

# HQ Butterfly Valve Double Flange

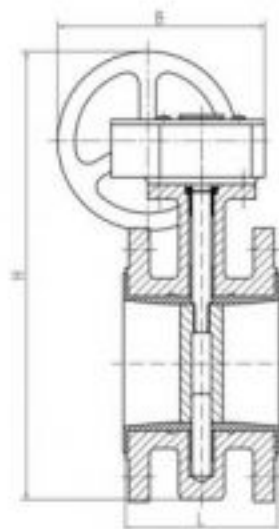
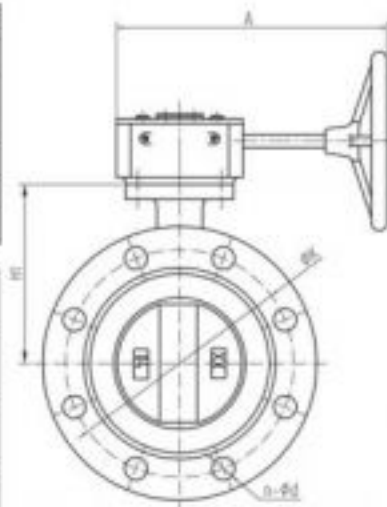
Ductile Iron



## 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

parameter size	$\phi K$	$n-\phi d$	H1	H	A	B	L
DN200	295	12- $\phi 23$	210	569	313	289	152 $\pm$ 2
DN250	355	12- $\phi 28$	245	643	313	289	165 $\pm$ 2
DN300	410	12- $\phi 28$	278	704	307	310	178 $\pm$ 3
DN350	470	16- $\phi 28$	328	763	307	310	190 $\pm$ 3



# HQ Butterfly Valve Gear

Ductile Iron

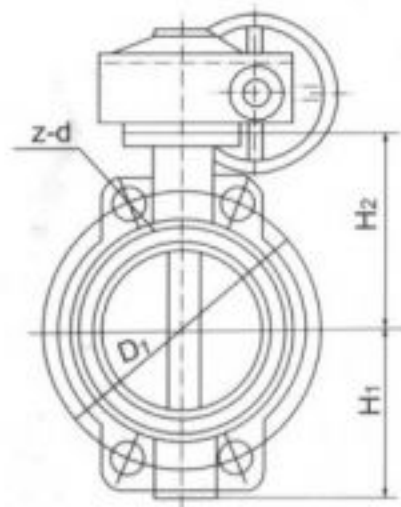
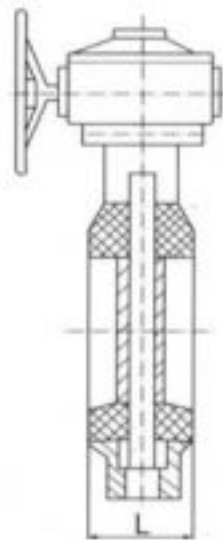


## MATERIAL LIST

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	66	71	71
Zxφd	2xφ19	2xφ19	2xφ19	2xφ19	2xφ23	2xφ23	2xφ23	2xφ25	2xφ25	2xφ25
D0	128	140	150	175	210	240	290	355	400	445



