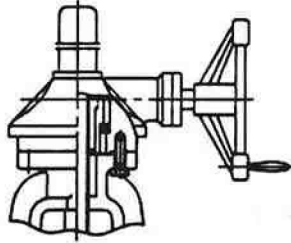
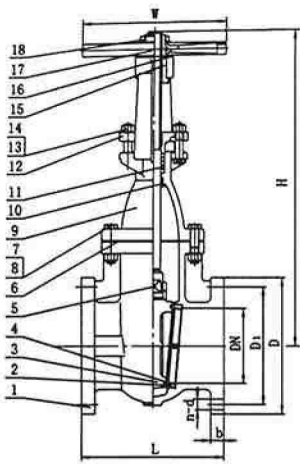




**HOCO CAST IRON GATE VALVE  
(NON RISING STEM)  
JIS B2045 10K**



Design and Manufacture Conform to JIS B2044  
Flange dimensions Conform to JIS B2212  
Face to Face dimensions Conform to JIS B2002  
Testing Conform to JIS B2003

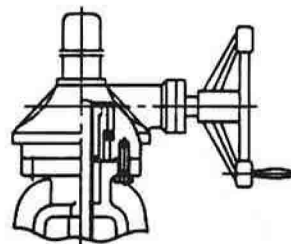
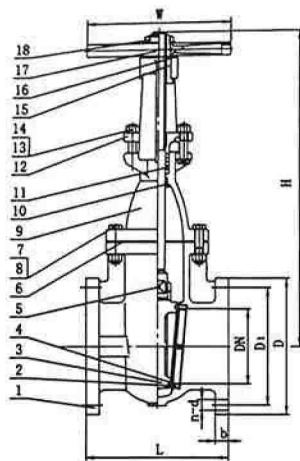


MATERIALS			
NO.	PART NAME	MATERIAL(C.I.)	MATERIAL(D.I.)
1	BODY	ASTM A126 B	ASTM B536
2	SEAT RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
3	WEDGE	ASTM A126 B	ASTM B536
4	WEDGE RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
5	STEM	ASTM B16 or 13Cr	ASTM B16 or 13Cr
6	BONNET GASKET	GRAPHITE+STEEL	GRAPHITE+STEEL
7	BONNET BOLT	ASTM A307	ASTM A307
8	BONNET NUT	CARBON STEEL	CARBON STEEL
9	BONNET	ASTM A126 B	ASTM A536
10	BACK SEAT BUSHING	ASTM B16 or 13Cr	ASTM B16 or 13Cr
11	PACKING	GRAPHITE	GRAPHITE
12	PACKING GLAND	ASTM A536	ASTM A536
13	PACKENG GLAND BOLT	CARBON STEEL	CARBON STEEL
14	PACKING GLAND NUT	CARBON STEEL	CARBON STEEL
15	STEM NUT	Mn-BRASS	Mn-BRASS
16	GASKET	ASTM B16	ASTM B16
17	HANDWHEEL	ASTM A126 B	ASTM A126 B
18	HANDWHEEL NUT	ASTM A536	ASTM A536

It can be operated with bevel gear according to customer's requirement.

DN	L	D	Di	b	n-d	H	W	W.T (kg)
50	178	155	120	20	4-19	297	180	15
65	190	175	140	22	4-19	342	180	22
80	203	185	150	22	8-19	390	200	27
100	229	210	175	24	8-19	456	250	45
125	254	250	210	24	8-23	529	280	64
150	267	280	240	26	8-23	606	300	88
200	292	330	290	26	12-23	766	360	134
250	330	400	355	30	12-25	930	400	205
300	356	445	400	32	16-25	1080	450	296

**HOCO CAST IRON GATE VALVE  
(RISING STEM) JIS B2045 10K**



Design and Manufacture Conform to JIS B2044  
Flange dimensions Conform to JIS B2212  
Face to Face dimensions Conform to JIS B2002  
Testing Conform to JIS B2003

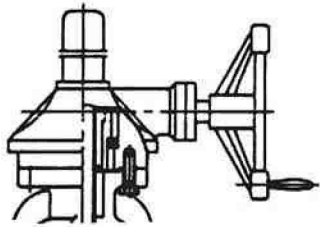
It can be operated with bevel gear according to customer's requirement.



MATERIALS			
NO.	PART NAME	MATERIAL(C.I.)	MATERIAL(D.I.)
1	BODY	ASTM A126 B	ASTM B536
2	SEAT RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
3	WEDGE	ASTM A126 B	ASTM B536
4	WEDGE RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
5	STEM	ASTM B16 or 13Cr	ASTM B16 or 13Cr
6	BONNET GASKET	GRAPHITE+STEEL	GRAPHITE+STEEL
7	BONNET BOLT	ASTM A307	ASTM A307
8	BONNET NUT	CARBON STEEL	CARBON STEEL
9	BONNET	ASTM A126 B	ASTM A536
10	BACK SEAT BUSHING	ASTM B16 or 13Cr	ASTM B16 or 13Cr
11	PACKING	GRAPHITE	GRAPHITE
12	PACKING GLAND	ASTM A536	ASTM A536
13	PACKENG GLAND BOLT	CARBON STEEL	CARBON STEEL
14	PACKING GLAND NUT	CARBON STEEL	CARBON STEEL
15	STEM NUT	Mn-BRASS	Mn-BRASS
16	GASKET	ASTM B16	ASTM B16
17	HANDWHEEL	ASTM A126 B	ASTM A126 B
18	HANDWHEEL NUT	ASTM A536	ASTM A536

DN	L	D	Di	b	n-d	H	W	W.T (kg)
50	178	155	120	20	4-19	297	180	15
65	190	175	140	22	4-19	342	180	22
80	203	185	150	22	8-19	390	200	27
100	229	210	175	24	8-19	456	250	45
125	254	250	210	24	8-23	529	280	64
150	267	280	240	26	8-23	606	300	88
200	292	330	290	26	12-23	766	360	134
250	330	400	355	30	12-25	930	400	205
300	356	445	400	32	16-25	1080	450	296

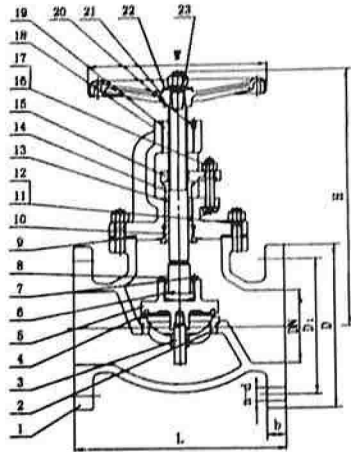
# HOCO CAST IRON GLOBE VALVE JIS B2045 10K



Design and Manufacture Conform to JIS B2044  
Flange dimensions Conform to JIS B2212  
Face to Face dimensions Conform to JIS B2002  
Testing Conform to JIS B2003



It can be operated with  
bevel gear according to  
customer's requirement.



