Wafer Butterfly Check Valve BFHV01-TA01

Introduction of the valve



Check valves also known as Dual plate check Valves are mechanical valves that permit gases and liquids to flow in only one direction, preventing proces flow from reversing. They are classified as one-way directional valves. Fluid flow in the desired direction opens the valve, while back flow forces the valve closed. The mechanics of check valve operation are not complicated.

A check valve allows fluid to flow through it in only one direction. Check valves are two-port valves, meaning they have two openings in the body, one for fluid to enter and the other for fluid to leave. There are various types of check valves used in a wide variety of applications. Check valves work automatically and most don'tneed control by people or any external control; accordingly, most do not have a activators or stem.

Applications:

Water supply systems (distribution, treatment etc.),
irrigation, heating systems, ship building,
industrial processes (liquids and gases).

Approvals and certifications:

CE/PED Certification,
ANSI 61- 2008 (Potable Water) Certification,
SIL, ABS, Bureau Veritas, DNV, ISO9001,API,





Wafer Butterfly Check Valve BFHV01-TA01

Max working pressure

DN50-DN600 PN16

Flange PN10 PN16 150LB JIS10K AS"D""E"

Design

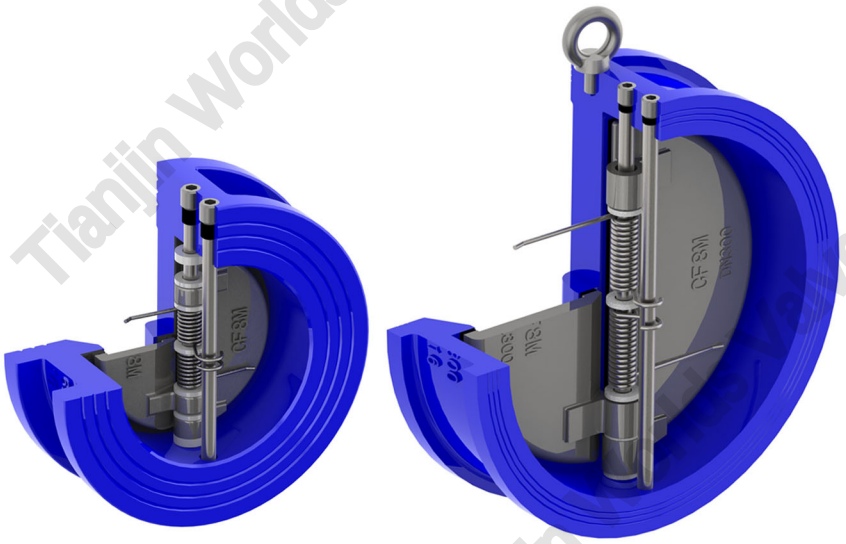
DIN3356 GB/T12236

Face to Face

DIN3202 ISO5752

Testing

ISO5208



Body

Material	Referencesstandard	Coating
Cast iron	GG20 GG25 A126	Epoxy Ral 5005
Ductile iron	GGG40 GGG45 GGG50 A536 A395	Epoxy Ral 5005
Carbon steel	WCB	Epoxy Ral 7011
Stainless steel	CF8 CF8M CF3 CF3M	

