



VALVE AUTOMATION  
ISO 9001 CO.

Your Solution Partner in

» Industrial **Manual Valve....**



CATALOGUE - 2014



Mfg. & Mkt by :

**aira Euro automation pvt. ltd.**

ISO 9001:2008 Certified Co.  
INDIA

# Valve manufacturer over 20 years' experience

with ISO 9001, from BVQI - LONDON

We "**aira Euro automation pvt. ltd.**" - accredited with ISO 9001, from BVQI - LONDON, the Indian valve manufacturer over 15 years' experience supplying the global industry of all kind of industrial automated valves of **aira Euro automation pvt. ltd.** make in the small sector.

We manufacture Quality Valves of almost all types for a wide spectrum of users in the Process & Chemical, Refineries & Petrochemicals, Fertilizers, Drugs & Pharmaceuticals, Thermal Power Stations, Nuclear & Atomic Power Stations, Textiles, Dyes & Intermediates, Paints & Varnishes, Sugar, Breweries & Distilleries, Soaps & Detergents, Steel Plants, Food & Oil Industry, Solvent Extraction Plants, Sewage, Effluent & Water Treatment, Cooling Water, Ship Yards and Marine Management, Water Works, Pulp & Paper, LPG Bottling Plants, Onshore & Offshore platforms, Slurry & Ash handling.

With a view of enhancing our customers' preference of having a 'ONE STOP SHOP', **aira** has constantly worked on enhancing its product profile. Within each business, we have a dedicated team of professionals totally focused on supplying their position comprehensive market. Our factory is guided by a group of experienced workforce with wide experience in their scope. We had prepared express strides in knowledge and act and are nowadays accepted by our respected clients as the most consistent 'ONE STOP SHOP' for their flexible requirement of Automated Valves. Their continuous support bears ample acknowledgment for the confidence reposed in **aira Euro automation pvt. ltd.** We are passionate about manufacturing automated - pneumatic operated valves - solenoid valves - continuously improving what we do and how we do it. We strive to build strong partnerships with our customers, suppliers, agents and distributors.



**aira Euro automation pvt. ltd**  
**QUALITY POLICY**

The Management of **aira Euro automation pvt. ltd** is committed to quality and continual improvement in all areas of the organization by providing adequate infrastructure & resources at all level of the organization.

We will work as a team and with positive attitude. Every employee will maintain continual improvement of him self, his work processes, Quality Management System & resources (Men, Machine, Equipment, Materials, Tools, Instrument, Methods and Software etc.). Doing this way, everyone will become efficient and effective in his work. This will result in the achievement of individual, divisional and corporate objectives efficiently and thus all our stake holders will always be satisfied.

Each employee will fulfill internal customers' and suppliers' needs related to their work satisfactorily. They will also maintain warm relationship with each other. Such behavior will keep the QMS Live & upgraded. Also that will help us in the improvement of quality of product, services, customer satisfaction and strengthen the team work. Each and every employee will not allow quality to take second place behind cost or delivery schedule. All employees have the right to question their supervisor's decision or action if they feel that quality is being compromised. Management allow him to do so and perform his duty. If required he is also allowed to draw the attention of M.D. in such cases.

AEPL's management is committed to the health and safety of employees in relation to the company's business operations.

We want to be preferred organization for all our stake holders (Persons & Institute) by following the above policy.

Date : 01.01.2010

Rev.:00



**AIRA EURO AUTOMATION PVT. LTD.**



PLOT NO 123 - 124, AIRA ESTATE, BEHIND SECURITY ESTATE, NEAR KASHIRAM TEXTILE MILL, NAROL ROAD, AHMEDABAD - 382 405, GUJARAT, INDIA.

*Bureau Veritas Certification certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standard detailed below*

Standard

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**ISO 9001:2008**

*Scope of certification*

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**Design, Manufacture & Dispatch of Actuators, Ball Valves, Butterfly Valves, Control Valves, Pressure Reducing Valves, Electro-Pneumatic Assemblies, Solenoid Valves, Valves Actuation & Automation Products, Solenoid Coils, Limit Switches and Positioners.**

Certification cycle start date: **28 January 2014**  
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **27 January 2017**

Original certification date: **28 January 2002**

Certificate No. **IND13.9113U** Version : 1 Revision date: **19 December 2013**



**Certification Authority**  
**RAMESH KOREGAVE**  
**General Manager**



Certification body address: **Brandon House, 180 Borough High Street, London SE1 1LB, United Kingdom**

Local office: **"Marwah Centre" 6th Floor, Kishanlal Marwah Marg, Opp. Ansa Industrial Estate, Off Sakin Vihar Road, Andheri (East), Mumbai - 400 072, India.**

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call **+91 22 6695 6300**.

**Committed to**  
Satisfy customers by  
manufacturing and supplying  
the reliable products

**This Will be achieved**  
Complying and reviewing Quality Management System for continual improvement Providing earliest response to the customer's requirement. Effective cost management at every level Using quality input through efficient purchasing and inventory management. Efficient utilization of resources. Providing training to the people at the required level.

## Approvals

TDS, SGS, MECON, LLOYDS, PDIL, RITES, ONGC, BVIS, UHDE, BHEL, NPCIL, BARC, SAIL, Indian Navy & many more.

We have always kept our Design & Development Department on their toes, Even when a products has been positively accepted in the market, We have made changes for the better instead of resting on our laurels. Also we have full flanged in house flow testing facility.



## Organisation Belief

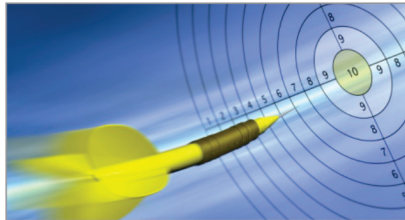
"Customer Is The Top Priority"  
Continuous job training to it's employees and human resource development strengths have given a loyal, trained workforce with grate motivation.

We have such a network of service and sales operations by qualified engineers and marketing personals, by which the nationwide requirements are being fulfilled.



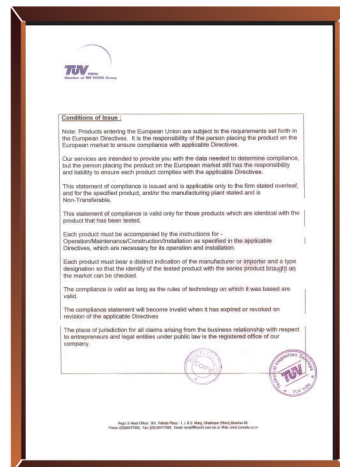
## Aim

To provide the most economic and quality product under the latest international manufacturing standards.



## Reputation

Clint's satisfaction with quality, fast action, Competitive rates, pre and after sales services.





## A

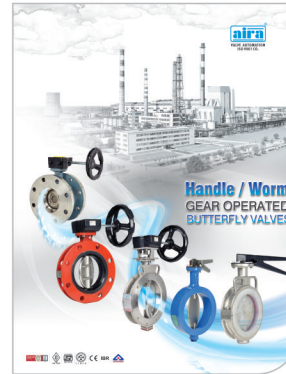
### SERIES



SR. NO	SERIES A	CATALOGUE NO.	PAGE NO.
1	METAL SEATED BALL VALVE S/E - F/E	AEA - 1001	A-1
2	2 Piece Design "FIRE SAFE" "VGO" Ball Valve	AEA - 1002	A-2
3	"WOG" Series High Pressure Ball Valve	AEA - 1003	A-3
4	2 Way High Pressure Ball Valve	AEA - 1004	A-4
5	3 Way High Pressure Ball Valve	AEA - 1005	A-5
6	Wafer Type Ball Valve	AEA - 1006	A-6
7	Jackated Type Ball Valve	AEA - 1007	A-7
8	3 Way / 4 Way / 5 Way Ball Valve	AEA - 1008	A-8-A-9
9	3 Way / 4 Way Ball Valve	AEA - 1009	A-10
10	"CW" Series "C" Way Ball Valve	AEA - 1010	A-11
11	FEP / PFA Lined Ball Valve	AEA - 1011	A-12

## B

### SERIES



SR. NO	SERIES B	CATALOGUE NO.	PAGE NO.
1	WAFFER TYPE DOUBLE FLANGE BUTTERFLY VALVE	AEA - 1012	B-1-2
2	WAFFER TYPE DAMPER VALVE	AEA - 1013	B-3
3	"AFT" Series DOUBLE FLANGE DAMPER VALVE	AEA - 1014	B-4
4	FEP / PFA LINED & Teflon Muffler BUTTERFLY VALVE	AEA - 1015	B-5
5	DOUBLE ECCENTRIC DESIGN WAFFER TYPE OFF-SET DISC BUTTERFLY VALVE	AEA - 1016	B-6
6	DOUBLE ECCENTRIC DESIGN DOUBLE FLANGE OFF-SET DISC BUTTERFLY VALVE 150#	AEA - 1017	B-7-B-8
7	DOUBLE ECCENTRIC DESIGN DOUBLE FLANGE OFF-SET DISC BUTTERFLY VALVE 300#	AEA - 1018	B-9
8	DOUBLE ECCENTRIC DESIGN DOUBLE FLANGE OFF-SET DISC BUTTERFLY VALVE 600#	AEA - 1019	B-10
9	SPHERICAL DISC VALVE 150#	AEA - 1020	B-11-B-12
10	SPHERICAL DISC VALVE 300#	AEA - 1021	B-13
11	TRIPPLE WAFFER TYPE OFF SET BUTTERFLY VALVE 150#	AEA - 1022	B-14
12	"SMT" MODEL METAL SEATED SPHERICAL DISC VALVE	AEA - 1023	B-15
13	FABRICATED DOUBLE FLANGE BUTTERFLY VALVE	AEA - 1024	B-16
14	PHERMA BUTTERFLY VALVE	AEA - 1025	B-17
15	ALLUMINIUM BODY GEAR BOX	AEA - 1026	B-18
16	C.I. BODY GEAR BOX	AEA - 1027	B-19

## C



## SERIES

SR. NO.	SERIES C	CATALOGUE NO.	PAGE NO.
1	DISC CHECK VALVE (DCV) NON SLAME CHECK VALVE (NRV)	AEA - 1028	C-1 - C-2
2	MEDIUM PRESSURE NEEDLE VALVE	AEA - 1029	C-3
3	HIGH PRESSURE UNIVERSAL DESIGN NEEDLE VALVE	AEA - 1030	C-4
4	HIGH PRESSURE NON RETURN VALVE	AEA - 1031	C-5
5	PRESSURE REDUCING VALVE	AEA - 1032	C-6-C-7-C-8
6	DIRECT ACTIVATED C.I. BODY PRESSURE REDUCING VALVE	AEA - 1033	C-9
7	DIRECT ACTIVATED LOW PRESSURE PRESSURE REDUCING VALVE	AEA - 1034	C-10
8	DIRECT ACTIVATED MICRO PRESSURE PRESSURE REDUCING VALVE	AEA - 1035	C-11
9	SDT MODEL PRESSURE REDUCING VALVE	AEA - 1036	C-12
10	SILENT FEATURE SAFETY VALVE	AEA - 1037	C-13
11	POP TYPE SAFETY VALVE	AEA - 1038	C-14
12	2/2 WAY GLOBE TYPE CONTROL VALVE	AEA - 1039	C-15
13	PHARMA DIAPHRAGM VALVE	AEA - 1040	C-16

## D



## SERIES

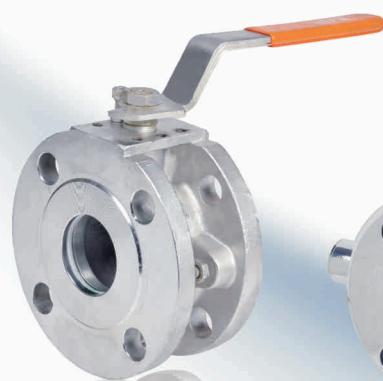
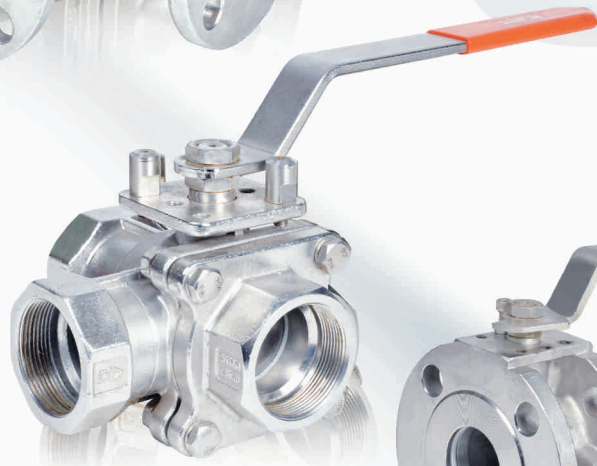
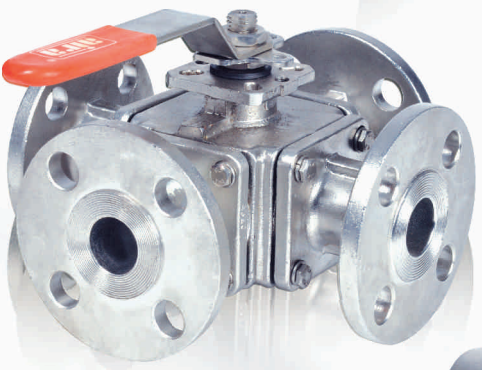
SR. NO.	SERIES D	CATALOGUE NO.	PAGE NO.
1	DRUM TYPE PRESSURE REDUCING VALVE	AEA - 1041	D-1
2	DRUM TYPE (SAFETY VALVE) PRESSURE RELIEF VALVE	AEA - 1042	D-2
3	DRUM TYPE PRESSURE SUSTAINING VALVE	AEA - 1043	D-3
4	DRUM TYPE FLOAT VALVE	AEA - 1044	D-4
5	DEXTENDED SHAFT DRUM VALVE	AEA - 1045	D-5
6	HANDLE OPERATED DRUM VALVE	AEA - 1046	D-6



VALVE AUTOMATION  
ISO 9001 CO.



2 Way  
3 Way  
4 Way



SERIES : A



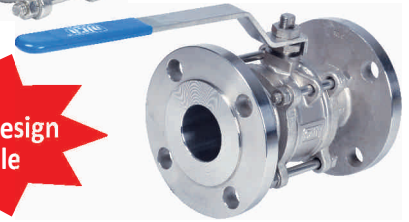


"aira" Hand Lever & Gear Operated Metal Seated Ball Valve designed for using in the server conditions such as high temperature and high friction fluid like abrasive fluids of Oil and Gas, Petroleum, Petrochemical, Chemical Power Generation, Pulp and Paper Mining Industry.

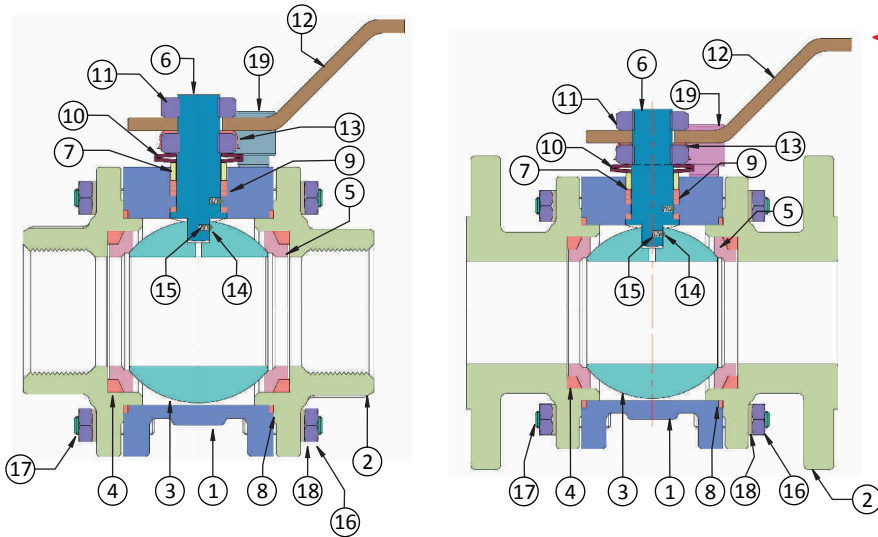
Size Range : 1/2" to 4" Screwed / Flanged

Standard

Design And Manufacturing : BS EN ISO 17292  
Valve Face To Face Dimension : ASME B 16.10  
Flange Standard Conformity : ASME B 16.5 Class 150,  
Inspection & Testing : API 598 / FCI - 702 / BS EN 12266 - 1



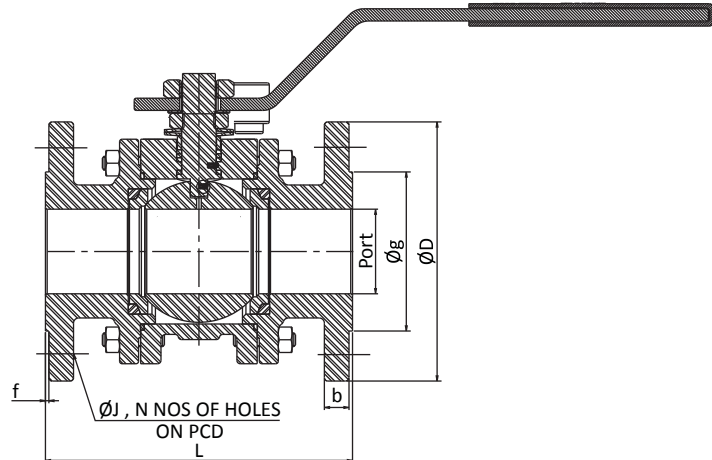
Fire Safe Design Available



Features :

- Metal Seated Ball Valves are inherently fire safe and it's design is
- Metal anti-static by nature of the metal to metal contact
- Harden face treatment on ball and seats provides the longer life cycle in Cryogenic environment
- Advanced seat structure and high precision ball preparation can Ensure Sealing performance and reduce the operation torque
- Highly precise machining enables the ball and seat tight shut-off
- Suitable for temperature range -50°C to 500 °C

No.	Description	Material	Qty.
01	Body	WCB / CF8 / CF8M	01
02	End Connector	WCB / CF8 / CF8M	02
03	Ball	CF8 / CF8M	01
04	Ball Back	CFT	02
05	Ball Seat	AISI 304 / 316	02
06	Stem Pin	AISI 304 / 316	01
07	Spacer Ring	AISI 304 / 316	01
08	Body Seat	CFT02	02
09	Stem Seat	CFT04	04
10	Disc Spring	Spring Steel	02
11	Stem Nut	S. S. 304	02
12	Handle	M.S. / S.S.	01
13	Lock Washer	S. S. 304	01
14	Antistatic Ball	S. S. 304	02
15	Antistatic Spring	S. S. 304	02
16	Fitting Nut	H.T. / S. S. 304	08
17	Fitting Stud	H.T. / S. S. 304	04
18	Spring Washer	H.T. / S. S. 304	08
19	Stopper Pin	M.S. / S. S. 304	01



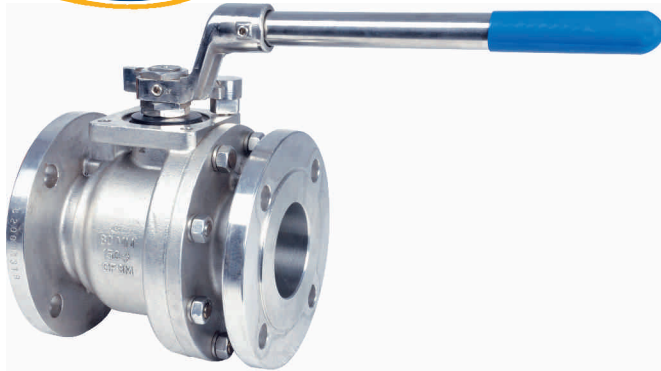
Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		Screwed		Flanged 150#								Weight (Approx)	
	MM	Inch	L	Weight Approx.	L1	b	f	Port	Øg	ØD	ØJ	N		K:PCD
BMS - 15	15	1/2"	71	1.550	108	8	2	13	34.9	90	15.9	4	60.3	1.600
BMS - 20	20	3/4"	94	1.880	117	8.9	2	19	42.9	100	15.9	4	69.9	2.400
BMS - 25	25	1"	108.5	2.720	127	9.6	2	25	50.8	110	15.9	4	79.4	3.500
BMS - 32	32	1.1/4"	116	3.950	140	11.2	2	32	63.5	115	15.9	4	88.9	5.000
BMS - 40	40	1.1/2"	128	5.200	165	12.7	2	38	73	125	15.9	4	98.4	7.000
BMS - 50	50	2"	158	9.100	178	14.3	2	49	92.1	150	19.05	4	120.7	11.200
BMS - 65	65	2.1/2"	185	13.100	190	15.9	2	62	104.8	180	19.05	4	139.7	17.500
BMS - 80	80	3"	205	15.100	203	17.5	2	74	127	190	19.05	4	152.4	20.00
BMS - 100	100	4"	216	25.000	229	22.3	2	100	157.2	230	19.05	8	190.5	33.00

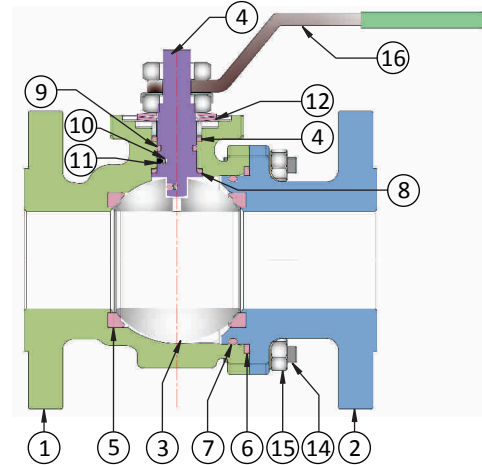
Note : 300 & 600 Class Dimension are on request.

"aira" offers Hand Lever & Gear Operated "FIRE SAFE" Two Piece Design Ball Valve, engineered for multiple ON/OFF operations in the highly inflammable fluids.



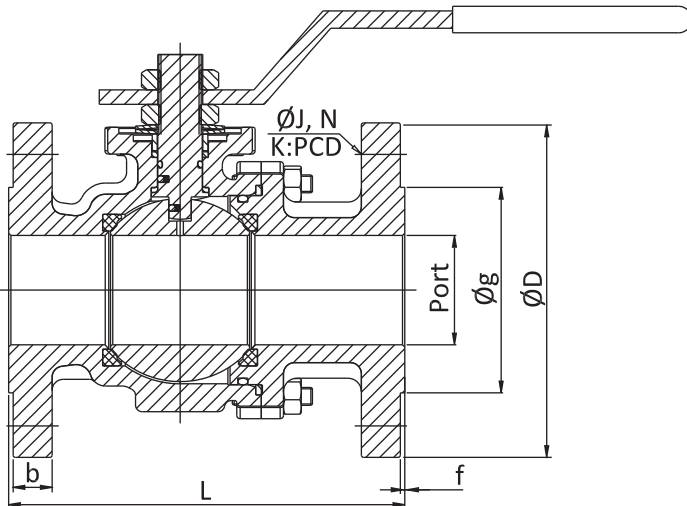
### Size Range : 1/2" to 14" Flanged 150# & 300#

Item	Type of Test	Testing Pressure	Working Pressure	Operating Temperature (High Temp. On Request)
Valve Body Flanged 150#	Hydraulic	450 PSIG	315 PSIG	Max.180 °C
Valve Body Flanged 300#	Hydraulic	1125 PSIG	815 PSIG	Max.180 °C



### Standard

Design And Manufacturing	: BS 5351 / BS EN ISO 17292
Valve Face To Face Dimension	: ASME B 16.10
Flange Standard Conformity	: ASME B 16.5 Class 150, 300
Inspection & Testing	: API 598 / FCI - 70-2 / BS EN 12266 - 1
Fire Safe Test	: API 6 FA / FCI - 70-2



No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	1
2	Flange End Connector	WCB / CF8 / CF8M	1
3	Ball	CF8 / CF8M	1
4	Stem Pin	AISI 304 / 316	1
5	Ball Seat	PTFE / CFT / GFT / PEEK	2
6	Body Seat	Grafoil	1
7	Conn. - O-Ring	NBR / EPDM / Viton	1
8	Stem Seat Bottom	PTFE	1
9	Stem O-Ring	NBR / EPDM / Viton	1
10	Antistatic Spring	S.S. 202	2
11	Antistatic Ball	S. S. 304	2
12	Disc Spring	Spring Steel	2
13	Stem & Handle Nut	S. S. 304	2
14	Fitting Stud	H.T. / S. S. 304	6
15	Fitting Nut + Spring Washer	H.T. / S. S. 304	6
16	Handle	M.S. / S.S.	1

### Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		Flanged 150#									Weight (Approx)	Flanged 300#									Weight (Approx)
	MM	Inch	L	b	f	Port	Øg	ØD	ØJ	N	K:PCD		L	b	f	Port	Øg	ØD	ØJ	N	K:PCD	
VGO - 15	15	1/2"	108	8	2	13	34.9	90	15.9	4	60.3	2.150	140	12.7	2	13	34.9	95	15.9	4	66.7	3.100
VGO - 20	20	3/4"	117	8.9	2	19	42.9	100	15.9	4	69.9	3.000	152	14.3	2	19	42.9	115	19.05	4	82.6	3.900
VGO - 25	25	1"	127	9.6	2	25	50.8	110	15.9	4	79.4	4.100	165	15.9	2	25	50.8	125	19.05	4	88.9	5.400
VGO - 32	32	1.1/4"	140	11.2	2	32	63.5	115	15.9	4	88.9	---	178	17.5	2	32	63.5	135	19.05	4	98.4	7.200
VGO - 40	40	1.1/2"	165	12.7	2	38	73	125	15.9	4	98.4	7.000	190	19.1	2	38	73	155	22.2	4	114.3	9.720
VGO - 50	50	2"	178	14.3	2	49	92.1	150	19.05	4	120.7	9.200	216	20.7	2	49	92.1	165	19.05	8	127	11.680
VGO - 65	65	2.1/2"	190	15.9	2	62	104.8	180	19.05	4	139.7	13.800	241	23.9	2	62	104.8	190	22.2	8	149.2	20.500
VGO - 80	80	3"	203	17.5	2	74	127	190	19.05	4	152.4	20.300	282	27	2	74	127	210	22.2	8	168.3	29.240
VGO - 100	100	4"	229	22.3	2	100	157.2	230	19.05	8	190.5	29.200	305	30.2	2	100	157.2	255	22.2	8	200	48.380
VGO - 125	125	5"	254	22.3	2	125	185.7	255	22.2	8	215.9	---	381	33.4	2	125	185.7	280	22.2	8	235	---
VGO - 150	150	6"	267	23.9	2	150	215.9	280	22.2	8	241.3	64.000	403	35	2	150	215.9	320	22.2	12	269.9	90.260
VGO - 200	200	8"	457	27	2	201	269.9	345	22.2	8	298.5	151.00	500	39.7	2	201	269.9	380	25.4	12	330.2	188.00
VGO - 250	250	10"	534	28.6	2	252	323.8	405	25.4	12	362	---	568	46.1	2	252	323.8	445	28.6	16	387.4	---
VGO - 300	300	12"	610	30.2	2	303	381	485	25.4	12	431.8	---	648	49.3	2	303	381	520	31.75	16	450.8	---
VGO - 350	350	14"	---	33.4	2	334	412.8	535	28.6	12	476.3	---	---	52.4	2	334	412.8	585	31.75	20	514.4	---

Note : Size 1/2" to 4" weight are Handle Operated & Size 6" & 8" Weight are Gear Operated .

"Cair" offers WOG Manual Hand Lever Operated Low Torque High Pressure Ball Valve. Locking arrangement & Actuator Mounting Pad.

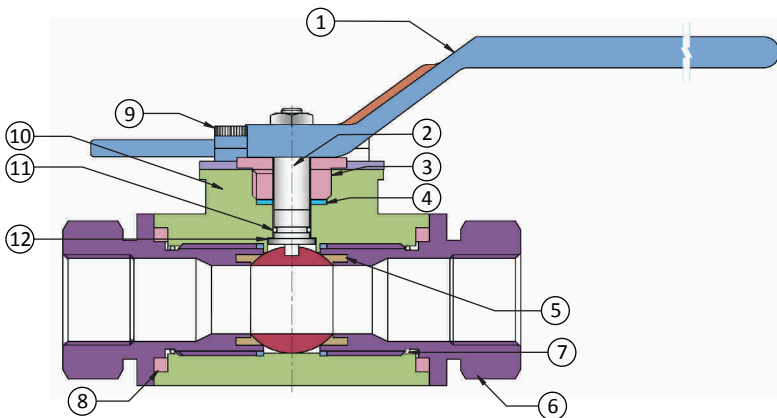
Size Range : 1/2" to 2" Screwed

Features :

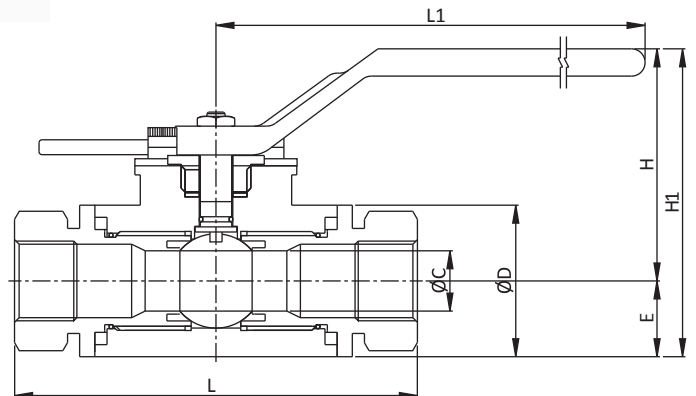
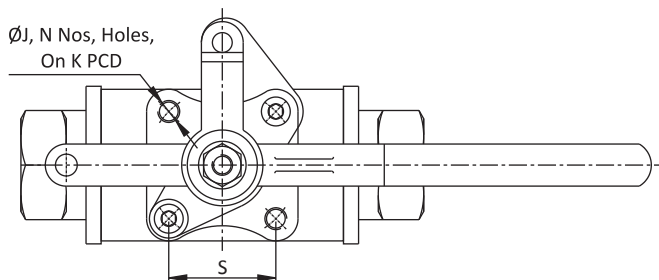
- Low Torque
- High Pressure with High Temperature Seals
- Locking Arrange for Security Purpose
- In buld Mtaining Pad for Pneumatic Actuator



Item	Type of Test	Testing Pressure	Working Pressure	Temperature
Valve Body Screwed End	Hydraulic	300 Kg	200 Kg	150 °C



No.	Description	Material	Qty.
1	Handle	WCB / CF8 / CF8M	01
2	Stem Pin	S. S. 304 / S. S. 316	01
3	Spacer Ring	S. S. 304 / S. S. 316	01
4	Stem Seat	S. S. 304 / S. S. 316	01
5	Ball Seat	Peek / Polyacetal	02
6	End Connector	WCB / CF8 / CF8M	02
7	'O' Ring	NBR / EPDM / Viton	02
8	Body Seat	Graphite	01
9	Fitting Stud	H.T. / CF8	01
10	Body	WCB / CF8 / CF8M	01
11	'O' Ring	NBR / EPDM / Viton	01
12	Gland Packing	Peek / Polyacetal	01



Dimensions :

(All Dimensions are in mm)

Valve Model	Size		L1	L	H	ØC	ØD	□S	ØJ	N	PCD	Weight (Approx.)
	MM	Inch										
WOG - 15	15	1/2"	160	98	75	12.7	39	25.4	M5X0.8	4	36	1.330
WOG - 20	20	3/4"	205	108	90	17.5	48	31	M6X1	4	42	1.440
WOG - 25	25	1"	205	108	96	22.3	55.5	31	M6X1	4	42	2.100
WOG - 32	32	1.1/4"	255	133	124	31.8	76.5	35.3	M6X1	4	51.5	4.850
WOG - 40	40	1.1/2"	255	133	124	31.8	76.5	35.3	M6X1	4	51.5	4.280
WOG - 50	50	2"	255	159	125	38.1	89.5	35.36	M6X1	4	51.5	7.420

"Cair" 2 Way Ball Valves are design to suit a wide range of applications including mobile plant and industries equipment. Standard valves are intended for use on Hydraulic Mineral Oil. Stainless Steel Valves are available for use in corrosive environments and / or operation with corrosive fluids.



**Cair**  
INDUSTRIAL VALVES

### Size Range : 1/4" to 1"

#### Features :

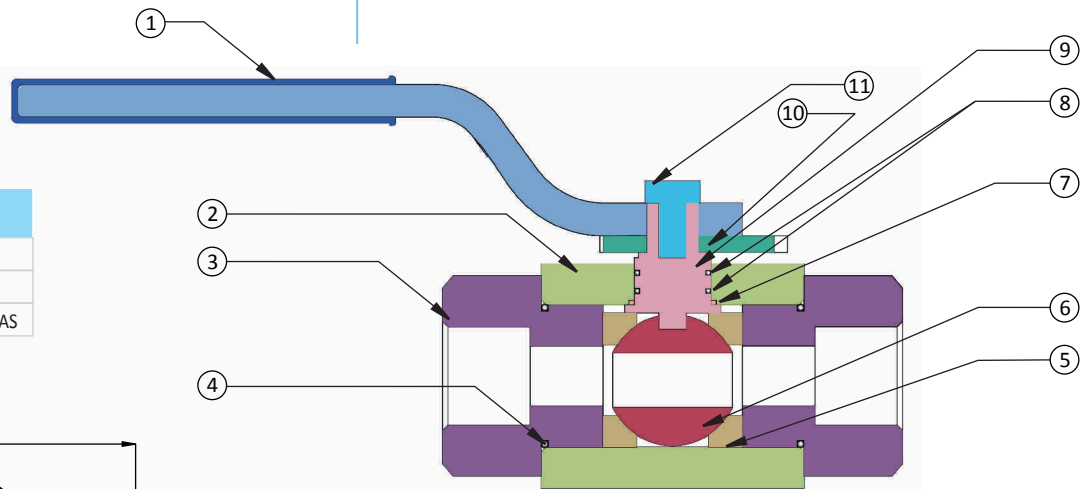
- Full bore valves provide an unrestricted flow path for negligible pressure drop.
- Floating ball on pre-compressed seals minimises wear and provides an excellent seal at positive and negative pressure.
- Operating temperature from -20 °C to 150 °C
- Open to close in 1/4 turn (90°)

#### Stainless Steel Valves

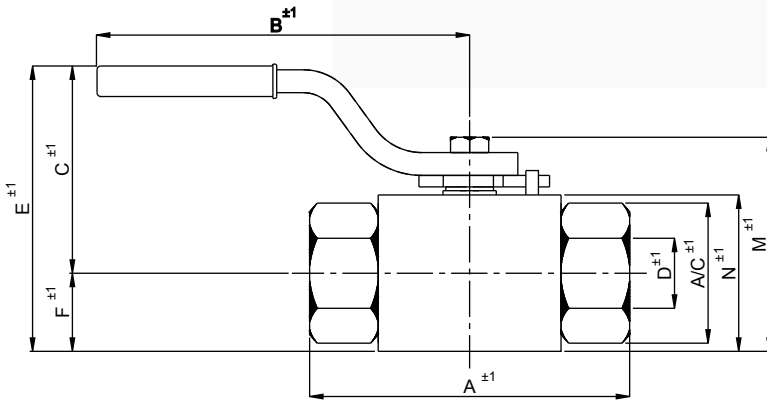
Body and Ball in 316 Stainless Steel for use in the Food, Chemical and Pharmaceutical Industries. A variety of special seals can be provided to comply with the stringent specifications required by these applications.