# HQ Butterfly Valve Lever

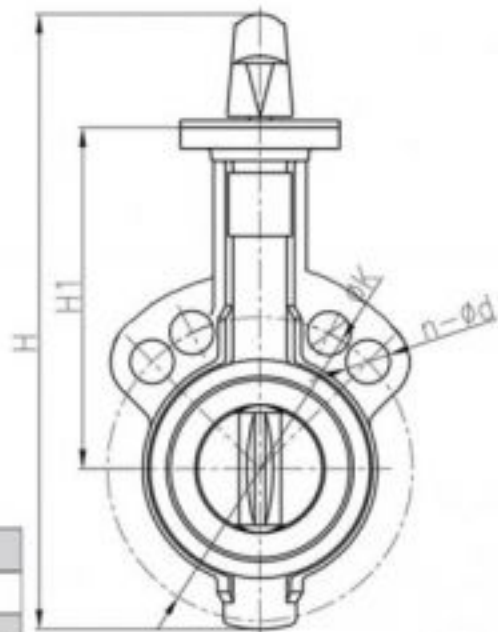
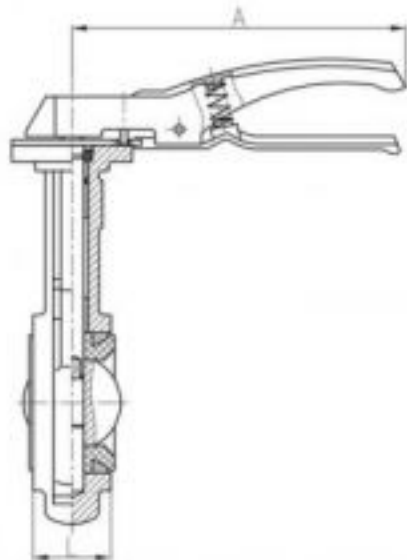
Ductile Iron



## 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
	LUBRIZED BRONZE



DN(mm)	50	65	80	100	125	150	200	250	300	350
L	43	46	46	52	56	56	60	66	76	76
Zx φd	2x φ18	2x φ18	2x φ18	2x φ18	2x φ23	2x φ23	2x φ23	2x φ25	2x φ25	2x φ25
D0	120	140	150	175	210	240	290	355	400	445

# HQ Cast Iron Gate Valve

JIS 10K

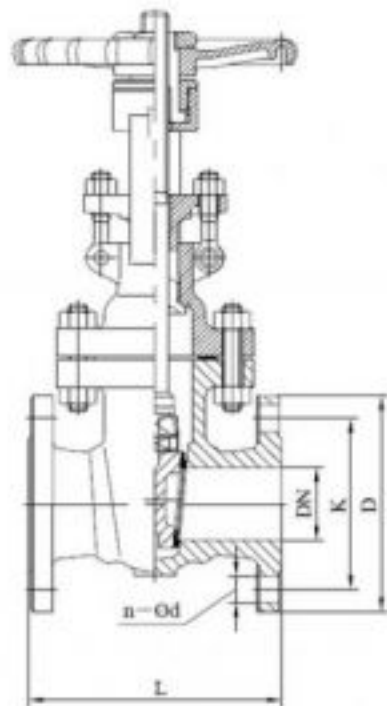


## DIMENSIONS

SIZE	OD	OK	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

## 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	ASTM A126 B	ASTM A126 B
18	HANDWHEEL NUT	ASTM A536	ASTM A536



# HQ Ductile Iron Check Valve Brass Seated

JIS 10K

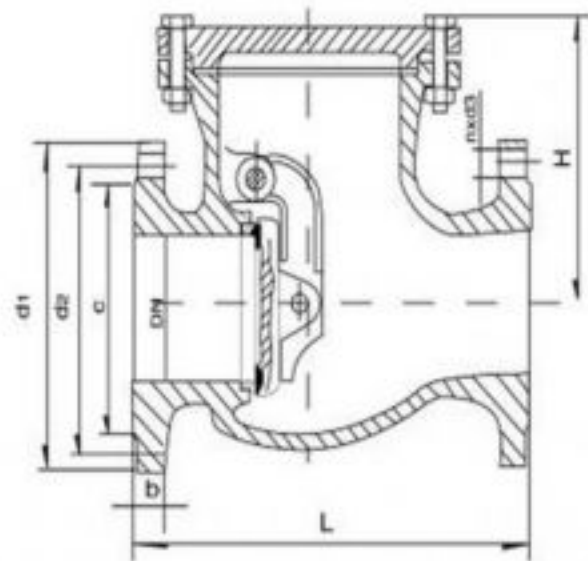


## MATERIAL LIST

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	390	540	570	700	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
2xφd	4xφ19	4xφ19	4xφ19	8xφ19	8xφ19	8xφ25	8xφ25	12xφ25	12xφ25	16xφ25	16xφ25	16xφ27	20xφ27
H	100	102	113	118	133	155	162	206	206	333	381	450	537