Disc

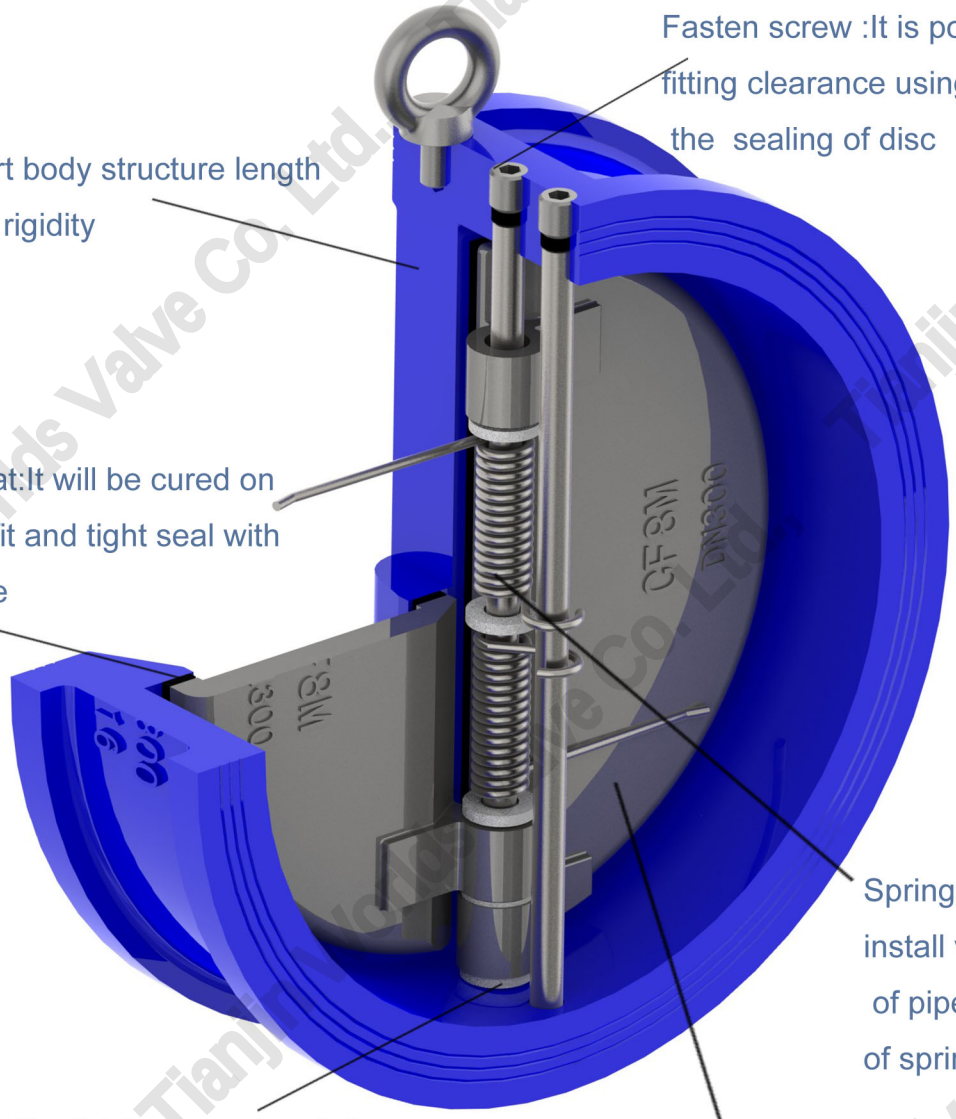
Material	References	Standard coating
Ductile iron	GGG40 GGG45 GGG50 A536	Nickel Brass-Nikle
Carbon steel	WCB	
Stainless steel	CF8 CF8M CF3 CF3M SAF2507 SAF2205	

Body Rubber Seat

References	Desigation	Trade Name	Working temp	Applications
NBR	Nitrile Rubber	BUNA-N	-25/+100	Oils ,Hydrocarbons ,Gas, Air ,Water
EPDM	Copolymer	EPDM	-35/+130	Water ,Sea Water,Steam,Diluted Acids
FKM	Fluoroelastomer	VITON	-20/+200	Oils, Hydrocarbons, Acids
CR	Polychloroprene	NEOPRENE	-20/+100	Alkail, Bases,Water
NR	Natural Rubber	NR	-40/+80	Glycols,Abrasive media
CSM	Chlorosulfonate	HYPALON	-20/+125	Acids,mineral

Main Spare Part Material Quality

Through precise manufacturing, the main parts of check butterfly valve ensure valve is operating in a long stable and reliable condition



Fasten screw :It is possible to regulate fitting clearance using washer and ensure the sealing of disc

Body:short body structure length and good rigidity

Rubber seat:It will be cured on body,tight fit and tight seal with no leakage

Spring:It is possible to install valve on any position of pipeline under the function of spring with low cost

