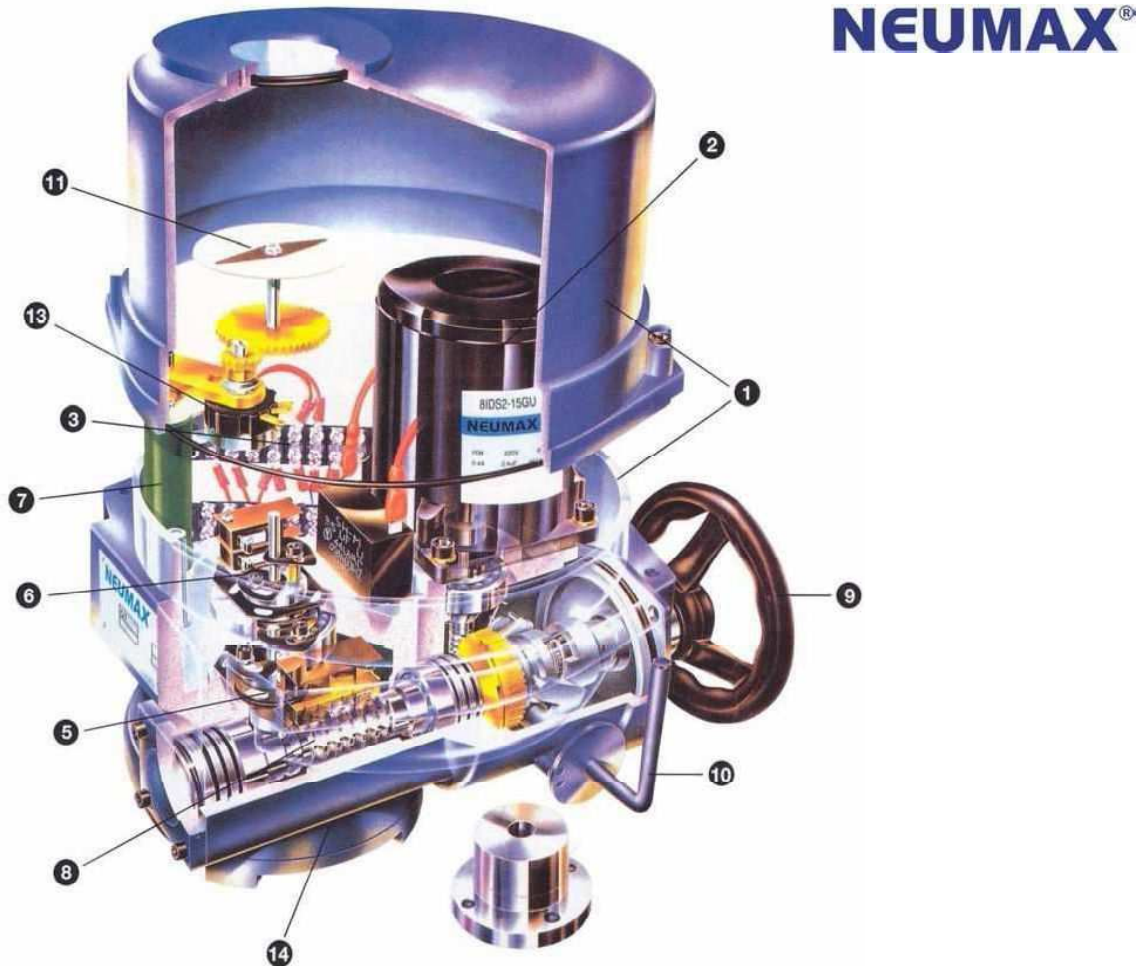
Actuator with Ball Valve for On/Off Service



Application

For quarter turn valves automation used in heating & ventilation, air-conditioning, water treatment works, power generation, petrochemical plants, oil storage facilities, chemical plants, effluent treatment works, pulp & paper mills and shipbuilding industry.