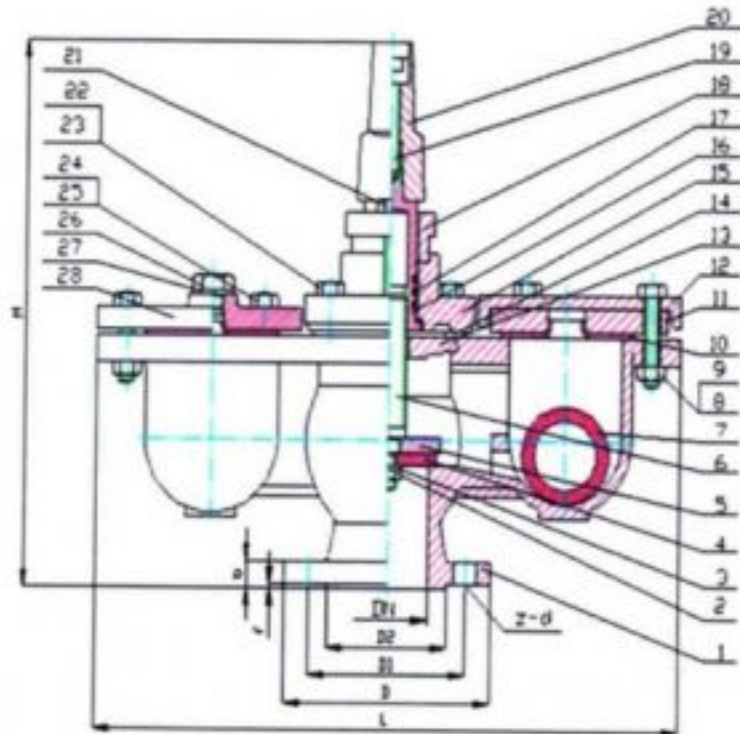
# HQ Ductile Iron Double Air Valve

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



# Ductile Iron Double Air Valve Flange

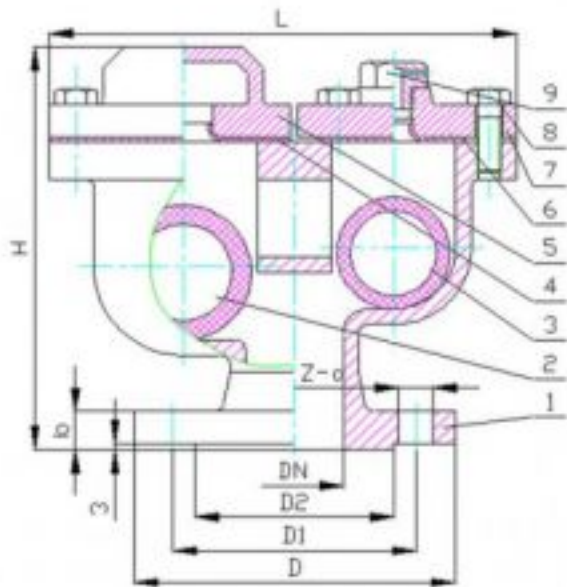
Ductile Iron PN 16



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



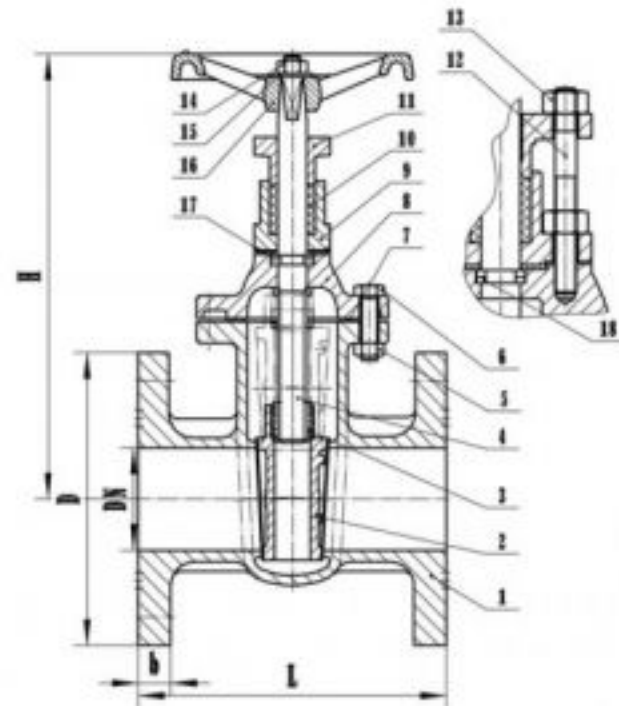
# HQ Cast Iron Gate Valve

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	NB200	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 Metal Seated Gate valve