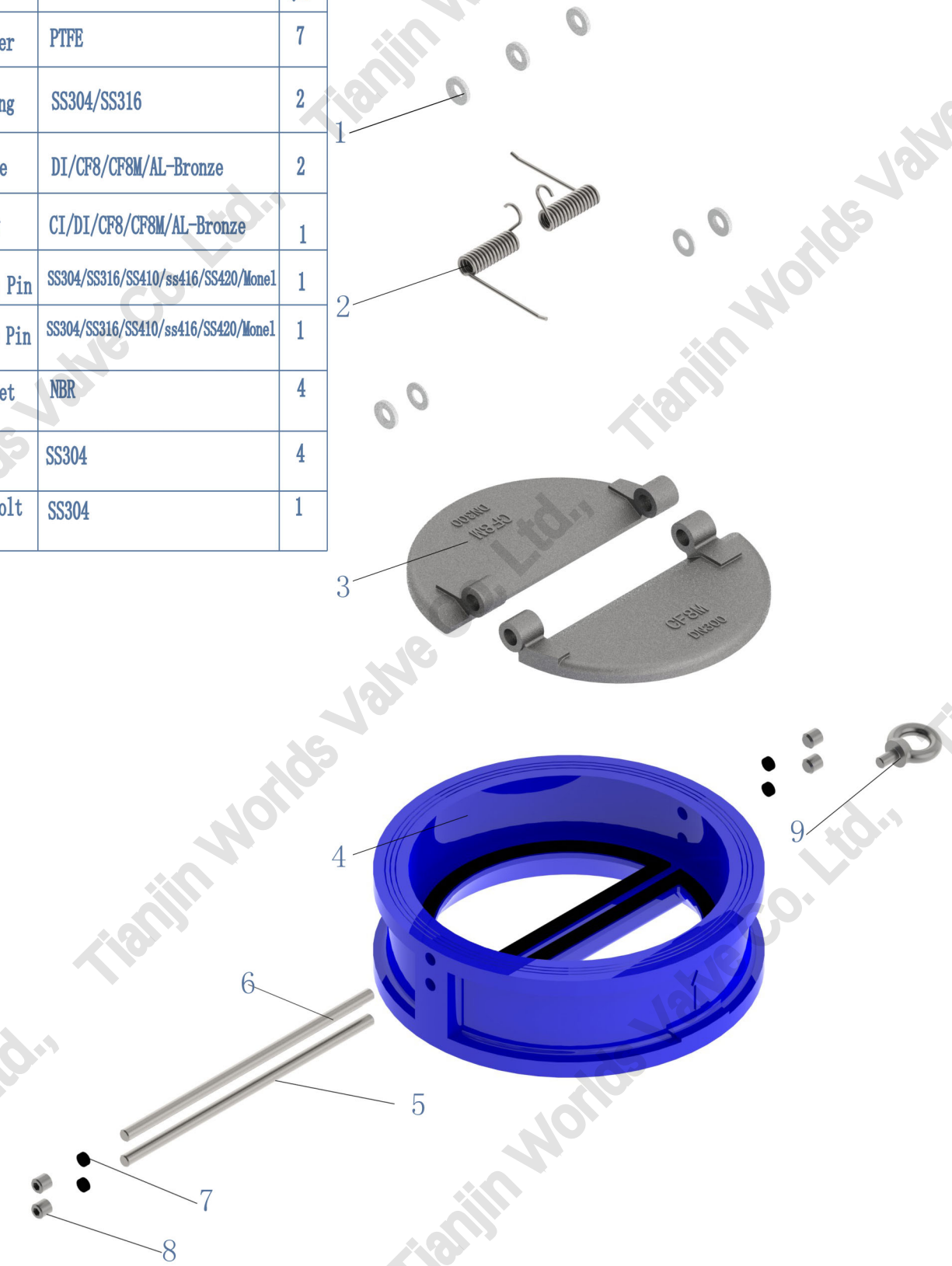
Gasket:It effectiviely prevents rotating shaft moving and avoid failure of valve function and leakage on shaft end

Disc: Adopting unitized design of dual discs and two torsion springs,it can made disc quickly closed itself and remove water-hammer

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Main Spare Part Material Quality（DN50-DN600）