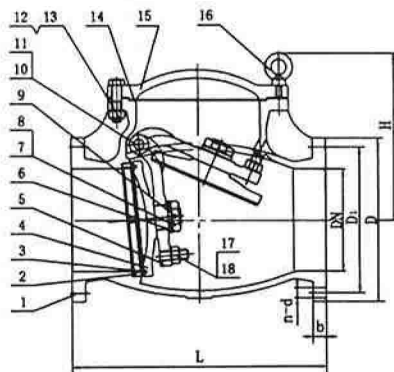
## MATERIALS

NO	PART NAME	MATERIAL(C.I.)	MATERIAL(D.I.)
1	BODY	ASTM A126 B	ASTM A536
2	SEAT RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
3	GUIDE POST	ASTM B16 or 13Cr	ASTM B16 or 13Cr
4	DISC SEAL RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
5	DISC	ASTM A126 B	ASTM A536
6	STEM	ASTM B16 or 13Cr	ASTM B16 or 13Cr
7	CHECK SCREW	CARBON STEEL	CARBON STEEL
8	DISC COVER	CARBON STEEL	CARBON STEEL
9	BONNET GASKET	GRAPHITE+STEEL	GRAPHITE+STEEL
10	BACK SEAT BUSHING	ASTM B16 or 13Cr	ASTM B16 or 13Cr
11	STUD	CARBON STEEL	CARBON STEEL
12	NUT	CARBON STEEL	CARBON STEEL
13	PACKING	GRAPHITE	GRAPHITE
14	PACKING GLAND	ASTM B16 or 13Cr	ASTM B16 or 13Cr
15	GLAND FOLLOWER	ASTM A536	ASTM A536
16	SQUARE HEAD BOLT	CARBON STEEL	CARBON STEEL
17	NUT	CARBON STEEL	CARBON STEEL
18	BONNET	ASTM A126 B	ASTM A536
19	STEM NUT	Mn-BRASS	Mn-BRASS
20	SCREW	CARBON STEEL	CARBON STEEL
21	HANDWHEEL	ASTM A126 B	ASTM A126 B
22	WASHER	CARBON STEEL	CARBON STEEL
23	NUT	CARBON STEEL	CARBON STEEL

## DIMENSIONS

DN	L	D	D <sub>1</sub>	b	n-d	H	W	W.T (kg)
50	203	155	120	20	4-19	318	200	18
65	216	175	140	22	4-19	339	200	20
80	241	185	150	22	8-19	333	200	27
100	292	210	175	24	8-19	353	250	44
125	330	250	210	24	8-23	388	300	65
150	356	280	240	26	8-23	427	300	80
200	495	330	290	26	12-23	476	360	160
250	622	400	355	30	12-25	539	450	288
300	698	445	400	32	16-25	612	500	395

# HOCO CAST IRON CHECK VALVE JIS B2045 10K



Design & Manufacture Conform to JIS B2045  
Flange Dimension Conform to JIS B2212  
Face to Face Dimension Conform to JIS B2002  
Testing Conform to JIS B2003



## MATERIALS

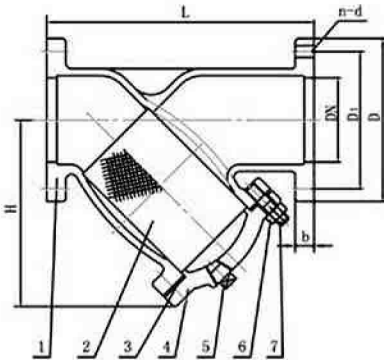
NO.	PART NAME	MATERIAL(C.I.)	MATERIAL(D.I.)
1	BODY	ASTM A126 B	ASTM A536
2	SEAT RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
3	DISC SEAL RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
4	DISC	ASTM A126 B	ASTM A536
5	HINGE	CARBON STEEL	CARBON STEEL
6	WASHER	CARBON STEEL	CARBON STEEL
7	NUT	CARBON STEEL	CARBON STEEL
8	STUD	CARBON STEEL	CARBON STEEL
9	SPLIT PIN	304	304
10	HINGE PIN	13Cr	13Cr
11	PLUG	ASTM A536	ASTM A536
12	BOLT	CARBON STEEL	CARBON STEEL
13	NUT	CARBON STEEL	CARBON STEEL
14	BONNET GASKET	GRAPHITE+STEEL	GRAPHITE+STEEL
15	BONNET	ASTM A126 B	ASTM A536
16	EYE SCREW	CARBON STEEL	CARBON STEEL
17	ADJUSTING SCREW	CARBON STEEL	CARBON STEEL
18	NUT	CARBON STEEL	CARBON STEEL

## DIMENSIONS

DN	L	D	D <sub>1</sub>	b	n-d	H	W.T (kg)
50	203	155	120	20	4-19	153	18
65	216	175	140	22	4-19	162	20
80	241	185	150	22	8-19	176	27
100	292	210	175	24	8-19	220	43
125	330	250	210	24	8-23	226	59
150	356	280	240	26	8-23	256	77
200	495	330	290	26	12-23	298	125
250	622	400	355	30	12-25	376	198
300	698	445	400	32	16-25	410	300



# HOCO CAST IRON Y STRAINER JIS B2045 10K



Flange dimensions Conform to JIS B2239  
The mesh of wire screen or the hole dimension of the perforated screen can be as per the customer's requirement.



## MATERIALS

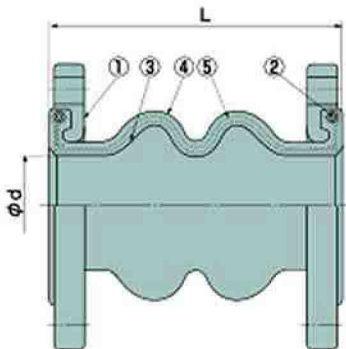
NO.	PART NAME	MATERIAL (C. I.)	MATERIAL (D. I.)
1	BODY	ASTM A126 B	ASTM A536
2	SCREEN	304	304
3	GASKET	GRAPHITE	GRAPHITE
4	COVER	ASTM A126 B	ASTM A536
5	PLUG	MALLEABLE CAST IRON	MALLEABLE CAST IRON
6	NUT	CARBON STEEL	CARBON STEEL
7	STUD	CARBON STEEL	CARBON STEEL



## DIMENSIONS (mm)

DN	L	D	Di	b	n-d	H	W.T (kg)
50	225	155	120	20	4-19	182	12
65	273	175	140	22	4-19	188	16
80	292	185	150	22	8-19	195	19
100	352	210	175	24	8-19	246	32
125	390	250	210	24	8-23	302	50
150	470	280	240	26	8-23	320.7	66
200	543	330	290	26	12-23	397.5	101
250	660	400	355	30	12-25	483	182
300	762	445	400	32	16-25	560	276

# HOCO DOUBLE FLEXIBLE JOINT



- Flanges with mild steel and ductile iron in JIS10K, ANSI150, PN16 are standard. For other flanges, please consult us.
- Flange material can be changed to SUS304 and SUS316.
- Flange material for 350&400mm is mild steel only.