PN 16

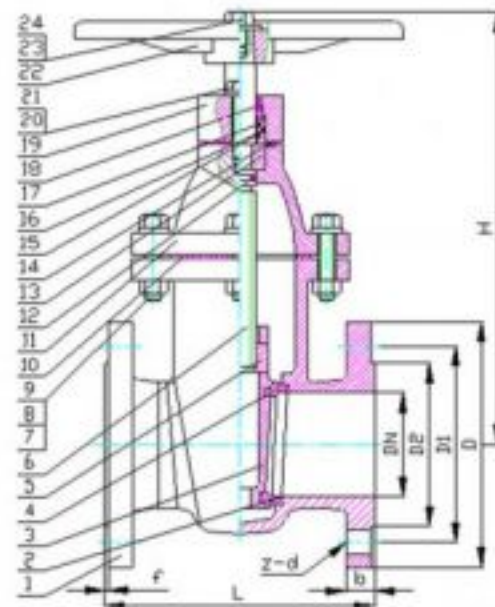


## DIMENSIONS

DN	D	D1	D2	L	b	H	f	Z-d
ø40	ø150	ø110	ø64	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-ø33
ø450	ø640	ø585	ø548	432	30	976	4	20-ø31
ø500	ø715	ø650	ø609	457	31.5	1042	4	28-ø34
ø600	ø840	ø770	ø720	508	36	1201	5	28-ø37

## 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



# Repair Clamp

Ductile Iron



DN		RANGE	L	Weight (kg)
40	1 1/2"	48-56	200	3
40	1 1/2"	56-64	200	3
50	2"	60-68	200	3
65	2 1/2"	68-78	200	3
65	2 1/2"	78-88	200	5,6
80	3"	88-98	200	5,8
80	3"	98-108	200	6
100	4"	108-118	200	6
100	4"	114-126	200	6,8
125	5"	126-138	200	6,8
125	5"	138-150	200	6,8
150	6"	140-153	200	7
150	6"	150-162	200	7
150	6"	162-174	200	7
150	6"	168-182	200	7
175	7"	174-186	200	7
175	7"	186-198	200	7,5
175	7"	198-210	200	7,5
200	8"	210-223	200	7,5
200	8"	223-234	200	7,5
200	8"	234-246	200	8
250	10"	240-255	200	8,5
250	10"	260-272	200	8,5
250	10"	273-285	200	8,5
250	10"	285-297	200	8,5
300	12"	298-310	200	8,5
300	12"	316-328	200	9
300	12"	327-340	200	9
350	14"	340-355	200	9
350	14"	353-365	200	9
350	14"	368-380	200	9,5
350	14"	378-390	200	9,5