Structure

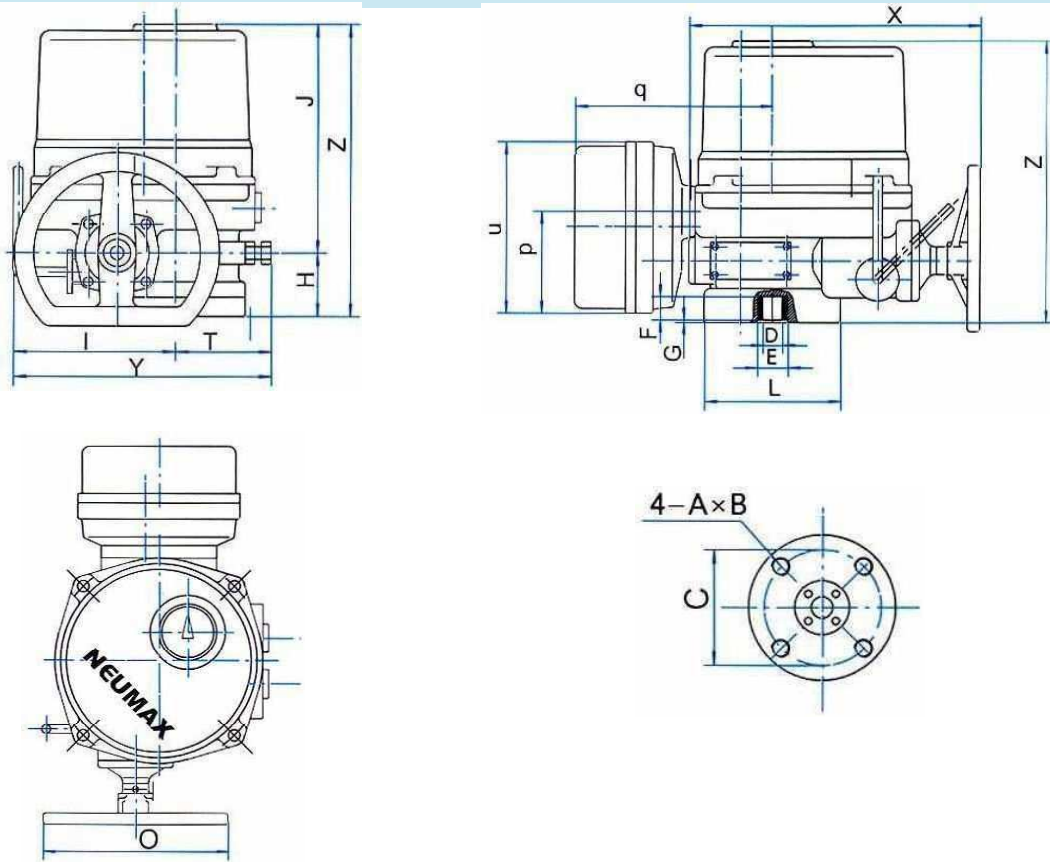


• Performance

Type	Max Output Torque Kg-m	Operating Time 60/50 Hz. 90 Deg.	Max Stem Dia. mm	Motor 30 Min. Class F W	Rated Current (mA)				Number of Handle Turn	Weight (Kgs)
					1 Phase		3 Phase			
					110V	220V	380V	440V		
QT3*	3	14/17	14	10	650	300	N/A	N/A	8.5	6
QT4*	4	14/17	14	10	650	300	N/A	N/A	8.5	6
QT6*	6	14/17	22	15	1250	400	N/A	N/A	8.5	9
QT9*	9	14/17	22	25	1500	550	190	400	8.5	10
QT15	15	17/20	22	40	2000	900	280	400	10	12
QT19	19	17/20	22	40	2000	900	280	420	10	13
QT28	28	22/26	32	40	2000	900	280	450	12.75	17
QT38	38	22/26	32	60	2700	1250	400	450	12.75	18
QT50	50	22/26	32	90	3300	1600	600	450	12.75	19
QT60	60	24/29	42	120	5000	2400	800	500	14.5	22
QT80	80	24/29	42	180	5800	2800	1200	850	14.5	23
QT100	100	24/29	42	200	8000	3000	1300	900	14.5	25
QT150	150	75/90	50	180	5800	2800	1200	850	45	33
QT200	200	75/90	50	200	8000	3000	1300	900	45	35
QT250	250	75/90	50	200	8000	3000	1300	900	45	35