#### TECHNICAL SPECIFICATION

PRESSURE	AS PER TABLE**
TEMPERATURE	-20°C to 150 °C
MEDIA	AIR, WATER, OIL & GAS



No.	Description	Material	Qty.
1	Handle	Steel Powder Coated	01
2	Body	Forged Carbon / S.S. 304 / S.S. 316	01
3	End Connection	Forged Carbon / S.S. 304 / S.S. 316	02
4	'O' Ring	NBR / EPDM / Viton / Peek	02
5	Ball Sheet	Peek / Peak / Polyacetal	02
6	Ball	S.S. 304 / S.S. 316	01
7	Gland Packing	Peek / Peak / Polyacetal	01
8	'O' Ring	NBR / EPDM / Viton	02
9	Stem	S.S. 304 / S.S. 316	01
10	Stopper	Steel Powder Coated	01
11	Bolt	S. Steel	01



#### Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		**Max. W.P. Kg/cm2	A	B	C	D Bore	E	F	A/C	N	M	Weight Approx
	MM	Inch											
AWA-6	6	1/4"	700	65	125	55	6	70	15	31.8	39	56.5	0.540
AWA-10	10	3/8"	500	84	145	60	10	70	20	36	46	65.5	1.070
AWA-15	15	1/2"	500	84	145	65	15	80	20	36	46	63	1.030
AWA-20	20	3/4"	500	95	195	85	20	110	25	51.5	61.5	87	2.040
AWA-25	25	1"	325	107	195	85	25	110	25	57.5	67	91	2.580

"Cair" 3 Way ball valves are designed to suit a wide range of applications including mobile plant and industrial equipment. Standard valves are intended for use on hydraulic mineral oil. Stainless steel valves are available for use in corrosive environments and/or operation with corrosive fluids.

## Size Range : 1/2" to 1.1/2"

### Features :

- Full bore valves provide an unrestricted flow path for negligible pressure drop.
- Floating ball on pre-compressed seals minimises wear and provides an excellent seal at positive and negative pressure.
- Operating temperature from -20 °C to 150 °C
- Open to close in 1/4 turn (90°)

### Stainless Steel Valves

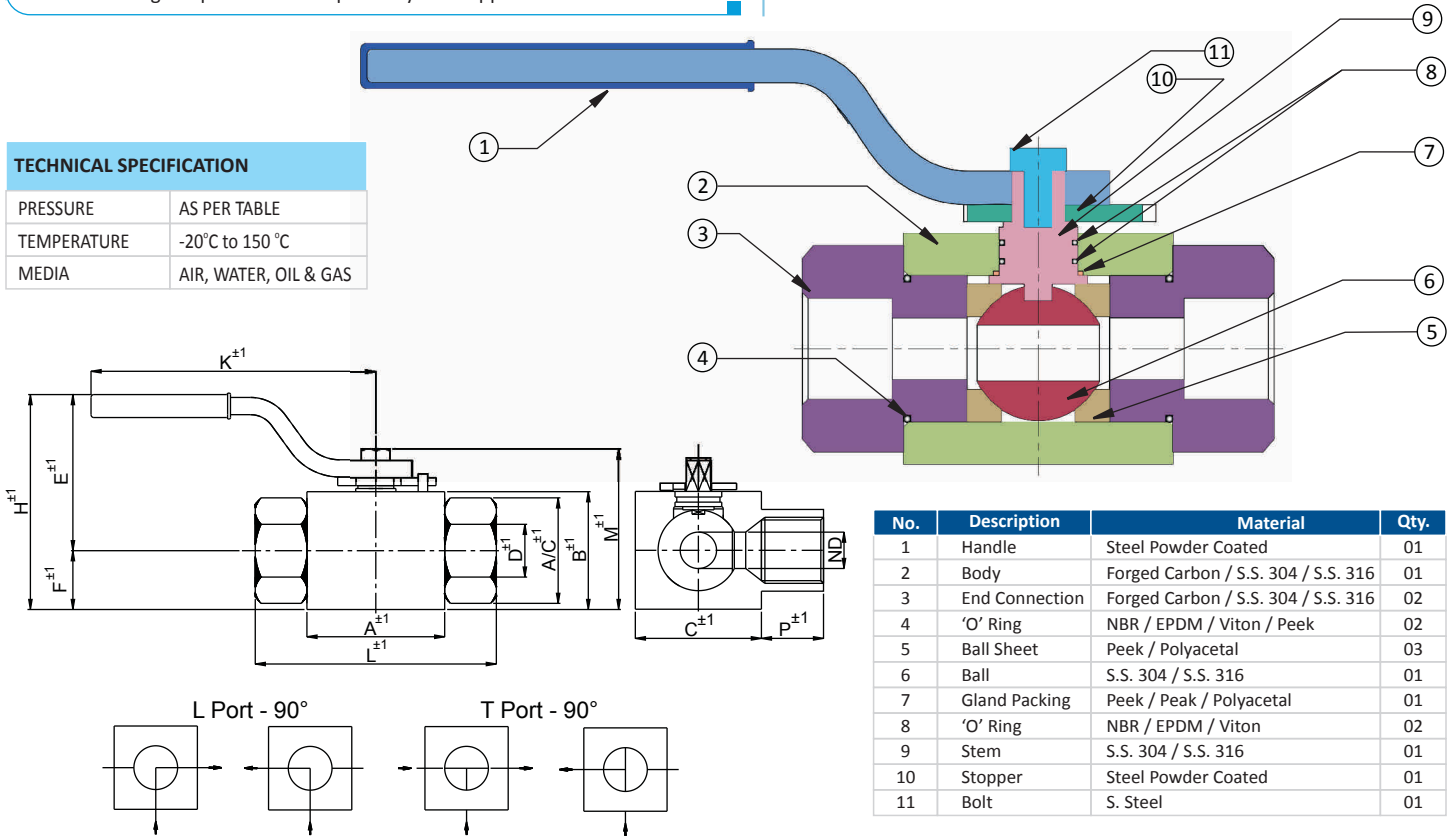
Body and Ball in 316 Stainless Steel for use in the Food, Chemical and Pharmaceutical Industries. A variety of special seals can be provided to comply with the stringent specifications required by these applications.



**Cair**  
INDUSTRIAL VALVES

### TECHNICAL SPECIFICATION

PRESSURE	AS PER TABLE
TEMPERATURE	-20°C to 150°C
MEDIA	AIR, WATER, OIL & GAS



No.	Description	Material	Qty.
1	Handle	Steel Powder Coated	01
2	Body	Forged Carbon / S.S. 304 / S.S. 316	01
3	End Connection	Forged Carbon / S.S. 304 / S.S. 316	02
4	'O' Ring	NBR / EPDM / Viton / Peek	02
5	Ball Sheet	Peek / Polyacetal	03
6	Ball	S.S. 304 / S.S. 316	01
7	Gland Packing	Peek / Peek / Polyacetal	01
8	'O' Ring	NBR / EPDM / Viton	02
9	Stem	S.S. 304 / S.S. 316	01
10	Stopper	Steel Powder Coated	01
11	Bolt	S. Steel	01

### Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		ND	A	B	C	A/C	H	K	L	M	P	E	F	D	Weight Approx
	MM	Inch														
3AWA - 15	15	1/2"	13	48.2	45.5	40.5	36.5	83	148	83.5	65	19	60	23	11.5	1.060
3AWA - 20	20	3/4"	20	61	61.5	51	52.5	98	195	96	65	24.5	71	27	19.3	2.210
3AWA - 25	25	1"	25	71.5	68.5	60	58	113	195	107.5	96	23.5	83	30	24.6	2.900
3AWA - 32	32	1.1/4"	25	91.5	90	80	80	146	230	130.5	123	32.5	106	40	36	6.150
3AWA - 40	40	1.1/2"	25	91.5	90	80	80	146	230	130.5	123	32.5	106	40	36	5.800

"aira" offers Hand Lever Operated Investment Casting WCB / CF8 / CF8M Wafer Ball Valve In Two Piece Design.

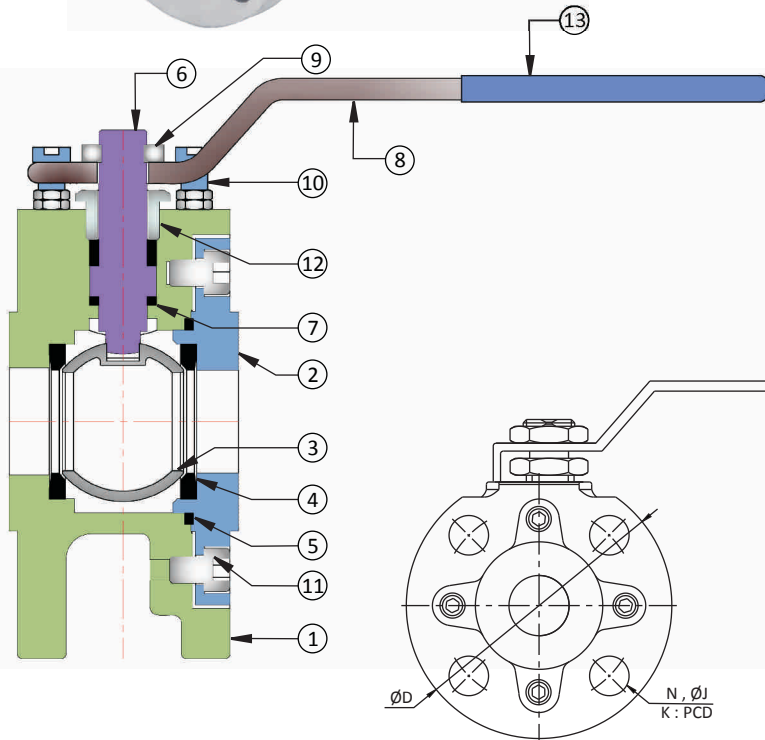


### Size Range : 1" to 4" Wafer Type

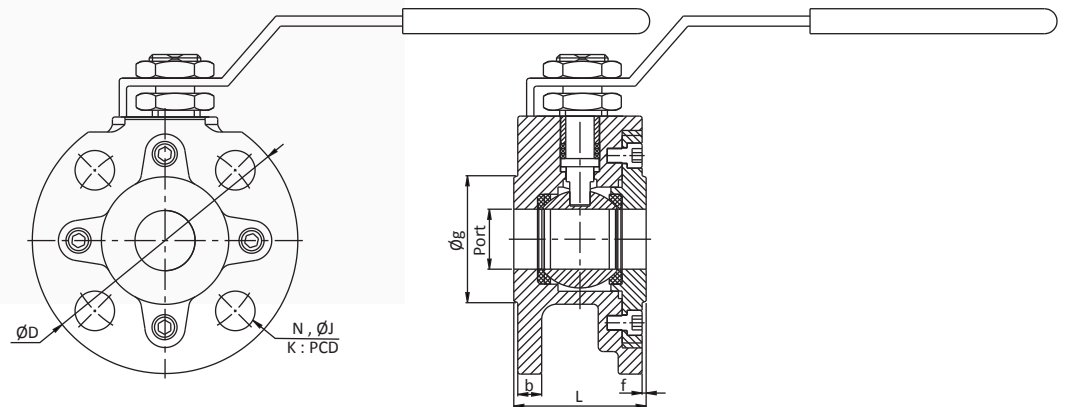
Item	Type of Test	Testing Pressure	Working Pressure	Operating Temperature (High Temp. On Request)
Valve Body Flanged 150#	Hydraulic	450 PSIG	315 PSIG	Max.180 °C

### Standard

Design And Manufacturing	: ASME B 16.34 / API 6D
Valve Face To Face Dimension	: As Per Manufacturer
Flange Standard Conformity	: ASME B 16.5 Class 150
Inspection & Testing	: API 598 / FCI - 70-2 / BS EN 12266 - 1



No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	1
2	Connector	WCB / CF8 / CF8M	1
3	Ball	CF8 / CF8M	1
4	Ball seat	PTFE / GFT / CFT / PEEK	2
5	Body Seat	PTFE / GFT / CFT / PEEK	1
6	Stempin	AISI 304 / 316	1
7	Stem Seat	PTFE	4
8	Handle	M.S. / S.S.	1
9	Handle Nut	ASTM A 193	1
10	Handle Stopper	S.S.	2
11	Allen Bolt	ASTM A 193	4
12	Lock Nut	CF8	1
13	Handle Sleeve	PVC Grip	1



### Dimensions :

(All Dimensions are in mm)

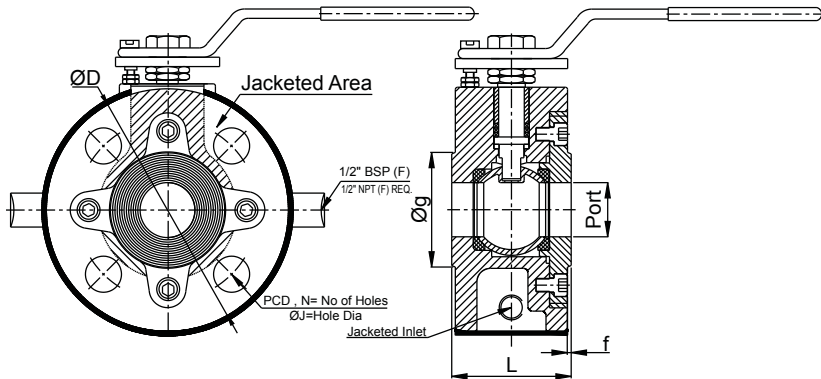
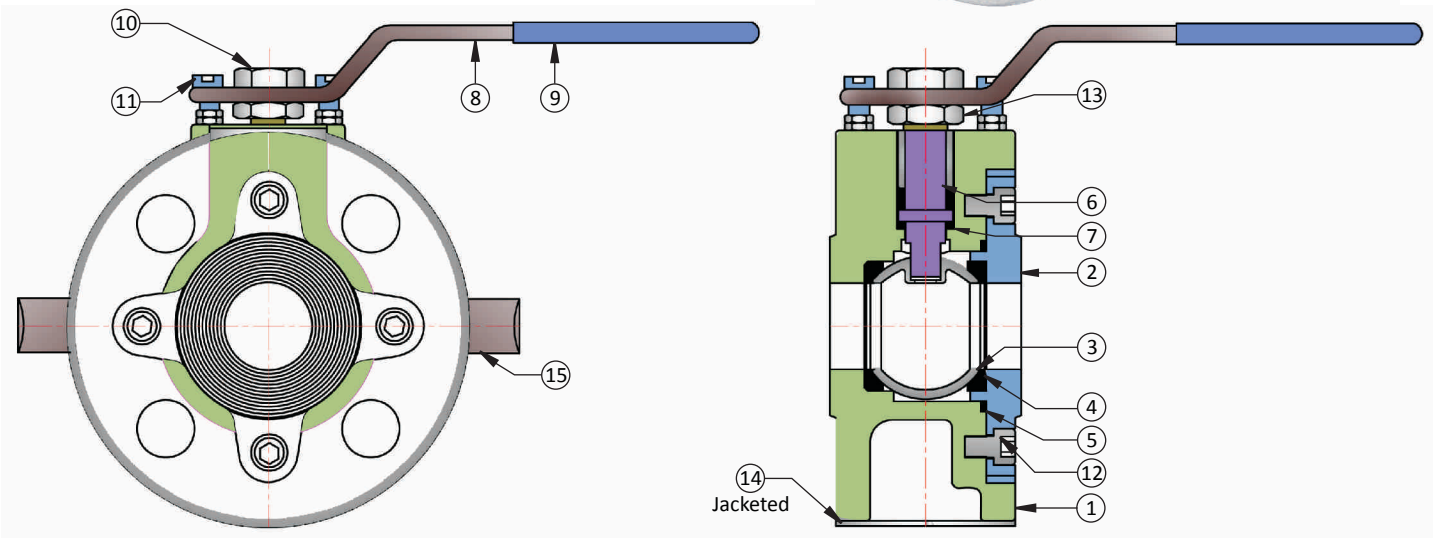
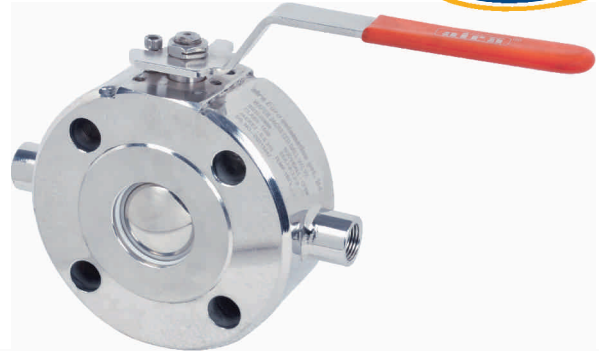
Valve Model	Valve Size		L	b	f	Port	Øg	ØD	ØJ	N	PCD	Weight
	MM	Inch										
WTB - 25	25	1"	54	9.6	2	25	50.8	107.9	15.88	4	79.4	1.940
WTB - 32	32	1.1/4"	58.5	11.2	2	32	63.50	115	15.88	4	88.9	2.900
WTB - 40	40	1.1/2"	63	12.7	2	38	73	127	15.88	4	98.4	3.080
WTB - 50	50	2"	73	14.3	2	49	91.95	152.4	19.05	4	120.7	4.900
WTB - 65	65	2.1/2"	96	15.9	2	62	104.65	177.8	19.05	4	139.7	8.560
WTB - 80	80	3"	118	17.5	2	74	127	190.5	19.05	4	152.4	11.140
WTB - 100	100	4"	140	22.3	2	100	157.2	230	19.05	8	190.5	18.240

"aira" offers Hand Lever Operated Investment Casting WCB / CF8 / CF8M / Ball Valve in 2 Piece Design Wafer Type JACKETED- engineered for multiple ON / OFF operations in the down steam

Size Range : 1" to 4"

Standard

Design And Manufacturing : ASME B 16.34 / API 6D  
 Valve Face To Face Dimension : As Per Manufacturer  
 Flange Standard Conformity : ASME B 16.5 Class 150, 300  
 Inspection & Testing : API 6D / FCI - 70-2 / BS EN 12266 - 2



No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	1
2	Connector	WCB / CF8 / CF8M	1
3	Ball	CF8 / CF8M	1
4	Ball seat	PTFE / GFT / CFT / PEEK	2
5	Body Seat	PTFE / GFT / CFT / PEEK	1
6	Stem Pin	AISI 304 / 316	1
7	Stem Seat	PTFE	4
8	Handle	M.S. / S.S.	1
9	Handle Sleeve	PVC Grip	1
10	Handle Nut	S.S.	1
11	Handle Stopper	S.S.	2
12	Allen Bolt	S.S.	4
13	Lock Nut	S.S.	1
14	Jacket	S.S. / M.S.	1
15	Coupling	S.S. / M.S.	2

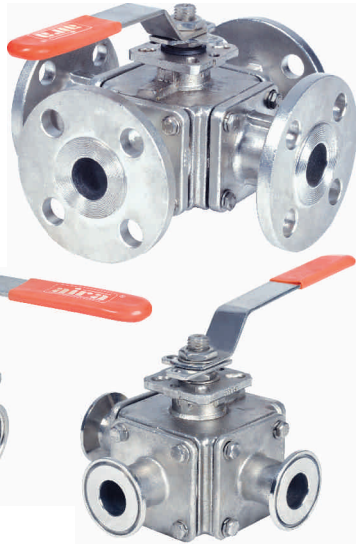
Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		Port	L	ØD	Øg	ØJ	N	f	PCD	Weight (Approx.)
	MM	Inch									
KAG - 25	25	1"	25	54	107.9	50.8	15.88	4	2	79.4	2.500
KAG - 32	32	1.1/4"	32	58.5	115	63.50	15.88	4	2	88.9	3.300
KAG - 40	40	1.1/2"	38	63	127	73	15.88	4	2	98.4	3.960
KAG - 50	50	2"	49	73	152.4	92.1	19.05	4	2	120.7	5.940
KAG - 65	65	2.1/2"	62	96	177.8	104.8	19.05	4	2	139.7	10.800
KAG - 80	80	3"	74	118	190.5	127	19.05	4	2	152.4	13.620
KAG - 100	100	4"	100	140	230	157.2	19.05	8	2	190.5	22.900

"aira" offers Hand Lever & Gear Operated "Three Way - Four Way" Design Investment Casting CF8 / CF8M / WCB Ball Valve, engineered for multiple Diverting / Mixing Operations in the down stream. TYPE : "T" . PORT / "L" . PORT / "X" . PORT In Full Bore / Reduce Bore

High Pressure upto 500 Kg available on request



**Size Range : 1/2" to 6" Screwed / Flanged / Triclover / Socket Weld**

### Standard

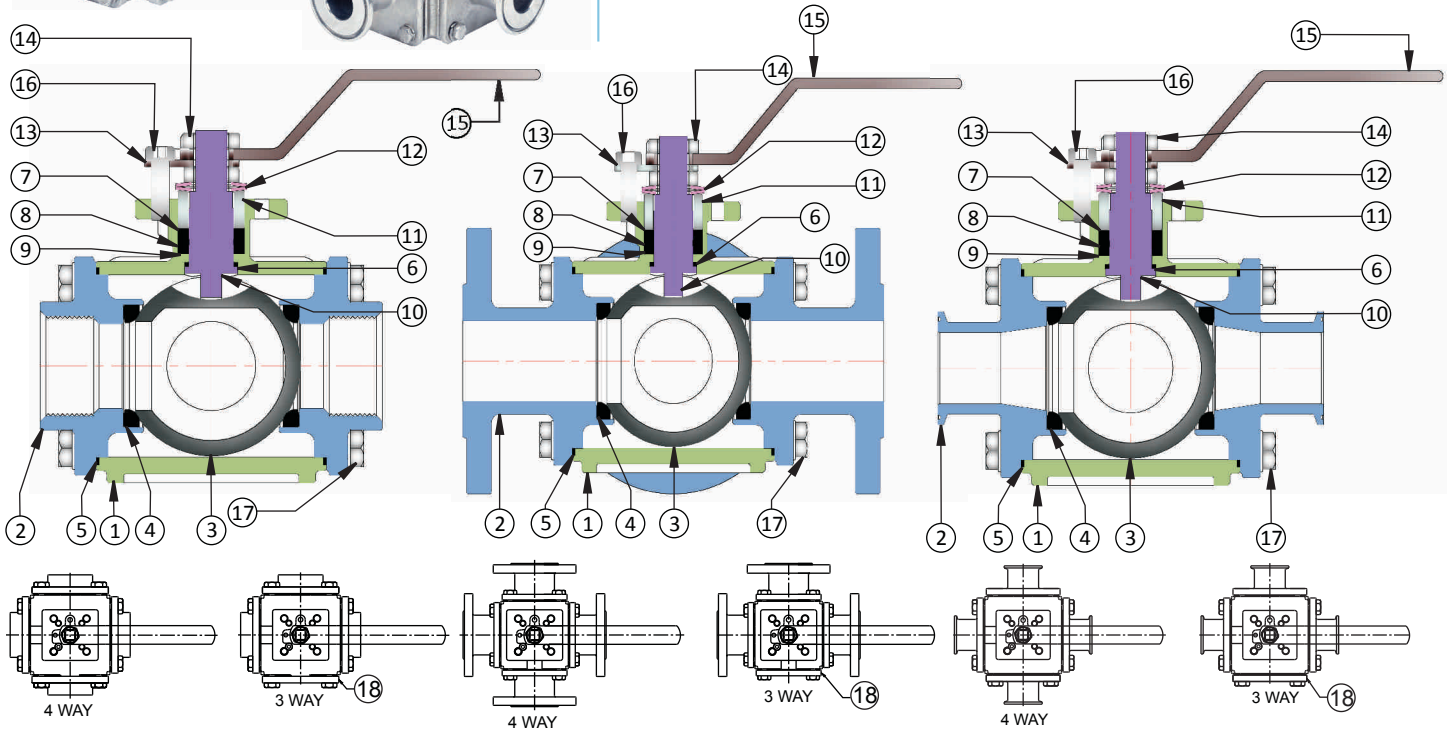
Design And Manufacturing : ASME B 16.34 / API 6D  
Valve Face To Face Dimension : As Per Manufacturer  
Flange Standard Conformity : ASME B 16.5 Class 150, 300  
Inspection & Testing : API 598 / FCI - 702 / BS EN 12266 - 1

### Features :

- Body & End are investment Cast
- Self adjusting stem packing
- Available in 3 way & 4 way & 5 way L - port/T port/X port
- 4 piece ball seats
- Blow - out proof stem design anti blow - out proof stem design

### TECHNICAL SPECIFICATION

PRESSURE	ASME 150 / ASME 300 PN 16, PN 25, PN 40
TEMPERATURE	-25°C TO 180 °C

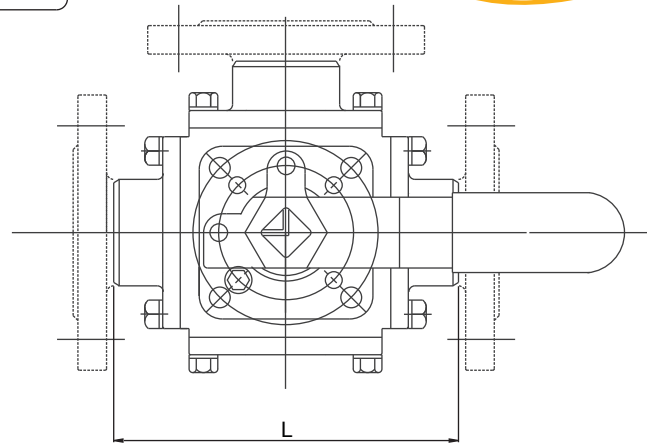
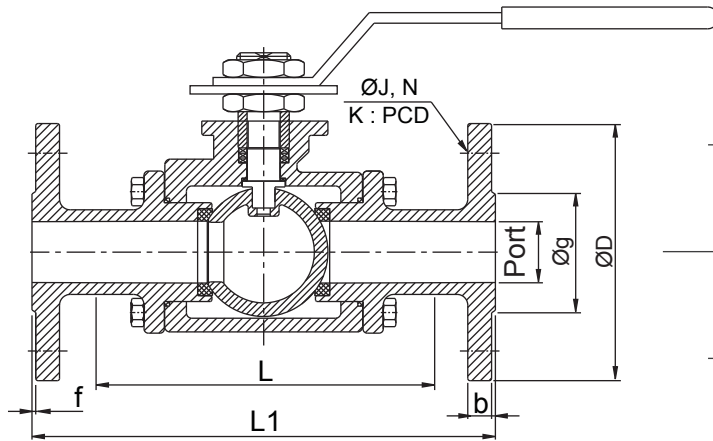


No.	Description	Material	3 way Qty.	4 way Qty.
1	Body	WCB / CF8 / CF8M	01	01
2	Screw End Connection	WCB / CF8 / CF8M	03	04
3	Ball	CF8 / CF8M	01	01
4	Ball Seat	PTFE / GFT	04	04
5	Body Seat	PTFE / GFT	04	04
6	Stem Packing	PTFE	01	01
7	U - Seat	PTFE	01	01
8	V - Seat	PTFE	02	02
9	Base Seat	PTFE	01	01
10	Stem Pin	S.S. 304	01	01
11	Gland Spacer Washer	S.S. 304	01	01
12	Disc Washer	S.S. 304	01	01
13	Platter	S.S. 304	01	01
14	Handle Nut	S.S. 304	02	02
15	Handle	S.S. 304	01	01
16	Handle Stopper	S.S. 304	01	01
17	Body Fitting	S.S. 304	16	16
18	Blind End Connection	CF8 / CF8M	01	----

No.	Description	Material	3 way Qty.	4 way Qty.
1	Body	WCB / CF8 / CF8M	01	01
2	Flange End Connection	WCB / CF8 / CF8M	03	04
3	Ball	CF8 / CF8M	01	01
4	Ball Seat	PTFE / GFT	04	04
5	Body Seat	PTFE / GFT	04	04
6	Stem Packing	PTFE	01	01
7	U - Seat	PTFE	01	01
8	V - Seat	PTFE	02	02
9	Base Seat	PTFE	01	01
10	Stem Pin	S.S. 304	01	01
11	Gland Spacer Washer	S.S. 304	01	01
12	Disc Washer	S.S. 304	01	01
13	Platter	S.S. 304	01	01
14	Handle Nut	S.S. 304	02	02
15	Handle	S.S. 304	01	01
16	Handle Stopper	S.S. 304	01	01
17	Body Fitting	S.S. 304	16	16
18	Blind End Connection	CF8 / CF8M	01	----

No.	Description	Material	3 way Qty.	4 way Qty.
1	Body	WCB / CF8 / CF8M	01	01
2	TC End Connection	WCB / CF8 / CF8M	03	04
3	Ball	CF8 / CF8M	01	01
4	Ball Seat	PTFE / GFT	04	04
5	Body Seat	PTFE / GFT	04	04
6	Stem Packing	PTFE	01	01
7	U - Seat	PTFE	01	01
8	V - Seat	PTFE	02	02
9	Base Seat	PTFE	01	01
10	Stem Pin	S.S. 304	01	01
11	Gland Spacer Washer	S.S. 304	01	01
12	Disc Washer	S.S. 304	01	01
13	Platter	S.S. 304	01	01
14	Handle Nut	S.S. 304	02	02
15	Handle	S.S. 304	01	01
16	Handle Stopper	S.S. 304	01	01
17	Body Fitting	S.S. 304	16	16
18	Blind End Connection	CF8 / CF8M	01	----



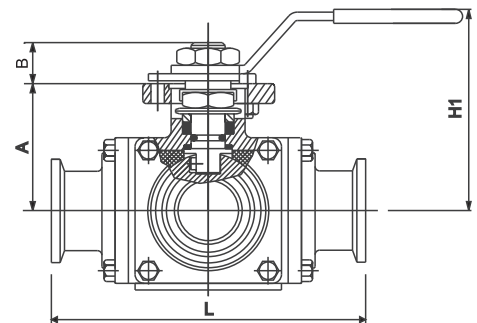
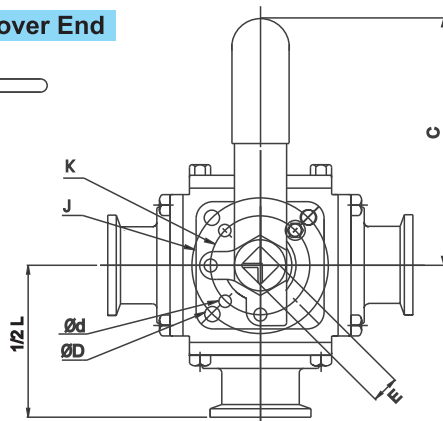
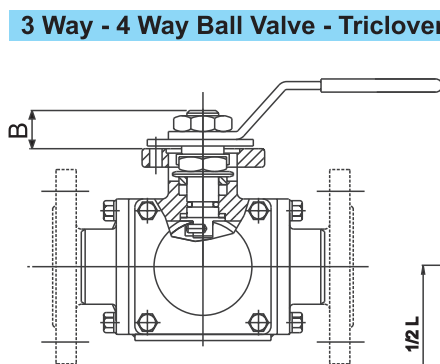


Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		Screwed		Flanged 150#								Weight (Approx)	Flanged 300#									
	MM	Inch	L	Weight	L1	b	f	Port	Øg	ØD	ØJ	N		K:PCD	L1	b	f	Port	Øg	ØD	ØJ	N	K:PCD
SUZ-503-15	15	1/2"	104	2.250	151	8	2	13	34.9	88	4	15.9	60.3	4.440	160	12.7	2	13	34.9	95	15.9	4	66.7
SUZ-503-20	20	3/4"	112	3.050	165	8.9	2	19	42.9	98	4	15.9	69.9	5.800	177	14.3	2	19	42.9	115	19.05	4	82.6
SUZ-503-25	25	1"	130	4.350	192	9.6	2	25	50.8	110	4	15.9	79.4	7.650	202	15.9	2	25	50.8	125	19.05	4	88.9
SUZ-503-32	32	1.1/4"	141	5.050	211	11.2	2	32	63.5	115	4	15.9	88.9	—	208	17.5	2	32	63.5	135	19.05	4	98.4
SUZ-503-40	40	1.1/2"	159	10.100	218	12.7	2	38	73	125	4	15.9	98.4	15.600	234	19.1	2	38	73	155	22.2	4	114.3
SUZ-503-50	50	2"	192	16.500	253	14.3	2	49	92.1	150	4	19.05	120.7	26.450	274	20.7	2	49	92.1	165	19.05	8	127
SUZ-503-65	65	2.1/2"	297	—	295	15.9	2	64	104.8	180	4	19.05	139.7	35.200	300	23.9	2	62	104.8	190	22.2	8	149.2
SUZ-503-80	80	3"	304	—	306	17.5	2	76	127	190	4	19.05	152.4	46.300	327	27	2	74	127	210	22.2	8	168.3
SUZ-503-100	100	4"	324	—	371	22.3	2	98	157.2	230	8	19.05	190.5	80.050	395	30.2	2	100	157.2	255	22.2	8	200
SUZ-503-125	125	5"	—	—	—	22.3	2	125	185.7	255	8	22.2	215.9	82.100	—	33.4	2	125	185.7	280	22.2	8	235
SUZ-503-150	150	6"	—	—	428	23.9	2	150	215.9	280	8	22.2	241.3	—	468	35	2	150	215.9	320	22.2	12	269.9

3 Way - 4 Way Ball Valve - Triclover End



Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		A	B	C	Ed	ED	H1	K	J	E	Port	L
	MM	Inch											
SUZ - 503 T 15	15	1/2"	41	11	125	6.0	0.6	67.0	36	42	9	12.5	133
SUZ - 503 T 20	20	3/4"	49	14	160	6.0	7.1	80.8	42	50	11	17	140
SUZ - 503 T 25	25	1"	55	14	160	6.0	7.1	87.5	42	50	11	22	160
SUZ - 503 T 40	40	1.1/2"	74	18	205	7.1	9.2	114	50	70	14	35	183
SUZ - 503 T 50	50	2"	93	23	325	9.2	11.4	140	70	102	17	47	217
SUZ - 503 T 65	65	2.1/2"	73.5	25	-	-	11.5	250	-	102	22	-	-
SUZ - 503 T 80	80	3"	81.5	25	-	-	11.5	285	-	102	22	-	-
SUZ - 503 T 100	100	4"	99.5	25	-	-	11.5	330	-	102	22	-	-

"aira" offers Gear Operated "Three Way - Four Way" Design SAND CASTING CF8 / CF8M / WCB Ball Valve, engineered for multiple Diverting / Mixing Operations in the down stream. TYPE : "T" . PORT / "L" / "X".