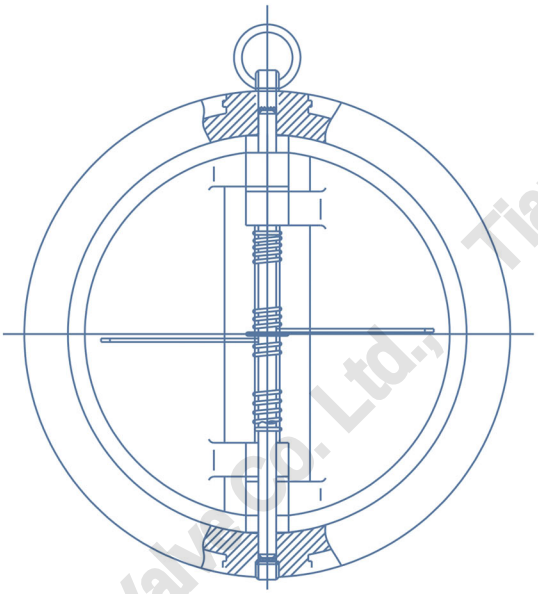
Item Number	NAME	MATERIAL	QTY
1	Washer	PTFE	7
2	Spring	SS304/SS316	2
3	Plate	DI/CF8/CF8M/AL-Bronze	2
4	Body	CI/DI/CF8/CF8M/AL-Bronze	1
5	Hang Pin	SS304/SS316/SS410/ss416/SS420/Monel	1
6	Stop Pin	SS304/SS316/SS410/ss416/SS420/Monel	1
7	Gasket	NBR	4
8	Plug	SS304	4
9	Eyebolt	SS304	1

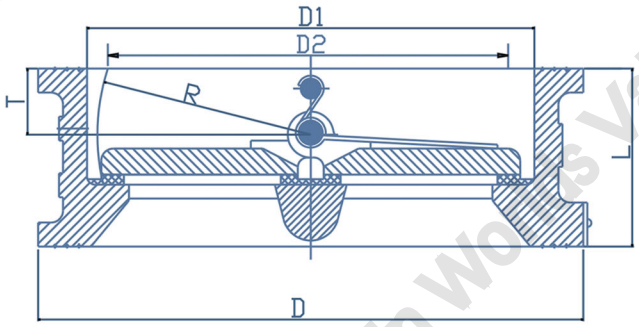


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Wafer Butterfly Check Valve BFHV01-TA01

Drawing(50-600)Outline Dimensions

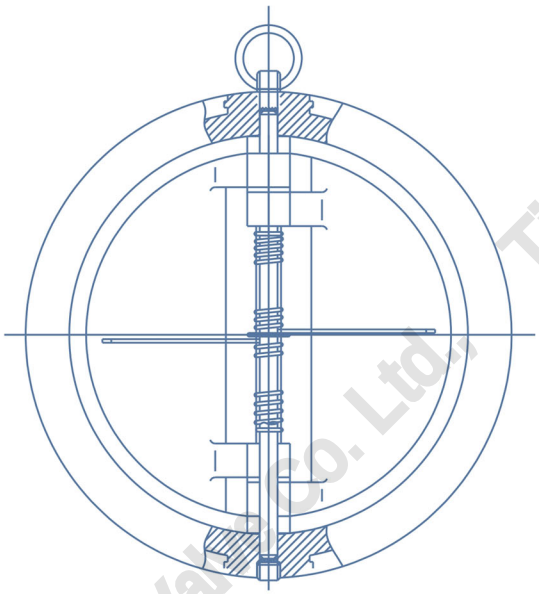


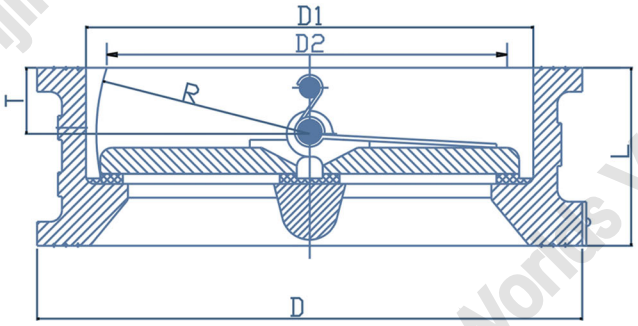


EN1092-2 PN10/DIN2501 PN10/ISO7005 PN10

DN	D	D1	D2	L	R	T
50	106	65	45.56	43	29.7	19
65	126	78	60.1	46	36.1	20
80	141	94	66.3	64	43.4	28
100	161	117	97.2	64	55.6	27
125	191	145	122.4	70	68.1	30
150	217	171	144.4	76	78.6	31
200	272	222	198.0	89	104.4	33
250	327	265	233.7	114	128	50
300	377	310	283.2	114	148	43
350	437	360	332.9	127	172.4	45
400	487	410	380.8	140	197.4	52
450	537	450	419.9	152	217.8	58
500	592	505	476.3	152	241	58
600	694	624	576.6	178	297.4	73