* Without torque switches

QT3, QT4, QT6, QT9, QT15, QT19, QT28, QT38, QT50, QT60, QT80, QT100



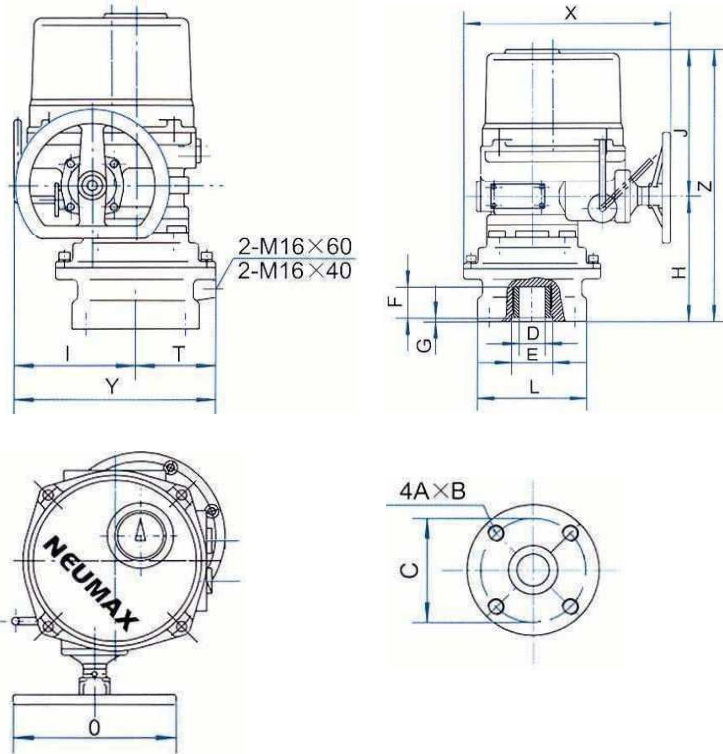
• **Dimensions**

Type	QT3	QT4	QT6	QT9	QT15	QT19	QT28	QT38	QT50	QT60	QT80	QT100
Flange ISO5211	F05	F05	F05	F07	F07	F07	F10	F10	F10	F10	F10	F10
	-	-	-	-	F10	F10	F12	F12	F12	F12	F12	F12
C	50	50	50	70	70 102	70 102	102 125	102 125	102 125	102 125	102 125	102 125
A	M6	M6	M8	M8	M8 M10	M8 M10	M10 M12	M10 M12	M10 M12	M10 M12	M10 M12	M10 M12
B	12	12	12	12	15	15	18	18	18	18 20	18 20	18 20
D (Max)	14	14	14	22	22	22	32	32	32	42	42	42
E	40	40	55	55	57	57	75	75	75	85	85	85
F	25	25	35	35	35	35	42	42	42	50	50	50
G	5	5	5	5	5	5	1.2	1.2	1.2	1	1	1
H	60	60	60	60	64	64	70	70	70	78	78	78
I	133	133	133	133	154	154	174	174	174	191	191	191
J	196	196	196	196	199	199	228	228	228	264	264	264
L	102	102	102	102	125	125	145	145	145	175	175	175
O	200	200	200	200	250	250	350	350	350	350	350	350
T	75	75	75	75	85	85	100	100	100	115	115	115
X	241	241	241	241	272	272	290	290	290	331	331	331
Y	208	208	208	208	239	239	274	274	274	306	306	306
Z	256	256	256	256	263	263	298	298	298	342	342	342
P	72	72	72	72	72	72	72	72	72	72	72	72
q	166	166	166	166	187	187	192	192	192	209	209	209
U	170	170	170	170	170	170	170	170	170	170	170	170

QT150, QT200, QT250

• Dimensions

Type	QT150	QT200	QT250
Flange	F16	F16	F16
ISO5211	F14	F14	F14
C	160	160	160
A	M20	M20	M20
B	30	30	30
D (Max)	50	50	50
E	95	95	95
F	60	60	60
G	4	4	4
H	241	241	241
I	191	191	191
J	264	264	264
L	210	210	210
O	350	350	350
T	132	132	132
X	357	357	357
Y	323	323	323
Z	505	505	505



Note : The sizes of adjustable box of QT150~QT250 is identical to sizes of QT60~QT100.