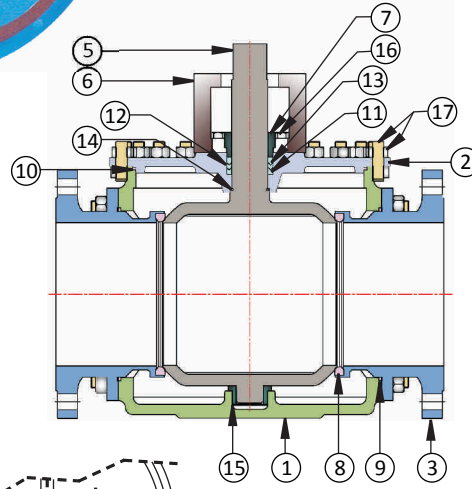
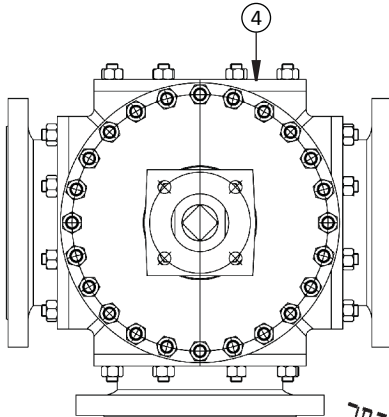
**Size Range : 8" to 12" Flange End**

**Standard**

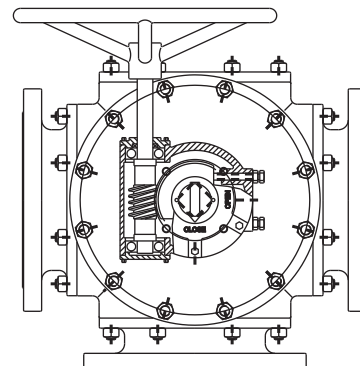
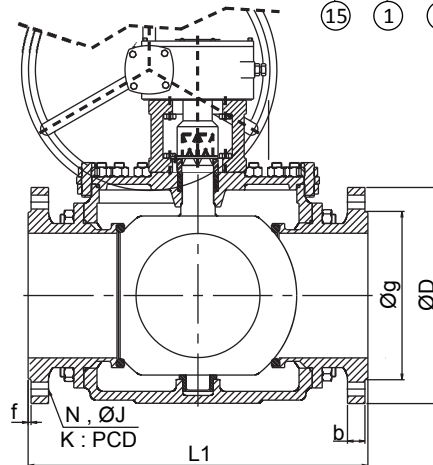
Design And Manufacturing : ASME B 16.34 / API 6D  
 Valve Face To Face Dimension : As Per Manufacturer  
 Flange Standard Conformity : ASME B 16.5 Class 150, 300  
 Inspection & Testing : API 598 / FCI - 702 / BS EN 12266 - 1

**TECHNICAL SPECIFICATION**

PRESSURE	ASME 150 / ASME 300 PN 16, PN 25, PN 40
TEMPERATURE	-25°C TO 180 °C



No.	Description	Material
1	Body	WCB / CF8 / CF8M
2	Top Cover	WCB / CF8 / CF8M
3	Flange End	WCB / CF8 / CF8M
4	Blind End	WCB / CF8 / CF8M
5	Ball	CF8 / CF8M
6	Bracket	CF8 / CF8M
7	Gland	CF8 / CF8M
8	Ball Seat	PTFE / CFT / GFT / PEEK
9	Body Gasket	PTFE
10	Top Cover Gasket	PTFE
11	Base Seal	PTFE
12	U - Seal	PTFE
13	V - Seal	PTFE
14	'O' - Ring	Viton
15	Bush	CFT / PTFE
16	Bracket & Gland Fitting Bolt	M. S. / S.S.
17	Fitting Stud + Nut	M. S.



**Dimensions :**

(All Dimensions are in mm)

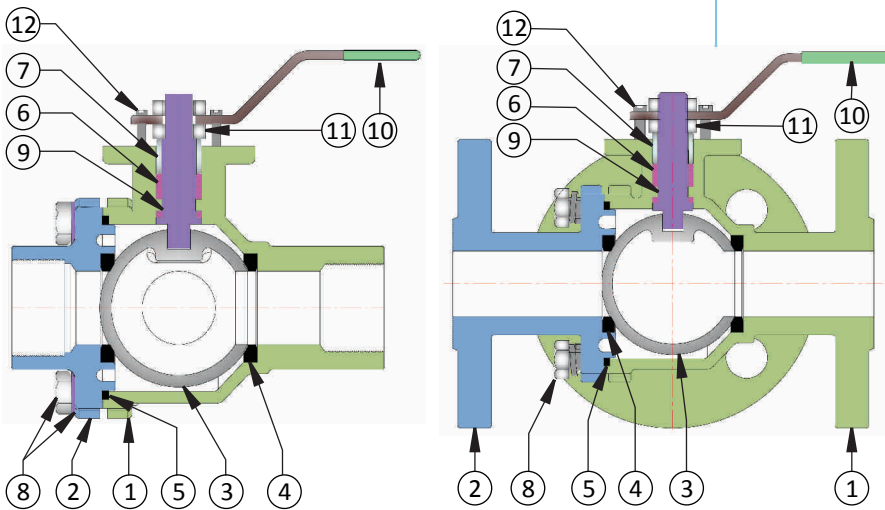
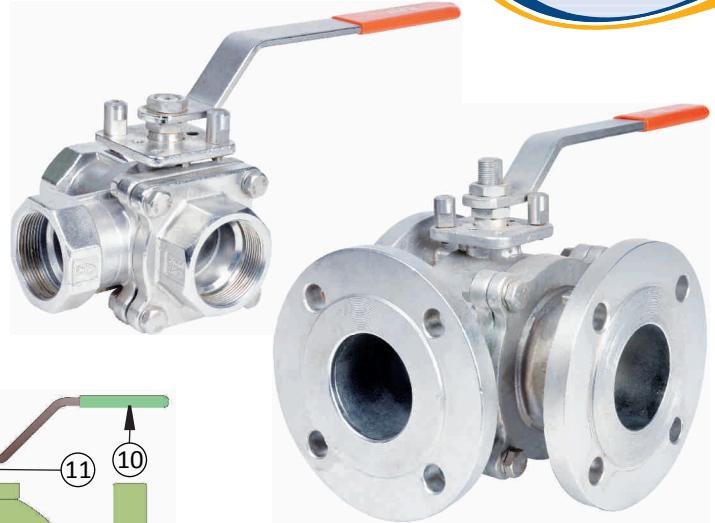
Valve Model	Valve Size		L1	ØD	b	Øg	f	ØJ	N	PCD
	MM	Inch								
SUZ-403-F-200	200	8"	538	345	27	269.9	2	22.2	8	298.5
SUZ-403-F-250	250	10"	662	405	28.6	323.8	2	25.4	12	362.00
SUZ-403-F-300	300	12" (R/Bore)	662	485	30.2	381	2	25.4	12	431.8

"aira" offers Hand Lever & Gear Operated Investment Casting WCB / CF8 / CF8M in 2 Piece Design  
"C" Way Ball Valve - engineered for multiple ON / OFF operations in the down stream.

Size Range : 1" to 8"

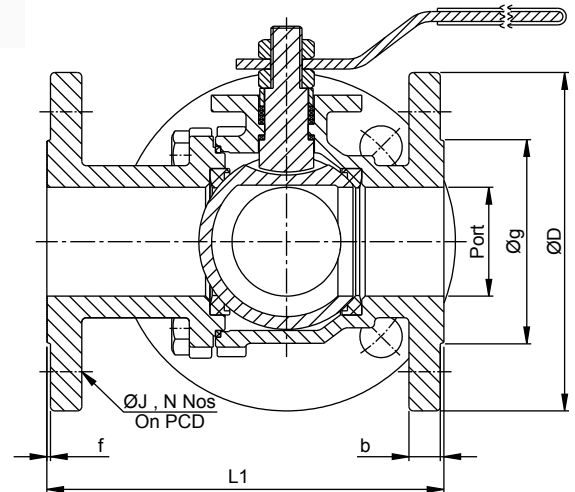
Standard

Design And Manufacturing : ASME B 16.34 / API 6D  
Valve Face To Face Dimension : ASME B 16.10  
Flange Standard Conformity : ASME B 16.5 Class 150,  
Inspection & Testing : API 598



TECHNICAL SPECIFICATION

PRESSURE	10 BAR ( 150# )
TEMPERATURE	180 °C
LEAKAGE CLASS	CLASS VI as per B 16.16-104
PORT	ONLY "L" PORT AVAILABLE
MEDIA	WATER, AIR, OIL & GAS



No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	1
2	Connection	WCB / CF8 / CF8M	1
3	Ball	CF8 / CF8M	1
4	Ball Seat	PTFE / CFT / GFT / TFM / PEEK	2
5	Body Seat	PTFE / CFT / GFT / TFM / PEEK	1
6	Stem Seat	PTFE / CFT / GFT / TFM / PEEK	5
7	Gland Bush	S.S. 304 / S.S. 316	1
8	Hex Bolt + Spring Washer	S.S. 304	4
9	Stem Pin	S.S. 304 / S.S. 316	1
10	Handle	M.S. / S.S.	1
11	Handle Nut	S.S. 304	2
12	Handle Stopper	S.S. / M.S.	2

Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		Port	L1	ØD	b	Øg	f	ØJ	N	PCD	Weight (Approx.)	
	MM	Inch										S/E	F/E
CWP - 25	25	1"	25	127	110	9.6	50.8	2	15.9	4	79.4	1.180	3.800
CWP - 32	32	1.1/4"	32	140	115	11.2	63.5	2	15.9	4	88.9	2.230	4.200
CWP - 40	40	1.1/2"	38	165	125	12.7	73	2	15.9	4	98.4	2.660	6.640
CWP - 50	50	2"	49	178	150	14.3	92.1	2	19.05	4	120.7	5.560	10.200
CWP - 65	65	2.1/2"	62	190	180	15.9	104.8	2	19.05	4	139.7	8.750	14.000
CWP - 80	80	3"	74	203	190	17.5	127	2	19.05	4	152.4	11.200	18.120
CWP - 100	100	4"	100	305	230	22.3	157.2	2	19.05	8	190.5	----	33.100
CWP - 125	125	5"	127	356	255	22.3	185.7	2	22.2	8	215.9	----	75.400
CWP - 150	150	6"	150	394	280	23.9	215.9	2	22.2	8	241.3	----	180.200
CWP - 200	200	8"	201	600	345	27	269.9	2	22.2	8	298.5	----	200.000

"aira" offers Handle Operated FEP / PFA Lined Ball Valve, engineered for optimum solution to the Corrosive Application.



**Size Range : 1" to 4" Flange End**

**Standard**

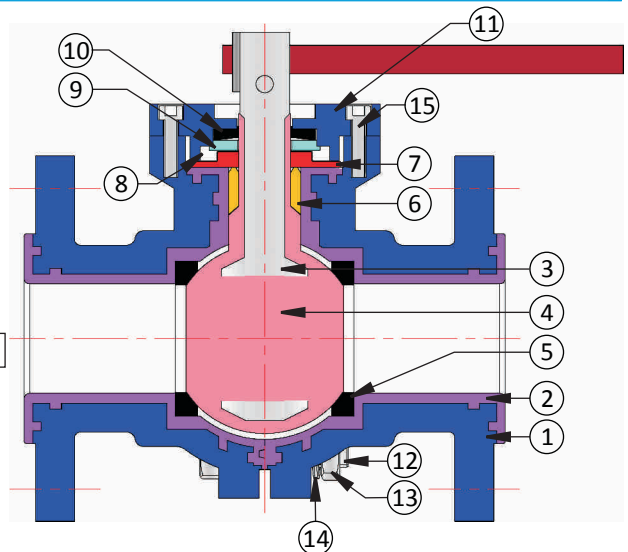
Design And Manufacturing : BSEN ISO 17292 : 2004 (BS 5351)  
 Valve Face To Face Dimension : ANSI B 16.10 / DIN 3202 / BSEN 558 - 1/2  
 Flange Standard Conformity : ASME B 16.5 150#  
 Inspection & Testing : BS EN 12266 - 1 & 2 (2003)  
 Top Flange Driling : ASA 150# / DIN 2632 & 2633 / BSEN 10 Table D, E, F ( Customer Specified )

**PRESSURE / TEMPERATURE RATING**

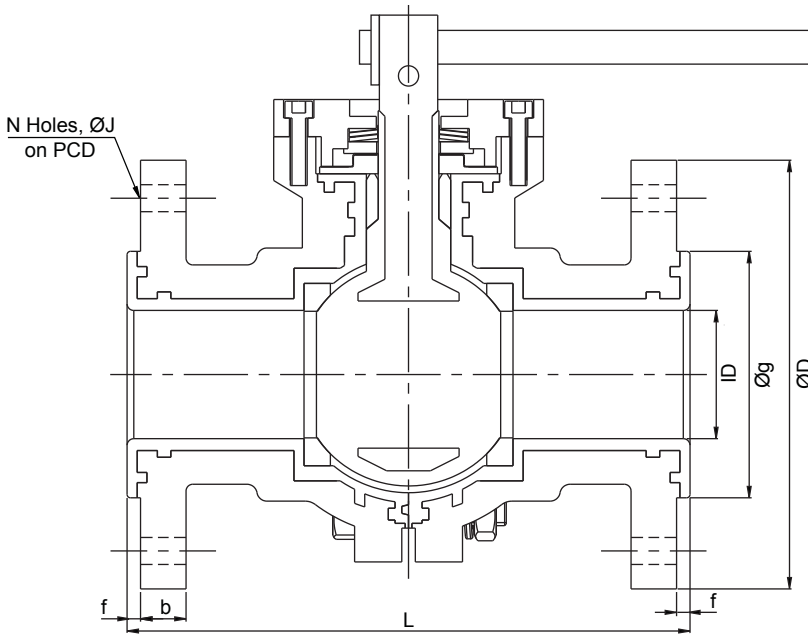
PRESSURE	150#
TEMPERATURE FEP	180 °C
TEMPERATURE PFA	230 °C

**TEST PRESSURE**

TESTING	BODY	SEAT
HYDRAULIC	20 KG/CM <sup>2</sup>	11 KG/CM <sup>2</sup>
PNEUMATIC SEAT PRESSURE		6 KG/CM <sup>2</sup>
SPARK TEST - 15 KV D. C.		



No.	Description	Material
1	Body	WCB / D.I. / C.I. / SS 304 SS 316
2	Body Molding	FEP / PFA
3	Ball with Shaft	WCB / SS 304
4	Ball Moulding	FEP / PFA
5	Ball Seal	PTFE
6	Shaft Bush	PTFE
7	Shaft Washer	PTFE
8	M.S. Shaft Washer	M. S.
9	Plain Washer	M. S.
10	Packing Washer	Spring Steel
11	Top Plate	M. S.
12	Bolt Plate	S. S.
13	Nut	S. S.
14	Washer	S. S.
15	L. N. Bolt	S. S.



**Dimensions :**

(All Dimensions are in mm)

Valve Model	Valve Size		ID	L	ØD	Øg	b	f	N	ØJ	PCD
	MM	Inch									
FPLB - 25	25	1"	24	130.5	108	55	12.7	3.5	4	16.5	79
FPLB - 40	40	1.1/2"	38	167	127	73	13.5	3	4	15.5	98.2
FPLB - 50	50	2"	49	178	152.5	92	18	4	4	18.5	121
FPLB - 65	65	2.1/2"	61.8	206	177.75	104.5	21	4	4	19	140
FPLB - 80	80	3"	74	207	190	126	22	5.5	6	19	152.4
FPLB - 100	100	4"	94	226	228.5	158	22	5	6	19	190



VALVE AUTOMATION  
ISO 9001 CO.



# Handle / Worm GEAR OPERATED BUTTERFLY VALVES



"aira" offers Manul (Gear / Handle) Double Flanged Butterfly Valve, engineered for multiple ON/OFF operations in the larger pipe line and full flow down streams.



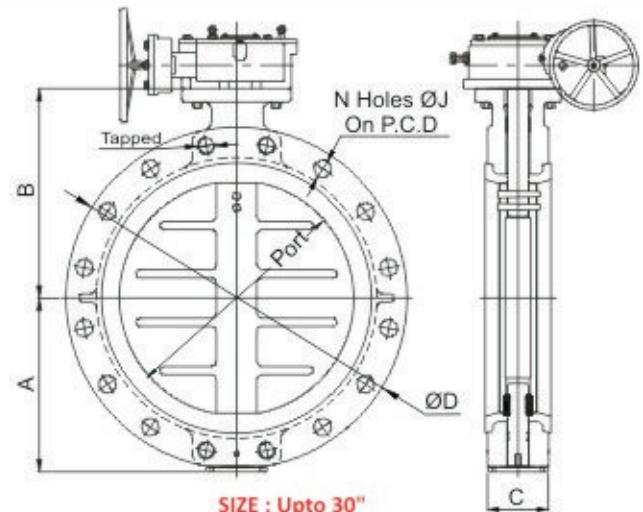
**Size Range : 3" to 48"**

**Key Feature :**

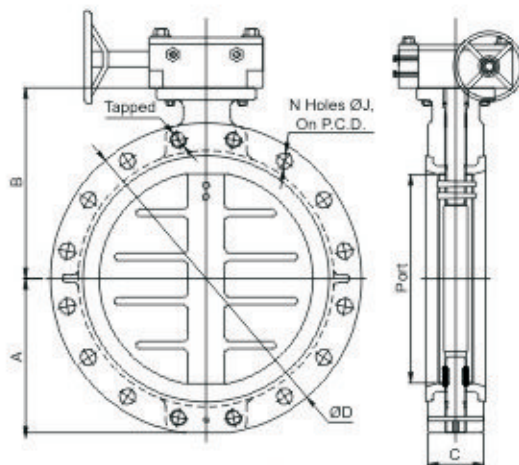
- Integrally moulded seat liner on the body, which ensures excellent dimensional stability & guaranteed seat tightness.
- Seat liner extending on to the contact faces ensures perfect sealing and eliminates the need for separate flange gaskets.
- Narrow land disc ensures perfect sealing with least operating torque requirements.
- A fully universal body design ensures fitting of the valve between companion flanges of all popular standards (viz : ANSI, BS, DIN, JIS, IS etc.)
- The notch disc & band lever ensures locking of the valve in 8 intermediate position in addition to close and open position. Hand lever can be locked through pad lock.
- Body casting made of superior FG 260 grade cast iron to ensure additional strength.
- Valve disc made of stainless steel / ductile cast iron which enable protection against possible water hammer or pressure surges.
- A truly line size body bone to ensure maximum flow capacity with the lowest pressure drop.

**PRESSURE / TEMPERATURE RATING**

PRESSURE	TEMPERATURE
PN 10 / PN 16 ( PN 20 ON REQUEST )	-20 to 80 °C For Nitrile Seat Depending On MOC



**Note : (Valve F to F will be as per Wafer type) (Flange Thickness Non - STD As per Mfg. Std Wafer short Double Flange Body)**



**Dimensions :** (All Dimensions are in mm)

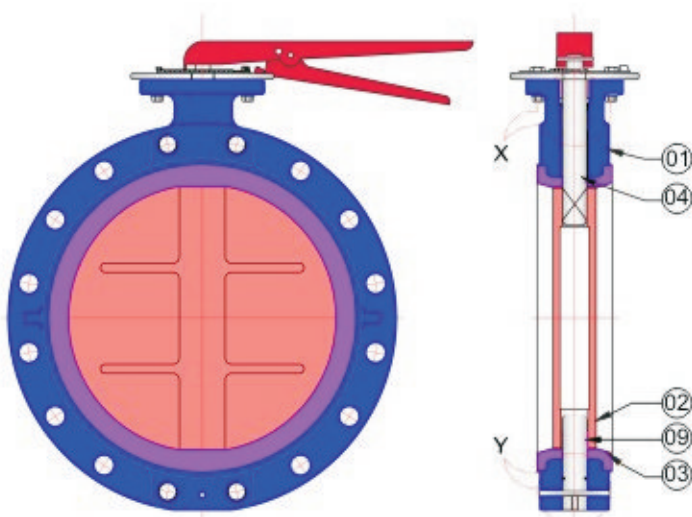
Valve Model	Valve Size		Port	A	B	C	ØD	N	ØJ	Tapped	PCD
	MM	Inch									
DFW-ECO-80	80	3"	80	95	129	46	190	4	19.05	--	152.4
DFW-ECO-100	100	4"	100	113	147	52	230	8	19.05	--	190.5
DFW-ECO-150	150	6"	150	136	177	56	280	8	22.2	--	241.3
DFW-ECO-200	200	8"	200	174	214	60	345	8	22.2	--	298.5
DFW-ECO-250	250	10"	241	201	265	68	405	12	25.4	--	362
DFW-ECO-300	300	12"	286	236	303	78	485	12	25.4	--	431.8
DFW-ECO-350	350	14"	333	248	345	78	535	12	28.6	--	476.3
DFW-ECO-400	400	16"	382	300	364	102	595	16	28.6	--	539.8
DFW-ECO-450	450	18"	433	322	381	114	635	16	31.75	1" UNC	577.9
DFW-ECO-500	500	20"	476	354	436	127	700	20	31.75	1" UNC	635
DFW-ECO-600	600	24"	590	405	515	154	815	20	34.9	1.1/4" UNC	749.3
DFW-ECO-650	650	26"	635	435	490	165	870	24	34.9	1.1/4" UNC	806.4
DFW-ECO-700	700	28"	680	462	543	165	925	28	34.9	1.1/4" UNC	863.6
DFW-ECO-750	750	30"	725	482	576	190	985	28	34.9	1.1/4" UNC	914.4
DFW-ECO-800	800	32"	785	533	618	190	1060	28	41.3	1.1/2" UNC	977.9
DFW-ECO-900	900	36"	885	576	675	203	1170	32	41.3	1.1/2" UNC	1085.8
DFW-ECO-1000	1000	40"	965	640	720	216	1290	36	41.3	1.1/2" UNC	1200.2
DFW-ECO-1200	1200	48"	1170	750	865	254	1510	44	41.3	1.1/2" UNC	1422.4

**Standard**

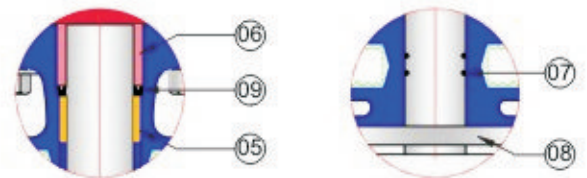
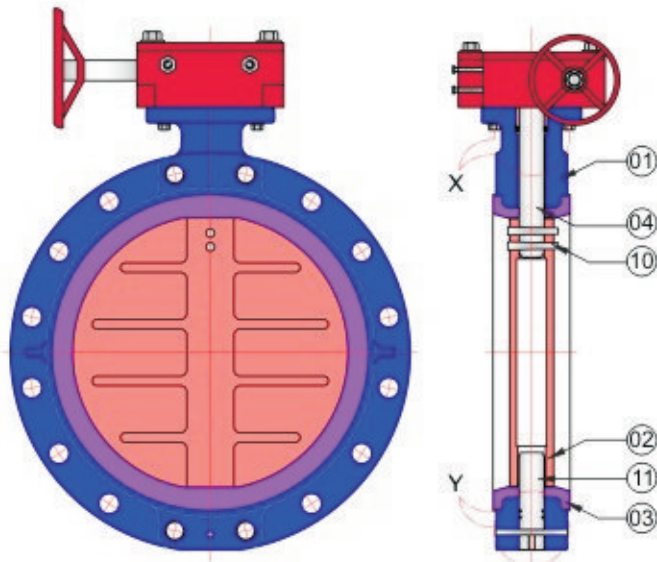
Design And Manufacturing : API 609 category A / IS : 13095 / BS EN 593  
 Valve Face To Face Dimensions : Short Wafer As Per ISO 5752 TAB 5 / API 609 Category A / ISO 5752 TAB 1 (BS 5155)  
 Flange Standard Conformity : ASME B 16.5 / ASME B 16.47 Class 150, BS 10 TAB D, E & F  
 Inspection & Testing : API 598 / BS EN 12266-1  
 Top Flange Drilling : ISO 5211

**TEST PRESSURE**

TESTING	BODY	SEAT
HYDRAULIC	16 KG/CM <sup>2</sup>	10 KG/CM <sup>2</sup>



No.	Description	Material	Qty.
1	Body	ASTM - A 126 Grade B ( Gry Iron )	1
		ASTM - A 216 Grade WCB ( Cast Steel )	
		ASTM - A 536 Grade 65-45-12 ( Ductile Iron )	
		ASTM - A 351 Grade CF8 / CF8M / CF3M / CD4MCuN	
2	Disc	ASTM - A 126 Grade B ( Gry Iron ) + Powder Coated	1
		ASTM - A 216 Grade WCB ( Cast Steel ) + Powder Coated	
		ASTM - A 536 Grade 65-45-12 ( Ductile Iron ) + Powder Coated	
		ASTM - A 351 Grade CF8 / CF8M / CF3M / CD4MCuN	
		S.G. Iron with Teflon / Powder / Nylon Coated & Rubber Line	
3	Seat	Nitrile / EPDM / Viton / Hypelon / Silicon / Neopren	1
4	Shaft	AISI 410 / AISI 304 / AISI 316 / AISI 316L	1
5	Bering Bush	Metal Bush PTFE Coated	2
6	Bush	PTFE ( Teflon )	1
7	'O' - Ring	Nitrile / EPDM / Viton / Hypelon / Silicon / Neopren	2
8	Dowel Pin	M.S. / AISI 410 / AISI 304 / AISI 316 / AISI 316L	1
9	Bottom Pin	AISI 410 / AISI 304 / AISI 316 / AISI 316L	1



No.	Description	Material	Qty.
1	Body	ASTM - A 126 Grade B ( Gry Iron )	1
		ASTM - A 216 Grade WCB ( Cast Steel )	
		ASTM - A 536 Grade 65-45-12 ( Ductile Iron )	
		ASTM - A 351 Grade CF8 / CF8M / CF3M / CD4MCuN	
2	Disc	ASTM - A 126 Grade B ( Gry Iron ) + Powder Coated	1
		ASTM - A 216 Grade WCB ( Cast Steel ) + Powder Coated	
		ASTM - A 536 Grade 65-45-12 ( Ductile Iron ) + Powder Coated	
		ASTM - A 351 Grade CF8 / CF8M / CF3M / CD4MCuN	
		S.G. Iron with Teflon / Powder / Nylon Coated & Rubber Line	
3	Seat	Nitrile / EPDM / Viton / Hypelon / Silicon / Neopren	1
4	Shaft	AISI 410 / AISI 304 / AISI 316 / AISI 316L	1
5	Bering Bush	Metal Bush PTFE Coated	2
6	Bush	PTFE ( Teflon )	1
7	'O' - Ring	Nitrile / EPDM / Viton / Hypelon / Silicon / Neopren	2
8	Dowel Pin	MS / AISI 410 / 304 / 316 / 316L	1
9	'V' Seal	Nitrile / EPDM / Viton / Hypelon / Silicon / Neopren	1
10	Taper Pin	AISI 410 / AISI 304 / AISI 316 / AISI 316L	2
11	Bottom Pin	AISI 304 / AISI 316 / AISI 316L	1

"aira" Offers Manual (Handle / Gear) Operated Damper Valve for flow Control of Air & Gas.