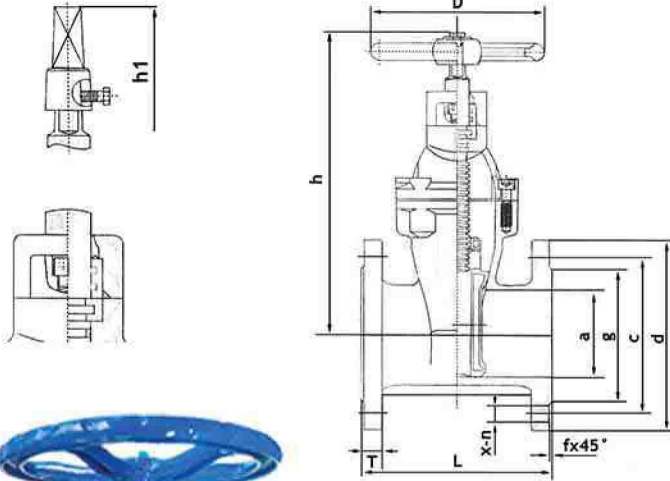
## MATERIAL LIST

PART NAME	MATERIAL
1. Flange	Mild / Ductile Iron
2. Reinforcing Ring	Carbon Steel
3. Inner Rubber	Synthetic Rubber
4. Outer Rubber	Synthetic Rubber
5. Reinforce Cord	Synthetic Fiber

## DIMENSIONS

Nominal Dia. mm	Inch	Dimension [mm]		Mass (Kg)	Allowable Movement [mm]				Installation Tolerances [mm]			
		L	φd		T.M	A.E	A.C.	A.M.	T.M.	A.E.	A.C.	A.M.
32※	1 1/4	175	32	1.8	20	10	20	20°	8	3	6	7.5°
32	1 1/4	175	35	2.2	20	10	20	20°	8	3	6	7.5°
40	1 1/2	175	35	2.3	20	10	20	20°	8	3	6	7.5°
50	2	175	45	3.0	20	10	20	20°	8	3	6	7.5°
65	2 1/2	175	60	3.9	20	10	20	20°	8	3	6	7.5°
80	3	175	70	4.1	20	10	20	20°	8	3	6	7.5°
100	4	225	95	5.3	25	15	30	20°	10	3	6	7.5°
125	5	225	120	7.6	25	15	30	20°	10	3	6	7.5°
150	6	225	145	11	25	15	30	20°	10	3	6	7.5°
200	8	325	195	17	30	20	40	20°	12	3	6	7.5°
250	10	325	245	24	30	20	40	20°	12	3	6	7.5°
300	12	325	290	28	30	20	40	20°	12	3	6	7.5°
350	14	250	340	35	15	15	20	15°	6	3	6	7.5°
400	16	250	390	48	15	15	20	15°	6	3	6	7.5°

**HQ RESILIENT GATE VALVE**  
**BS.5163 PN10 / PN 16**  
**WORKING PRESSURE 0-16KG / CM<sup>2</sup>**

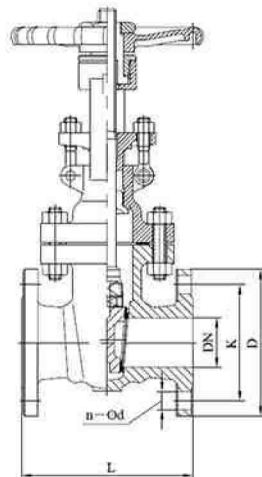


ITEM	PART NAME	MATERIAL
1	Body	Ductile Iron* BS 5163
2	Disc	Ductile Iron* + NBR / EPDM
3	Bonnet	Ductile Iron
4	Stem	Stainless Steel
5	Stem Nut	Brass
6	Holding Ring	Brass
7	Sealing Ring	Brass
8	Gland	Ductile Iron
9	Handwheel	Ductile Iron
10	Bonnet Gasket	NBR / EPDM
11	O Ring	EPDM
12	Dust Ring	EPDM
13	Bonnet Bolts	Stainless Steel



DN	OUTLINE mm											WEIGHT	
	L	h	D	h1	a	d	c	x-n	T	g	f	kg	
40	165	275	180	345	40	150	110	4-Ø19	19	84	3	12	
50	178	380	180	350	50	165	125	4-Ø19	19	99	3	13	
65	190	300	180	370	65	185	145	4-Ø19	19	118	3	15	
80	203	335	205	405	80	200	160	8-Ø19	19	132	3	22	
100	229	341	240	411	100	220	180	8-Ø19	19	156	3	26	
125	254	430	240	500	125	250	210	8-Ø19	19	184	3	35	
150	267	485	280	555	150	285	240	8-Ø23	19	211	3	50	
200	292	580	320	650	200	340	295	8-Ø23 12-Ø23	20	266	3	75	
250	330	680	360	750	250	395	405	350 355	12-Ø23 12-Ø28	22	319	3	125
300	356	785	450	855	300	445	460	400 410	12-Ø23 12-Ø28	24.5	370	4	174
350	381	880	500	950	350	505	520	460 470	16-Ø23 16-Ø28	26.5	429	4	320
400	406	990	560	1260	400	565	580	515 525	16-Ø28 16-Ø31	28	480	4	430
450	432	1120	560	1200	450	615	640	565 585	20-Ø28 20-Ø31	30	530 548	4	540
500	457	1220	650	1300	500	670	715	620 650	20-Ø28 20-Ø34	31.5	582 548	4	690
600	508	1370	650	1470	600	780	840	725 770	20-Ø31 20-Ø37	36	682 720	5	840