Standard Specification

Housing & Cover	Aluminium, Anodized
Enclosure	Watertight IP67, Nema4 and 6
Ambient Temp	-30°C to + 70°C
Power Supply (60Hz/50Hz)	110/220VAC, 1 Phase 380/440VAC, 3 Phase
Control Power	110/220VAC, 1 Phase, 60/50Hz
Torque Switches	2 x SPDT for QT15 and above
Limit Switches	2 x SPDT 15A
Stall Protection	Built-in Thermal Protection
Travel Angle	90° ± 5°
Indicator	Continuous Position Indicator
Manual Override	HAND/AUTO Decutching Mechanism
Self Locking	Provide by means of Worm Gearing
End Stopper	External Adjustable Screws
Space Heater	20W for Anti-Condensation
Conduit Entries	Two G3/4"
Lubrication	MoS2 Lithium Base Grease
Materials	Steel, Aluminium Alloy, Al Bronze
External Coating	Dry Powder, Epoxy-Polyester Munsell No. FJ-002

Optional Items

ALS	Additional 2 x SPDT Auxiliary Limit Switches
EXT	Travel Angle 120°, 135°, 180°, 270°
LCB	Local Control Box (1) Local/Remote Selector Switch (2) Open/Stop/Close Selector Switch
POT	Potentiometer 1k Ohm
CPT	Current Position Transmitter Output; 4-20mA DC
PCM	Proportional Control Module Input signal: 4-20mA, 1-5V DC Output Signal: 4-20mA DC
EXP	Explosion & Water Proof Enclosure Exd II BT4 IP67

DZR BRASS GATE VALVE

SPECIFICATION

SCREWED-IN BONNET • SOLID WEDGE DISC
NON-RISING STEM • INTEGRAL SEAT • ASBESTOS FREE
THREADED TO BS 21 (ISO 7) / ASME B1.20.1
SIZE RANGE : 15mm (1/2") ~ 100mm (4")

PRESSURE RATINGS

Working Pressure	232 psi (16 bar) WOG Non-Shock 100 psi (7 bar) Saturated Steam
Testing Pressure	Shell : 348 psi (24 bar) Hydrostatic Seat : 255 psi (17.6 bar) Hydrostatic 80 psi (5.5 bar) Air
Suitable Media	Water & Oil

MATERIALS

Part	Material	ASTM	EN
Body	DZR Brass	B124 C35300	12165 CW602N
Bonnet	DZR Brass	B124 C35300	12165 CW602N
Disc	Brass	B124 C37700	12165 CW617N
Stem	Brass	B124 C37700	12165 CW617N
Packing	PTFE		
Packing Nut	Brass	B124 C37700	12165 CW617N
Gland	Brass	B124 C37700	12165 CW617N
Handwheel	Cast Iron	A126 CLASS B	JL1040

Note: DZR is dezincification resistant copper alloy.

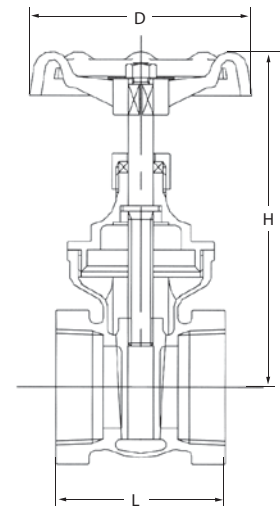
DIMENSIONS

Size		L		H		D	
mm	inch	mm	inch	mm	inch	mm	inch
15	1/2	46.5	1.8	75	3	53	2.1
20	3/4	50	2.0	84	3.3	58	2.3
25	1	56	2.2	99	3.9	72	2.8
32	1-1/4	63	2.5	113	4.4	78	3.1
40	1-1/2	65	2.6	125	4.9	78	3.1
50	2	78	3.1	155	6.1	96	3.8
65	2-1/2	86	3.4	185	7.3	108	4.3
80	3	98.5	3.9	210	8.3	126	5.0
100	4	115	4.5	265	10.4	145	5.7

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

D-BGV PN16



BRONZE GATE VALVE

SPECIFICATION

MSS SP-80
SCREWED-IN BONNET • SOLID WEDGE DISC
NON-RISING STEM • INTEGRAL SEAT • ASBESTOS FREE
THREADED TO BS 21 (ISO 7) / ASME B1.20.1
SIZE RANGE : 15mm (1/2") ~ 100mm (4")

PRESSURE RATINGS

Working Pressure	300 psi (20.7 bar) WOG Non-Shock 150 psi (10.3 bar) Saturated Steam
Testing Pressure	Shell : 450 psi (31 bar) Hydrostatic Seat : 330 psi (22.7 bar) Hydrostatic 80 psi (5.5 bar) Air