**Size Range : 1.1/2" to 20"**

**TEST PRESSURE**

TESTING	BODY	SEAT
HYDRAULIC	10 kg/CM <sup>2</sup>	5% Leakage

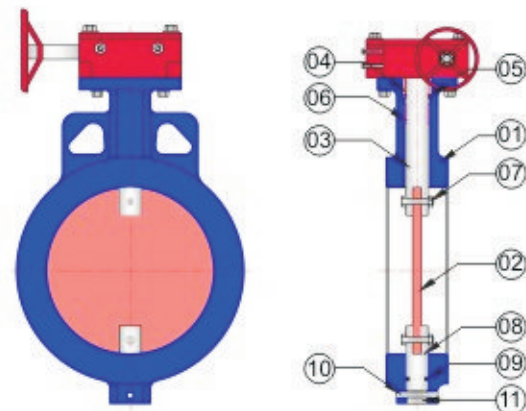
**PRESSURE / TEMPERATURE**

PRESSURE RATING	PN 6 ( MAXIMUM )
OPERATING TEMPERATURE RANGE	-25 °C TO 400 °C (DEPENDING ON MOC ) UPTO 600 °C



**SIZE : Upto 1.1/2" to 8"**

No.	Description	Material	Qty.
1	Body	Gry Iron / C.S. / D.I. / CF8 / CF8M	01
2	Disc	C.S. / WCB / CF8 / CF8M	01
3	Shaft	AISI 410 / AISI 304 / AISI 316 / AISI 316L	01
4	Teflon Bush	Teflon	01
5	Graphoile Ring	Graphite	01
6	Bering Bush	Metal Bush PTFE Coated	01
7	Nut & Bolt	S.S. 202 / S.S. 304	02
8	Bottom Shaft	AISI 410 / AISI 304 / AISI 316 / AISI 316L	01
9	Graphoile Ring	Graphite	01
10	Dowel Pin	IS 2062 Gr. B	01
11	Bottom Cover	IS 2062 Gr. B	01

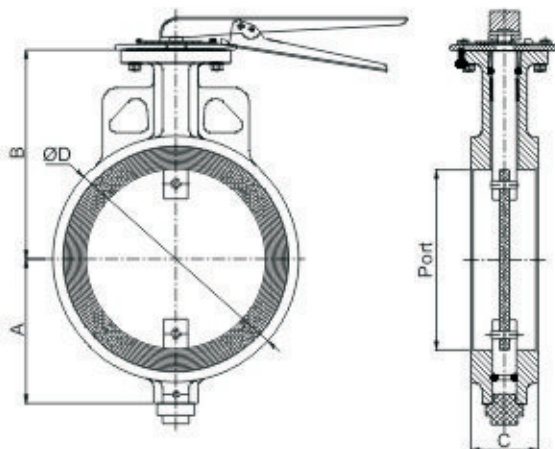


**SIZE : Upto 10" to 20"**

No.	Description	Material	Qty.
1	Body	Gry Iron / C.S. / D.I. / CF8 / CF8M	01
2	Disc	C.S. / WCB / CF8 / CF8M	01
3	Shaft	AISI 410 / AISI 304 / AISI 316 / AISI 316L	01
4	Teflon Bush	Teflon	01
5	Graphoile Ring	Graphite	01
6	Bering Bush	Metal Bush PTFE Coated	01
7	Nut & Bolt	S.S. 202 / S.S. 304	02
8	Bottom Shaft	AISI 410 / AISI 304 / AISI 316 / AISI 316L	01
9	Graphoile Ring	Graphite	01
10	Dowel Pin	IS 2062 Gr. B	01

**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		Port	A	B	C	ØD
	MM	Inch					
DP - 40	40	1.1/2"	40	55.5	81.5	33.5	85
DP - 50	50	2"	50	60.5	100	43.5	80
DP - 65	65	2.1/2"	65	68	107.5	46	102
DP - 80	80	3"	80	75.5	115	46	125
DP - 100	100	4"	100	85.5	125	52	139
DP - 125	125	5"	125	108.5	167.5	56	168
DP - 150	150	6"	150	121	180	56	204
DP - 200	200	8"	200	146	205	60	252
DP - 250	250	10"	245	221	271	68	316
DP - 300	300	12"	295	252	296	78	362
DP - 350	350	14"	340	271	312	78	410
DP - 400	400	16"	388	300	365	102	470
DP - 450	450	18"	450	332	368	90	540
DP - 500	500	20"	490	377	420	90	622



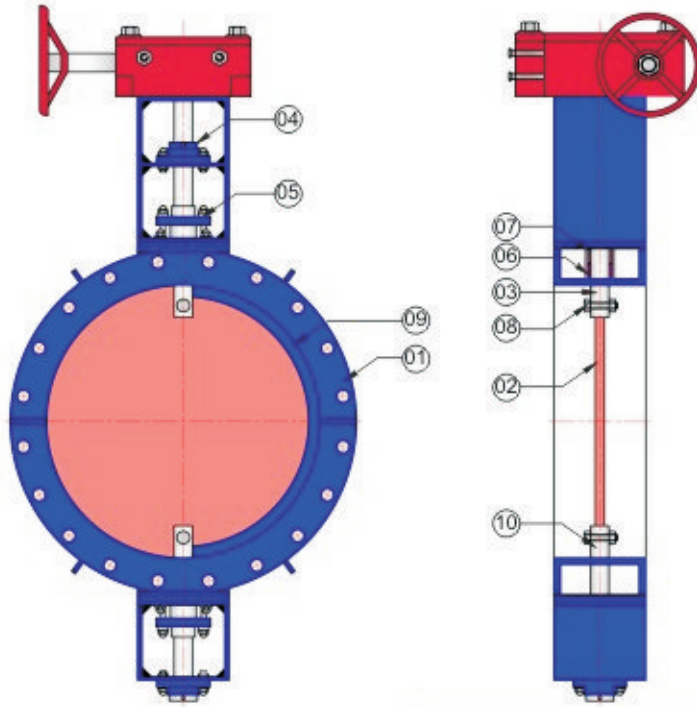


"aira" Gear Operated MS Fabricated Body With MS Fabricated Disc

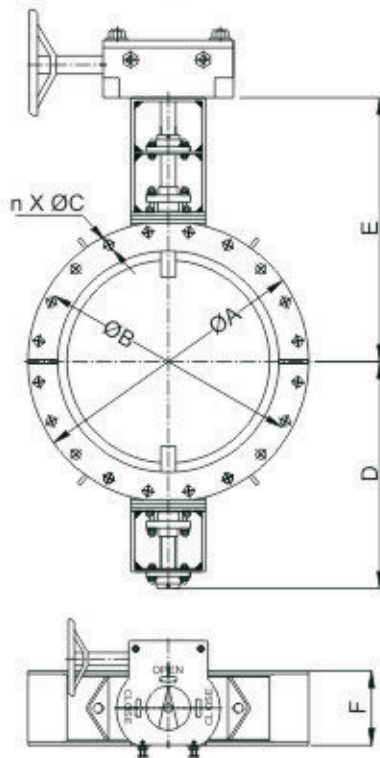
Size Range : 8" to 80"

PRESSURE / TEMPERATURE

WORKING RATING	5 KG/CM <sup>2</sup>
TEMPERATURE	UPTO 1200 °C



No.	Description	Material	Qty.
1	Body	IS 2062 Gr. B	01
2	Disc	IS 2062 Gr. B	01
3	Shaft	AISI 410	01
4	Bearing	Standard	02
5	Gland Pata	IS 2062 Gr. B	02
6	Teflon Bush	Teflon	02
7	Graphite Ring	Graphite	02
8	Hex Bolt	S.S. 202 / S.S. 304	02
9	Seat Ring	IS 2062 Gr. B	02
10	Bottom Shaft	AISI 410	01



Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		ØA	ØB	n	ØC	D	E	F
	MM	Inch							
AFT-MS-G-200	200	8"	320	280	8	18	340	440	150
AFT-MS-G-250	250	10"	375	335	12	18	366	466	150
AFT-MS-G-300	300	12"	440	395	12	22	398	498	150
AFT-MS-G-350	350	14"	490	445	16	22	450	550	150
AFT-MS-G-400	400	16"	540	495	16	22	450	550	150
AFT-MS-G-450	450	18"	595	550	16	22	478	578	150
AFT-MS-G-500	500	20"	645	600	20	22	502	602	200
AFT-MS-G-550	550	22"	749	692	20	22	610	710	200
AFT-MS-G-600	600	24"	755	705	20	26	610	710	200
AFT-MS-G-650	650	26"	785	744	20	26	635	735	200
AFT-MS-G-700	700	28"	860	810	24	26	610	710	200
AFT-MS-G-750	750	30"	887	846	24	26	633	723	200
AFT-MS-G-800	800	32"	975	920	24	30	678	768	200
AFT-MS-G-850	850	34"	1005	957	24	30	692	782	200
AFT-MS-G-900	900	36"	1075	1020	24	30	728	818	250
AFT-MS-G-1000	1000	40"	1175	1120	28	30	778	868	250
AFT-MS-G-1100	1100	44"	1276	1222	32	33	948	1038	250
AFT-MS-G-1200	1200	48"	1405	1340	32	33	1022	1112	250
AFT-MS-G-1400	1400	56"	1630	1560	36	36	1025	1095	300
AFT-MS-G-1600	1600	64"	1830	1760	40	36	1125	1195	300
AFT-MS-G-1800	1800	72"	2045	1970	44	39	1252	1302	300
AFT-MS-G-2000	2000	80"	2265	2180	48	42	1462	1562	300

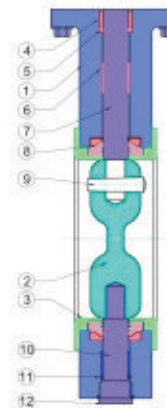
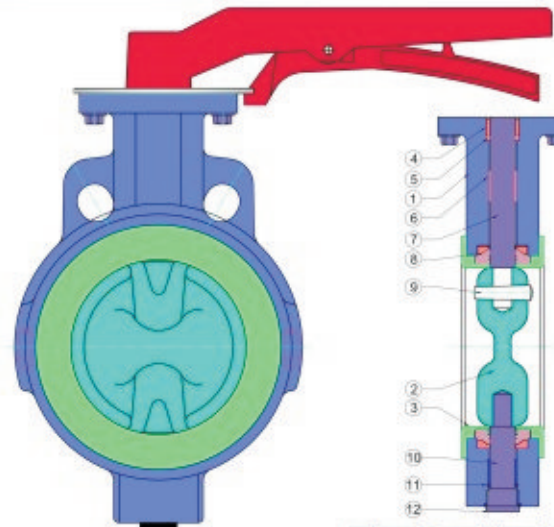
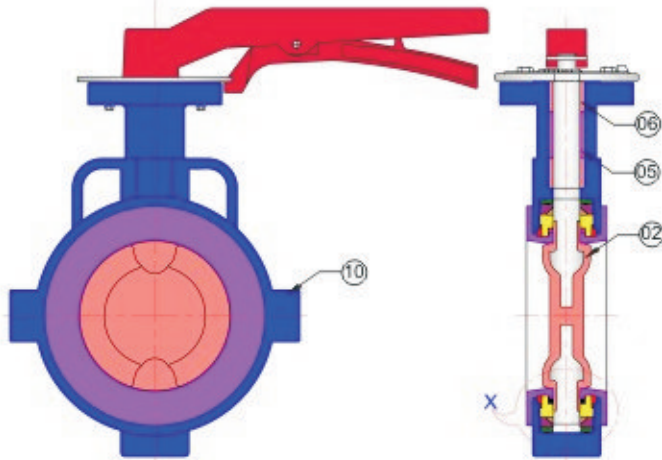
Size Upto 3000 MM On Request

**"aira"** Offers FEP / PFA Lined Butterfly Valve for Corrosive Application. The FEP / PFA Seat Lined Covers the entire Wetted Surface of the body and Extends on to the Flanged Contact Faces, Thus elimination as possibility of any media contact with the body.

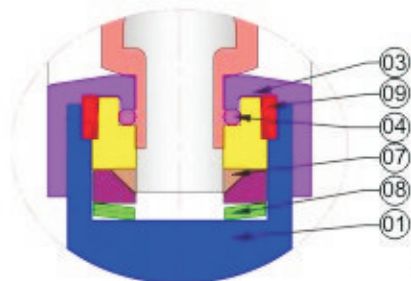
**Size Range : 2" to 12"**

**Standard**

Design and manufacturing : API 609 category A/BS 5155 / MSS SP-67 / C-504  
 Valve face to face dimensions : Short wafer as per ISO 5752 Tab 5 / API 609 Category A  
 Top flanged drilling : ISO 5211 Part II  
 Inspection and testing : API 598 / BS 6755 / FCI-702  
 Flanged standard conformity : ANSI 150, DIN PN 10 / 16



No.	Description	Material
1	Body	C.I. / D.I. / CF8 / CF8M
2	Disc	C.I. / C.S. / CF8 / CF8M
3	Seat	PTFE
4	Collar	PTFE
5	"O" Ring	Viton
6	Metal Bush	PTFE Coated
7	Top Shaft	AISI 410
8	Pad	Silicon
9	Disc Pin	S. S. 304
10	Bottom Shaft	AISI 410
11	"O" Ring	Viton
12	Plug	M. S.



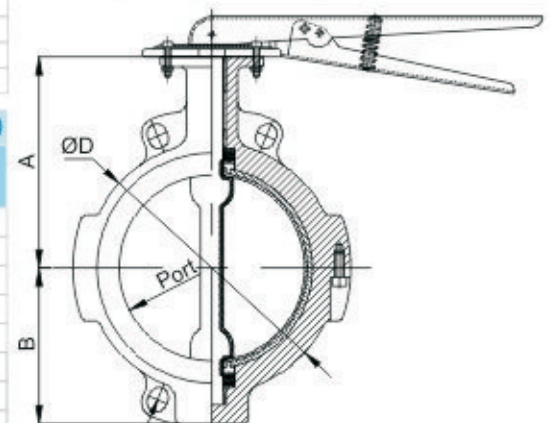
Details X

No.	Description	Material	Qty.
1	Body	C.I. / C.S. / CF8 / CF8M	01
2	Disc	C.I. / C.S. / CF8 / CF8M	01
3	Sleeve	FEP / PFA	01
4	'O' Ring	Viton	02
5	Bush	PTFE ( Teflon )	02
6	Bush	Metal Bush S.S. 304	02
7	Truth Bush	S.S. 304	02
8	Washer	Spring Steel	04
9	Gasket	Silicon Big	02
10	L. N. Bolt	S.S. 304	02

**Dimensions :**

(All Dimensions are in mm)

Valve Model	Valve Size		Port	A	B	F to F	ØD
	MM	Inch					
FEP - SGI - 50	50	2"	48	107	65	44	101
FEP - SGI - 65	65	2.1/2"	62	118	65	46	112
FEP - SGI - 80	80	3"	78	122	83	46	130
FEP - SGI - 100	100	4"	98	153	98	52	163
FEP - SGI - 125	125	5"	---	---	---	---	---
FEP - SGI - 150	150	6"	148	193	122	57	218
FEP - SGI - 200	200	8"	196	223	167	63	273
FEP - SGI - 250	250	10"	---	---	---	---	---
FEP - SGI - 300	300	12"	291	271.5	244.5	78	380



ON & ABOVE 200 NB.

# Hand Lever / Worm Gear Operated Double Eccentric Design Off - Set Disc "Wafer" Type Butterfly Valve

"aira" offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve "WAFER" Type Construction engineered for multiply ON/OFF Operation in the large Pipe line and full flow down Stream.

**Size Range : 2.1/2" to 48"**

### Standard

Design And Manufacturing	API 609 Category "B" / MSS SP - 68
Valve Face to Face Dimensions	API 609 Category "B" / ISO 5752 / MSS SP-68
Flange Standard Conformity	ASME B 16.5 Class 150 ASME B 16.47Series "A" Class 150
Inspection & Testing	API 598
Pressure Temperature Rating	ASME B16.34
Top Flange Dimensions	Bolt Hole ISO 5211
Stem Dimensions	Square Drive to ISO 5211
Leakage Class	Class VI as per ANSI B 16, 16.104

### PRESSURE / TEMPERATURE RATING

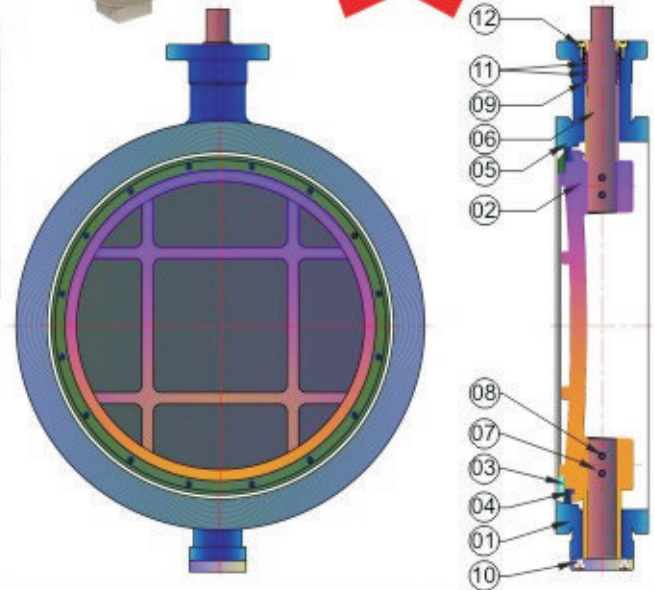
PRESSURE RATING	150# (PN 10 / PN 16 / PN 25 )
OPERATING TEMPERATURE	NBR - -10 °C TO +90 °C EPDM - -20 °C TO +120 °C VITON - 0 °C TO +220 °C PTFE - -25 °C TO +180 °C RPTFE - -25 °C TO +220 °C TFM -25 °C TO +250 °C

No.	Description	Material	Qty.
1	Body	C.I. / WCB / CF8 / CF8M / D.I.	1
2	Disc	C.I. / WCB / CF8 / CF8M / D.I.	1
3	Retainer	M.S. / CF8 / CF8M	1
4	Disc Seal Ring	PTFE / RPTFE / NBR / EPDM / Viton	1
5	Body Seal Ring	S.S. 304 / 316	1
6	Shaft	S.S. 304 / 316 / 410	1
7	Stem Shaft	S.S. 304 / 316 / 410	1
8	Disc Pin	S.S. 304 / 316 / 410	4
9	Flange Side Washer	S.S. 304 / 316 / 410	1
10	Stem Square	M.S. / CF8 / CF8M	1
11	Gland Seal Set	PTFE / NBR / EDPM / Viton	5
12	Gland Plate	M.S. / CF8 / CF8M	1



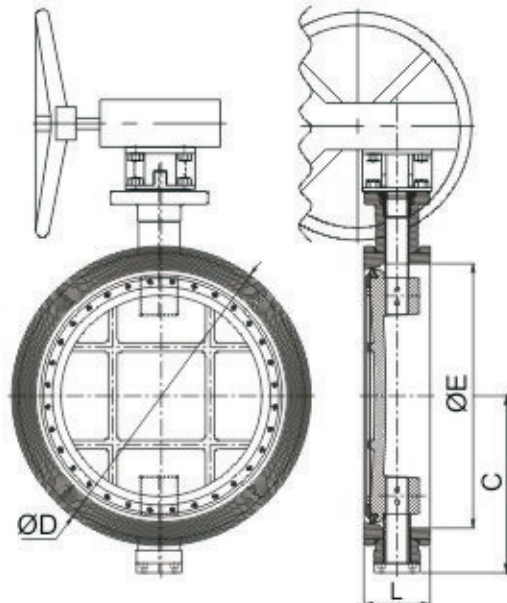
609 - 0055

**Fire Safe  
Design**



### Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	øD	øE	C
	MM	Inch				
BOD-100	100	4"	54	158	110	96
BOD-125	125	5"	56	185.87	120	112
BOD-150	150	6"	57	216	152	115
BOD-200	200	8"	64	270	200	141
BOD-250	250	10"	72	325	255	179
BOD-300	300	12"	81	373	306	210
BOD-350	350	14"	92	412	355	234
BOD-400	400	16"	102	472	400	275
BOD-450	450	18"	114	532	450	327.5
BOD-500	500	20"	127	584	505	359
BOD-600	600	24"	154	692.2	612	409
BOD-650	650	26"	165	749.3	640	640
BOD-700	700	28"	165	800.1	705	500
BOD-750	750	30"	190	857.25	725	571
BOD-800	800	32"	190	915	810	630
BOD-850	850	34"	205	965.2	850	655.5
BOD-900	900	36"	205	1022.35	900	680
BOD-1000	1000	40"	300	1124	1000	735
BOD-1200	1200	48"	350	1359	1200	915



"aira" offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve in Double Flange Construction engineered for multiple ON / OFF Operation in the large Pipe line and full flow down Stream.



609 - 0055



**Size Range : 2.1/2" to 48"**

### Standard

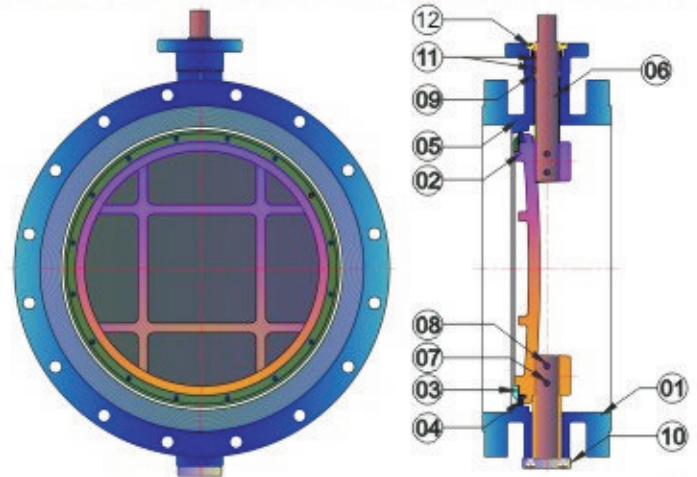
Design And Manufacturing	API 609 / BS 5155 / BSEN 593 / IS 13095 / AWWA C-504
Valve Face to Face Dimensions	API 609 (Short Pattern) / BS 5155 (Short Pattern) / IS 13095 (Short Pattern) / AWWA C - 504 (Short Pattern)
Flange Standard Conformity	ASME B16.5 Class 150 (Upto 24") ASME B16.47 Series "A" Class 150 (Above 26" to 48") AWWA C-207, IS1538, BS5404, IS 6392
Inspection & Testing	API 598 / BS 6755 / AWWA C - 504
Pressure Temperature Rating	ASME B16.34
Top Flange Dimensions	Bolt Hole ISO 5211
Stem Dimensions	Square Drive To ISO 5211
Leakage Class	Class VI As Per ASME B 16, 16.104

**Note.: For, Sea Water Application, Ebonite Lining On Request.**

### PRESSURE / TEMPERATURE RATING

PRESSURE RATING	150# ( PN 10 / PN 16 / PN 25 )
OPERATING TEMPERATURE	NBR -- -10 °C TO +90 °C EPDM - -20 °C TO +120 °C VITON - 0 °C TO +220 °C PTFE -- -25 °C TO +180 °C RPTFE - -25 °C TO +220 °C

No.	Description	Material	Qty.
1	Body	C.I. / WCB / CF8 / CF8M / D.I	01
2	Disc	WCB / CF8 / CF8M / D.I	01
3	Retainer	M.S. / CF8 / CF8M	01
4	Disc Seal Ring	RPTFE / PTFE / NBR / EPDM / Viton	01
5	Body Seat Ring	S.S. 304 / 316	01
6	Shaft	S.S. 304 / 316 / 410	01
7	Stem Shaft	S.S. 304 / 316 / 410	01
8	Disc Pin	S.S. 304 / 316 / 410	04
9	Flange Side Washer	S.S. 304 / 316 / 410	01
10	Stem Square	M.S. / CF8 / CF8M	01
11	Gland Seal Set	PTFE / NBR / EDPM / Viton / RPTFE	05
12	Gland Plate	M.S. / CF8 / CF8M	01

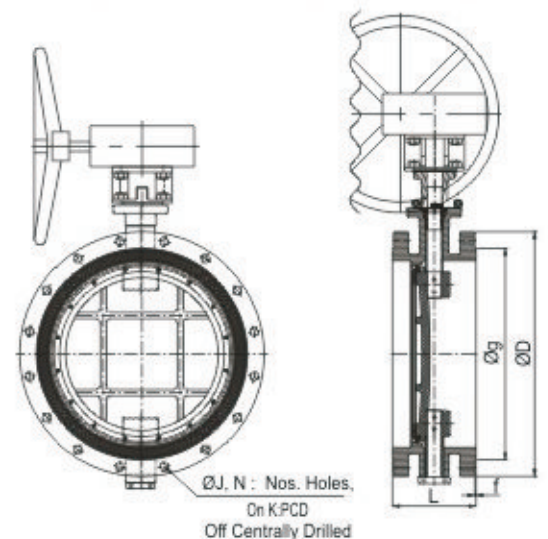


### Notes :

**We Have Successfully Carried Out Proof of Design Test on these Rubber Seated Butterfly Valve as per AWWA C - 504**

### Dimensions : B 16.5 150# & B 16.47 "A" 150# (All Dimensions are in mm)

Valve Model	Valve Size		L	ØD	Øg	f	ØJ	N	K:PCD
	MM	Inch							
BOD - 65	65	2.1/2"	112	180	104.8	2	19.05	04	139.7
BOD - 80	80	3"	114	190	127	2	19.05	04	152.4
BOD - 100	100	4"	127	230	157.2	2	19.05	08	190.5
BOD - 125	125	5"	140	255	185.7	2	22.2	08	215.9
BOD - 150	150	6"	140	280	215.9	2	22.2	08	241.3
BOD - 200	200	8"	152	345	269.9	2	22.2	08	298.5
BOD - 250	250	10"	165	405	323.8	2	25.4	12	362
BOD - 300	300	12"	178	485	381	2	25.4	12	431.8
BOD - 350	350	14"	190	535	412.8	2	28.6	12	476.3
BOD - 400	400	16"	216	595	469.9	2	28.6	16	539.8
BOD - 450	450	18"	222	635	533.4	2	31.75	16	577.9
BOD - 500	500	20"	229	700	584.2	2	31.75	20	635
BOD - 600	600	24"	267	815	692.2	2	34.9	20	749.3
BOD - 650	650	26"	292	870	749	2	34.9	24	806.4
BOD - 700	700	28"	292	925	800	2	34.9	28	863.6
BOD - 750	750	30"	318	985	857	2	34.9	28	914.4
BOD - 800	800	32"	318	1060	914	2	41.3	28	977.9
BOD - 850	850	34"	324	1110	965	2	41.3	32	1028.7
BOD - 900	900	36"	330	1170	1022	2	41.3	32	1085.8
BOD - 1000	1000	40"	410	1290	1124	2	41.3	36	1200.2
BOD - 1050	1050	42"	410	1345	1194	2	41.3	36	1257.3
BOD - 1200	1200	48"	470	1510	1359	2	41.3	44	1422.4



Dimensions :		PN 10		(All Dimensions are in mm)					
Valve Model	Valve Size		L API 609	ØD	Øg	f	ØJ	N	K:PCD
	MM	Inch							
BOD - 80	80	3"	114	200	133	3	18	04	160
BOD - 100	100	4"	127	220	153	3	19	08	180
BOD - 150	150	6"	140	285	209	3	23	08	240
BOD - 200	200	8"	152	340	264	3	23	08	295
BOD - 250	250	10"	165	395	319	3	23	12	350
BOD - 300	300	12"	178	445	367	4	23	12	400
BOD - 350	350	14"	190	505	427	4	23	16	460
BOD - 400	400	16"	216	565	477	4	28	16	515
BOD - 450	450	18"	222	615	527	4	28	20	565
BOD - 500	500	20"	229	670	582	4	28	20	620
BOD - 600	600	24"	267	780	682	5	31	20	725
BOD - 650	650	26"	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BOD - 700	700	28"	292	895	797	5	31	24	840
BOD - 750	750	30"	318	960	857	5	31	24	900
BOD - 800	800	32"	318	1015	904	5	34	24	950
BOD - 900	900	36"	330	1115	1004	5	34	28	1050
BOD - 1000	1000	40"	410	1230	1111	5	36	28	1160
BOD - 1200	1200	48"	470	1455	1328	5	40	32	1380

Dimensions :		PN 16		(All Dimensions are in mm)					
Valve Model	Valve Size		L API 609	ØD	Øg	f	ØJ	N	K:PCD
	MM	Inch							
BOD - 65	65	2.1/2"	112	185	122	3	18	04	145
BOD - 80	80	3"	114	200	138	3	18	08	160
BOD - 100	100	4"	127	220	158	3	18	08	180
BOD - 150	150	6"	140	285	212	3	22	08	240
BOD - 200	200	8"	152	340	268	3	22	12	295
BOD - 250	250	10"	165	405	320	3	26	12	355
BOD - 300	300	12"	178	460	378	4	26	12	410
BOD - 350	350	14"	190	520	438	4	26	16	470
BOD - 400	400	16"	216	580	490	4	30	16	525
BOD - 450	450	18"	222	640	490	4	30	20	585
BOD - 500	500	20"	229	715	610	4	33	20	650
BOD - 600	600	24"	267	840	725	5	36	20	770
BOD - 650	650	26"	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BOD - 700	700	28"	292	910	795	5	36	24	840
BOD - 750	750	30"	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BOD - 800	800	32"	318	1025	900	5	39	24	950
BOD - 900	900	36"	330	1125	1000	5	39	28	1050
BOD - 1000	1000	40"	410	1255	1115	5	42	28	1170
BOD - 1200	1200	48"	470	1485	1330	5	48	32	1390

Dimensions :		AWWA C - 207		(All Dimensions are in mm)					
Valve Model	Valve Size		L AWWA C - 504	ØD	b	ØJ	N	K:PCD	
	MM	Inch							
BOD - 65	65	2.1/2"	127	180	16	19.05	4	139.7	
BOD - 80	80	3"	127	190	16	19.05	4	152.4	
BOD - 100	100	4"	127	228.6	16	19.05	8	190.5	
BOD - 125	125	5"	127	254	16	19.05	8	215.9	
BOD - 150	150	6"	127	279.4	17.5	22.35	8	241.3	
BOD - 200	200	8"	152	343	17.5	22.35	8	298.45	
BOD - 250	250	10"	203	406.4	17.5	25.4	12	361.95	
BOD - 300	300	12"	203	482.6	20.6	25.4	12	431.8	
BOD - 350	350	14"	203	533.4	23.8	28.45	12	476.25	
BOD - 400	400	16"	203	596.9	25.5	28.45	16	539.75	
BOD - 450	450	18"	203	635	27	31.75	16	577.85	
BOD - 500	500	20"	203	698.5	28.5	31.75	20	635	
BOD - 600	600	24"	203	812.8	30.2	35.05	20	749.3	
BOD - 650	650	26"	305	869.9	31.5	35.05	24	806.45	
BOD - 700	700	28"	305	927.1	35.5	35.05	28	863.6	
BOD - 750	750	30"	305	984.25	35.5	35.05	28	914.4	
BOD - 800	800	32"	305	1060.45	38	41.15	28	977.9	
BOD - 850	850	34"	305	1111.25	38	41.15	32	1028.7	
BOD - 900	900	36"	305	1168.4	41	41.15	32	1085.85	
BOD - 1000	1000	40"	305	1289	41	41.15	36	1200.15	
BOD - 1050	1050	42"	305	1346.2	44.5	41.15	36	1257.3	
BOD - 1200	1200	48"	381	1511.3	47.5	41.15	44	1422.4	

“aira” offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve in Double Flange Construction engineered for multiply ON / OFF Operation in the large Pipe line and full flow down Stream.



**Size Range : 2" to 24"**

**Applicable Standard**

Design And Manufacturing    API 609 / BS 5155 / BSEN 593 / IS 13095  
Valve Face to Face Dimensions    API 609 ( Short Pattern ) / BS 5155 ( Long Pattern )  
IS 13095 ( Long Pattern )  
Flange Standard Conformity    ASME / ANSI B 16.5 Class 300  
Inspection & Testing    API 598

**PRESSURE / TEMPERATURE RATING**

PRESSURE RATING	300# ( PN 25 / PN 40 )
OPERATING TEMPERATURE	NBR --10 °C TO +90 °C / EPDM --20 °C TO +120 °C VITON - 0 °C TO +220 °C / PTFE - -25 °C TO +180 °C RPTFE - -25 °C TO +220 °C

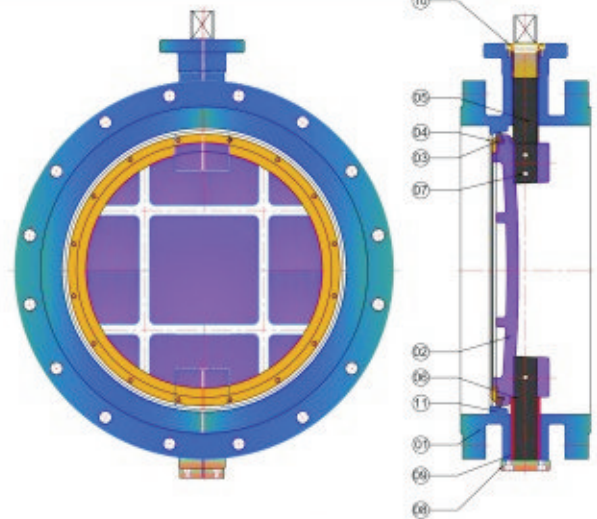
No.	Description	Material	Qty.
1	Body	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
2	Disc	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
3	Disc Seal Ring	PTFE / RPTFE / NBR / EPDM / Viton	01
4	Retainer	IS 2062 Gr B M.S. / ASTM A 351 Gr. CF8 / CF8M	01
5	Shaft	ASTM A 479 Type 410 / 304 / 316	01
6	Steam Shaft	ASTM A 479 Type 410 / 304 / 316	01
7	Disc Pin	S.S. 202	02
8	Steam Plate	M.S.	01
9	Shaft Bush	ASTM A - 479 Type 410 / 300 / 316	02
10	Gland Plate	M.S.	01
11	Body Seat Ring	ASTM A 479 Type 304 / 316	01

**Butterfly Valve CV Values 300#**

Valve Size		10°	20°	30°	40°	50°	60°	70°	80°	90°
MM	Inch									
150	6"	17.4	61	120	190	290	420	680	770	870
200	8"	27.2	100	200	300	460	640	1070	1200	1370
250	10"	42	150	290	460	690	980	1630	1840	2090
300	12"	59	200	410	650	970	1390	2300	2600	2950
350	14"	73	260	510	800	1200	1710	2840	3200	3640
400	16"	100	350	700	1100	1660	2360	39140	4410	5010
450	18"	120	440	870	1360	2040	2900	4810	5430	6170
500	20"	170	580	1160	1810	2720	3870	640	7250	8250
600	24"	260	900	1800	2830	4250	6050	10000	11300	12900

**Valve Torque 300#**

Valve Size	10 Bar	20 Bar	25 Bar	35 Bar	40 Bar	50 Bar
MM	Inch	N - m	N - m	N - m	N - m	N - m
80	3"	55	62	70	75	80
100	4"	72	89	104	111	125
125	5"	96	127	137	148	178
150	6"	126	138	178	194	205
200	8"	205	252	281	304	328
250	10"	325	468	503	560	594
300	12"	465	685	777	868	937
350	14"	747	1126	1461	1776	1836
400	16"	1065	1654	2020	2204	2448
450	18"	1346	2143	2458	2938	3183
500	20"	2014	3056	3590	3852	4244
600	24"	3052	4578	5223	5876	6464

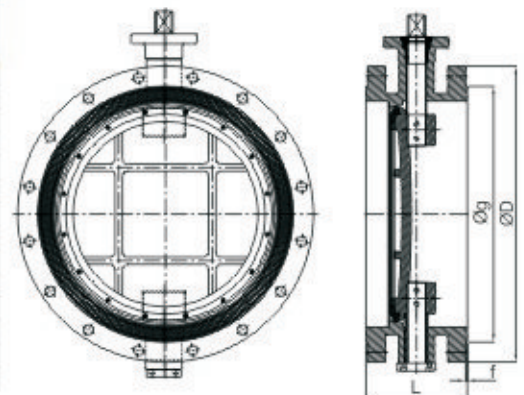


**Dimensions :**

**300#**

**(All Dimensions are in mm)**

Valve Model	Valve Size		L	øD	øg	b	f	øJ	N	K-PCD
	MM	Inch								
BOD3C-50	50	2"	150	165.1	91.9		1.6	19.05	08	127
BOD3C-65	65	2.1/2"	170	190.5	104.6		1.6	22.35	08	149.35
BOD3C-80	80	3"	180	209.55	127	28.45	1.6	22.35	08	168.14
BOD3C-100	100	4"	190	254	157.2	31.75	1.6	22.35	08	200.0
BOD3C-125	125	5"	200	279.4	185.6	35.05	1.6	22.35	08	234.9
BOD3C-150	150	6"	210	317.5	215.9	36.5	1.6	22.35	12	269.9
BOD3C-200	200	8"	230	381	270	41.15	1.6	25.4	12	330.2
BOD3C-250	250	10"	250	444.5	323.8	47.75	1.6	28.5	16	387.35
BOD3C-300	300	12"	270	520.7	381	50.8	1.6	31.75	16	450.9
BOD3C-350	350	14"	290	584.2	412.75	53.85	1.6	31.75	20	514.35
BOD3C-400	400	16"	310	647.7	469.9	57.15	1.6	35.0	20	571.5
BOD3C-450	450	18"	330	711.2	533.4	60.45	1.6	35.0	24	628.6
BOD3C-500	500	20"	350	774.7	584.2	63.5	1.6	35.0	24	685.8
BOD3C-600	600	24"	390	914.4	692.15	69.85	1.6	41.14	24	812.8



# Hand Lever / Worm Gear Operated Double Eccentric Design Off - Set Disc Double Flange Butterfly Valve 600 Class

“aira” offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve Double Flange Construction engineered for multiply ON/OFF Operation in the large Pipe line and full flow down Stream.