## 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 :

Galvanized steel M16

### Nuts :

Stainless steel A2-70 EN ISO 3506

## 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.

# HQ Resilient Check Valve

PN 10 / PN 16  
Work Pressure 16Kg / cm<sup>2</sup>

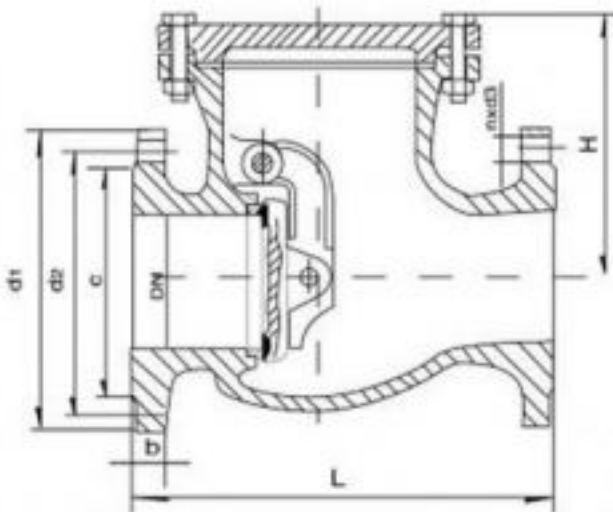


## MATERIAL LIST

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

## SEVERICE RATING

NOMINIAL 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

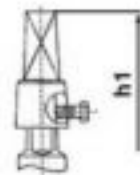
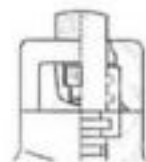


# HQ Resilient Gate Valve

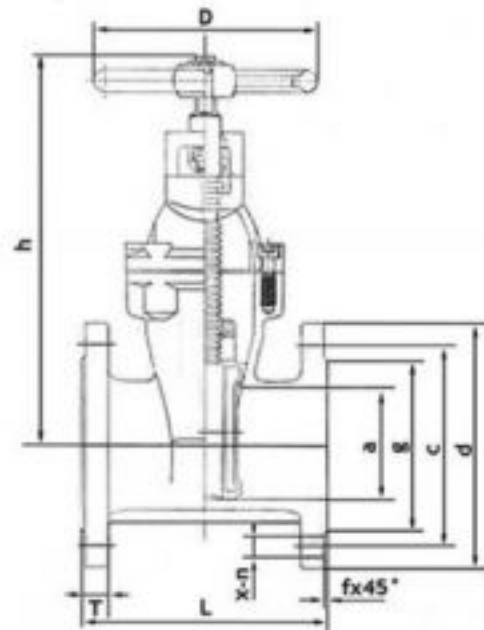
BS.5163 PN 10 / PN 16  
Working Pressure 0-16Kg / cm<sup>2</sup>



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 kg
	L	h	D	h1	a	d	c	x-n	T	g	f		
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	22	319	3	125	
300	356	785	450	855	300	445	460	400 410	24.5	370	4	174	
350	381	880	500	950	350	505	520	460 470	26.5	429	4	320	
400	406	990	560	1260	400	565	580	515 525	28	480	4	430	
450	432	1120	560	1200	450	615	640	565 585	30	530 548	4	540	
500	457	1220	650	1300	500	670	715	620 650	31.5	582 548	4	690	
600	508	1370	650	1470	600	780	840	725 770	36	682 720	5	840	