MATERIALS

Part	Material	ASTM	EN
Body	Bronze (Gunmetal)	B62 C83600	CC491K
Bonnet	Bronze (Gunmetal)	B62 C83600	CC491K
Disc	Bronze (Gunmetal)	B62 C83600	CC491K
Stem	Brass Rod	B124 C35300	12165 CW602N
Packing	PTFE		
Packing Nut	Brass Rod	B124 C37700	12165 CW617N
Gland	Brass Rod	B124 C37700	12165 CW617N
Handwheel	Cast Iron	A126 CLASS B	JL1040

DIMENSIONS

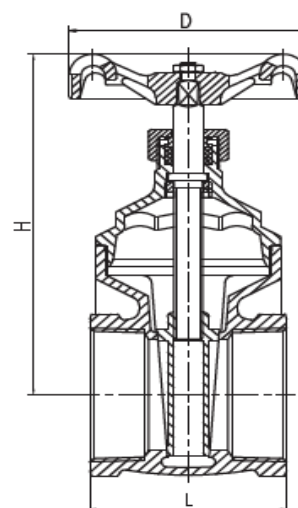
Size		L		H		D	
mm	inch	mm	inch	mm	inch	mm	inch
15	1/2	43	1.7	78	3.1	52	2.0
20	3/4	49	1.9	92	3.6	60	2.4
25	1	54	2.1	103	4.1	60	2.4
32	1-1/4	62	2.4	116	4.6	70	2.8
40	1-1/2	65	2.6	133	5.2	78	3.1
50	2	75	3	156	6.1	92	3.6
65	2-1/2	87	3.4	190	7.5	100	3.9
80	3	105	4.1	215	8.5	110	4.3
100	4	124	4.9	258	10.2	130	5.1

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

GGV

Class 150



BRONZE RISING STEM GATE VALVE

SPECIFICATION

MSS SP-80
SCREWED-IN BONNET • SOLID WEDGE DISC
RISING STEM • INTEGRAL SEAT • ASBESTOS FREE
THREADED TO BS 21 (ISO 7) / ASME B1.20.1
SIZE RANGE : 15mm(1/2") ~ 50mm(2")

PRESSURE RATINGS

Working Pressure	300 psi (20.7 bar) WOG Non-Shock 150 psi (10.3 bar) Saturated Steam
Testing Pressure	Shell : 450 psi (31 bar) Hydrostatic Seat : 330 psi (22.7 bar) Hydrostatic 80 psi (5.5 bar) Air
Suitable Media	Water & Oil

MATERIALS

Part	Material	ASTM	EN
Body	Bronze (Gunmetal)	B62 C83600	CC491K
Bonnet	Bronze (Gunmetal)	B62 C83600	CC491K
Disc	Bronze (Gunmetal)	B62 C83600	CC491K
Stem	Brass Rod	B124 C35300	12165 CW602N
Packing	PTFE		
Packing Nut	Brass Rod	B124 C37700	12165 CW617N
Gland	Brass Rod	B124 C37700	12165 CW617N
Handwheel	Cast Iron	A126 CLASS B	JL1040
Gasket	Non Asbestos		

DIMENSIONS

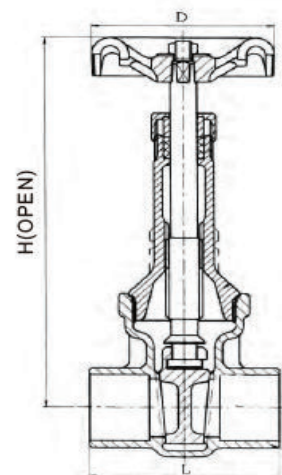
Size		L		H (Open)		D	
mm	inch	mm	inch	mm	inch	mm	inch
15	1/2	43	1.7	112	4.4	52	2.0
20	3/4	49	1.9	125	4.9	60	2.4
25	1	54	2.1	143	5.6	60	2.4
32	1-1/4	62	2.4	170	6.7	70	2.8
40	1-1/2	65	2.6	198	7.8	78	3.1
50	2	75	3.0	233	9.2	92	3.6

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

R-GGV

Class 150



BRONZE Y TYPE STRAINER

SPECIFICATION

Y-PATTERN BODY • SCREWED CAP WITH PLUG
 STAINLESS STEEL 304 SCREEN • ASBESTOS FREE
 THREADED TO BS 21 (ISO 7) / ASME B1.20.1
 SIZE RANGE : 15mm (1/2") ~ 50mm (2")