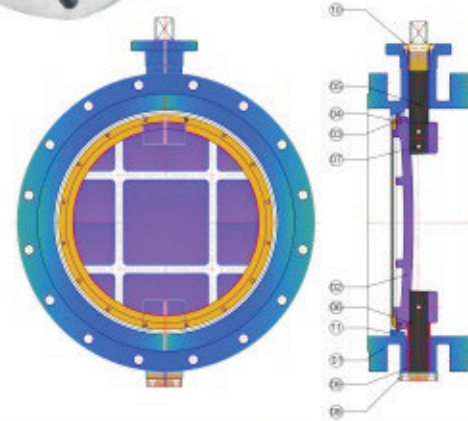
## Size Range : 3" to 24"

### Standard

Design And Manufacturing	API 609 / BS 5155 / BSEN 593 / IS 13095
Valve Face to Face Dimensions	API 609 ( Short Pattern ) / BS 5155 ( Long Pattern ) IS 13095 ( Long Pattern )
Flange Standard Conformity	ASME / ANSI B 16.5 Class 600
Inspection & Testing	API 598

### PRESSURE / TEMPERATURE

PRESSURE RATING	600# ( PN 60 )
OPERATING TEMPERATURE	NBR - -10 °C TO +90 °C / EPDM - -20 °C TO +120 °C VITON - 0 °C TO +220 °C / PTFE - -25 °C TO +180 °C RPTFE - -25 °C TO +250 °C



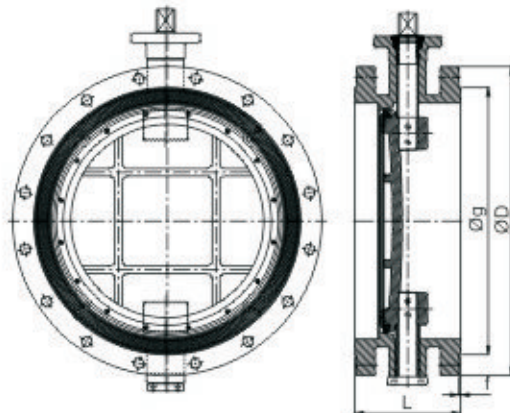
No.	Description	Material	Qty.
1	Body	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
2	Disc	ASTM A 216 Gr. WCB / A 351 Gr. CF8 / CF8M	01
3	Disc Seal Ring	PTFE / RPTFE / NBR / EPDM / Viton	01
4	Retainer	IS 2062 Gr B M.S. / ASTM A 351 Gr. CF8 / CF8M	01
5	Shaft	ASTM A 479 Type 410 / 304 / 316	01
6	Steam Shaft	ASTM A 479 Type 410 / 304 / 316	01
7	Disc Pin	S.S. 304	02
8	Steam Plate	M.S.	01
9	Shaft Bush	ASTM A - 479 Type 410 / 304 / 316	01
10	Gland Plate	M.S.	01
11	Body Seat Ring	ASTM A 479 Type 304 / 316	01

### Butterfly Valve CV Values

Valve Size		10°	20°	30°	40°	50°	60°	70°	80°	90°
MM	Inch									
80	3"	4	15.6	31.5	47.6	74.5	110	180	200	230
100	4"	8	27.9	56	90	130	190	310	350	400
125	5"	13.1	46	92	150	220	310	520	580	670
150	6"	19.9	70	140	220	330	480	780	890	1000
200	8"	36.3	130	260	400	610	860	1430	1600	1830
250	10"	56	200	390	620	920	1300	2170	2450	2780
300	12"	84	290	590	930	1400	1980	3290	3700	4200
350	14"	100	370	730	1140	1700	2500	4060	4570	5200
400	16"	140	480	960	1500	2300	3220	5340	6020	6840
450	18"	1180	640	1260	2000	3000	4220	7000	7900	9000
500	20"	240	840	1680	2600	3950	5630	9300	10500	12000
600	24"	380	1300	2630	4200	6200	8800	14600	16500	18700

### VALVE TORQUE 600#

Valve Size		30 Bar	40 Bar	60 Bar	80 Bar	100 Bar
MM	Inch	N - m	N - m	N - m	N - m	N - m
150	6"	600	700	850	1000	1300
200	8"	1000	1150	1400	1650	2100
250	10"	1650	1900	2300	2800	3800
300	12"	2400	2850	3450	4100	4900
350	14"	3400	4300	5350	6300	7500
400	16"	5000	6900	8900	9700	11500
450	18"	7000	9400	12000	14500	17000
500	20"	8700	12000	15000	18000	21000
600	24"	15000	21000	25700	30500	36000



### Dimensions :

Valve Model	Valve Size		L	øD	øg	b	f	øJ	N	K.PCD
	MM	Inch								
BOD3C-80	80	3"	180	210	127	31.75	6.35	22.0	08	168.3
BOD3C-100	100	4"	190	275	157	38.1	6.35	25.4	08	215.9
BOD3C-125	125	5"	210	330	185	44.4	6.35	28.5	08	266.7
BOD3C-150	150	6"	210	355	216	47.75	6.35	28.5	12	292.1
BOD3C-200	200	8"	230	420	270	55.63	6.35	32.0	12	349.2
BOD3C-250	250	10"	250	510	324	63.5	6.35	35.0	16	431.8
BOD3C-300	300	12"	270	560	381	66.55	6.35	35.0	20	489.5
BOD3C-350	350	14"	290	605	413	69.85	6.35	38.1	20	527.0
BOD3C-400	400	16"	310	685	470	76.2	6.35	41.15	20	603.2
BOD3C-450	450	18"	330	745	534	82.6	6.35	44.45	20	654.0
BOD3C-500	500	20"	350	815	584	88.9	6.35	44.45	24	723.9
BOD3C-600	600	24"	390	940	692	101.6	6.35	50	24	838.2

Precised & Strong Durable to 240 °C / 600 °C Temperature And  
10 Kg/cm<sup>2</sup> / 20 Kg/cm<sup>2</sup> Pressure

## 5 Special Effects

- Compact Design - Full Port - Offers Mass Flow
- Simple Structure, Light & Smooth - Takes Very Short Time For Opening & Closing With Very Low Torque
- Easy Maintenance - Replaceable Seal Design
- Self Sealing - Self Clearing The Under Cut Disc Segment And Seal Tends To Wipe Away The Material From The Sealing Area
- Gland Pressing Plate - Ensure Complete Utilization of Gland Seal

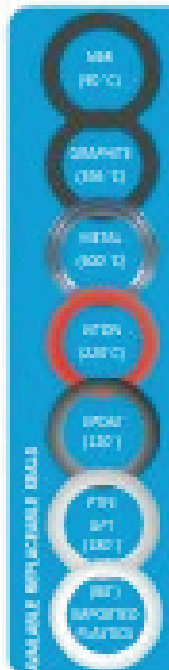
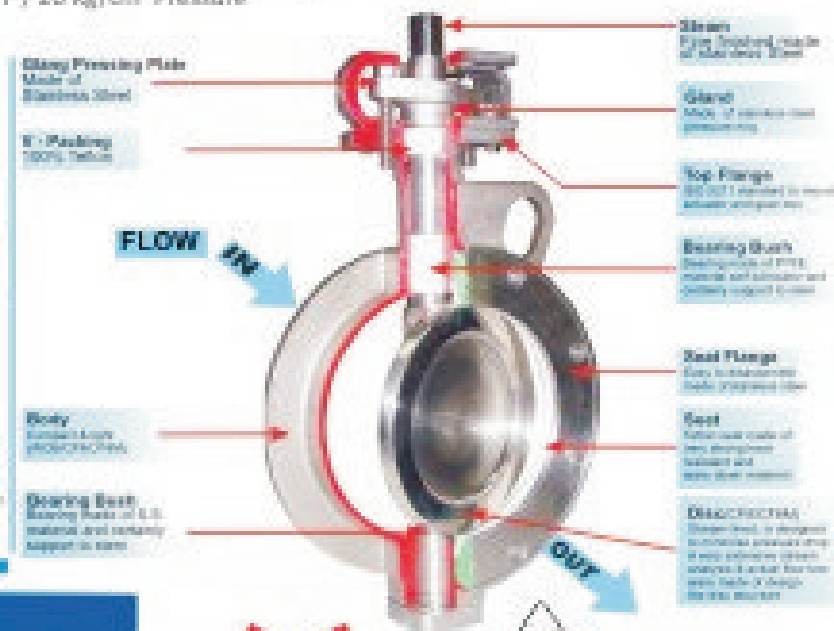
## Application

Hygienic Powder & Slurries, especially in Pharmaceutical Industries.  
Chemical and Dyeing Fluids in Textile Processing  
Waste Waters & Oil.  
Steam Lines, Air / Gas Lines / Vacuum.

Spherical Disc Valve has been Proved as Superior to Other Valves in Many Aspects, Particularly in...

- Weight
- Space
- Pressure Range
- Multiple Operations
- Maintenance Ease
- Torque & Economy

Spherical Disc Valve	Technical Specifications :
Size Range	1.1/2" to 36"
Construction Type	Double Flanged Disc Design
Body	WCB / CF8 / CF8M
Disc	CF8 / CF8M
Seat	PTFE (permeable EPDM / Metal to Metal)
Mount	ANSI 500 / ISO / DIN
Flange Mounting	Manual Standard
Pressure Rating	ANSI 150 Class
	ANSI 300 / 600 Class
End Connection	Welder Standardized Lug Type
Operating Temp. Range	-28 °C to 180 °C (Soft Sealing) -28 °C to 600 °C (Metal to Metal Sealing)
Operating	Hard Seats, Water Oiler Box.



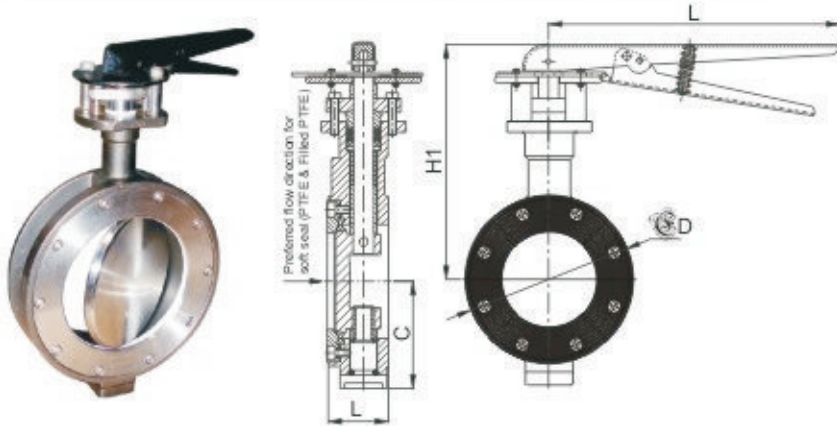
CV Value in GPM		
Valve Size	CV Full Open 90° (API Class 150)	
1/2"	1.1/2"	70
1/2"	2"	90
1/2"	2.1/2"	110
1/2"	3"	140
1/2"	4"	180
1/2"	5"	230
1/2"	6"	280
1/2"	8"	370
1/2"	10"	470
1/2"	12"	570
1/2"	14"	680
1/2"	16"	800
1/2"	18"	930
1/2"	20"	1080
1/2"	24"	1300
1/2"	26"	1480
1/2"	28"	1680
1/2"	30"	1880
1/2"	32"	2080
1/2"	36"	2480

CV Value in GPM					
Valve Size	Inch	Differential Pressure (MP)			
		5 Kg/cm <sup>2</sup>	10 Kg/cm <sup>2</sup>	15 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>
1/2"	1.1/2"	0.8	1.0	1.2	1.5
1/2"	2"	0.9	1.2	1.5	1.7
1/2"	2.1/2"	1.2	1.7	2.0	2.5
1/2"	3"	1.5	2.0	2.5	3.0
1/2"	4"	2.0	2.8	3.5	4.2
1/2"	5"	2.5	3.5	4.5	5.5
1/2"	6"	3.0	4.0	5.0	6.0
1/2"	8"	4.0	5.5	7.0	8.5
1/2"	10"	5.0	7.0	9.0	11.0
1/2"	12"	6.0	8.5	11.0	13.5
1/2"	14"	7.0	10.0	13.0	16.0
1/2"	16"	8.0	11.5	15.0	18.0
1/2"	18"	9.5	13.5	17.5	21.0
1/2"	20"	11.0	15.5	20.0	24.0
1/2"	24"	14.0	20.0	26.0	31.0
1/2"	26"	15.5	22.0	28.5	34.5
1/2"	28"	17.0	24.0	31.0	38.0
1/2"	30"	18.5	26.0	33.5	41.5
1/2"	32"	20.0	28.0	36.0	45.0
1/2"	36"	24.0	34.0	43.0	54.0

Standards	Series S150 (40 NB To 600 NB)	Series G150 (600 NB To 1200 NB)
Design and manufacturing	API 607 Category II	ANSI SP - 68
Valve face to face dimensions	API 607 Category II / ANSI B 16.30	ANSI 5752 Series 20 / ANSI SP - 68
Flange standard conforms	ANSI B 16.5 Class 150	ANSI / ISO B 16.47 Series 'B'
Inspection & testing standard	API 598 / ANSI FC 70 - 2	API 598 / BS 6755
Fire safe testing	API 607	API 607
Pressure temperature rating	ANSI / API B 16.34	ANSI / ISO B 16.34



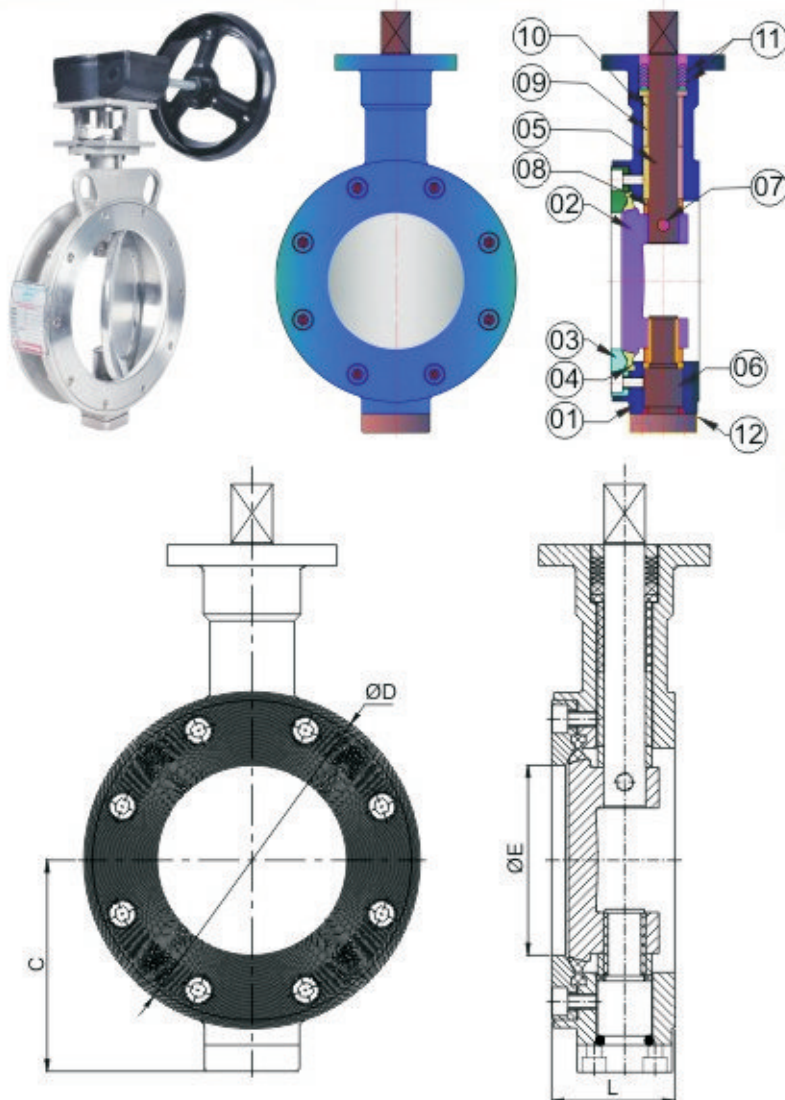
Handle Operated Spherical Disc Valve Upto 6" ( 150 MM )



Dimensions : (All Dimensions are in mm)

Valve Size		L	C	ØD	H1	L1	Weight (Approx.)
MM	Inch						
40	1.1/2"	42	57	82	146	265	2.250
50	2"	45	68.5	95	150	265	2.600
65	2.1/2"	48	74.5	108	172	265	3.550
80	3"	48	80	127	181	265	4.300
100	4"	54	96	159	197	265	6.100
125	5"	57	117	186	231	265	8.600
150	6"	57	132	217	245	265	11.050

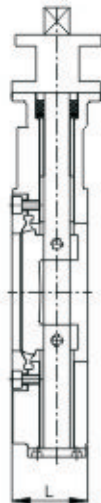
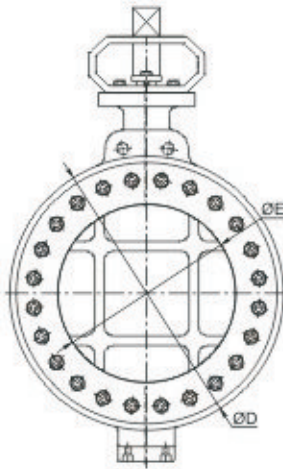
Worm Gear Operated Spherical Disc Valve 1.1/2" (40 MM) TO 36" (900 MM)



No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	1
2	Disc	WCB / CF8 / CF8M	1
3	Retainer	M.S. / CF8 / CF8M	1
4	Seal Ring	NBR / PTFE / Viton / GFT	1
5	Shaft	S.S. 304 / 316	1
6	Stem Shaft	S.S. 304 / 316	1
7	Disc Pin	S.S. 304 / 316 / 410	1
8	Shaft Collar	S.S. 304 / 316 / 410	4
9	Shaft Bush ( PTFE )	S.S. 304 / 316 / 410	1
10	Shaft Bush	M.S. / CF8 / CF8M	1
11	Gland Seal Set	PTFE / GFT	5
12	Gland Plate	M.S. / CF8 / CF8M	1

Dimensions : (All Dimensions are in mm)

Valve Size		L	C	ØE	ØD	Weight (Approx.)
MM	Inch					
40	1.1/2"	42	57	38	82	1.600
50	2"	45	68.5	50.8	95	2.200
65	2.1/2"	48	74.5	60.6	108	3.000
80	3"	48	80	72	127	3.800
100	4"	54	96	100	159	5.600
125	5"	57	117	123	186	7.700
150	6"	57	132	143	217	10.400
200	8"	64	157	192	270	15.000
250	10"	72	187	239	322	25.750
300	12"	82	218	290	382	36.000
350	14"	92	242	335	436	46.900
400	16"	102	270.5	387.5	495	66.850
450	18"	114	362	425	540	117.000
500	20"	127	400	475	595	146.500
600	24"	154	454	560	705	290.000
650	26"	165	478	608	755	360.000
700	28"	165	505	661.5	810	390.000
750	30"	190	542	696	855	475.000
800	32"	190	580	755	913	524.000
900	36"	203	640	864	1032	675.000



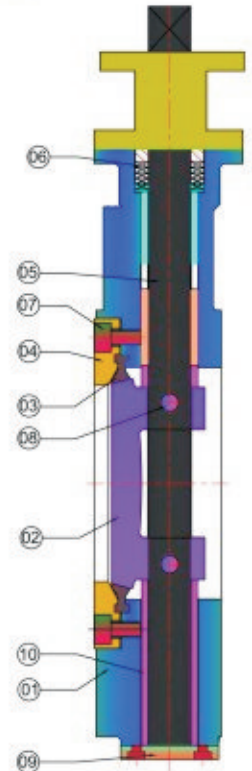
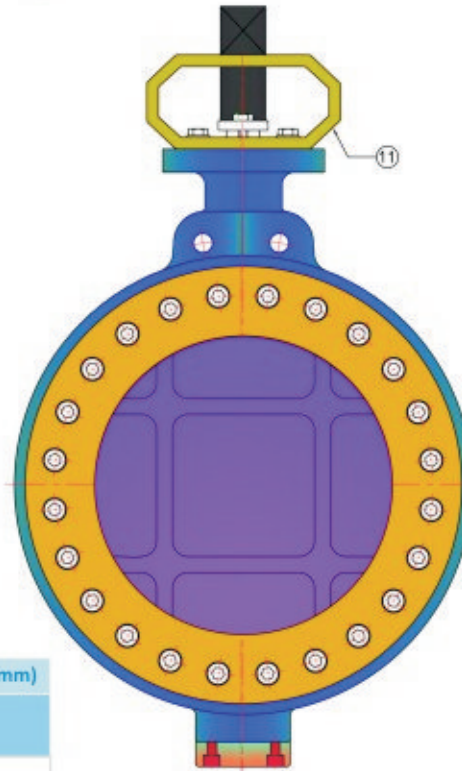
**Size Range : 1.1/2" to 24"**

**Standard**

Design And Manufacturing	API 609 Category "B"
Valve Face to Face Dimensions	API 609 Category "B"
Flange Standard Conformity	ASME / ANSI B 16.5 Class 300
Inspection & Testing	API 598

**Pressure / Temperature Rating**

Pressure	: 300# Pressure Rating
Temperature	: 180 °C
Seat Pressure	: 57 Kg/cm <sup>2</sup>
Shell Pressure	: 79 Kg/cm <sup>2</sup>



**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		L	ØD	ØE
	MM	Inch			
SDV-3-40	40	1.1/2"	42	88	38
SDV-3-50	50	2"	45	101	50.8
SDV-3-65	65	2.1/2"	48	108.5	60.6
SDV-3-80	80	3"	48	127	72
SDV-3-100	100	4"	54	159	100
SDV-3-125	125	5"	59	187	123
SDV-3-150	150	6"	59	219	143.2
SDV-3-200	200	8"	64	270	192
SDV-3-250	250	10"	87	340	239.2
SDV-3-300	300	12"	92	394	290
SDV-3-350	350	14"	117	436	335
SDV-3-400	400	16"	133	500	387.5
SDV-3-450	450	18"	149	540	425
SDV-3-500	500	20"	159	595	475
SDV-3-600	600	24"	181	705	560

No.	Description	Material
1	Body	ASTM A 216 Gr. WCB A 351 Gr. CF8 / CF8M
2	Disc	ASTM A 351 Gr. CF8 / CF8M
3	Replaceable Seat	PTFE / GFT
4	Retainer	M.S. / S.S. 304 / 316
5	Shaft	S.S. 410 / S.S. 304 / 316
6	Gland Packing	PTFE / GFT
7	Retainer Bolt	S.S.
8	Disc Pin	S.S. 304 / 316
9	Steam Plate	M.S. / S.S. 304 / 316
10	Shaft Bush	M.S. / S.S. 304 / 316
11	Bracket	M.S.

"aira" offers Manual Worm Gear / Lever Operated Off - Set Disc Butterfly Valve in Wafer & Double Flange Construction engineered for multiply ON / OFF Operation in the large Pipe line and full flow down Stream.

**Size Range : 2" to 12" ( 150# )**

**Standard**

Design And Manufacturing : API 609  
Valve Face to Face Dimensions : API 609 Category "B"  
Flange Standard Conformity : ASME / ANSI B 16.5 Class 150  
Inspection & Testing : API 598  
Leakage Class : ASME B 16, 16.104 Leakage Class VI

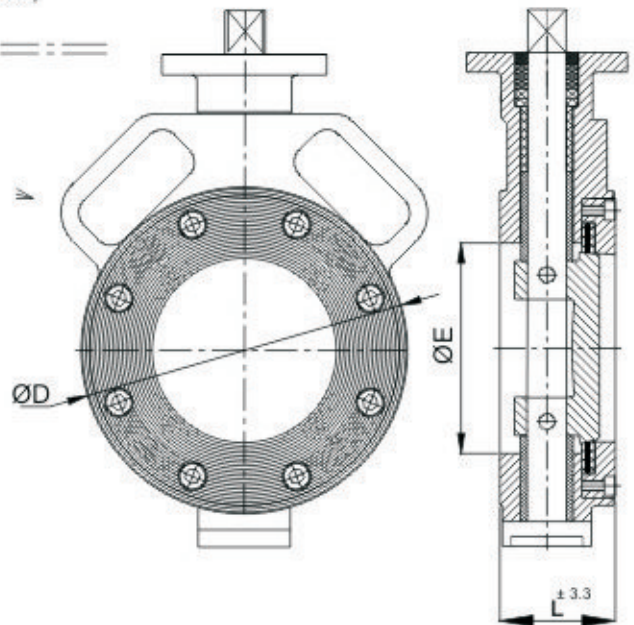
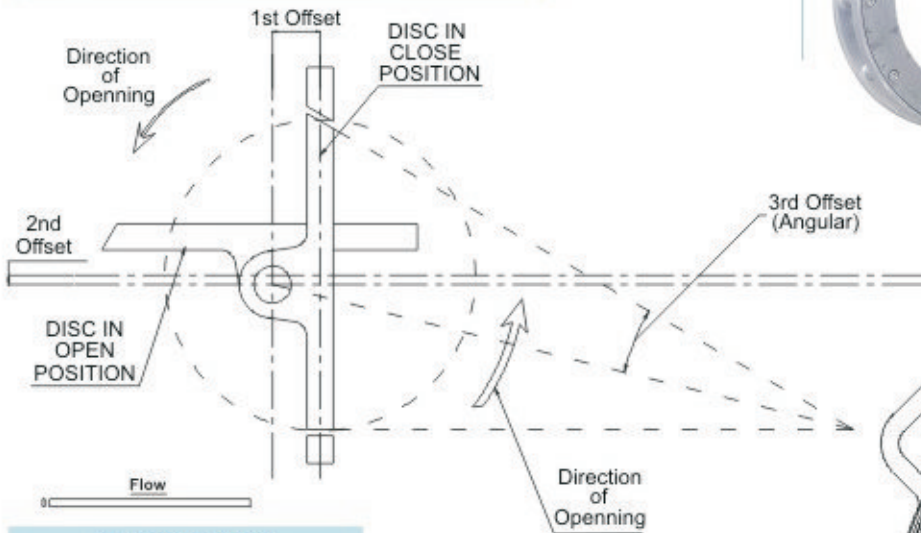
**Pressure / Temperature Rating**

Pressure : As Per 150# B16.34  
Temperature : 550 °C ( Above 550 °C On Request )



609 - 0055

**Fire Safe Design**



**VALVE TORQUE 150#**

Valve Size	5 Bar	10 Bar	20 Bar
MM Inch	N - m	N - m	N - m
50 2"	11	15	21
65 2.1/2"	20	28	38
80 3"	38	43	63
100 4"	50	58	80
125 5"	73	100	144
150 6"	113	144	181
200 8"	175	219	350
250 10"	294	331	375
300 12"	400	450	625

**CV Values**

Valve Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
MM Inch									
50 2"	2	5	11	19	28	41	58	77	85
65 2.1/2"	2	9	20	28	45	60	80	120	130
80 3"	3	10	22	42	64	96	150	157	160
100 4"	6	17	41	75	116	174	273	284	290
125 5"	6	45	75	170	280	478	650	707	795
150 6"	7	51	119	221	340	510	799	833	850
200 8"	4	103	239	445	684	1026	1607	1676	1710
250 10"	50	151	353	655	1008	1515	2369	2470	2520
300 12"	79	236	552	1024	1576	2364	3704	3861	3940

**Dimensions : (All Dimensions are in mm)**

Valve Model	Valve Size	L	ØD	ØE
	MM Inch			
SDVTOB - 50	50 2"	47	95	50.8
SDVTOB - 65	65 2.1/2"	52	108	60.6
SDVTOB - 80	80 3"	52	127	72
SDVTOB - 100	100 4"	57	159	100
SDVTOB - 125	125 5"	60	186	123
SDVTOB - 150	150 6"	60	217	143
SDVTOB - 200	200 8"	67	270	192
SDVTOB - 250	250 10"	72	322	239
SDVTOB - 300	300 12"	75	382	290

"aira" Handle & Gear Operated SMT Model metal to metal replaceable seat design Spherical Disc Valve. Temperature upto 400°C flat metal seat leakage Class VI.



609 - 0055

**Fire Safe  
Design**

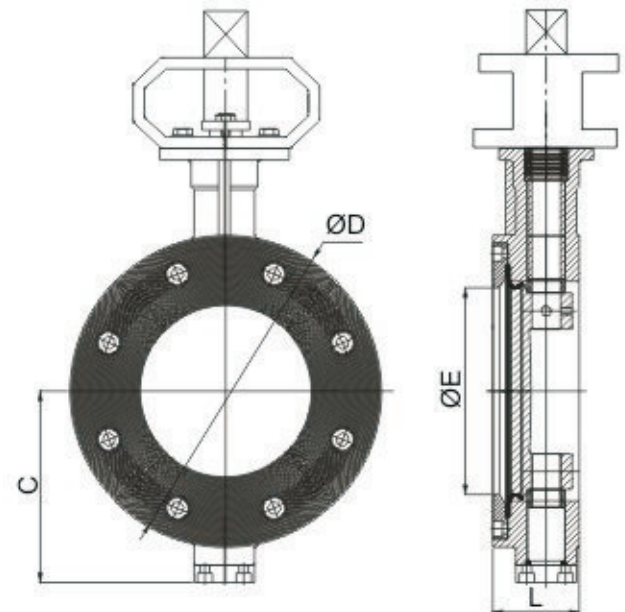
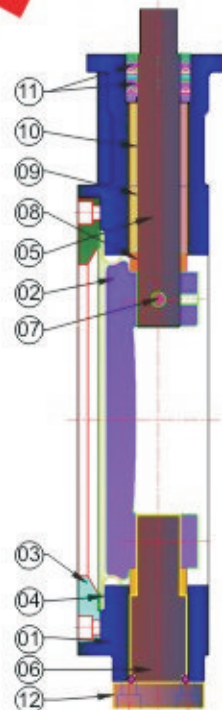
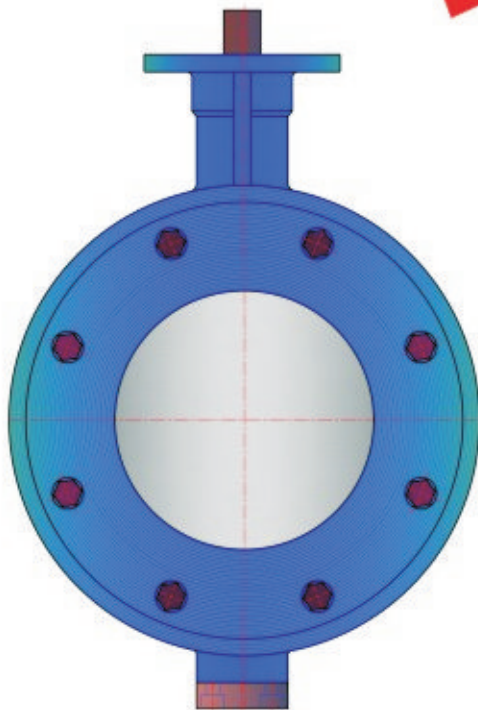
**Size Range : 2" to 18"**

**Standard**

Design And Manufacturing	API 609
Valve Face to Face Dimensions	API 609 Category "B"
Flange Standard Conformity	ASME B 16.5 Class 150
Inspection & Testing	API 598
Leakage Class	ASME B 16, 16.104 Leakage Class VI

**PRESSURE / TEMPERATURE**

PRESSURE RATING	PN 10
OPERATING TEMPERATURE	-50 °C TO 400 °C



Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	C	ØE	ØD
	MM	Inch				
SMT - 50	50	2"	47	65	50.8	95
SMT - 65	65	2.1/2"	52	66.5	60.6	108
SMT - 80	80	3"	52	77	72	127
SMT - 100	100	4"	57	93	100	159
SMT - 125	125	5"	60	117	123	186
SMT - 150	150	6"	60	131	143	217
SMT - 200	200	8"	67	167	192	270
SMT - 250	250	10"	72	196	239	322
SMT - 300	300	12"	85	218	290	382
SMT - 350	350	14"	92	242	335	436
SMT - 400	400	16"	102	270.5	387.5	495
SMT - 450	450	18"	114	362	425	540

No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	1
2	Disc	CF8 / CF8M	1
3	Retainer	M.S. / CF8 / CF8M	1
4	Seat Ring	CF8 / CF8M	1
5	Shaft	S.S. 304 / 316	1
6	Stem Shaft	S.S. 304 / 316 / 410	1
7	Disc Pin	S.S. 304 / 316 / 410	1
8	Shaft Collar	S.S. 304 / 316 / 410	4
9	Shaft Bush	S.S. 304 / 316	1
10	Shaft Bush	Graphite	1
11	Gland Seal Set	Graphite	5
12	Gland Plate	M.S. / CF8 / CF8M	1

**“aira”** Gear Operated MS Fabricated Double Flange Butterfly Valve Construction engineered for multiply ON / OFF Operation in the large Pipe line and full flow down Stream.