**HQ CAST IRON GATE VALVE**  
**JIS 10K**



**MATERIALS**

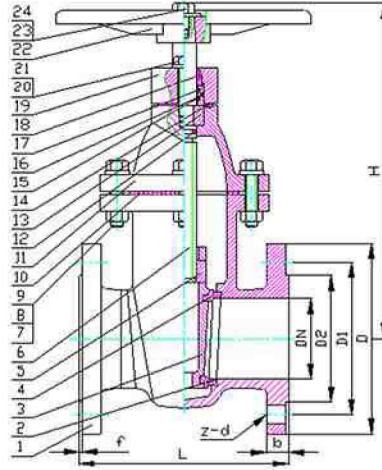
NO.	PART NAME	MATERIAL (C. I.)	MATERIAL (D. I.)
1	BODY	ASTM A126 B	ASTM A536
2	SEAT RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
3	WEDGE	ASTM A126 B	ASTM A536
4	WEDGE RING	ASTM B62 or 13Cr	ASTM B62 or 13Cr
5	STEM	ASTM B16 or 13Cr	ASTM B16 or 13Cr
6	BONNET GASKET	GRAPHITE+STEEL	GRAPHITE+STEEL
7	BONNET BOLT	ASTM A307	ASTM A307
8	BONNET NUT	CARBON STEEL	CARBON STEEL
9	BONNET	ASTM A126 B	ASTM A536
10	BACK SEAT BUSHING	ASTM B16 or 13Cr	ASTM B16 or 13Cr
11	PACKING	GRAPHITE	GRAPHITE
12	PACKING GLAND	ASTM A536	ASTM A536
13	PACKING GLAND BOLT	CARBON STEEL	CARBON STEEL
14	PACKING GLAND NUT	CARBON STEEL	CARBON STEEL
15	STEM NUT	Mn-BRASS	Mn-BRASS
16	GASKET	ASTM B16	ASTM B16
17	HANDWHEEL	ASTN A126 B	ASTN A126 B
18	HANDWHEEL NUT	ASTM A536	ASTM A536

**DIMENSIONS**

parameter	ØD	ØK	n-Ød	L
DN50	Ø165	Ø125	4-Ø19	178
DN65	Ø185	Ø145	4-Ø19	190
DN80	Ø200	Ø160	8-Ø19	203
DN100	Ø220	Ø180	8-Ø19	229
DN125	Ø250	Ø210	8-Ø19	254
DN150	Ø285	Ø240	8-Ø23	267
DN200	Ø340	Ø295	8-Ø23	292
DN250	Ø405	Ø350	12-Ø23	330
DN300	Ø460	Ø400	12-Ø23	356
DN350	Ø520	Ø460	16-Ø23	381
DN400	Ø580	Ø515	16-Ø28	406
DN450	Ø640	Ø565	20-Ø28	432
DN500	Ø715	Ø620	20-Ø28	457
DN600	Ø840	Ø725	20-Ø31	508



# HQ METAL SEATED GATE VALVE PN 16



## MATERIALS

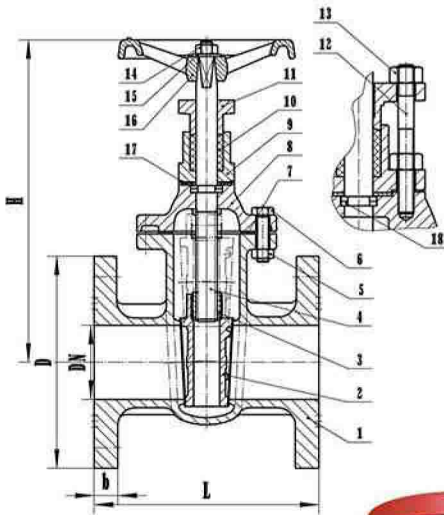
NO	PART NAME	MATERIAL	STANDARD
1	BODY	DUCTILE IRON	BS2789
2	BODY SEAT RING	BRASS	
3	WEDGE	DUCTILE IRON	BS2789
4	WEDGE SEAT RING	BRASS	
5	STEM NUT	BRASS	
6	STEM	STAINLESS STEEL	SS420
7	BONNET BOLT	CARBON STEEL	A3
8	NUT	CARBON STEEL	A3
9	WASHER	CARBON STEEL	A3
10	GASKET	NBR	BS2494
11	BONNET	DUCTILE IRON	BS2789
12	O-RING	NBR	BS2494
13	LOCATING RING	BRASS	
14	MINIPAD	TFL	
15	O-RING	NBR	BS2494
16	O-RING	NBR	BS2494
17	SEAL RING	BRASS	
18	DUST RING	NBR	BS2494
19	GLAND	DUCTILE IRON	BS2789
20	BOLT	CARBON STEEL	A3
21	WASHER	CARBON STEEL	A3
22	WHEEL	DUCTILE IRON	BS2789
23	BOLT	CARBON STEEL	A3
24	WASHER	CARBON STEEL	A3

## DIMENSIONS

DN	D	D1	D2	L	b	H	f	Z-d
ø40	ø150	ø110	ø84	165	18	248	3	4-ø19
ø50	ø165	ø125	ø99	178	20	266	3	4-ø19
ø65	ø185	ø145	ø118	190	20	295	3	4-ø19
ø80	ø200	ø160	ø132	203	22	321	3	8-ø19
ø100	ø220	ø180	ø156	229	24	357	3	8-ø19
ø125	ø250	ø210	ø184	254	26	407	3	8-ø19
ø150	ø285	ø240	ø211	267	26	448	3	8-ø23
ø200	ø340	ø295	ø266	292	30	540	3	12-ø23
ø250	ø405	ø355	ø319	330	32	622	3	12-ø28
ø300	ø460	ø410	ø370	356	32	701	4	12-ø28
ø350	ø520	ø470	ø429	381	36	809	4	16-ø28
ø400	ø580	ø525	ø480	406	38	886	4	16-ø31
ø450	ø640	ø585	ø548	432	30	976	4	20-ø31
ø500	ø715	ø650	ø609	457	31.5	1042	4	20-ø34
ø600	ø840	ø770	ø720	508	36	1201	5	20-ø37



# HQ CAST IRON GATE VALVE PN 10 / JIS 10K



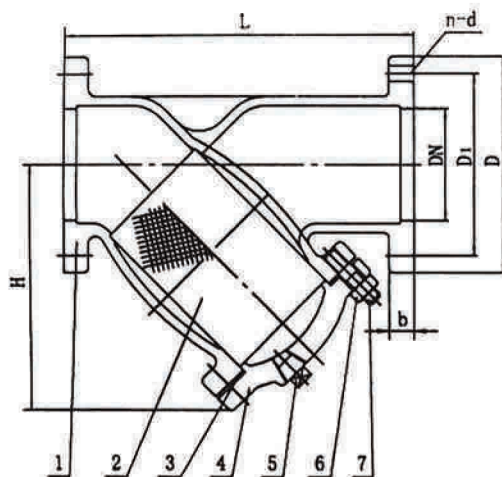
## Performance Range

Nominal Diameter	DN 50 - 350	
Nominal Pressure	PN 10	
Suitable Temperature	Iron Seal 10 - 100	
Testing Pressure (Mpa)	Sealing ( Water )	1.1
	Shell ( Water )	1.5
Suitable Medium Iron Seal	Oil, Coal, Gas	

No	Part Name	Material	Amount
1	Body	HT200	1
2	Disc	HT200	1
3	Stem Nut	QT45 - 10	1
4	Stem	Q235	1
5	Nut	25	6
6	Bolt	35	6
7	Gasket	XB200	1
8	Bonnet	HT200	1
9	Stuffing Box	HT200	1
10	Packing	Flexible Graphite	1
11	Packing Gland	HT200	1
12	Studs	35	2
13	Nut	25	2
14	Nut	35	1
15	Flat Washer	Q235	1
16	Handwheel	HT200	1
17	Round Gasket	NBR	1
18	Half Open Ring	Q235	4