Drawing(50-600) Outline Dimensions



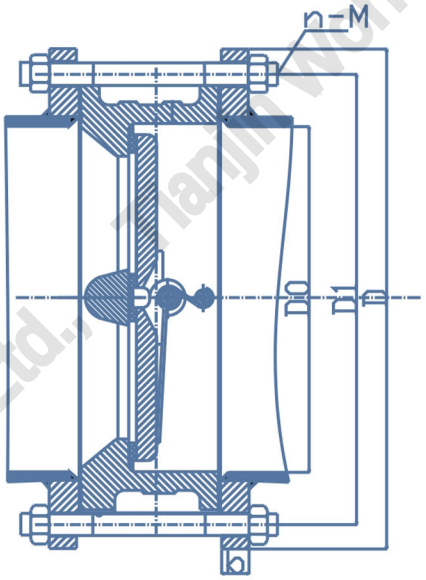


EN1092-2 PN16/DIN2501 PN16/ISO7005 PN16

DN	D	D1	D2	L	R	T
50	106	65	45.56	43	29.7	19
65	126	78	60.1	46	36.1	20
80	141	94	66.3	64	43.4	28
100	161	117	97.2	64	55.6	27
125	191	145	122.4	70	68.1	30
150	217	171	144.4	76	78.6	31
200	272	222	198.0	89	104.4	33
250	327	265	233.7	114	128	50
300	382	310	283.2	114	148	43
350	442	360	332.9	127	172.4	45
400	494	410	380.8	140	197.4	52
450	554	450	419.9	152	217.8	58
500	616	505	476.3	152	241	58
600	733	624	576.6	178	297.4	73

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Necessary Flange for Pipelines (PN10)

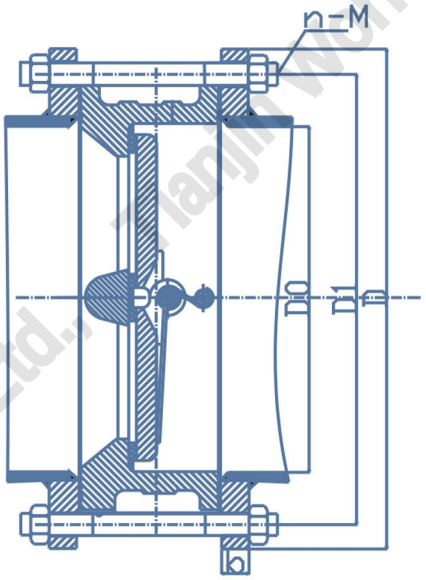


Connections Dimensions When Using Flange &Stud Bolts

Size		O.D.of Pipe	Dia.of Circle of Hole	O.D.of Flange	Thickness of Flange	Qty of flange holes	Dia of Bolts
mm	Inch	D0	D1	D	b	n	M
50	2"	60.3	125	165	19	4	M16
65	2.5"	76.1	145	185	19	4	M16
80	3"	88.9	160	200	19	8	M16
100	4"	114.3	180	220	19	8	M16
125	5"	139.7	210	250	19	8	M16
150	6"	168.3	240	285	19	8	M20
200	8"	219.1	295	340	20	8	M20
250	10"	273	350	395	22	12	M20
300	12"	323.9	400	445	24.5	12	M20
350	14"	355.6	460	505	24.5	16	M24
400	16"	406.4	515	565	24.5	16	M24
450	18"	457	565	615	25.5	20	M24
500	20"	508	620	670	26.5	20	M24
600	24"	610	725	780	30	20	M27

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Necessary Flange for Pipelines (PN16)



Connections Dimensions When Using Flange &Stud Bolts

Size		O.D.of Pipe	Dia.of Circle of Hole	O.D.of Flange	Thickness of Flange	Qty of flange holes	Dia of Bolts
mm	Inch	D0	D1	D	b	n	M
50	2"	60.3	125	165	19	4	M16
65	2.5"	76.1	145	185	19	4	M16
80	3"	88.9	160	200	19	8	M16
100	4"	114.3	180	220	19	8	M16
125	5"	139.7	210	250	19	8	M16
150	6"	168.3	240	285	19	8	M20
200	8"	219.1	295	340	20	12	M20
250	10"	273	355	405	22	12	M24
300	12"	323.9	410	460	24.5	12	M24
350	14"	355.6	470	520	26.5	16	M24
400	16"	406.4	525	580	28	16	M27
450	18"	457	585	640	30	20	M27
500	20"	508	650	715	31.5	20	M30
600	24"	610	770	840	36	20	M33