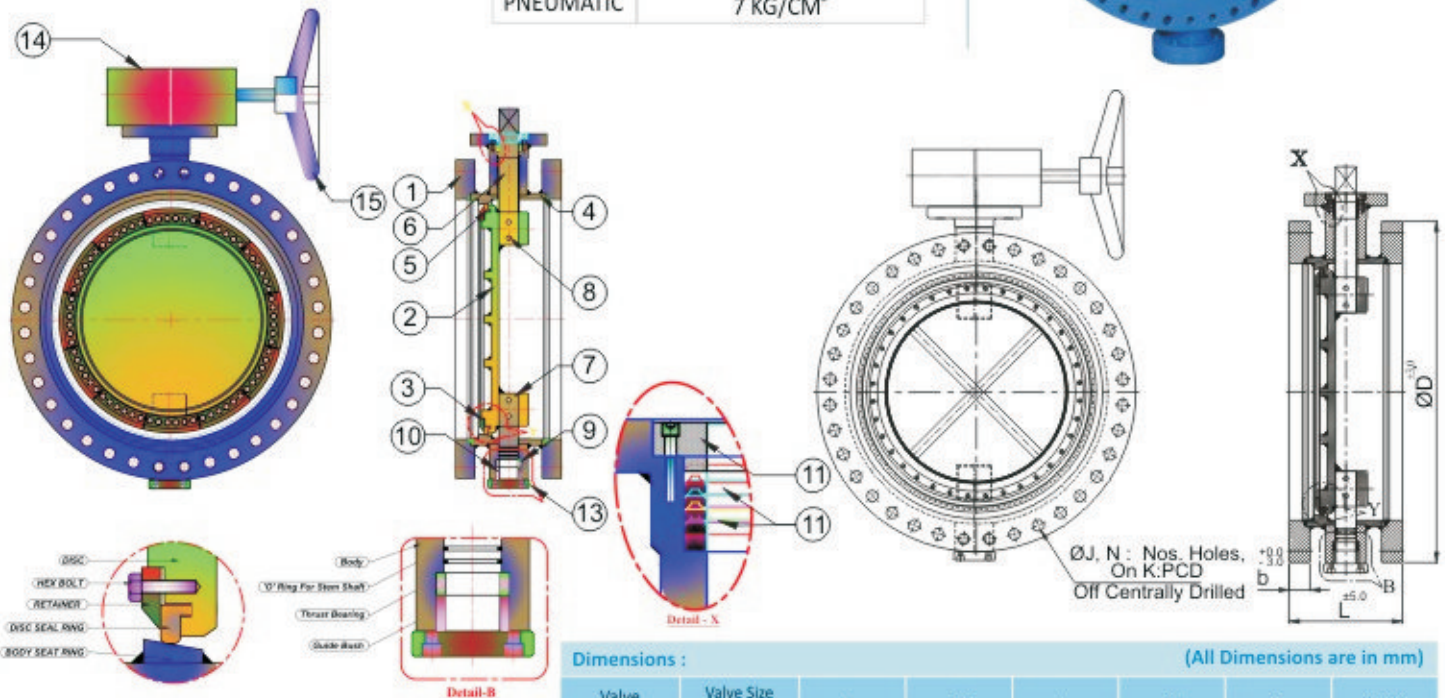
**Size Range : 50" to 104" (12" to 48" On Request)**

**Standard**

Design And Manufacturing	AWWA C - 504
Valve Face to Face Dimension Upto 72"	AWWA C - 504
Valve Face to Face Dimension Upto 72"	As Per Manufacturer Standard
Flange Standard Conformity	AWWA C - 207 Class "D"
Inspection & Testing	AWWA C - 504
Rating	PN 6 / PN 10



PRESSURE / TEMPERATURE RATING		PRESSURE / TEMPERATURE RATING		
PRESSURE RATING	PN 10	TESTING	BODY	SEAT
OPERATING TEMPERATURE	180 °C	HYDRAULIC	16 KG/CM <sup>2</sup>	10 KG/CM <sup>2</sup>
		PNEUMATIC	7 KG/CM <sup>2</sup>	



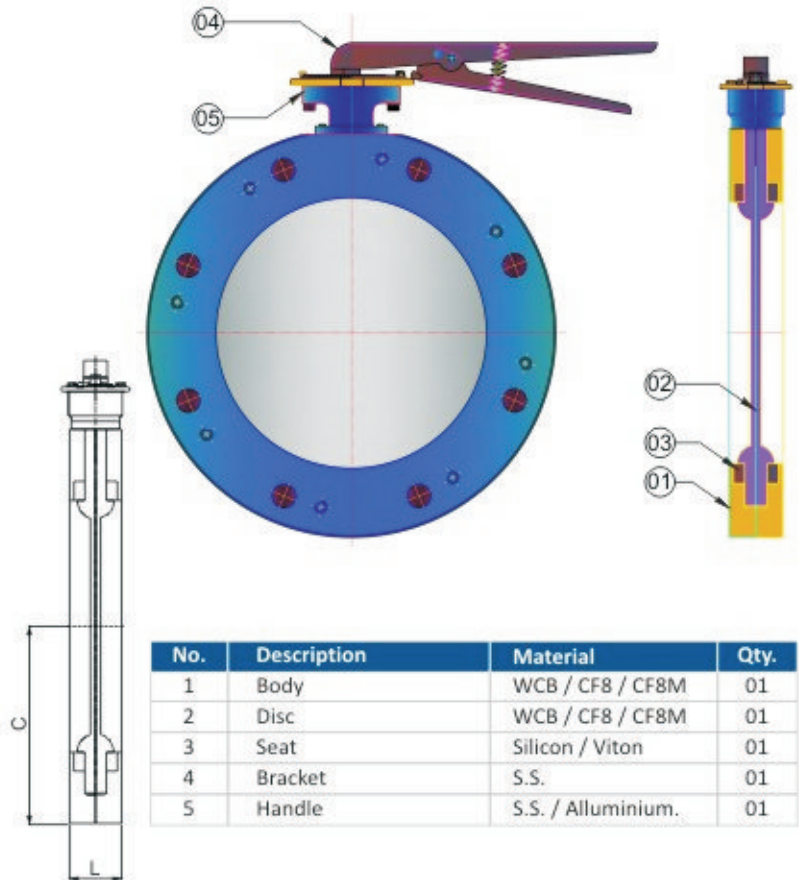
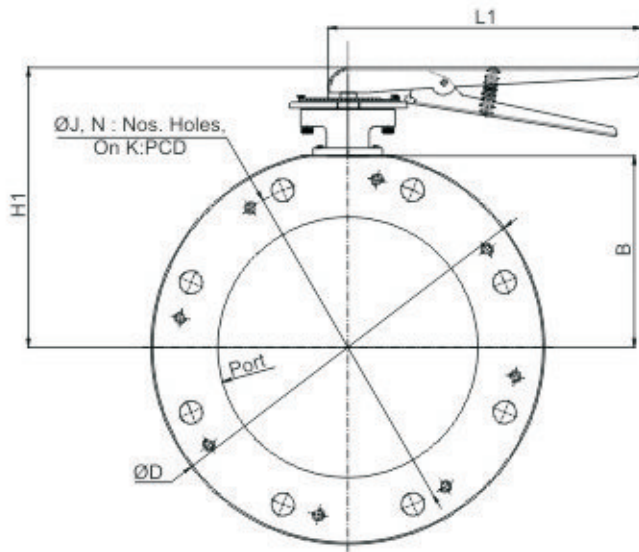
**Dimensions :** (All Dimensions are in mm)

No.	Description	Material	Valve Size		L	ØD	b	ØJ	N	K.PCD
			MM	Inch						
1	Body	IS 2062 Gr. B M. S.	1250	50"	381	1568.5	51.00	44.45	44	1479.6
2	Disc	IS 2062 Gr. B M. S.	1300	52"	381	1626.0	51.00	44.45	44	1536.7
3	Retainer	IS 2062 Gr. B / ASTM A - 240 S.S. 304 / 316	1350	54"	381	1682.8	54.00	44.45	44	1593.8
4	Body Seat Ring	ASTM A - 479 Type 304 / 316	1400	56"	381	1770.0	57.15	44.45	52	1670.0
5	Disc Seal Ring	EPDM / NBR / Viton	1500	60"	381	1854.2	57.15	44.45	52	1758.95
6	Shaft	ASTM A - 479 Type 410 / 304 / 316	1600	64"	381	1915.0	60.00	44.45	52	1820.0
7	Stem Shaft	ASTM A - 479 Type 410 / 304 / 316	1650	66"	457	2032.0	63.5	44.45	52	1930.4
8	Disc Pin	ASTM A - 479 Type 410 / 304 / 316	1800	72"	457	2197.1	66.5	44.45	60	2095.5
9	Bearing	Double Thrust Bearing	1950	78"	760	2362.2	69.9	50.8	64	2260.6
10	Guide Bush	Bronze	2000	80"	760	2449.0	70.00	50.8	64	2342.0
11	Seal Set	EPDM / NBR / Viton	2100	84"	830	2533.7	73.00	50.8	64	2425.7
12	Gland Plate	M. S.	2200	88"	830	2800.0	77.00	58.0	68	2673.5
13	Stem Plate	IS 2062 Gr. B	2400	96"	910	2876.6	82.6	58.0	68	2755.9
14	Gear	Standard	2500	100"	990	3048.0	82.6	63.5	72	2908.3
15	Wheel	M. S.	2600	104"	990	3138.0	86.00	63.5	72	2994

**Size Range : 2.1/2" to 16"**

**PRESSURE / TEMPERATURE RATING**

WORKING PRESSURE	MAX. 3 TO 4 KG/CM <sup>2</sup>
OPERATING TEMPERATURE	-50 °C TO +400 °C



No.	Description	Material	Qty.
1	Body	WCB / CF8 / CF8M	01
2	Disc	WCB / CF8 / CF8M	01
3	Seat	Silicon / Viton	01
4	Bracket	S.S.	01
5	Handle	S.S. / Alluminium.	01

**Dimensions :**

(All Dimensions are in mm)

Valve Model	Valve Size		Port	L	ØD	N	ØJ	K:PCD	B	C
	MM	Inch								
PBV - 65	65	2.1/2"	65	26	178	4	19.05	139.7	---	---
PBV - 80	80	3"	80	26	190	4	19.05	152.4	---	---
PBV - 100	100	4"	100	28	150	4	9	134	---	---
PBV - 150	150	6"	150	30	227	6	11	202.8	111	113.5
PBV - 200	200	8"	200	30	285	6	9.5	264	137	139.5
PBV - 250	250	10"	250	32	354.5	6	11	327	173	177.25
PBV - 300	300	12"	300	35	405	8	13.5	378	199	202.5
PBV - 350	350	14"	350	40	527	12	25.4	469.9	260.5	261
PBV - 400	400	16"	400	40	577.9	12	25.4	520.7	285	290

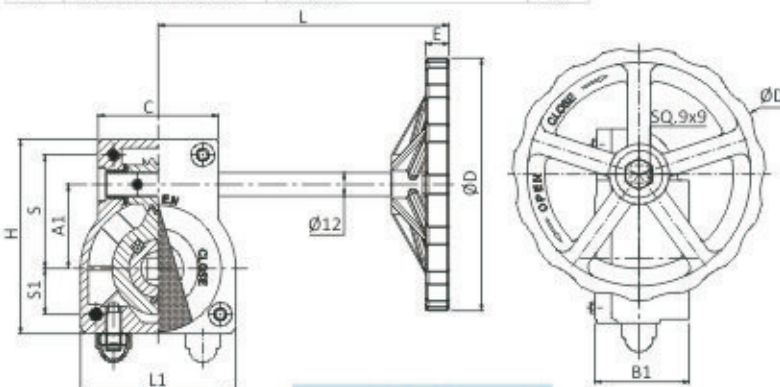
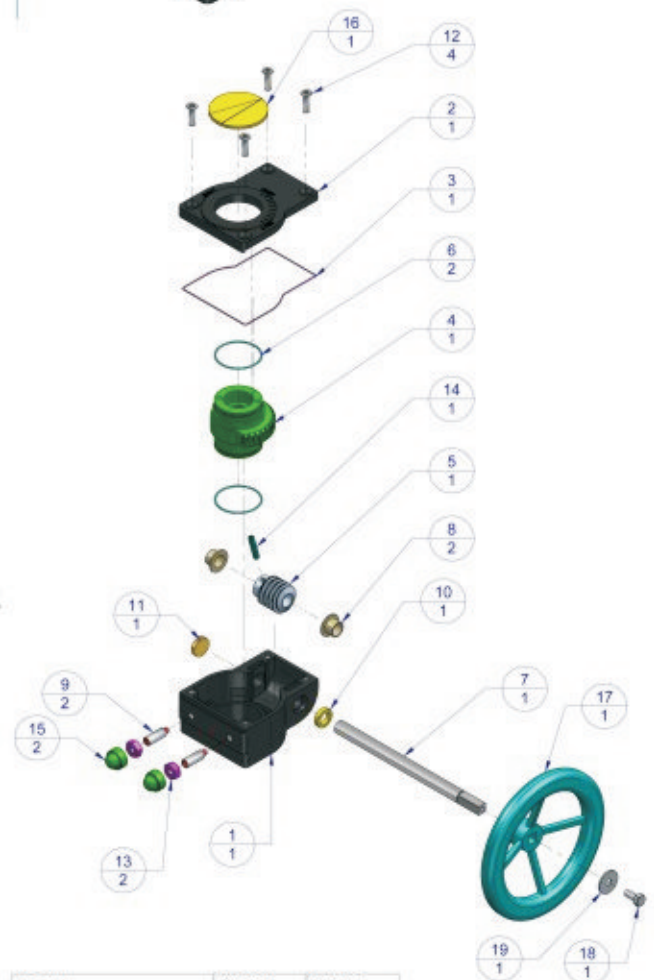
**Gear Box Model : AEA 18 / AEA 20**

**Specification**

Enclosure : Weatherproof ( IP 65 ) ( IP 67 & IP 68 - Optional )  
 Lubrication : NLGI - 2  
 Indicator : Plastic Yellow  
 Paint : Powder Coated  
 Travel : 0 - 90° ±5° Travel  
 Shaft Position : As Shown  
 Hardware : S. S.  
 Hand Wheel : AEA 18 - Ø130 / AEA 20 - Ø224  
 Chain Pully On Request.



No.	Description	Material	Qty.
1	G. B. Housing	Allu. Alloy ALsi - 132	01
2	G. B. Cover	Allu. Alloy ALsi - 132	01
3	Body Cover 'O' Ring	Nitrile Buna - N Gr. 80	01
4	Worm Gear	ASTM A 536 Gr. 65-45-12 ( Ductile Iron ) S. G. Iron	01
5	Worm	BS-970-90, EN-8, (080M40)	01
6	'O' Ring Worm Gear	Nitrile Buna - N Gr. 80	02
7	Shaft	BS 970-90, EN 8, (080M40)	01
8	Shaft Coller	BS 970-90, EN 8, (080M40)	02
9	Adjustable Bolt	S. S. 202	02
10	Packing Ring	Nitrile Buna - N Gr. 80	01
11	Packing Bush	Nitrile Buna - N Gr. 80	01
12	Cover Bolt	S. S. 202	04
13	Adjustable Nut	S. S. 202	02
14	Dowel Pin	Spring Steel	01
15	Cap	Nitrile Buna - N Gr. 80	02
16	Indicator	ABS Resin	01
17	Hand Wheel	Allu. / MS Fabricated	01
18	Hand Wheel Bolt	S. S. 202	01
19	Hand Wheel Washer	S. S. 202	01



AEA - 18		AEA - 20	
A	B	A	B
SQ. 9 X 9	12.7	SQ. 8 X 8	11.3
SQ. 11 X 11	15.6	SQ. 9 X 9	12.4
SQ. 14 X 14	19.8	SQ. 11 X 11	15.3
		SQ. 14 X 14	19.6
		SQ. 17 X 17	23.6

Model	AEA 18	AEA 20
Ratio	40 : 1	37 : 1
Rated Output Torque (Nm)	180	300
ISO Flange	F05, F07	F07, F10

**Dimensions :**

(All Dimensions are in mm)

Valve Model	L	L1	H	ØD	S	S1	C	B1	A1	E	*Weight
AEA - 18	150	80	100	130	58.5	24	82	48.5	43	12	1.100
AEA - 20	178	100	115	224	62	33	85	54	50	14	2.100

\*Without Hand Wheel Weight

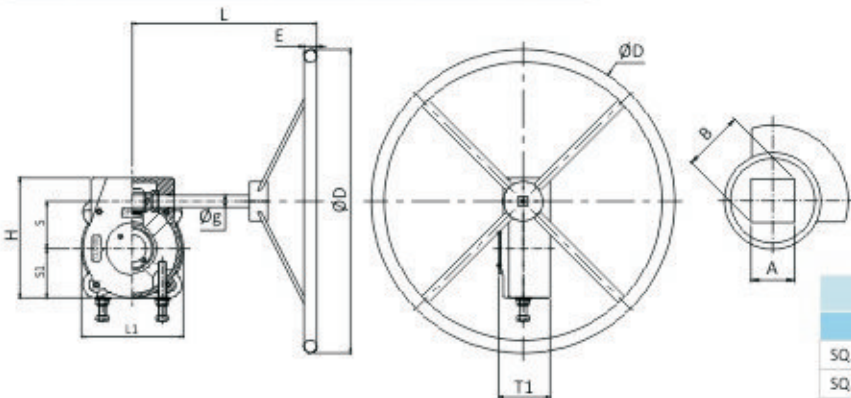
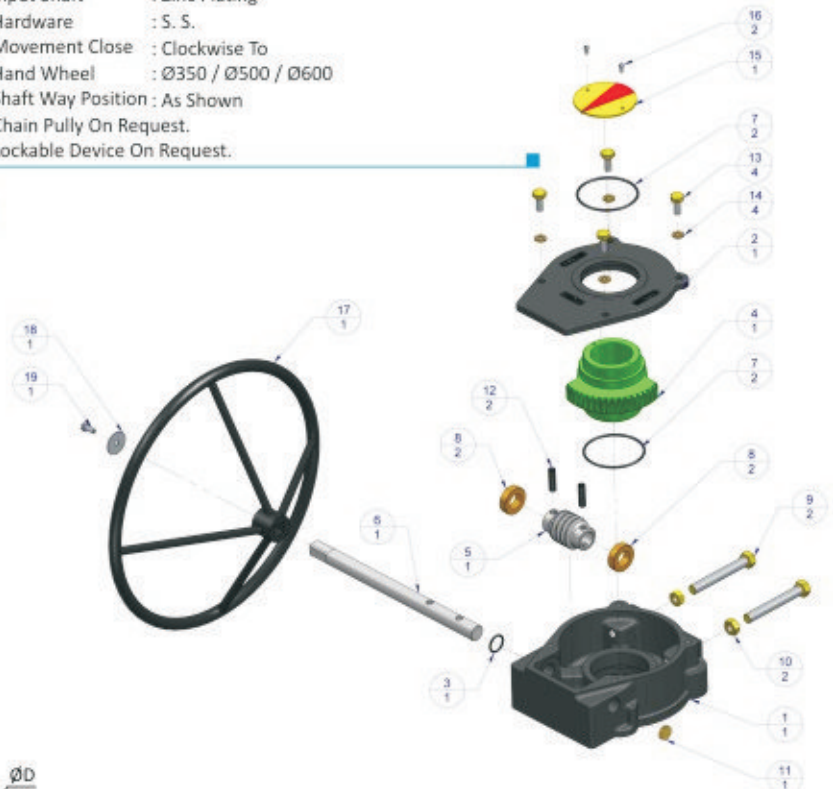


**Gear Box : AEA 30 / AEA 50 / AEA 70**

**Specification**

- Enclosure : Weatherproof ( IP 65 ) ( IP 67 & IP 68 - Optional )
- Lubrication : NLGI - 2
- Indicator Stopper : Mechanical
- Paint : Powder Coated
- Travel : 90° ±5° Travel
- Shaft Position : As Shown
- Input Shaft : Zinc Plating
- Hardware : S. S.
- Movement Close : Clockwise To
- Hand Wheel : Ø350 / Ø500 / Ø600
- Shaft Way Position : As Shown
- Chain Pully On Request.
- Lockable Device On Request.

No.	Description	Material	Qty.
1	G. B. Housing	Cast Iron (IS 210 Gr. FG 220)	01
2	G. B. Cover	Cast Iron (IS 210 Gr. FG 220)	01
3	'O' Ring For Housing	Nitrile Buna - N Gr. 80	01
4	Worm Gear	ASTM A536 Gr 65-45-12 (Ductile Iron) S.G. Iron	01
5	Worm	BS 970-90. EN-8, (080M40)	01
6	Shaft	BS 970-90, EN 8, (080M40)	01
7	'O' Ring For Housing & Cover	Nitrile Buna - N Gr. 80	02
8	Brass Bush	Brass	02
9	Adjustable Bolt	BS 970-90, EN 8, (080M40)	02
10	Adjustable Nut	BS 970-90, EN 8, (080M40)	02
11	Packing Bush	Nitrile Buna - N Gr. 80	01
12	Dowel Pin	BS 970-90, EN 8, (080M40)	02
13	Hex Bolt	BS 970-90, EN 8, (080M40)	04
14	Hex Bolt Washer	BS 970-90, EN 8, (080M40)	04
15	Indicator	BS 970-90, EN 8, (080M40)	01
16	Indicator Bolt	BS 970-90, EN 8, (080M40)	02
17	Hand Wheel	M.S. ( Fabricated )	01
18	Hand Wheel Bolt	BS 970-90, EN 8, (080M40)	02
19	Hand Wheel Washer	BS 970-90, EN 8, (080M40)	02



Model	AEA 30	AEA 50	AEA 70
Ratio	40 : 1	48 : 1	73 : 1
MA	10	14	20
Rated Output Torque (Nm)	700	1500	3500
ISO Flange	F07, F10, F12	F10, F12, F14, F16	F14, F16, F25
MAX Drive Bore	Ø32	Ø50	Ø60

AEA - 30		AEA - 50		AEA - 70	
A	B	A	B	A	B
SQ. 22 X 22	30.7	SQ. 36 X 36	49	SQ. 46 X 46	64
SQ. 27 X 27	37			SQ. 36 X 36	49

**Dimensions :**

(All Dimensions are in mm)

Valve Model	L	L1	H	ØD	Øg	S	S1	E	T1	*Weight
AEA - 30	288	128	162	350	20	67.5	64	15	76	6.400
AEA - 50	330	172	198	500	20	78	81.5	21	86	11.300
AEA - 70	400	253	284	600	25	131.5	104	21	119	30.400

\*Without Hand Wheel Weight



High

Pressure ( Reducing, Safety & Shutoff )

Valve



VALVE AUTOMATION  
ISO 9001 CO.



SERIES : C

ISO 9001 : 2008  
BUREAU VERITAS  
Certification



609 - 0055



CM/L-3812155



CIMFR



IBR



Bureau of Indian Standards

**"Cair"** offers disc check valve (wafer type) especially for chemical, Food processing, Pharmaceuticals, Pulp and Paper, Textiles, Power generation, Refrigeration & Air Conditioning etc. The valves are used in Oil lines, Processing line, Hot and cold water systems, steam and condensates, Gas lines etc.



Wafer Type



( Size : 1/2" to 1" S/E )

Lug Type Design  
( Size : 1.1/4" to 2" )

**Technical Specifications :**

Pressure	Maximum Operating Pressure 20 Bar
Temperature	Maximum Operating Temperature 300 °C
Flange Standard	1. BS 10 Table D, E & H ( 65 NB & 80 NB will not be fitted between 'E' Flanges ) 2. DIN : PN 6, 10, 16, 25, 40 3. JIS 5, 10, 16, 20 ( 40 NB, 50 NB, 80 NB & 100 NB will not be fitted between JIS 5 Flanges )

**Size Range : 1/2" to 4" Screwed  
Size Range : 1/2" to 12" Wafer Type**

**Operation**

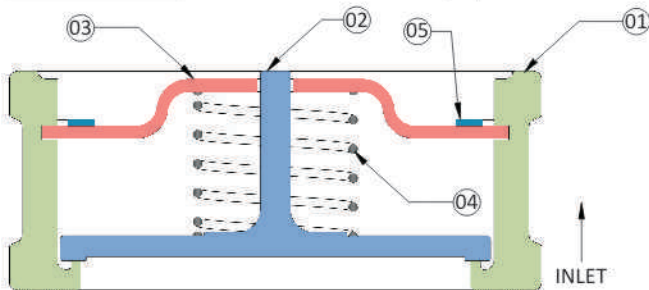
- Disc Check Valves are opened by the pressure of the fluid and closed through compression spring as soon as flow stops thus preventing reverse flow.

**Standard**

- Designed and Manufactured in accordance with BS 7438

**Silent Features :**

- Disc Check Valve is an advance design which gives full flow and occupy very less space than other type of Non Return Valve. This also available **IBR Certificate in Form III C.**
- DCVs are simple to fit between tow pipe flanges.
- Spring loaded disc to prevent reverse flow in pipe lines.
- Stronger, lighter and smaller than conventional swing check valves, hence less expensive to install and maintain.
- Compact Design of Valves flexibly accommodates various types of flange selection.
- The valves can be fitted in any plane / direction in pipe lines.
- Available in 15 mm to 300 mm sizes
- Extremely low operating pressure.
- Self centering type design.
- Zero leakage for soft seated valves
- Testing : As per API 598.

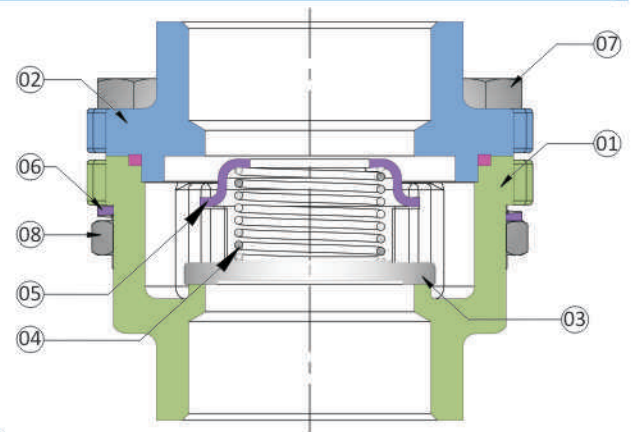


**This Specification Wafer Type DCV**

No.	Description	Material	Qty.
01	Body	WCB / CF8 / CF8M	01
02	Disc	CF8M	01
03	Retainer	CF8 / CF8M	01
04	Spring	S. S. 304 / 316	01
05	Stopper	CF8	01

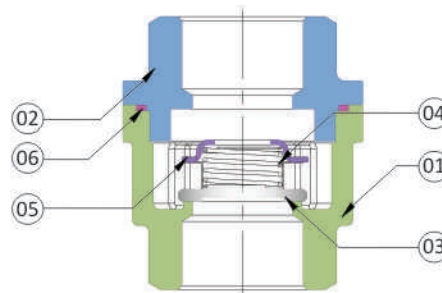
**This Specification Size 1/2" to 1" S/E**

No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Connector	CF8 / CF8M	01
03	Disc	S. S. 304 / 316	01
04	Spring	Spring Steel	01
05	Retainer	S. S. 304	01
06	Body Seal	PTFE	01



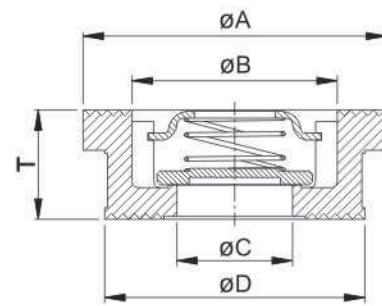
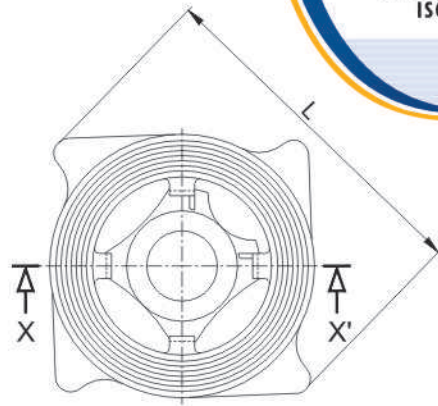
**This Specification Size 1.1/4" to 2" Lug Type Design**

No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Connector	CF8 / CF8M	01
03	Disc	S. S. 304 / 316	01
04	Spring	Spring Steel	01
05	Retainer	S. S. 304	01
06	Body Seal	PTFE	01
07	Hex Bolt	S. S. 304	04
08	Hex Nut	S. S. 304	04

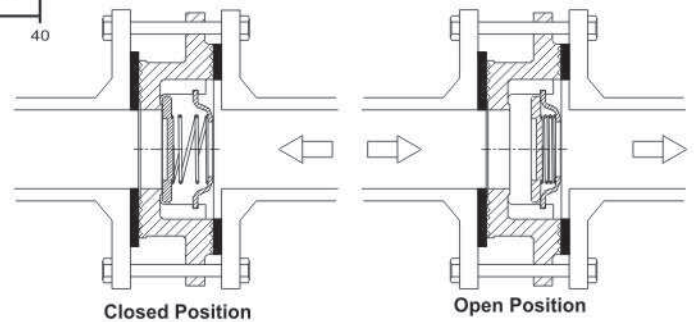


**Dimensions :** (All Dimensions are in mm)

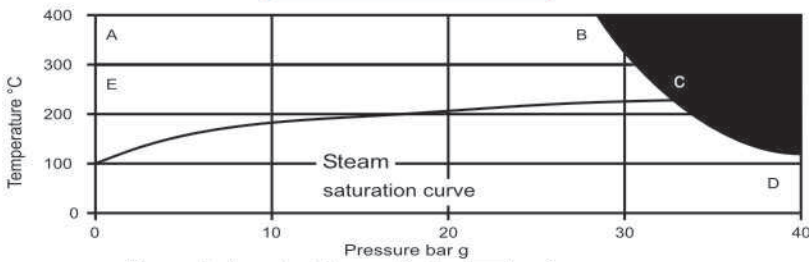
Valve Model	Valve Size		ØA	ØB	ØC	ØD	T	L	Weight			
	MM	Inch							Wafer Type			
DNRV - 15	15	1/2"	43	29	15	37	16	60	0.115			
DNRV - 20	20	3/4"	53	35	20	44	19	70	0.183			
DNRV - 25	25	1"	63	44	25	55	22	80	0.284			
DNRV - 32	32	1.1/4"	74	53	32	67	28	90	0.489			
DNRV - 40	40	1.1/2"	85	66	39	78	32	101	0.650			
DNRV - 50	50	2"	95	77	49	92	40	115	1.088			
DNRV - 65	65	2.1/2"	115	98	64	107	46	142	1.200			
DNRV - 80	80	3"	133	110	79	127	50	153	1.700			
DNRV - 100	100	4"	155	129	100	142	60	184	2.550			
DNRV - 125	125	5"	192	161	125	184	90	245	7.600			
DNRV - 150	150	6"	223	191	150	223	105	----	9.400			
DNRV - 200	200	8"	279	249	198	279	143	----	15.900			
DNRV - 250	250	10"	340	306	250	338	140	----	29.100			
DNRV - 300	300	12"	ON REQUEST									



Section X X'



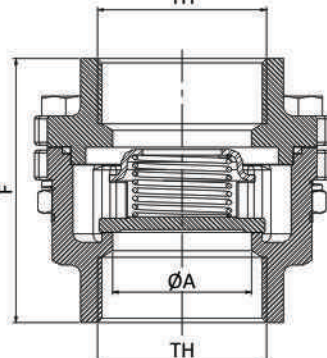
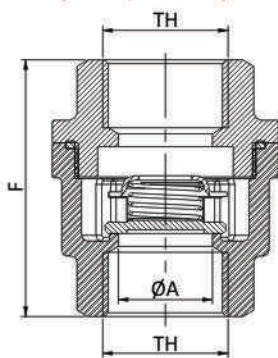
**Operating Range**



The product must not be used in the **shaded** region.  
A - B - C - D = DCV without spring or with high temperature spring.  
E - C - D = DCV with Standard Spring.

(Size 1/2" to 1")

(Size 1.1/4" to 2")



**Operating Pressure : in m bar  
Differential Pressure With Zero Flow**

	15 MM	20 MM	25 MM	40 MM	50 MM	65 MM	80 MM	100 MM	125 MM	150 MM	200 MM	250 MM
↑	25	25	25	28	29	30	31	33	ON REQUEST			
→	22.5	22.5	22.5	24.5	24.5	25	25.5	26.5	ON REQUEST			
↓	20	20	20	20	20	20	20	20	ON REQUEST			

→ Indicates Flow direction

The Valves can be installed, without spring in vertical pipe line with bottom to top flow, Where lowest opening pressures are required .