**HQ DUCTILE IRON  
Y STRAINER PN 10 / PN16**

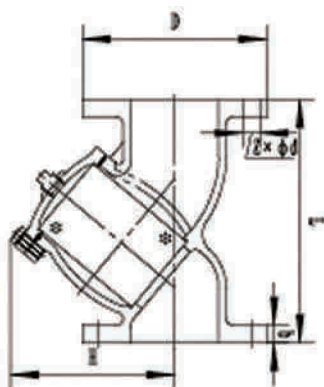


**MATERIALS**

NO.	PART NAME	MATERIAL(C.I.)	MATERIAL(D.I.)
1	BODY	ASTM A126 B	ASTM A536
2	SCREEN	304	304
3	GASKET	GRAPHITE	GRAPHITE
4	COVER	ASTM A126 B	ASTM A536
5	PLUG	MALLEABLE CAST IRON	MALLEABLE CAST IRON
6	NUT	CARBON STEEL	CARBON STEEL
7	STUD	CARBON STEEL	CARBON STEEL

- Flange Dimension Conform to JIS B2212
- The mesh of wire screen or the hole dimension of the perforated screen can be as per the customer's requirement

**HQ CAST IRON  
Y STRAINER JIS 10K**



**MATERIALS**

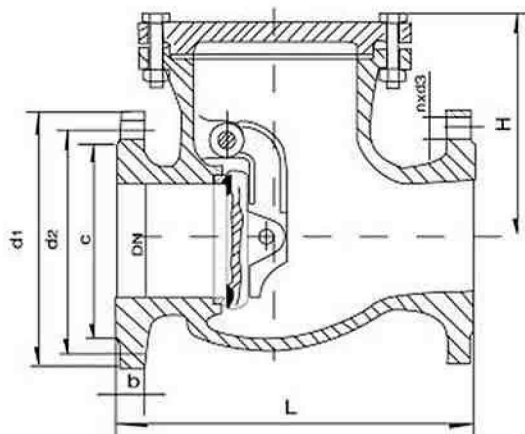
NO.	PART NAME	MATERIAL(C.I.)
1	BODY	ASTM A126 B
2	SCREEN	304
3	GASKET	GRAPHITE
4	COVER	ASTM A126 B
5	PLUG	MALLEABLE CAST IRON
6	NUT	CARBON STEEL
7	STUD	CARBON STEEL

**DIMENSIONS**

Size	40	50	65	80	100	125	150	200	250	300	350	400	500
L	195	195	205	252	277	307	335	475	660	750	810	905	1100
D	140	155	175	185	210	250	280	330	400	445	490	560	675
b	17	17	18	19	20	21	21	22	30	32	34	36	40
Z x phi d	4 x phi 19	4 x phi 19	4 x phi 19	8 x phi 19	8 x phi 19	8 x phi 23	8 x phi 23	12 x phi 23	12 x phi 25	16 x phi 25	16 x phi 25	16 x phi 27	20 x phi 27
H	97	98	117	160	187	207	247	325	514	605	646	723	900



**HQ RESILIENT CHECK VALVE**  
**PN 10 / PN 16**  
**WORKING PRESSURE 16KG/CM<sup>2</sup>**



**SEVERICE RATING**

NOMINAL PRESSURE	1.6(1.0)MPa
SHELL TEST PRESSURE	2.4(1.5)MPa
SEAL TEST PRESSURE	1.6(1.0)MPa
SUITABLE MEDIA	STEAM, WATER
SUIT TABLE TEMPERATURE	≤ 150°C

**MATERIAL LIST**

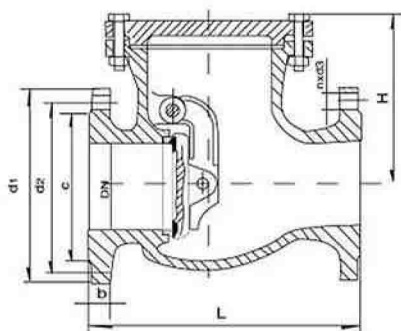
PART NAME	MATERIAL
BODY / BONNET	GRAY CAST IRON
SEAT	CAST BRASS
DISC	GRAY CAST IRON + BRASS
HANGER	DUCTILE IRON
HANGER PIN	CARBON STEEL



**DIMENSIONS**

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L	200	240	260	300	350	400	500	600	700	800	900	1000	1100	1300
H	115	130	147	166	188	217	275	370	412	445	505	695	750	850
D	165	185	200	220	250	285	340	405	460	520	580	640	715	840
D1	125	145	160	180	210	240	295	355	410	470	525	585	650	770

**HQ DUCTILE IRON CHECK VALVE BRASS SEATED**



**MATERIAL LIST**

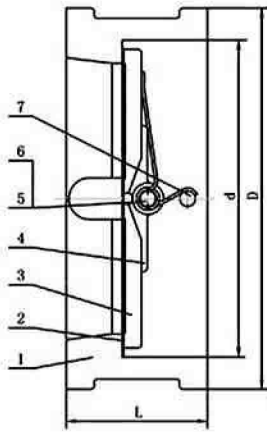
BODY / BONNET	CAST IRON
SEAT	BRASS
DISC	CAST IRON+BRASS

**DIMENSIONS**

Size	40	50	65	80	100	125	150	200	250	300	350	400	500
L	190	190	190	215	245	285	295	390	500	540	570	780	820
D	140	155	175	185	210	250	280	330	400	445	490	560	675
b	17	17	18	19	20	21	22	22	25	28	34	36	40
Zx φ d	4x φ 19	4x φ 19	4x φ 19	8x φ 19	8x φ 19	8x φ 23	8x φ 23	12x φ 23	12x φ 25	16x φ 25	16x φ 25	16x φ 27	20x φ 27
H	101	102	113	118	133	155	182	206	269	333	381	450	537



**HQ WAFER CHECK VALVE**  
**PN 10, PN 16, JIS 10K**  
**WORKING PRESSURE 0-16KG/CM<sup>2</sup>**



**MATERIAL LIST**

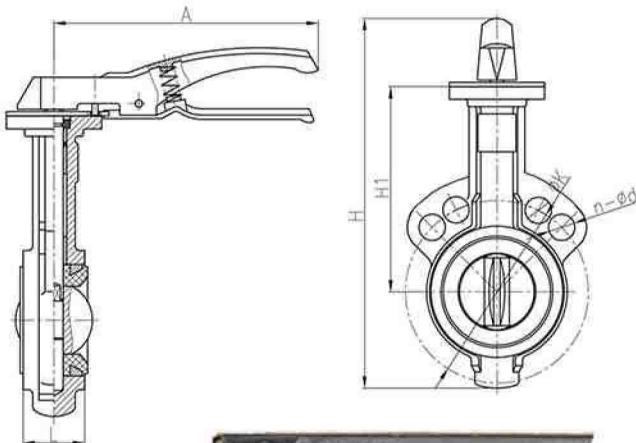
PART NAME	MATERIAL
HINGE PIN RETAINERS	S25C
SPRING	AISI 316 WPA
HINGE PIN	AISI 304 / AISI 316
PLATE PLUG BEARINGS	TEFLON
BODY PLUG BEARING	TEFLON
STOP PIN RETAINERS	AISI 304 / AISI 316