Loss in Pressure and CV

Loss in pressure and CV of CHECK VALVE				
DN	inch	Loss in pressure (bar)	CV	KV
50	2	0.32	63	54
65	2.5	0.27	81	70
80	3	0.21	185	160
100	4	0.17	363	314
125	5	0.14	576	498
150	6	0.11	968	837
200	8	0.09	2019	1747
250	10	0.07	3497	3025
300	12	0.06	5333	4613
350	14	0.05	6576	5689
400	16	0.043	9045	7824
450	18	0.04	11768	10180
500	20	0.037	16245	14053
600	24	0.03	24177	20914
700	28	0.028	27531	23816
750	30	0.027	32126	27791
800	32	0.026	38025	32894
900	36	0.024	48483	41940
1000	40	0.02	62966	54469
1050	42	0.019	66712	57709
1200	48	0.018	85969	74368

note:
1.Loss in pressure: When medium is water and flow speed is 3m/s at normal temperature.
2.CV is the flow volume of flowing through the valve When the valve fully opened.

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Applications



A wide variety of body designs,materials, and trim make Wafer Check valves exceptionally versatile and suitable for a multitude of liquid and gas fluid applications. Some of the major markets and typical applications are depicted here.









Oil and Gas Production

Centrifugal Compressor Discharge
Fire Water Lines
Oil/Steam Separation
Steam and CO2 Injection
Gas/Oil Gathering Systems
Flowlines
Wellheads
Regasification
Liquidfaction

Power Generation

Steam
Condensate
Boiler Feed Pumps
Cooling Towers
Service Water Recirculators
River Water Intake

Petroleum Refining

Hydrogen
Cracking
Steam
Crude Oil
Gasoline
Visbreakers
Naphtha
Sulfur

Petrochemicals

Ethylene
Propylene
Steam
Reboilers
Gases

Chemicals

Chlorine
Phosgene
Aromatics
Polymers
Acids
Air Separation
Caustics

Water and Wastewater

Distribution Lines
Pumping Stations
Sewage Plant Blower Discharge
Chemical Treatment
Fire Protection Systems
HVAC Systems
Desalination

Steel/Primary Metals

Quench Lines
De-Scaling
Continuous Casters
Steam
Condensate
Strippers
Electro-Galvanizing

Pulp and Paper

Bleaching Lines
Black Liquor
Green Liquor
White Water
Steam

Chemical Recovery

Marine
Oil Tankers
Tanker Loading Terminals
Offshore Platforms
Sub-Sea Manifolds
Terminal Transfer Lines
Barge Unloading Lines
Shipboard Services

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Work principle

The valve must not be installed in pipelines with pulsating flow or near to reciprocating pumps.

Installation in a horizontal pipeling

The disc shaft must be in the vertical position.

Features

As a check valve is permanently open in normal service, the flow resistance is a very important feature of a check valve with regard to the energy loss per year which can mount up to many times the initial cost of the valve. We have reduced the pressure loss of our design to very low levels.

- The self acting pivoting check valve of the double disc.
- The superior closing response prior to flow reveal.
- The corrosion resistant springs are designed to quickly close the valve at zero flow to prevent undesirable pressure surges.
- In the closed position the valve is tight shut off.
- It opens automatically when the flow starts again.
- The elastomer seat is vulcanized and bonded to the body casting.
- It is out of the flow path thus ensuring extended seal life. Spherical profiling of the seat ensures positive shut-off even at low pressuresand the area adjacent to the seat is also protected by the same elastomer material.
- The use of these design features together with careful material selection makes a product with a high reliability and a low operating costs.

Description for Order

In order to ensure your requirement for usage.please explain in detail in your order:Type,specification, material, norminal pressure,working pressure and temperature used,maximum flow rate pressure difference,medium composition of valve,driving type of valve and standard for connection of valve with pipes ect,

For the convenience usage of consumers,our company can provide flange and bolts completed with valve.and will provide wearing parts according to the requirement of consumers In selection of product types.consumer can present his requirement for product material, connection standard and technical date and give clear declaration in your contract

Our company also can carry out study and development on new product according to requirement of consumer

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