PRESSURE RATINGS

Working Pressure	300 psi (20.7 bar) WOG Non-Shock 150 psi (10.3 bar) Saturated Steam
Testing Pressure	450 psi (31 bar) Hydrostatic 80 psi (5.5 bar) Air

MATERIALS

Part	Material	ASTM	BS
Body	Bronze (Gunmetal)	B62 C83600	1400 LG2
Cap	Bronze (Gunmetal)	B62 C83600	1400 LG2
Plug	Brass	B124 C38800	2874 CZ122
Screen	Stainless Steel 304	A240 304	1449 304S31
Gasket	Non-Asbestos Sheet		

STANDARD SCREENS

Size		Hole Diameter		Free Flow Area
mm	inch	mm	inch	inch ²
15~50	1/2~2"	1.4 x 1.2	0.06 x 0.05	225

DIMENSIONS

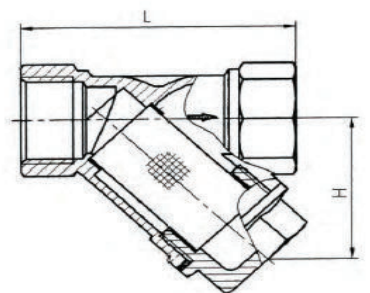
Size		L		H	
mm	inch	mm	inch	mm	inch
15	1/2	58	2.3	33	1.3
20	3/4	70	2.8	41	1.6
25	1	88	3.5	49	1.9
32	1-1/4	96	3.8	56	2.2
40	1-1/2	107	4.2	62	2.4
50	2	126	5.0	80	3.1

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

GYS-L

Class 150



BRONZE BALL VALVE

SPECIFICATION

SCREWED BODY CAP • FULL BORE
BLOW-OUT PROOF STEM • PTFE SEAT
THREADED TO BS 21 (ISO 7) / ASME B1.20.1
SIZE RANGE : 8mm(1/4") ~ 100mm (4")

PRESSURE RATINGS

Working Pressure	600 psi (41.3 bar) WOG Non-Shock 150 psi (10.3 bar) Saturated Steam
Testing Pressure	Shell : 900 psi (62 bar) Hydrostatic Seat : 660 psi (45.5 bar) Hydrostatic 80 psi (5.5 bar) Air
Suitable Media	Water & Oil

MATERIALS

Part	Material	ASTM	EN
Body	Bronze (Gunmetal)	B62 C83600	1982 CC491K
Cap	Bronze (Gunmetal)	B62 C83600	1982 CC491K
Ball	Brass + Chrome Plated	B124 C37700	12165 CW617N
Seat	PTFE		
Stem	Brass	B453 C35330	12165 CW602N
O-Ring	NBR		
Gland	Brass	B124 C37700	12165 CW617N
Handle	Steel (Chrome Plated)		

DIMENSIONS

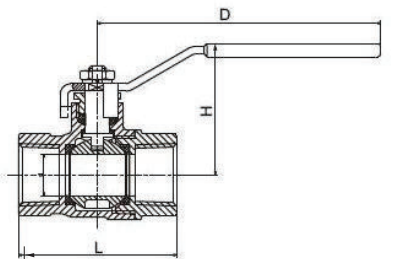
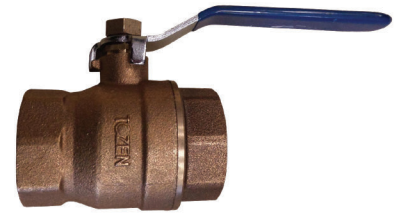
Size		L		H		D	
mm	inch	mm	inch	mm	inch	mm	inch
8	1/4	46	1.8	39	1.5	81	3.2
10	3/8	46	1.8	39	1.5	81	3.2
15	1/2	53	2.1	44	1.7	95	3.7
20	3/4	61	2.4	51	2.0	110	4.3
25	1	71	2.8	55	2.2	110	4.3
32	1-1/4	85	3.3	65	2.6	140	5.5
40	1-1/2	92	3.6	70	2.8	140	5.5
50	2	114	4.5	83	3.3	160	6.3
65	2-1/2	134	5.3	118	4.6	220	8.7
80	3	152	6.0	132	5.2	270	10.6
100	4	182	7.2	150	5.9	280	11.0