**DIMENSIONS (mm)**

DN	d	L	D	W.T (kg)
50	65	43	107	1.5
65	80	46	127	2.4
80	94	64	142	3.6
100	117	64	162	5.7
125	145	70	192	7.3
150	170	76	218	9.0
200	224	89	273	17
250	265	114	328	26
300	310	114	378	42
350	360	127	443	55
400	410	140	489	75
450	450	152	555	101
500	505	152	594	111
600	624	178	700	172



**HQ BUTTERFLY VALVE LEVER**



**PRESSURE / TEMPERATURE RATINGS**

WORKING PRESSURE	1.6Mpa
TESTING PRESSURE	SHELL : 2.4Mpa SEAT : 1.76Mpa
WORKING TEMPERATURE	-200C to 1100C (EPDM seat) -100C to 800c (NBR seat)
SUITABLE MEDIA	WATER, OIL & GAS

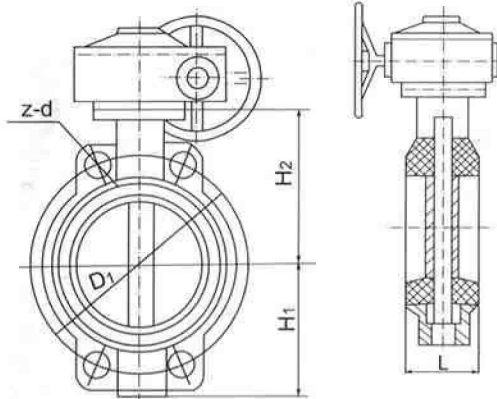
PART	MATERIAL
BODY	CAST IRON
	DUCTIL IRON
DISC	DUCTIL IRON
	ALUMINIUM BRONZE
	STAINLESS STEEL
	STAINLESS STEEL
SEAT RING	EPDM
	NBR
	PTFE
	VITON
SHAFT	STAINLESS STEEL
	STAINLESS STEEL
	STAINLESS STEEL
TAPER PINS	STAINLESS STEEL
KEY	CARBON STEEL
O-RING	NBR
BUSHING	PTFE LUBERIZED BRONZE

**DIMENSIONS**

DN(mm)	50	65	80	100	125	150	200	250	300	350
L	43	46	46	52	56	56	60	68	78	78
Zx φd	2x φ19	2x φ19	2x φ19	2x φ19	2x φ23	2x φ23	2x φ23	2x φ25	2x φ25	2x φ25
D0	120	140	150	175	210	240	290	355	400	445



## HQ BUTTERFLY VALVE GEAR



**HQ**  
Solution For Pipe Connections

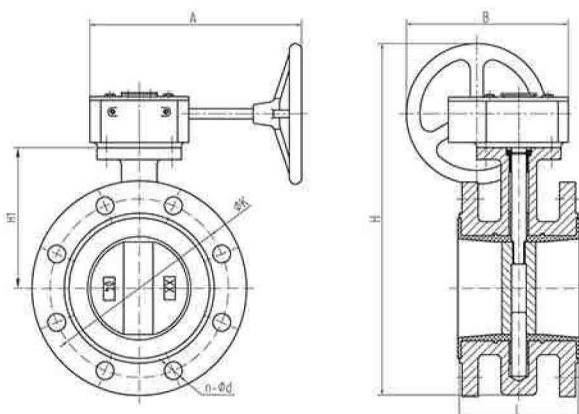
### MATERIAL LIST

PART NAME	MATERIAL
BODY	CAST IRON / DUCTILE IRON
DISC	DUCTILE IRON WITH NICKEL PLATED, BRONZE, STAINLESS STEEL SS304 / SS316
STEM	STAINLESS STEEL
SEAT	NBR, EPDM, VITON, PTFE
O - RING	NBR

### DIMENSIONS

DN(mm)	50	65	80	100	125	150	200	250	300	350
L	43	46	46	52	56	56	60	68	78	78
Zxφd	2xφ19	2xφ19	2xφ19	2xφ19	2xφ23	2xφ23	2xφ23	2xφ25	2xφ25	2xφ25
D0	120	140	150	175	210	240	290	355	400	445

## HQ BUTTERFLY VALVE DOUBLE FLANGE



**HQ**  
Solution For Pipe Connections

### DIMENSIONS

parameter size	φK	n-φd	H1	H	A	B	L
DN200	295	12-φ23	210	569	313	289	152 ± 2
DN250	355	12-φ28	245	643	313	289	165 ± 2
DN300	410	12-φ28	278	704	307	310	178 ± 3
DN350	470	16-φ28	328	763	307	310	190 ± 3

### MATERIAL LIST

PART NAME	MATERIAL
BODY	CAST IRON / DUCTILE IRON
DISC	DUCTILE IRON WITH NICKEL PLATED, BRONZE, STAINLESS STEEL SS304 / SS316
STEM	STAINLESS STEEL
SEAT	NBR, EPDM, VITON, PTFE
O - RING	NBR

## HQ SINGLE AIR VALVE WITH ABS BALL PN 16

**HQ**  
Solution For Pipe Connections

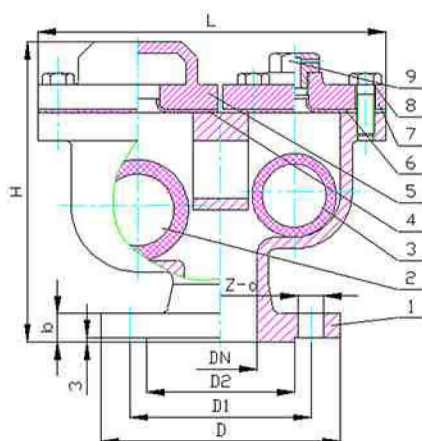


DN	D	D1	D2	b	H	Z-d	W
Ø40	Ø150	Ø110	Ø84	18	224	4-Ø19	Ø166
Ø50	Ø165	Ø125	Ø99	20	236	4-Ø19	Ø178
Ø65	Ø185	Ø145	Ø118	20	244	4-Ø19	Ø199
Ø80	Ø200	Ø160	Ø132	22	248	8-Ø19	Ø202
Ø100	Ø220	Ø180	Ø156	24	284	8-Ø19	Ø233
Ø150	Ø285	Ø240	Ø211	26	324	8-Ø23	Ø282