**Flange Adaptor**



**Bend Flang**



**Repair Clamp**



**Ductile Iron Double  
Air Valve With Piston  
& ABS Ball PN16**

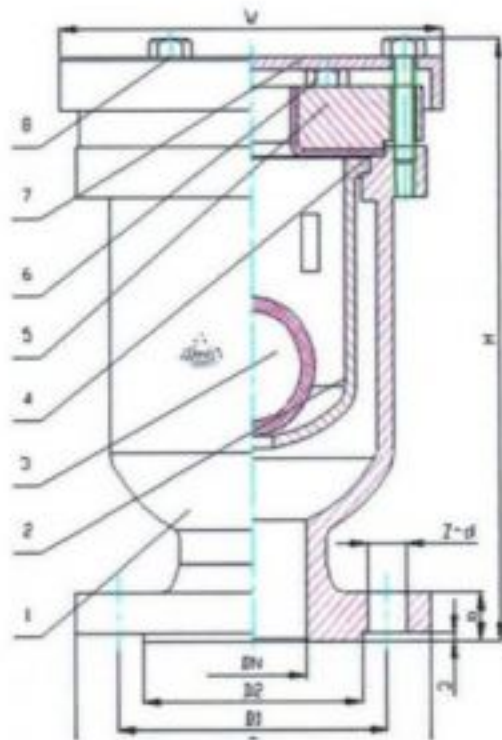
# HQ Single Air Valve

With ABS Ball / PN 16



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

DN	D	D1	D2	b	H	Z~d	V
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



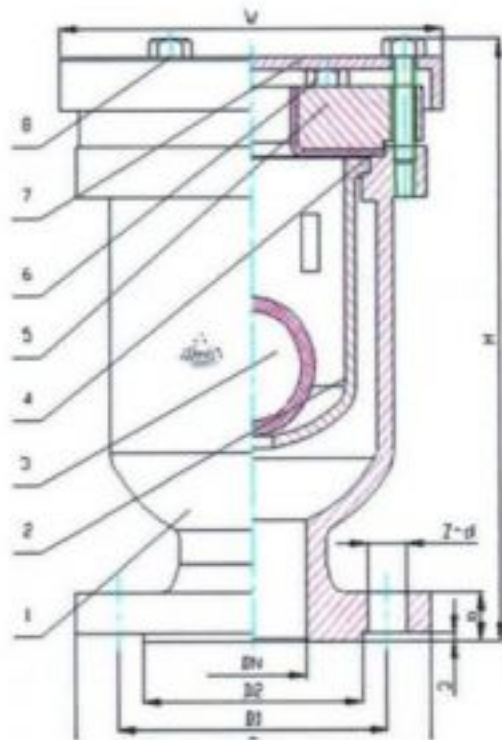
# HQ Single Air Valve

With ABS Ball / PN 16



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

DN	D	D1	D2	b	H	Z~d	V
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



# HQ Wafer Check Valve

PN 10 / PN 16 / JIS 10K  
Working Pressure 0-16 Kg / cm<sup>2</sup>

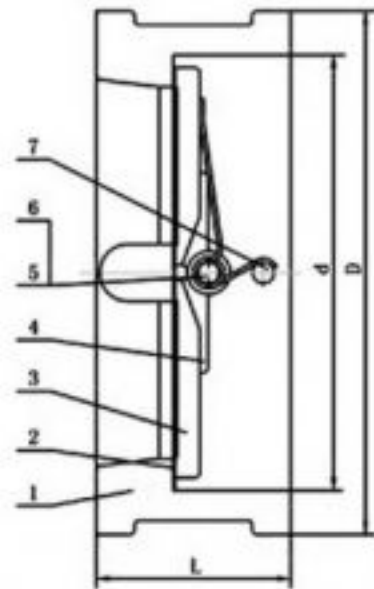


## MATERIAL LIST

PART NAME
HINGE PIN RETAINERS
SPRING
HINGE PIN
PLATE PLUG BEARINGS
BODY PLUG BEARING
STOP PIN RETAINERS

## 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 Cast Iron Y Strainer

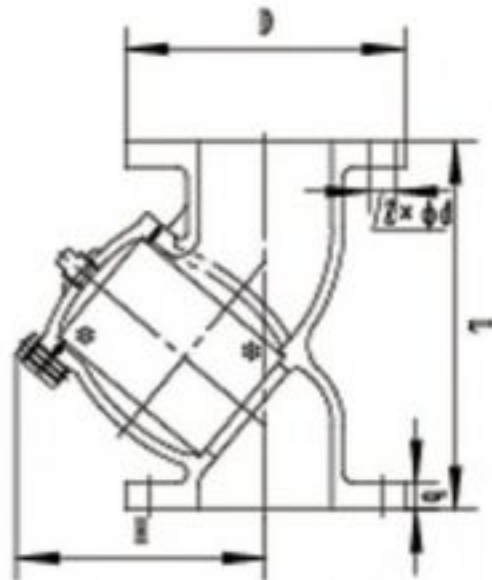
JIS 10K



## 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

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	800	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
2x $\phi$ d	4x $\phi$ 19	4x $\phi$ 19	4x $\phi$ 19	8x $\phi$ 19	8x $\phi$ 19	8x $\phi$ 23	8x $\phi$ 23	12x $\phi$ 23	12x $\phi$ 25	16x $\phi$ 25	16x $\phi$ 25	16x $\phi$ 27	20x $\phi$ 27
H	97	98	117	160	167	207	247	325	514	605	646	723	900



# HQ Ductile Iron Y Strainer

PN 10 / PN 16



- 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

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