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

GBV

Type 600



BRONZE SWING CHECK VALVE

SPECIFICATION

MSS SP-80
SCREWED CAP • SWING TYPE DISC • INTEGRAL SEAT
THREADED TO BS 21 (ISO 7) / ASME B1.20.1
SIZE RANGE : 15mm (1/2") ~ 100mm (4")

PRESSURE RATINGS

Working Pressure	300 psi (20.7 bar) WOG Non-Shock 150 psi (10.3 bar) Saturated Steam
Testing Pressure	Shell : 450 psi (31 bar) Hydrostatic Seat : 330 psi (22.7 bar) Hydrostatic 80 psi (5.5 bar) Air

MATERIALS

Part	Material	ASTM	EN
Body	Bronze (Gunmetal)	B62 C83600	1400 LG2
Cap	Bronze (Gunmetal)	B62 C83600	1400 LG2
Disc	Brass	B124 C38800	2874 CZ122
Hinge Pin	Brass Rod	B124 C38800	2874 CZ122
Gasket	Non-Asbestos Sheet		

DIMENSIONS

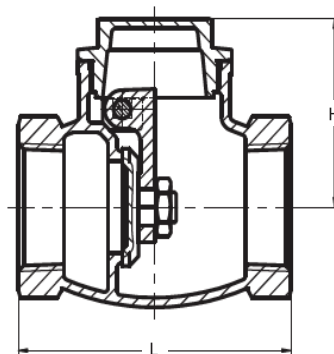
Size		L		H	
mm	inch	mm	inch	mm	inch
15	1/2	58	2.3	37	1.5
20	3/4	66	2.6	43	1.7
25	1	76	3.0	49	1.9
32	1-1/4	88	3.5	57.5	2.3
40	1-1/2	96	3.8	63	2.5
50	2	112	4.4	72	2.8
65	2-1/2	136	5.4	85	3.3
80	3	147	5.8	93	3.7
100	4	180	7.1	110	4.3

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

GSCV

Class 150



BRONZE GLOBE VALVE

SPECIFICATION

MSS SP-80
SCREWED-IN BONNET • SWIVEL DISC
RISING STEM • ASBESTOS FREE
THREADED TO BS 21 (ISO 7) / ASME B1.20.1
SIZE RANGE : 15mm (1/2") ~ 50mm (2")

PRESSURE RATINGS

Working Pressure	300 psi (20.7 bar) WOG Non-Shock 150 psi (10.3 bar) Saturated Steam
Testing Pressure	Shell : 450 psi (31 bar) Hydrostatic Seat : 330 psi (22.7 bar) Hydrostatic 80 psi (5.5 bar) Air

MATERIALS

Part	Material	ASTM	BS
Body	Bronze (Gunmetal)	B62 C83600	1400 LG2
Bonnet	Bronze (Gunmetal)	B62 C83600	1400 LG2
Disc	Bronze (Gunmetal)	B62 C83600	1400 LG2
Stem	Brass Rod	B124 C38800	2874 CZ122
Packing	PTFE		
Packing Nut	Brass Rod	B124 C38800	2874 CZ122
Gland	Brass Rod	B124 C38800	2874 CZ122
Handwheel	Cast Iron	A48 No.35	1452 Gr.260

DIMENSIONS

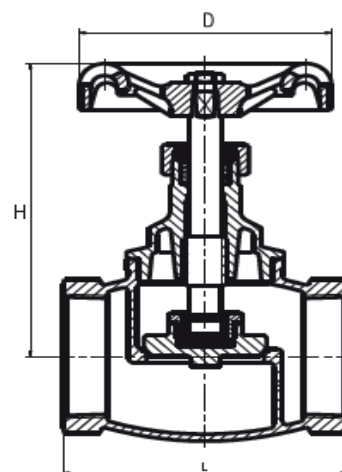
Size		L		H		D	
mm	inch	mm	inch	mm	inch	mm	inch
15	1/2	52	2.0	70	2.8	60	2.4
20	3/4	63	2.5	82	3.2	65	2.6
25	1	76	3.0	92	3.6	70	2.8
32	1-1/4	84	3.3	108	4.3	78	3.1
40	1-1/2	98	3.9	120	4.7	92	3.6
50	2	116	4.6	140	5.5	103	4.1

Note:

1. If used for gas application, please consult our sales office.
2. Design and specifications are subject to change without prior notice.

GGLV

Class 150





A joint reliance

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