NO	PART NAME	MATERIAL	STANDARD
1	BODY	DUCTILE IRON	GGG50
2	BUCKET	DUCTILE IRON	GGG50
3	BALL FLOAT	ABS	
4	GASKET	NBR	
5	INSIDE COVER	DUCTILE IRON	GGG50
6	BOLT	CARBON STEEL	A3
7	OUTSIDE COVER	DUCTILE IRON	GGG50
8	BOLT	CARBON STEEL	A3

## DUCTILE IRON DOUBLE AIR VALVE FLANGE PN16

**HQ**  
Solution For Pipe Connections



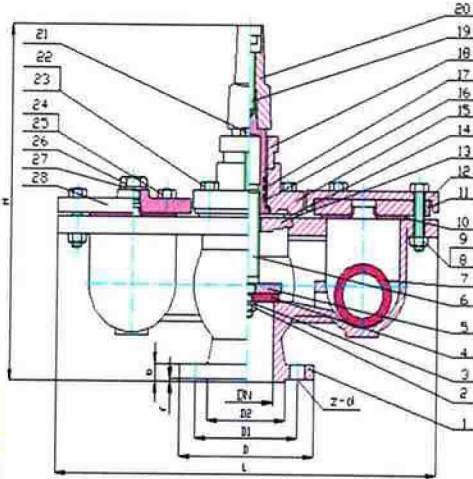
PN16

DN	D	D1	D2	L	b	H	Z-d
Ø50	Ø165	Ø125	Ø99	240	20	211	4-Ø19
Ø65	Ø185	Ø145	Ø118	256	20	211	4-Ø19
Ø80	Ø200	Ø160	Ø132	305	22	261	8-Ø19
Ø100	Ø220	Ø180	Ø156	328	24	269	8-Ø19
Ø150	Ø285	Ø240	Ø211	392	26	320	8-Ø23

NO	PART NAME	MATERIAL	STD
1	BODY	DUCTILE IRON	GGG50
2	BIG FLOAT BALL	ABS	
3	LITTLE FLOAT BALL	ABS	
4	GASKET	NBR	BS2494
5	COVER	DUCTILE IRON	GGG50
6	GASKET	NBR	BS2494
7	COVER	DUCTILE IRON	GGG50
8	BOLT	CARBON STEEL	BS1769
9	BOLT	STAINLESS STEEL	2Cr13



# HQ DUCTILE IRON DOUBLE AIR VALVE WITH PISTON & ABS BALL PN 16



Ductile Iron Air Valve Flanged PN.16

No	Part Name	Material	Standard
1	Body	Ductile Iron	BS2789.420 / 12
2	Nut	Carbon Steel	BS1769
3	Washer	Carbon Steel	BS1769
4	Gasket	NBR	BS2494
5	Disc	Brass	BS2874CA104
6	Stem	Brass	BS2874CA104
7	Ball Float	ABS	-
8	Bolt	Carbon Steel	BS1769
9	Nut	Carbon Steel	BS1769
10	Gasket	NBR	BS2494
11	Inside Cover	Ductile Iron	BS2789.420 / 12
12	Outside Cover	Ductile Iron	BS2789.420 / 12
13	Middle Plank	Ductile Iron	BS2789.420 / 12
14	Gasket	NBR	BS2494
15	Bonnet	Ductile Iron	BS2789.420 / 12
16	Stem Nut	Stainless Steel	2CR13
17	O-ring	NBR	BS2494
18	Gland	Ductile Iron	BS2789.420 / 12
19	Bolt	Carbon Steel	BS1769
20	Cap	Ductile Iron	BS2789.420 / 12
21	Bolt	Carbon Steel	BS1769
22	Bolt	Carbon Steel	BS1769
23	Washer	Carbon Steel	BS1769
24	Bolt	Carbon Steel	BS1769
25	Washer	Carbon Steel	BS1769
26	Bolt	Stainless Steel	2CR13
27	Washer	NYL	-
28	Cover	Ductile Iron	BS2789.420 / 12



## REPAIR CLAMP

### SPECIAL FEATURES

- Single band clamp for fast repair and junction of pipes.
- Sealing and repairing of cracks, breaks and hold on pipes made from different materials (steel, ductile iron, asbestos, cement, plastic) carrying water, gas and other fluids.
- Connection of off centre pipes (max. angular flexion of 4°) and pipes are out of line or offish (few millimetres of distance).
- Realized in a single piece, clamp with several bolts.
- Allowable operating pressure (PFA) varying with DN.
- Higher lengths on demand.

### MATERIALS

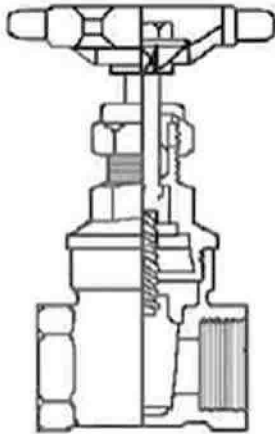
Band	Stainless steel 1.4301 EN ISO 10088 (equivalent to AISI 304)
Clamp	Ductile Iron EN-GJS-400-15 / EN 1563 (former to GGG40) coated for corrosion protection
Sealing Gasket	Rubber with grid profile
Bolts	Galvaniezed steel M16
Nuts	Stainless steel A2-70 EN ISO 3506



DN	RANGE	L	Weight (kg)
40	1 1/2"	48-56	5
40	1 1/2"	56-64	5
50	2"	60-68	5
65	2 1/2"	68-78	5
65	2 1/2"	78-88	5,6
80	3"	88-98	5,8
80	3"	98-108	6
100	4"	108-118	6
100	4"	114-126	6,8
125	5"	126-138	6,8
125	5"	138-150	6,8
150	6"	140-153	7
150	6"	150-162	7
150	6"	162-174	7
150	6"	168-182	7
175	7"	174-186	7
175	7"	186-198	7,5
175	7"	198-210	7,5
200	8"	210-223	7,5
200	8"	222-234	7,5
200	8"	234-246	8
250	10"	243-255	8,5
250	10"	260-272	8,5
250	10"	273-285	8,5
250	10"	285-297	8,5
300	12"	298-310	8,5
300	12"	316-328	9
300	12"	327-340	9
350	14"	342-355	9
350	14"	353-365	9
350	14"	368-380	9,5
350	14"	378-390	9,5