**Without Spring**

	15 MM	20 MM	25 MM	40 MM	50 MM	65 MM	80 MM	100 MM	125 MM	150 MM	200 MM	250 MM
↑	2.5	2.5	2.5	3.5	4	4.5	5.5	6.5	ON REQUEST			

→ Indicates Flow direction

**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		F	TH	ØA	Weight	
	MM	Inch				S / E	
DNRV - 15 - SD	15	1/2"	55	1/2"	15	0.400	
DNRV - 20 - SD	20	3/4"	60	3/4"	20	0.640	
DNRV - 25 - SD	25	1"	68	1"	25	0.955	
DNRV - 32 - SD	32	1.1/4"	76	1.1/4"	32	1.425	
DNRV - 40 - SD	40	1.1/2"	81	1.1/2"	38	1.972	
DNRV - 50 - SD	50	2"	93	2"	49	2.666	

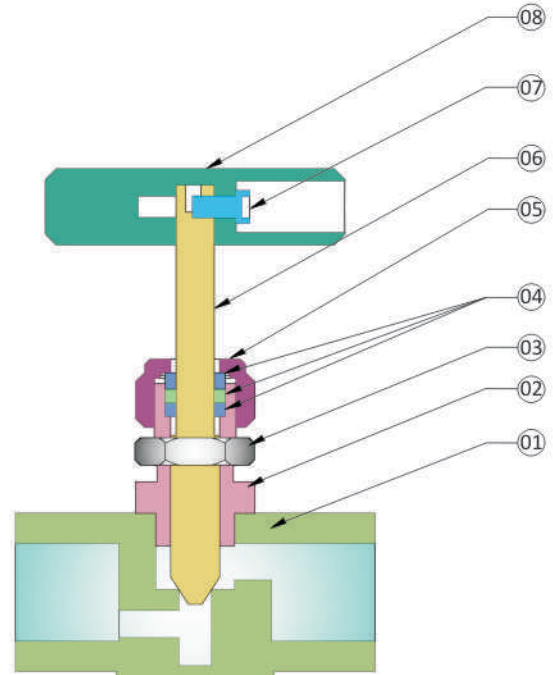
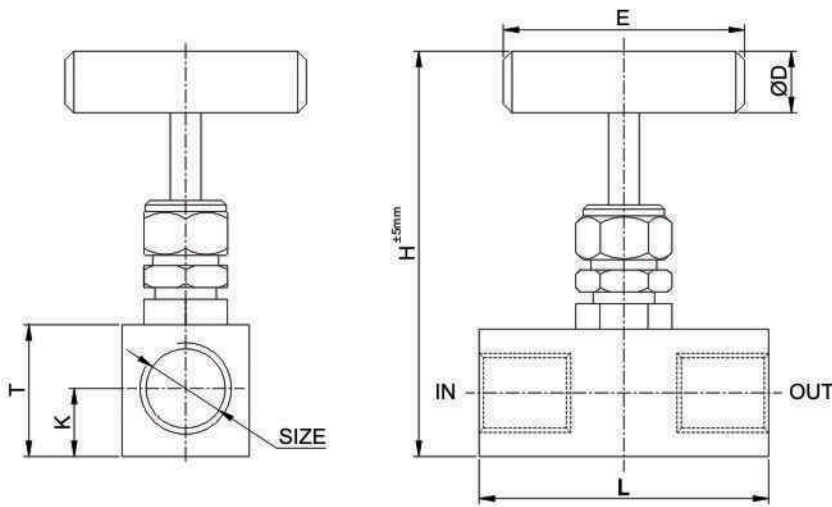
**"Cair"** Offers Medium Pressure Needle Valve Pressure Upto 350 Kg & Temperature 200 °C

**Size Range : 1/4" to 2" Screwed**



**Cair**  
INDUSTRIAL VALVES

Needle Valve	Technical Specifications :
Pressure	350 Kg/cm <sup>2</sup> ( 5000 PSI )
Temperature	200 °C
Ends	Screwed (F) to BSP ( NPT On Request )
Media	Air, Water, Oil & Gas
Leakage	Bubble Tight



No.	Description	Material	Qty.
01	Body	IC CF8 / CF8M	01
02	Bonnet	S.S. 304 / S.S. 316	01
03	Check Nut	S.S. 304 / S.S. 316	01
04	Gland Packing	PTFE S.S. 304 / S.S. 316	02
05	Gland Nut	S.S. 304 / S.S. 316	01
06	Spindle	S.S. 304 / S.S. 316	01
07	Allenkey	Stainless Steel	01
08	'T' Type Key	S.S. 304 / S.S. 316	01

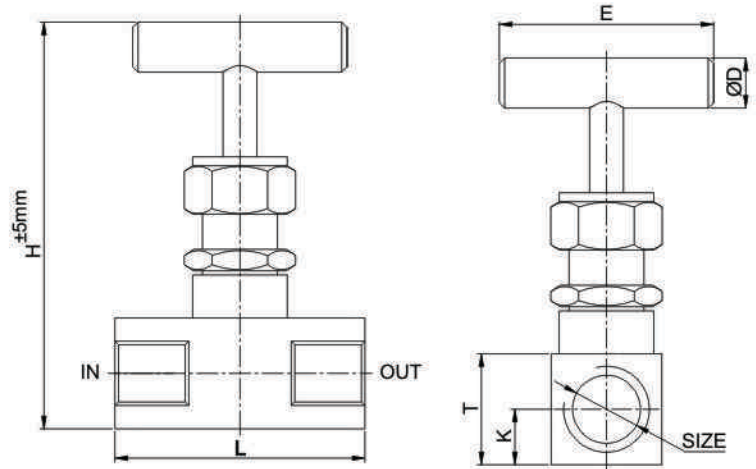
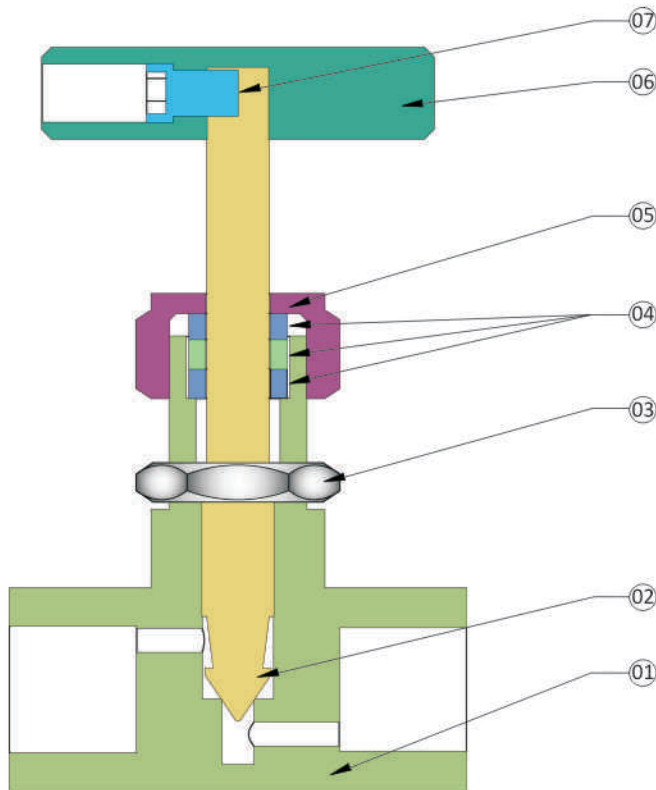
**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		H		T	L	K	ØD	E	Weight Approx.
	MM	Inch	Close	Open						
HNV-MP-6	6	1/4"	90	105	28	54	14	14	55	0.390
HNV-MP-10	10	3/8"	90	105	28	54	14	14	55	0.380
HNV-MP-15	15	1/2"	95	110	29	66	15	14	55	0.420
HNV-MP-20	20	3/4"	120	125	38	72	20	14	60	0.730
HNV-MP-25	25	1"	125	130	42	77	20	14	60	0.830
HNV-MP-32	32	1.1/4"	On Request							
HNV-MP-40	40	1.1/2"								
HNV-MP-50	50	2"								

"Cair" Offers High Pressure Needle Valve Pressure Upto 700 Kg & Temperature 350 °C

Size Range : 1/4" to 2" Screwed

Needle Valve	Technical Specifications :
Pressure	700 Kg/cm <sup>2</sup> ( 10000 PSI )
Temperature	360 °C
Ends	Screwed (F) to BSP ( NPT On Request )
Media	Air, Water, Oil & Gas
Leakage	Bubble Tight



No.	Description	Material	Qty.
01	Body	Forged S.S. 304 / 316	01
02	Spindle	S.S. 304 / S.S. 316	01
03	Check Nut	S.S. 304 / S.S. 316	01
04	Gland Packing	PTFE S.S. 304 / S.S. 316	01
05	Gland Nut	S.S. 304 / S.S. 316	01
06	'T' Type Key	S.S. 304 / S.S. 316	01
07	Allenkey	S.S. 304 / S.S. 316	01

Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		H		T	L	K	ØD	E	Weight Approx.
	MM	Inch	Close	Open						
HNV-HP-6	6	1/4"	115	125	29	65	14.5	14	55	0.610
HNV-HP-10	10	3/8"	118	125	30	65	15	14	60	0.590
HNV-HP-15	15	1/2"	118	125	31.5	70	16.5	14	60	0.690
HNV-HP-20	20	3/4"	128	142	38.5	75	20	14	60	0.970
HNV-HP-25	25	1"	140	152	44	75	21.5	14	70	1.260
HNV-HP-32	32	1.1/4"	152	165	53	91	26.5	14	70	1.980
HNV-HP-40	40	1.1/2"	On Request							
HNV-HP-50	50	2"	On Request							

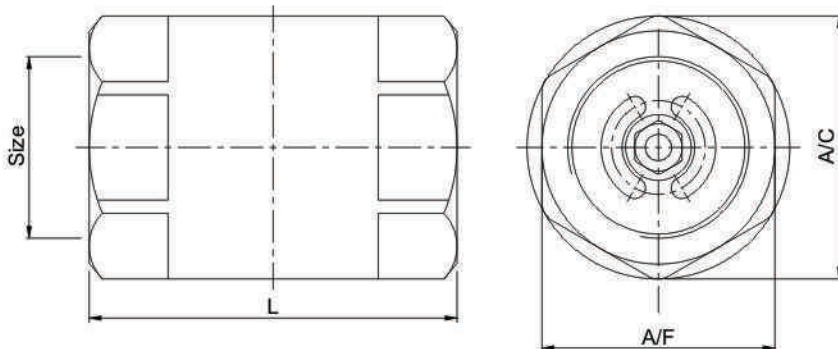
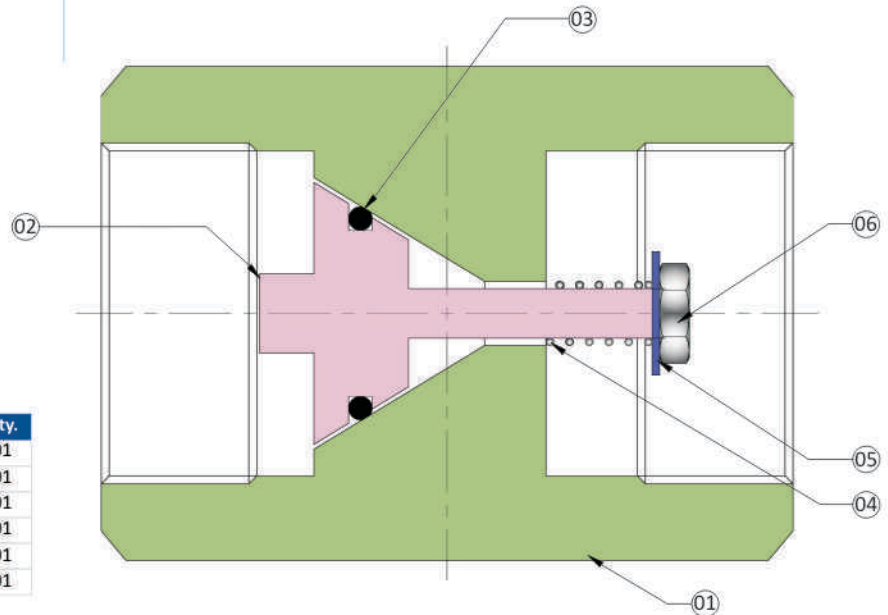
"aira" Offers High Pressure Universal Design Non-Return Valve. Superior design which can mount any position in pipe line maintenance free.

**Size Range : 1/2" to 2" Screwed (Female BSP / NPT)**



Non Return Valve	Technical Specifications :
Pressure	3000 PSI
Temperature	100 °C
Media	Air, Water, Oil & Gas
Ends	Screwed (F) to BSP ( NPT On Request )
Leakage	Bubble Tight

No.	Description	Material	Qty.
01	Body	IC CF8 / CF8M	01
02	Valve Pin	S.S. 304 / S.S. 316	01
03	'O' - Ring	Viton	01
04	Spring	S.S. 304 / S.S. 316	01
05	Washer	S.S. 304 / S.S. 316	01
06	Nut	S.S. 304 / S.S. 316	01



**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		L	A/F	A/C	Weight Approx.
	MM	Inch				
HNR - 15	15	1/2"	60	27	30	0.200
HNR - 20	20	3/4"	65	35	38	0.370
HNR - 25	25	1"	70	41	45	0.520
HNR - 32	32	1.1/4"	73	48	51	0.630
HNR - 40	40	1.1/2"	86	58.5	65	1.250
HNR - 50	50	2"	94	68	72	1.610

"Suzhik" Offer Pressure Reducing Valve Investment Cast Stainless Steel Material for Air, Water, Oil, Gas, Steam & Chemicals.

**Size Range : 1/2" to 4" Screwed / Flange End**

**Standard**

- 1/2" to 4" Meet requirements of
- ASSE Standard 1003. (ANST 112.26)
- CSA Standard B356
- (ASSE - American Society of Sanitary Engineering)
- (CSA - Canadian Standard Association)

**Pressure / Temperature**

- Temperature : 80 °C (For Water)
- Temperature : 180 °C (For Steam)
- Maximum Working Pressure : 21 Kg/cm<sup>2</sup>, Inlet
- Pressure Adjusting Range : 1 ~ 6 Kg/cm<sup>2</sup>, 4 ~ 10 Kg/cm<sup>2</sup>  
8 ~ 13 Kg/cm<sup>2</sup>, 12 ~ 20 Kg/cm<sup>2</sup> 20 ~ 35 Kg/cm<sup>2</sup>

**Pressure Setting And Flow Rate Of Direct - Activated Pressure Reducing Valve**

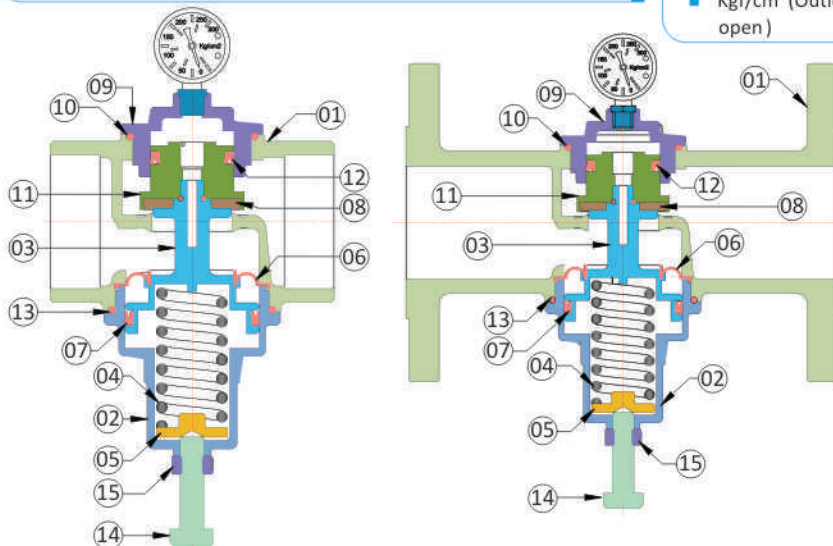
- Direct-activated pressure reducing valve directly opens and close valve gate by the outlet pressure
- When Outlet pressure is under setting pressure, valve gate automatically opens, To make valve gate fully open, adjustable pressure range and setting pressure are relative points.
- A : Pressure drop needed for fully-opened valve gate=B/4, B=Adjustable Pressure Range Maximum-Maximum
- B : Adjustable Pressure Range(=Maximum Maximum Adjustable Pressure Range)
- C : Setting Pressure of Outlet
- P : Pressure of fully-opens outlet valve gate, P=C-A
- Pressure drop needed for fully-opened valve gate for Adjusting Pressure range 3~9 kgf/cm<sup>2</sup> of direct activated pressure reducing valve.
- A=B/4=9 - 3 = 1.5 kgf/cm<sup>2</sup>.
- If the setting pressure of outlet 6 kgf/cm<sup>2</sup>, Pressure of fully opened valve gate will be P=6-1.5 = 4.5
- kgf/cm<sup>2</sup> (Outlet Pressure should go down under 4.5kgf/cm<sup>2</sup> to make valve gate fully open)

**Options**

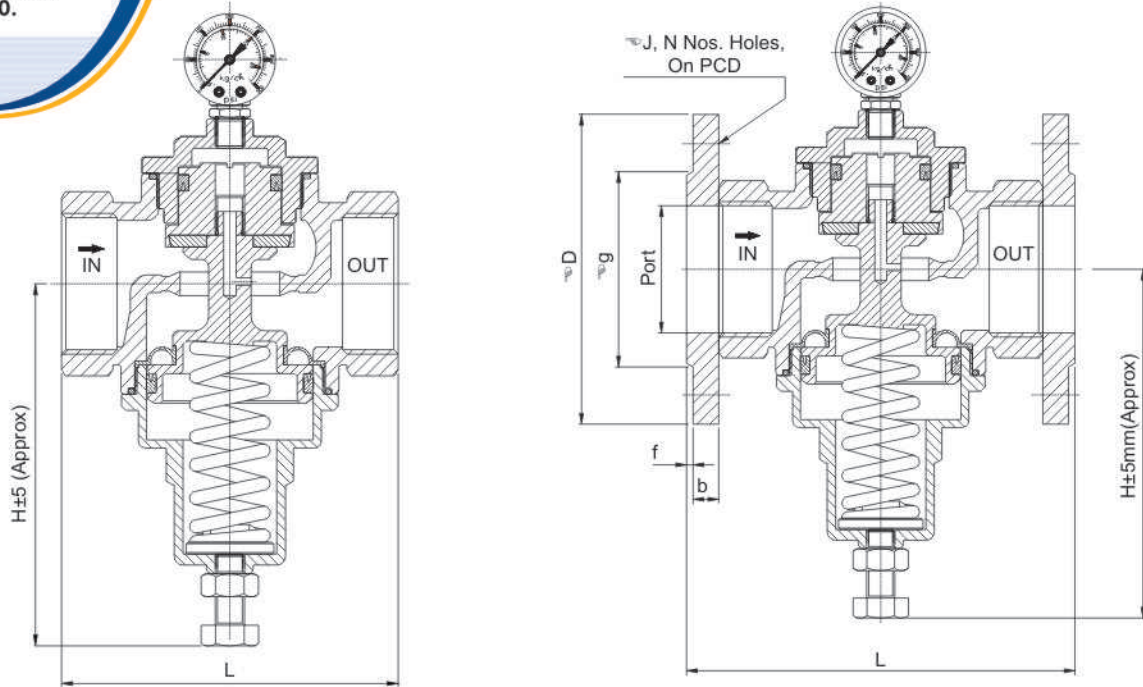
- Available different Models for Air, Water, Oil, Gas, Steam & Chemical
- LP - Low Pressure Range : 10 - 35 PSI
- HP - High Pressure Range : Max. Inlet 40 Kg/cm<sup>2</sup>  
Outlet 12 ~ 25 Kg/cm<sup>2</sup>  
20 ~ 35 Kg/cm<sup>2</sup>

**Example**

- Pressure drop needed for fully - opened valve. gate for adjustable Pressure range 3 ~ 9 Kg/cm<sup>2</sup> of direct activated pressure reducing valve
- A = B / 4 = 9 - 3 = 1.5 Kg/cm<sup>2</sup>
- If the setting pressure of outlet 6 Kg/cm<sup>2</sup>, Pressure of fully - opened valve gate will be P = 6 - 1.5 = 4.5
- Kgf/cm<sup>2</sup> (Outlet Pressure should go down under 4.5 Kg/cm<sup>2</sup> to make valve gate fully open)



No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Piston	CF8 / CF8M	01
04	Spring	S. S. 302	01
05	Spring Guide	Brass / S. S. 410	01
06	Diaphragm	NBR / Viton	01
07	Piston V - Seal	NBR / Viton	01
08	Washer	NBR / Viton	01
09	End Cover	CF8 / CF8M	01
10	End Cover 'O' - Ring	NBR / Viton	01
11	Plug	CF8 / CF8M	01
12	Plug V - Seal	NBR / Viton	01
13	Bonnet 'O' - Ring	NBR / Viton	01
14	Adjusting Bolts	S. S. 304 / 316	01
15	Adjusting Nut	S. S. 304 / 316	01



Dimensions : (Screwed End) (All Dimensions are in mm)

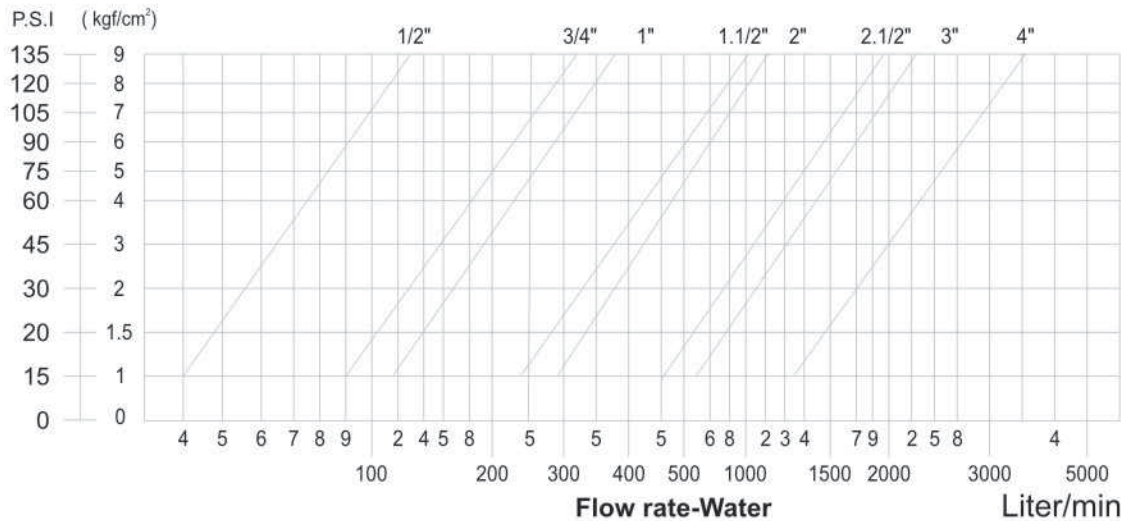
Valve Model	Valve Size		L	H	CV	Weight Approx.
	MM	Inch				
WGS-15-SD	15	1/2"	70.5	72	24	0.800
WGS-20-SD	20	3/4"	85.5	87	9	1.000
WGS-25-SD	25	1"	90.5	91	11	1.000
WGS-32-SD	32	1.1/4"	98.5	100	12.15	1.200
WGS-40-SD	40	1.1/2"	115	116	21	2.250
WGS-50-SD	50	2"	120	120	25	2.400
WGS-65-SD	65	2.1/2"	148	147	75	7.650
WGS-80-SD	80	3"	177	176	80	8.050
WGS-100-SD	100	4"	190	190	120	12.500

Dimensions : (Flange End)

(All Dimensions are in mm)

Valve Model	Valve Size		Port	ØD	b	Øg	f	ØJ	N	PCD	L	H	Weight Approx.
	MM	Inch											
WGF-15-FD	15	1/2"	12.5	88.9	8.9	35.05	2	15.75	4	60.45	138	100.8	1.500
WGF-20-FD	20	3/4"	17	98.55	8.9	42.9	2	15.75	4	69.85	147	111.1	2.000
WGF-25-FD	25	1"	24	107.9	9.6	50.8	2	15.75	4	79.25	127	87.7	2.250
WGF-32-FD	32	1.1/4"	30	117.34	11.1	63.5	2	15.75	4	88.9	170	108.8	3.100
WGF-40-FD	40	1.1/2"	37	127	12.6	73	2	15.75	4	98.55	195	137.5	4.700
WGF-50-FD	50	2"	49	152.4	14.15	91.95	2	19.05	4	120.65	208	138.5	6.300
WGF-65-FD	65	2.1/2"	64	177.8	15.4	104.65	2	19.05	4	139.7	210	---	13.500
WGF-80-FD	80	3"	80	192.5	17.9	129.16	2	19.05	4	152.4	225.5	---	14.500
WGF-100-FD	100	4"	100	230.6	22.4	158.57	2	19.05	8	190.5	251	---	24.600

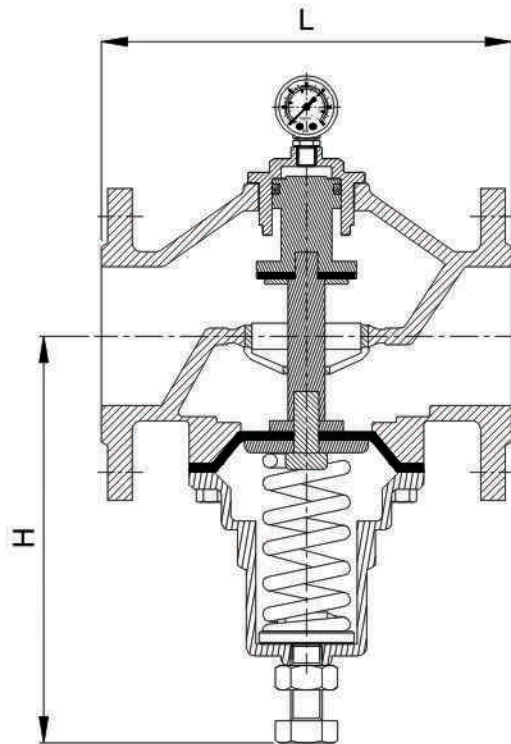
Flow Chart of Inlet and Outlet Pressure Drop





FLOW CHART OF PRV FOR WATER AT 50 DEG C ( US GPM )

OUTLET	INLET	CV	SIZE	30 PSI	45 PSI	60 PSI	75 PSI	90 PSI	105 PSI	120 PSI	135 PSI	150 PSI	165 PSI	180 PSI
15 PSI	2.4	1/2"	9.29	10.73	16.08	18.58	20.78	22.75	25.39	26.28	27.86	29.38	30.82	
	9	3/4"	34.83	40.23	60.30	69.66	77.94	85.32	95.22	98.55	104.49	110.16	115.56	
	11	1"	42.57	49.17	73.70	85.14	95.26	104.28	116.38	120.45	127.71	134.64	141.24	
	12.15	1.1/4"	47.02	54.31	81.41	94.04	105.22	115.18	128.55	133.04	141.06	148.72	156.01	
	21	1 1/2"	81.27	93.87	140.70	162.54	181.86	199.08	222.18	229.95	243.81	257.04	269.64	
	25	2"	96.75	111.75	167.50	193.50	216.50	237.00	264.50	273.75	290.25	306.00	321.00	
	75	2 1/2"	290.25	335.25	502.50	580.50	649.50	711.00	793.50	821.25	870.75	918.00	963.00	
	80	3"	309.60	357.60	536.00	619.20	692.80	758.40	846.40	876.00	928.80	979.20	1027.20	
	120	4"	464.40	536.40	804.00	928.80	1039.20	1137.60	1269.60	1314.00	1393.20	1468.80	1540.80	
30 PSI	2.4	1/2"	9.29	10.73	16.08	18.58	20.78	22.75	25.39	26.28	27.86	29.38	30.82	
	9	3/4"	34.83	40.23	60.30	69.66	77.94	85.32	95.22	98.55	104.49	110.16	115.56	
	11	1"	42.57	49.17	73.70	85.14	95.26	104.28	116.38	120.45	127.71	134.64	141.24	
	12.15	1.1/4"	47.02	54.31	81.41	94.04	105.22	115.18	128.55	133.04	141.06	148.72	156.01	
	21	1 1/2"	81.27	93.87	140.70	162.54	181.86	199.08	222.18	229.95	243.81	257.04	269.64	
	25	2"	96.75	111.75	167.50	193.50	216.50	237.00	264.50	273.75	290.25	306.00	321.00	
	75	2 1/2"	290.25	335.25	502.50	580.50	649.50	711.00	793.50	821.25	870.75	918.00	963.00	
	80	3"	309.60	357.60	536.00	619.20	692.80	758.40	846.40	876.00	928.80	979.20	1027.20	
	120	4"	464.40	536.40	804.00	928.80	1039.20	1137.60	1269.60	1314.00	1393.20	1468.80	1540.80	
45 PSI	2.4	1/2"	9.29	10.73	16.08	18.58	20.78	22.75	25.39	26.28	27.86	29.38	30.82	
	9	3/4"	34.83	40.23	60.30	69.66	77.94	85.32	95.22	98.55	104.49	110.16	115.56	
	11	1"	42.57	49.17	73.70	85.14	95.26	104.28	116.38	120.45	127.71	134.64	141.24	
	12.15	1.1/4"	47.02	54.31	81.41	94.04	105.22	115.18	128.55	133.04	141.06	148.72	156.01	
	21	1 1/2"	81.27	93.87	140.70	162.54	181.86	199.08	222.18	229.95	243.81	257.04	269.64	
	25	2"	96.75	111.75	167.50	193.50	216.50	237.00	264.50	273.75	290.25	306.00	321.00	
	75	2 1/2"	290.25	335.25	502.50	580.50	649.50	711.00	793.50	821.25	870.75	918.00	963.00	
	80	3"	309.60	357.60	536.00	619.20	692.80	758.40	846.40	876.00	928.80	979.20	1027.20	
	120	4"	464.40	536.40	804.00	928.80	1039.20	1137.60	1269.60	1314.00	1393.20	1468.80	1540.80	
60 PSI	2.4	1/2"	9.29	10.73	16.08	18.58	20.78	22.75	25.39	26.28	27.86	29.38	30.82	
	9	3/4"	34.83	40.23	60.30	69.66	77.94	85.32	95.22	98.55	104.49	110.16	115.56	
	11	1"	42.57	49.17	73.70	85.14	95.26	104.28	116.38	120.45	127.71	134.64	141.24	
	12.15	1.1/4"	47.02	54.31	81.41	94.04	105.22	115.18	128.55	133.04	141.06	148.72	156.01	
	21	1 1/2"	81.27	93.87	140.70	162.54	181.86	199.08	222.18	229.95	243.81	257.04	269.64	
	25	2"	96.75	111.75	167.50	193.50	216.50	237.00	264.50	273.75	290.25	306.00	321.00	
	75	2 1/2"	290.25	335.25	502.50	580.50	649.50	711.00	793.50	821.25	870.75	918.00	963.00	
	80	3"	309.60	357.60	536.00	619.20	692.80	758.40	846.40	876.00	928.80	979.20	1027.20	
	120	4"	464.40	536.40	804.00	928.80	1039.20	1137.60	1269.60	1314.00	1393.20	1468.80	1540.80	
75 PSI	2.4	1/2"	9.29	10.73	16.08	18.58	20.78	22.75	25.39	26.28	27.86	29.38	30.82	
	9	3/4"	34.83	40.23	60.30	69.66	77.94	85.32	95.22	98.55	104.49	110.16	115.56	
	11	1"	42.57	49.17	73.70	85.14	95.26	104.28	116.38	120.45	127.71	134.64	141.24	
	12.15	1.1/4"	47.02	54.31	81.41	94.04	105.22	115.18	128.55	133.04	141.06	148.72	156.01	
	21	1 1/2"	81.27	93.87	140.70	162.54	181.86	199.08	222.18	229.95	243.81	257.04	269.64	
	25	2"	96.75	111.75	167.50	193.50	216.50	237.00	264.50	273.75	290.25	306.00	321.00	
	75	2 1/2"	290.25	335.25	502.50	580.50	649.50	711.00	793.50	821.25	870.75	918.00	963.00	
	80	3"	309.60	357.60	536.00	619.20	692.80	758.40	846.40	876.00	928.80	979.20	1027.20	
	120	4"	464.40	536.40	804.00	928.80	1039.20	1137.60	1269.60	1314.00	1393.20	1468.80	1540.80	
90 PSI	2.4	1/2"	9.29	10.73	16.08	18.58	20.78	22.75	25.39	26.28	27.86	29.38	30.82	
	9	3/4"	34.83	40.23	60.30	69.66	77.94	85.32	95.22	98.55	104.49	110.16	115.56	
	11	1"	42.57	49.17	73.70	85.14	95.26	104.28	116.38	120.45	127.71	134.64	141.24	
	12.15	1.1/4"	47.02	54.31	81.41	94.04	105.22	115.18	128.55	133.04	141.06	148.72	156.01	
	21	1 1/2"	81.27	93.87	140.70	162.54	181.86	199.08	222.18	229.95	243.81	257.04	269.64	
	25	2"	96.75	111.75	167.50	193.50	216.50	237.00	264.50	273.75	290.25	306.00	321.00	
	75	2 1/2"	290.25	335.25	502.50	580.50	649.50	711.00	793.50	821.25	870.75	918.00	963.00	
	80	3"	309.60	357.60	536.00	619.20	692.80	758.40	846.40	876.00	928.80	979.20	1027.20	
	120	4"	464.40	536.40	804.00	928.80	1039.20	1137.60	1269.60	1314.00	1393.20	1468.80	1540.80	



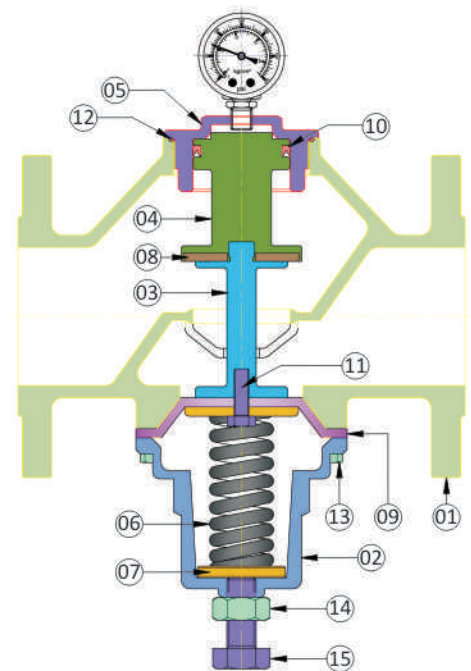
**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		L	H	CV	Weight Approx.
	MM	Inch				
DMF - 50	50	2"	190	150	21	12
DMF - 65	65	2.1/2"	210	165	38	17
DMF - 80	80	3"	225	200	55	19
DMF - 100	100	4"	250	220	95	24

**Size Range : 2" to 4" Flanged End**

**Silent Features :**

- The gate is designed for opening status, which will not influence the water supply function under unstable inlet pressure condition.
- When the outlet pressure responds directly to the pressure control chamber and adjusts the setting pressure, it responds quickly and adjusts the pressure accurately.
- Pressure Adjusting Range : 1 ~ 5 kgf/cm<sup>2</sup>, 3 ~ 8 kgf/cm<sup>2</sup>
- Valve Body Testing Pressure : 21 kgf/cm<sup>2</sup>
- Maximum Applied Pressure : 16 kgf/cm<sup>2</sup> (1 kgf/cm<sup>2</sup> = 14.2 psi)
- Applied Temperature : -15 ~ 80 °C accurately Design of piston and diaphragm improves the inability of sustaining pressure and leakage.
- Pressure Adjusting Range : 1 ~ 6 kgf/cm<sup>2</sup>, 4 ~ 10 kgf/cm<sup>2</sup>, 8 ~ 13 kgf/cm<sup>2</sup>
- Pressure needed from fully-closed gate to fully-opened gate : 1.5 kgf/cm<sup>2</sup> (1 kgf/cm<sup>2</sup> = 14.2 psi)
- Applied Temperature : -15 ~ 100 °C, 100 ~ 180 °C (For steam)
- Valve Body Testing Pressure : 35 kgf/cm<sup>2</sup>
- Maximum Applied Pressure : 25 kgf/cm<sup>2</sup>