## HQ BRASS GATE VALVE

**HQ**  
Solution For Pipe Connections



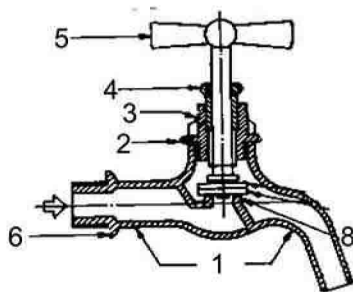
### MATERIAL LIST

PART NAME	MATERIAL
BODY	BRASS
WEDGE	BRASS
STEM	BRASS
BONNET	BRASS
GLAND PACKING	BRASSPTFE
HANDWHEEL	ALUMINIUM



## HQ BRASS BIBCOCK

**HQ**  
Solution For Pipe Connections

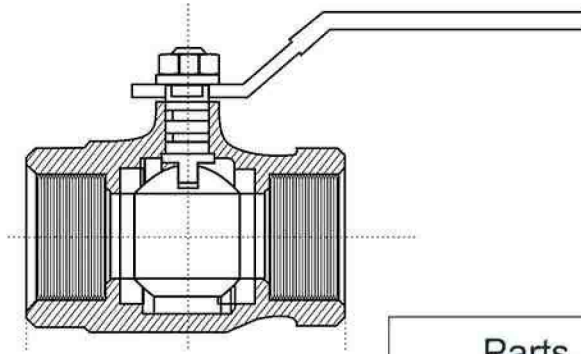


PART NAME	MATERIAL
1 BODY	Cu BRASS
2 HEAD	Zn, Pb BRASS
3 GASKET	Zn, Pb, Cu
4 SPINDLE	
5 HANDLE	
6 KLEP	
7 SPINDLE PACKING	SYNTETIC RUBBER



## HQ BALL VALVE FEMALE

**HQ**  
Solution For Pipe Connections



Parts	Material
Body	Brass / bronze
Body cap	Brass / bronze
Stem	K-Metal
Ball	Brass (chrome plated)
Ball seat	PTFE
O-ring	FPM

### Test Pressure :

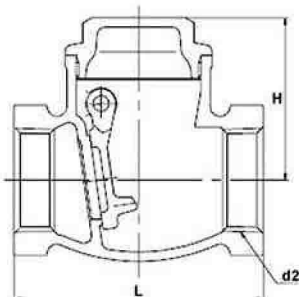
Shell 4.14 Mpa (600psi) (Hydrostatic)

Sheat 0.55 Mpa (80psi) (Air)



## HQ BRASS CHECK VALVE

**HQ**  
Solution For Pipe Connections



PART NAME	MATERIAL
BODY	Bronze
Cap	Brass / Bronze
Hinge pin	Brass
Disc	Brass / Bronze

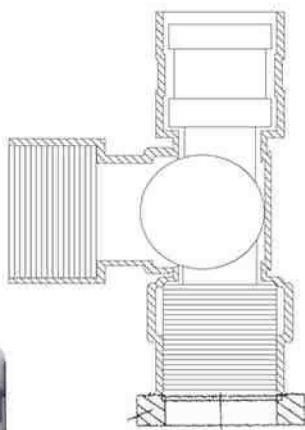
### Technical Specification :

Maximum Pressure : 0.86MPa (125psi)



## HQ BRASS CHECK VALVE

**HQ**  
Solution For Pipe Connections



PART NAME	MATERIAL
BODY	Brass CuZn39Pb3
BALL	Brass CuZn39Pb3
BALL SEAT	PTFE Ring
STEAM	Brass CuZn39Pb3
HANDLE	Brass CuZn39Pb3
WATERTIGHTNESS SEAT	EPDM O-Ring
COMPRESSION RING	Brass CuZn39Pb3
NOTCHED RING	Brass CW602N
COMPRESSION NUT	Hpb62

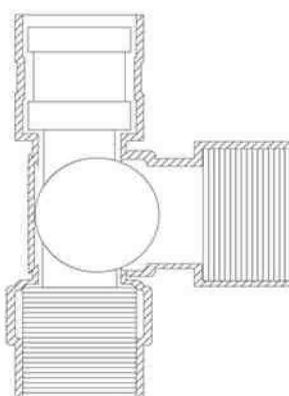
**Technical Specification :**

Maximum Pressure : 16 Bar

Testing Pressure by gas : 8 Bar

## HQ MAGNETIC LOCKABLE ANGEL (FOR THREAD PIPE)

**HQ**  
Solution For Pipe Connections



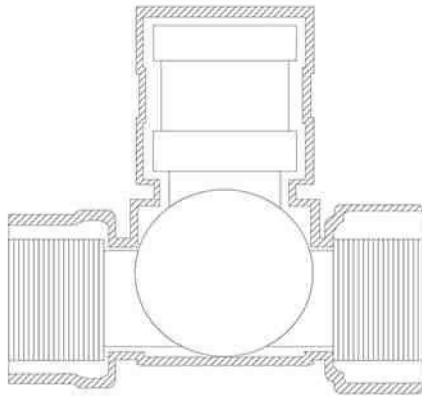
PART NAME	MATERIAL
BODY	Brass CuZn39Pb3
BALL	Brass CuZn39Pb3
BALL SEAT	PTFE Ring
STEAM	Brass CuZn39Pb3
HANDLE	Brass CuZn39Pb3
WATERTIGHTNESS SEAT	EPDM O-Ring
COMPRESSION RING	Brass CuZn39Pb3
NOTCHED RING	Brass CW602N
COMPRESSION NUT	Hpb62

**Technical Specification :**

Maximum Pressure : 16 Bar

Testing Pressure by gas : 8 Bar

**HQ MAGNETIC LOCKABLE  
STRIGHT (THREAD SHORT TYPE)**

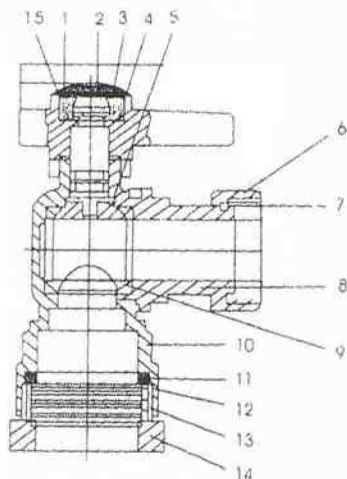


**MATERIAL LIST**

PART NAME	MATERIAL
Body Brass	CuZn39Pb3 SS
Ball Brass	CuZn39Pb3 SS
Ball Seat	PTFE Ring
Steam Brass	CuZn39Pb3 SS
Handle Brass	CuZn39Pb3 SS



**HQ LOCKABLE ANGLE STRIGHT  
(FOR COMPRESS PIPE)**



**MATERIAL LIST**

PART NAME	MATERIAL
1 BODY	BRASS
2 UNION NUT	BRASS
3 STEM	BRASS/DZR BRASS
4 O-RING	RUBBER
5 BALL	BRASS
6 LOCKING SCREW	BRASS
7 SNAP RING	STAINLESS STEEL
8 COUPLING NIPPLE	P.T.F.E
9 BALL SEATS	BRASS
10 BODY	RUBBER
11 O-RING	BRASS
12 WASHER	BRASS
13 COMPRESSION RING	BRASS
14 CAP	P.T.F.E