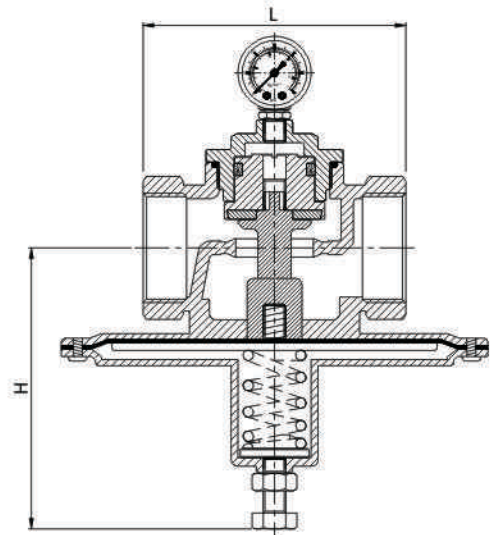
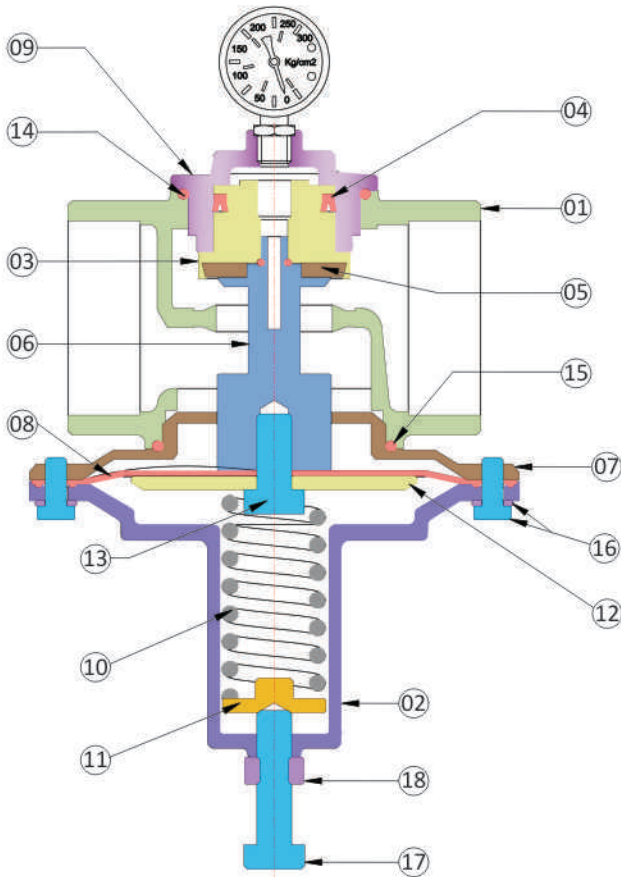


No.	Description	Material	Qty.
01	Body	Cast Iron	01
02	Bonnet	Cast Iron	01
03	Piston	CF8 / CF8M	01
04	Plug	CF8 / CF8M	01
05	End Cover	CF8 / CF8M	01
06	Spring	S. S. 202	01
07	Spring Guide	Brass / S. S. 410	02
08	Washer	NBR	01
09	Diaphragm	NBR / Viton	01
10	End Cover V - Seal	NBR / Viton	01
11	Piston Fot Bolt	M. S.	01
12	End Cover O - Ring	NBR	01
13	Bonnet Fitting Bolt	M. S.	02
14	Adjusting Nut	M. S.	01
15	Adjusting Bolt	M. S.	01

Size Range : 1/2" to 4" Screwed

● Silient Features :

- Valve Body is made by Stainless Steel #316, suitable for fluid, air and oil.
- Larger diaphragm is more sensitive to pressure.
- Pressure Adjusting Range : 0.2 ~ 1.5 Kg/cm<sup>2</sup>
- Applied Temperature : -15 ~ 80 °C
- Valve Body Testing Pressure : 16 Kg/cm<sup>2</sup>
- Maximum Applied Pressure : 10 Kg/cm<sup>2</sup>



No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Plug	CF8 / CF8M	01
04	Plug V - Seal	NBR / Viton	01
05	Sealing Spacer Seat	NBR / Viton / PTFE	01
06	Piston	S. S. 304 / 316	01
07	Bonnet Cover	CF8 / CF8M	01
08	Diaphragm	NBR / Viton / PTFE	01
09	End Cover	CF8 / CF8M	01
10	Spring	Spring Steel	01
11	Spring Guide	Brass / S. S. 410	01
12	Diaphragm Washer	S. S. 304 / 316	01
13	Adjusting Piston Bolt	S. S. 304 / 316	01
14	End Cover O - Ring	NBR / Viton	01
15	Cover for O - Ring	NBR / Viton	01
16	Bonnet Fitting Bolt	S. S. 304 / 316	06
17	Adjusting Bolt	S. S. 304 / 316	01
18	Adjusting Nut	S. S. 304 / 316	01

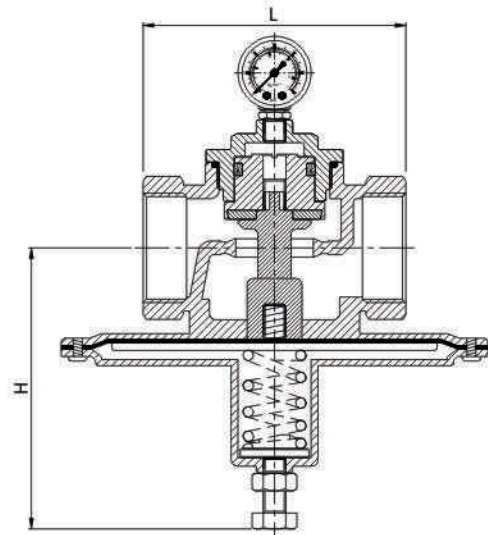
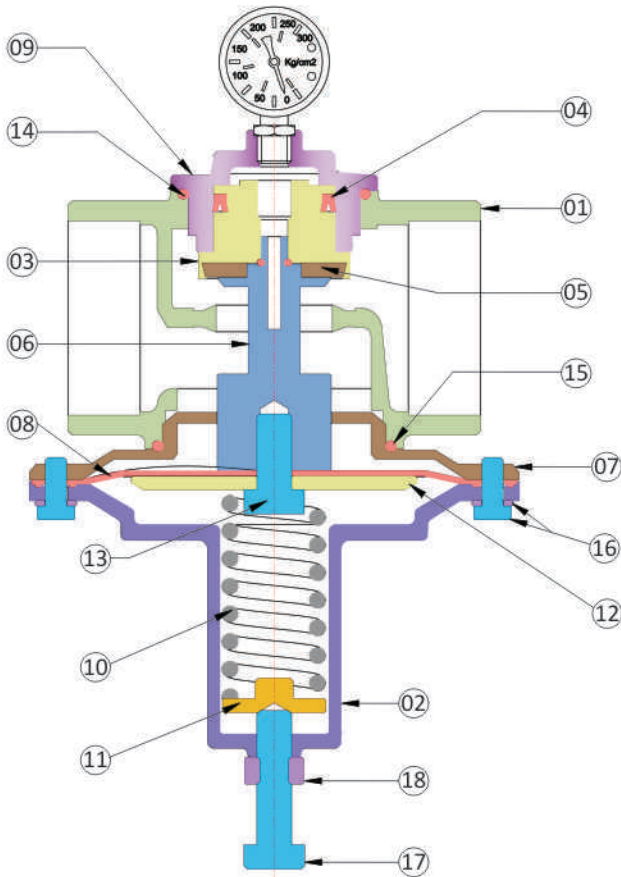
Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	H	CV	Weight Approx.
	MM	Inch				
LOS - 15	15	1/2"	70.5	128.5	2.5	1.400
LOS - 20	20	3/4"	85.5	137.45	9.0	1.600
LOS - 25	25	1"	90	135.4	11.0	1.650
LOS - 40	40	1.1/2"	115	134.5	21.0	3.550
LOS - 50	50	2"	120	165.9	25.0	3.800
LOS - 65	65	2.1/2"	148	170.2	75.0	3.928
LOS - 80	80	3"	177	----	80.0	----
LOS - 100	100	4"	190	----	120.0	----

Size Range : 1/2" to 4" Screwed

● Silient Features :

- Valve Body is made by Stainless Steel #316, suitable for fluid, air and oil.
- Larger diaphragm is more sensitive to pressure.
- Pressure Adjusting Range : 0.2 ~ 1.5 Kg/cm<sup>2</sup>
- Applied Temperature : -15 ~ 80 °C
- Valve Body Testing Pressure : 16 Kg/cm<sup>2</sup>
- Maximum Applied Pressure : 10 Kg/cm<sup>2</sup>



No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Plug	CF8 / CF8M	01
04	Plug V - Seal	NBR / Viton	01
05	Sealing Spacer Seat	NBR / Viton / PTFE	01
06	Piston	S. S. 304 / 316	01
07	Bonnet Cover	CF8 / CF8M	01
08	Diaphragm	NBR / Viton / PTFE	01
09	End Cover	CF8 / CF8M	01
10	Spring	Spring Steel	01
11	Spring Guide	Brass / S. S. 410	01
12	Diaphragm Washer	S. S. 304 / 316	01
13	Adjusting Piston Bolt	S. S. 304 / 316	01
14	End Cover O - Ring	NBR / Viton	01
15	Cover for O - Ring	NBR / Viton	01
16	Bonnet Fitting Bolt	S. S. 304 / 316	06
17	Bonnet Fitting Washer	S. S. 304 / 316	01
18	Adjusting Bolt	S. S. 304 / 316	01
18	Adjusting Nut	S. S. 304 / 316	01

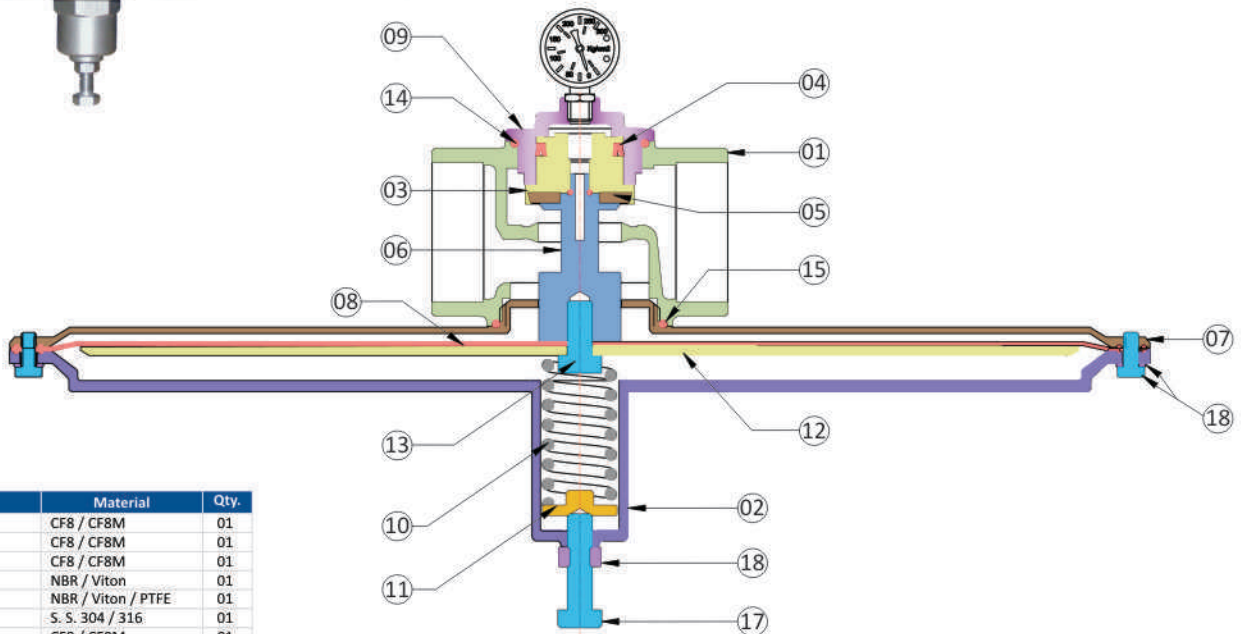
Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	H	CV	Weight Approx.
	MM	Inch				
LOS - 15	15	1/2"	70.5	128.5	2.5	1.400
LOS - 20	20	3/4"	85.5	137.45	9.0	1.600
LOS - 25	25	1"	90	135.4	11.0	1.650
LOS - 40	40	1.1/2"	115	134.5	21.0	3.550
LOS - 50	50	2"	120	165.9	25.0	3.800
LOS - 65	65	2.1/2"	148	170.2	75.0	3.928
LOS - 80	80	3"	177	----	80.0	----
LOS - 100	100	4"	190	----	120.0	----

**Size Range : 1/2" to 2" Screwed End**

**Silent Features :**

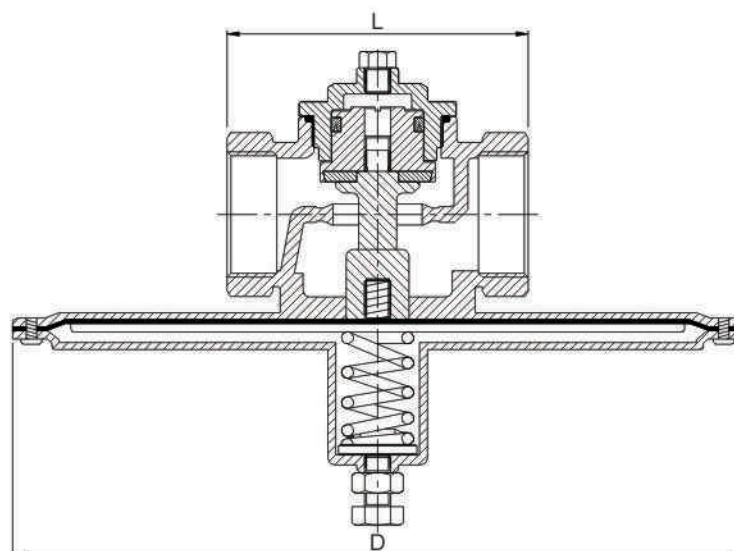
- Valve Body is made by Stainless Steel #316, suitable for fluid, air and oil.
- Larger diaphragm is more sensitive to pressure.
- Pressure Adjusting Range : 0.02 ~ 0.2 Kg/cm<sup>2</sup>
- Applied Temperature : -15 ~ 80 °C
- Valve Body Testing Pressure : 16 Kg/cm<sup>2</sup>
- Maximum Applied Pressure : 10 Kg/cm<sup>2</sup>



No.	Description	Material	Qty.
01	Body S/E	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Plug	CF8 / CF8M	01
04	Plug V - Seal	NBR / Viton	01
05	Sealing Spacer Seat	NBR / Viton / PTFE	01
06	Piston	S. S. 304 / 316	01
07	Bonnet Cover	CF8 / CF8M	01
08	Diaphragm	NBR / Viton / PTFE	01
09	End Cover	CF8 / CF8M	01
10	Spring	Spring Steel	01
11	Spring Guide	Brass / S. S. 410	01
12	Diaphragm Washer	S. S. 304 / 316	01
13	Adjusting Piston Bolt	S. S. 304 / 316	01
14	End Cover O - Ring	NBR / Viton	01
15	Cover for O - Ring	NBR / Viton	01
16	Bonnet Fitting Bolt		
16	Bonnet Fitting Washer	S. S. 304 / 316	06
17	Adjusting Bolt	S. S. 304 / 316	01
18	Adjusting Nut	S. S. 304 / 316	01

**Dimensions : (All Dimensions are in mm)**

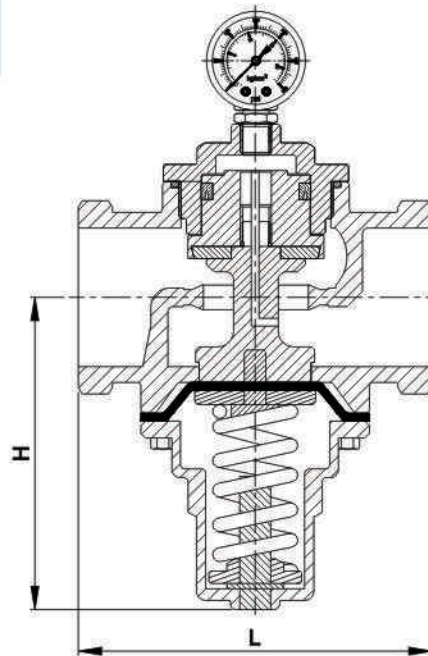
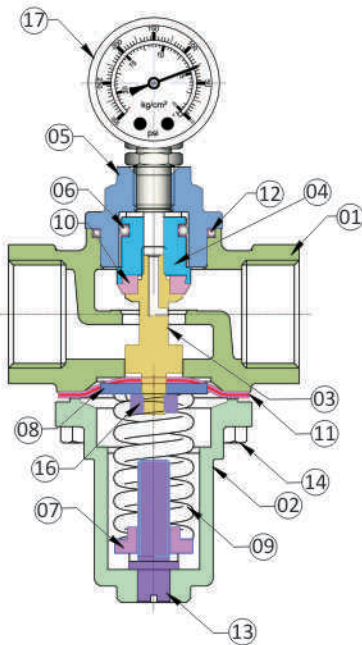
Valve Model	Valve Size		L	D
	MM	Inch		
MRS - 15	15	1/2"	70.5	310
MRS - 20	20	3/4"	85.5	310
MRS - 25	25	1"	90.5	310
MRS - 40	40	1.1/2"	115	310
MRS - 50	50	2"	170	310



Size Range : 1/2" to 3" Screwed / Flanged

● Silent Features :

- The gate is designed for opening status, which will not influence the water supply function under unstable inlet pressure condition. When the outlet pressure responds directly to the pressure control chamber and the setting pressure, it responds quickly and adjusts the pressure accurately.
- Pressure Adjusting Range : 1 ~ 5 kgf/cm<sup>2</sup>, 4 ~ 9 kgf/cm<sup>2</sup>, (special order is needed for other range)
- Valve Body Testing Pressure : 24 kgf/cm<sup>2</sup>
- Maximum Applied Pressure : 16 kgf/cm<sup>2</sup>
- Pressure needed from fully-closed gate to fully-opened gate 1 kgf/cm<sup>2</sup> (1 kgf/cm<sup>2</sup> = 14.2 psi)
- Applied Temperature : -15 ~ 80 °C
- Applied Condition : Fluid & Air



No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Plug	CF8 / CF8M	01
04	Plug V - Seal	NBR / Viton	01
05	Sealing Spacer Seat	NBR / Viton / PTFE	01
06	Piston	S. S. 304 / 316	01
07	Bonnet Cover	CF8 / CF8M	01
08	Diaphragm	NBR / Viton / PTFE	01
09	End Cover	CF8 / CF8M	01
10	Spring	Spring Steel	01
11	Spring Guide	Brass / S. S. 410	01
12	Diaphragm Washer	S. S. 304 / 316	01
13	Adjusting Piston Bolt	S. S. 304 / 316	01
14	End Cover O - Ring	NBR / Viton	01
15	Cover for O - Ring	NBR / Viton	01
16	Bonnet Fitting Bolt		
	Bonnet Fitting Washer	S. S. 304 / 316	06
17	Adjusting Bolt	S. S. 304 / 316	01
18	Adjusting Nut	S. S. 304 / 316	01

Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	H	CV	Weight Approx.
	MM	Inch				
SDF - 15	15	1/2"	61	70.5	2	0.532
SDF - 20	20	3/4"	71	74	6	0.656
SDF - 25	25	1"	81	83	8	0.887
SDF - 32	32	1.1/4"	90.5	121	16	1.289
SDF - 40	40	1.1/2"	110.5	125.5	18	2.261
SDF - 50	50	2"	115	125.5	21	2.642
SDF - 65	65	2.1/2"	158	134	----	On Req.
SDF - 80	80	3"	180	141	----	On Req.

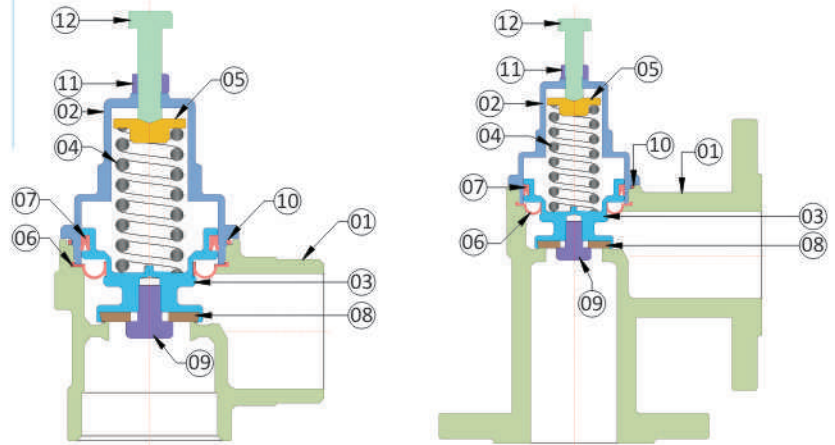
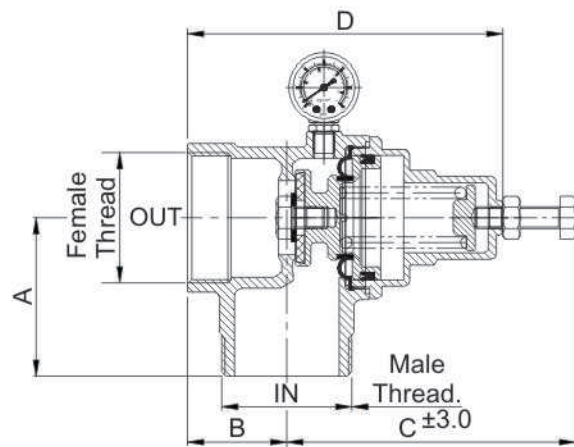
*"Suzhik"*  
Industries.

Offers Advance Combination Angle type Silent Safety Valve for Third Generation Process

**Size Range : 1/2" to 4" Screwed / Flanged**

**Pressure / Temperature**

- Temperature Range : 80 °C ( For Water ) / 180 °C ( For Steam )
- Maximum Working Pressure : 21 Kgf/cm<sup>2</sup> Inlet
- Pressure Adjusting Range : 0.5 ~ 10 Kgf/cm<sup>2</sup> / 10 ~ 20 Kgf/cm<sup>2</sup>  
20 ~ 30 Kgf/cm<sup>2</sup> / 30 ~ 40 Kgf/cm<sup>2</sup>  
40 ~ 50 Kgf/cm<sup>2</sup>

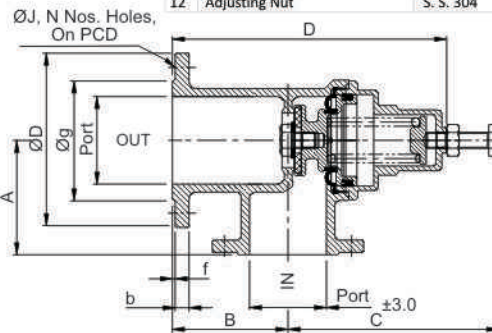


No.	Description	Material	Qty.
01	Body Screwed	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Plug	CF8 / CF8M	01
04	Spring	S. S. 302	01
05	Spring Guide	Brass / S. S. 410	01
06	Diaphragm	NBR / Viton	01
07	V - Seal	NBR / Viton	01
08	Washer	NBR / Viton	01
09	Plug Bolt	CF8 / CF8M	01
10	O - Ring	NBR / Viton	01
11	Adjusting Bolt	S. S. 304	01
12	Adjusting Nut	S. S. 304	01

**Dimensions : (Screwed)**

(All Dimensions are in mm)

Valve Model	Valve Size		A	B	C	D	Weight (Approx.)
	MM	Inch					
PLS - 15	15	1/2"	48.8	22.1	118	98.5	0.750
PLS - 20	20	3/4"	50	28	118	104.5	0.732
PLS - 25	25	1"	54.8	31	118	107.5	0.903
PLS - 32	32	1.1/4"	63.4	37	117	113	1.084
PLS - 40	40	1.1/2"	68	40.5	146	139.5	1.683
PLS - 50	50	2"	72.5	45.5	146	144.5	1.857
PLS - 65	65	2.1/2"	107.4	55	180	228.5	5.800
PLS - 80	80	3"	113	66.2	180	235.5	6.500
PLS - 100	100	4"	135	79	225.5	293.5	10.00



**Dimensions : ( Flange End )**

(All Dimensions are in mm)

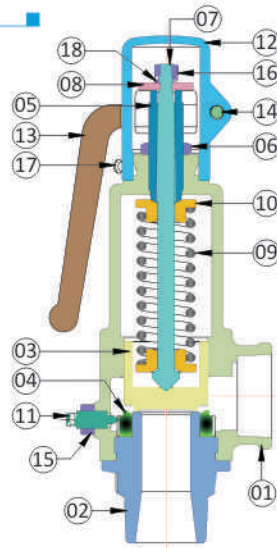
Valve Model	Valve Size		A	B	C	D	Port	ØD	b	Øg	f	ØJ	N	PCD	Weight (Approx.)
	MM	Inch													
PLF - 25	25	1"	72	70	116.6	147.3	24	107.9	9.6	50.8	2	15.9	4	79.4	2.000
PLF - 40	40	1.1/2"	90	92	146.6	189	37	127	12.7	73	2	15.9	4	98.4	4.100
PLF - 50	50	2"	104.5	104.5	147.4	204	49	157.4	14.3	92.1	2	19.05	4	120.7	5.900
PLF - 65	65	2.1/2"	115	115	180.7	283.5	64	177.8	15.9	104.8	2	19.05	4	139.7	11.400
PLF - 80	80	3"	125	125	181.7	293	75	190	17.5	127	2	19.05	4	152.4	13.150
PLF - 100	100	4"	145	145	224.2	356.5	98	228.6	22.3	157.2	2	19.05	8	190.5	21.500

Size Range : 1/2" to 4" Screwed / Flanged

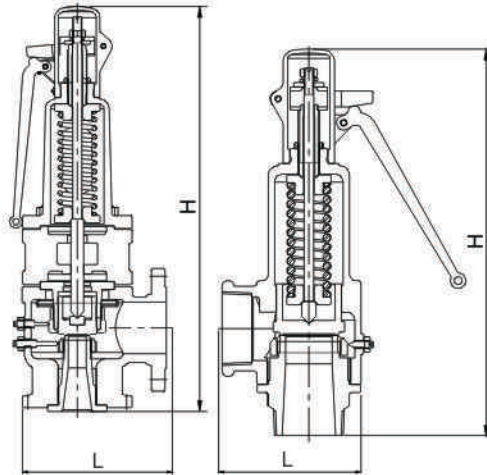
Function

- Safety valves are used on Pressure equipments, Containers or Pipeline as over Pressure in the equipment increases and exceeds allowance, the valve can automatically open to discharge some mediums to prevent the pressure keeping raised. When the pressure decreases till to the stipulated value, the valve can close in time to avoid the pressure too much reduced, so that normal production will be carried out.

No.	Description	Material	Qty.
01	Body Screwed	WCB / CF8 / CF8M	01
02	Bonnet	WCB / CF8 / CF8M	01
03	Balanced Piston	CF8 / CF8M	01
04	Adjusting Ring	S. S. 304	01
05	Adjusting Bolt	S. S. 304	01
06	Adjusting Lock Nut	M. S.	01
07	Stem	S. S. 304	01
08	Flat Washer	M. S.	01
09	Spring	S. S. 302	01
10	Spring Guide	S. S. 304	02
11	Lock Screw	S. S. 304	01
12	Cap	CF8 / CF8M	01
13	Lifting Lever	CF8 / CF8M	01
14	Lever Pin	S. S. 304	01
15	Hex. Nut Lock Screw	ASTM 194	01
16	Hex. Nut For Steam	ASTM 194	01
17	Fitting Bolt For Cap	ASTM 194	02
18	Spring Washer	S. S. 304	01



**IBR  
APPROVED**

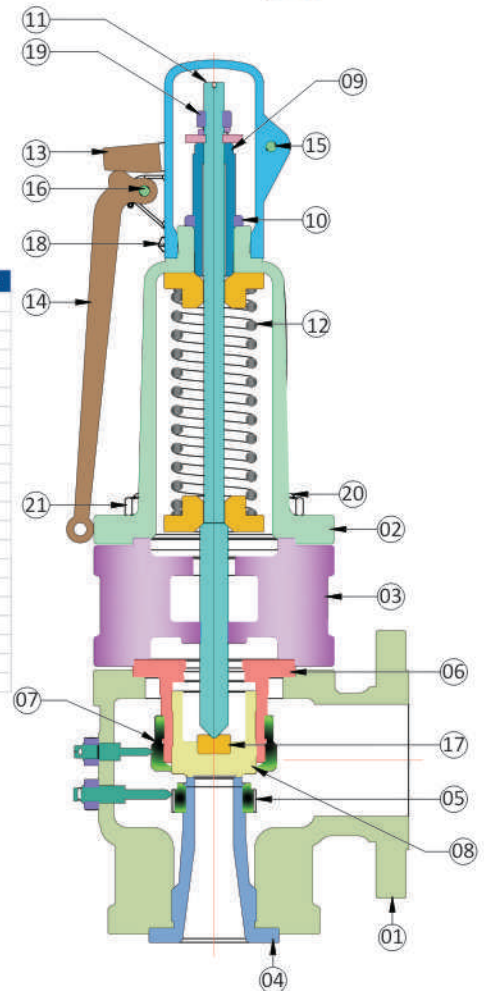


Screwed End Dimension

Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	H
	MM	Inch		
PTS - 15	15	1/2"	59.5	193.5
PTS - 20	20	3/4"	67	212.5
PTS - 25	25	1"	75	235.8
PTS - 32	32	1.1/4"	88.5	273.85
PTS - 40	40	1.1/2"	100	293.2
PTS - 50	50	2"	110	324.8
PTS - 65	65	2.1/2"	133	415.85
PTS - 80	80	3"	174.5	486

No.	Description	Material	Qty.
01	Body Flanged	WCB	01
02	Top Cover	WCB	01
03	Bracket	WCB	01
04	Bonnet	CF8 / CF8M	01
05	Bonnet Adjusting Ring	CF8 / CF8M	01
06	Piston Guide	CF8 / CF8M	01
07	Piston Guide Adjusting Ring	CF8 / CF8M	01
08	Piston	CF8 / CF8M	01
09	Adjusting Bolt	S. S. 304	01
10	Adjusting Lock Nut	M. S.	01
11	Stem	S. S. 304	01
12	Spring	S. S. 302	01
13	Lifting Lever	CF8 / CF8M	01
14	Lifting Handle	CF8 / CF8M	01
15	Lifting Lever Pin	M. S.	01
16	Lifting Handle Pin	M. S.	01
17	Piston Bush	M. S.	01
18	Cap Lock Nut	M. S.	02
19	Nut For Stem	M. S.	01
20	Fitting Stud	M. S.	08
21	Fitting Nut	M. S.	08



Flange End Dimension

Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	H
	MM	Inch		
PTF - 50	50	2"	213	627.3
PTF - 65	65	2.1/2"	235	652.4
PTF - 80	80	3"	248	809.5

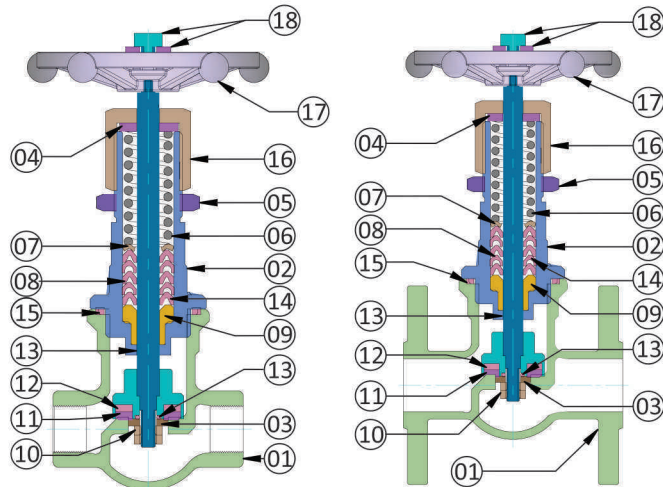
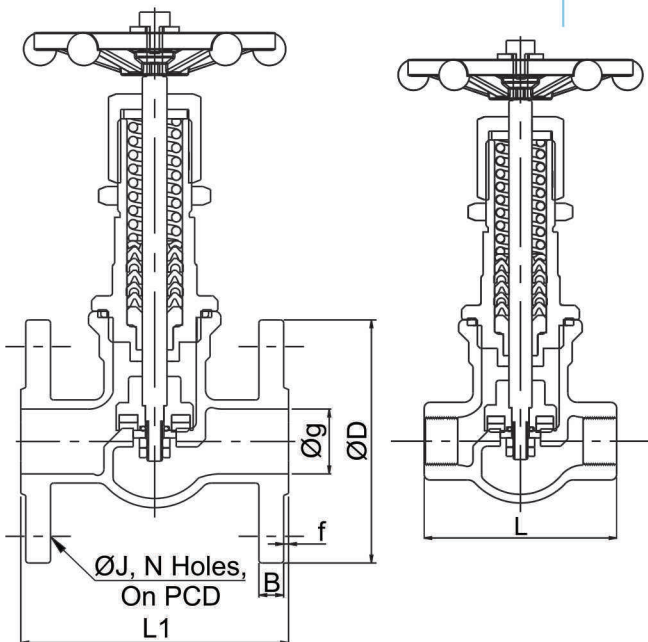


“aira” offers 2/2 Way Handle Wheel Operated Investment Casting Globe Type Control Valve

**Size Range : 1/2" to 4" Screwed / Flange End**

### Special Features :

- The gland is designed Special in this valve. Due to that media leakage chances would be nil.
- In gland spring is given. Which is controlling Automatically to seals with Pressure due to the gland leakage nil.
- In the seals is damage in future, you can replacement it easily this type of easy arrangement given.
- Because of Stainless Steel Body the life of valve increased automatically.



No.	Description	Material	Qty.
01	Body	CF8 / CF8M	01
02	Bonnet	CF8 / CF8M	01
03	Plug	S. S. 304	01
04	Star Washer	S. S. 304	01
05	Lock Nut For Flange	M. S.	01
06	Spring For Bonnet	S. S. 304	01
07	U - Washer	S. S. 304	03
08	Bonnet V - Seal	PTFE	01
09	"T" Bush (Guide Bush) Bonnet	PTFE + C	02
10	Lock Nut (Plug)	S. S. 304	01
11	Plug Washer	PTFE / GFT	01
12	Plug Washer	NBR	01
13	Plug + Shaft	S. S. 304	01
14	Bonnet ( U - Seal )	PTFE + C	02
15	Teflon For Body (Sealing Gasket)	PTFE	01
16	M / O Nut	S. S. 304	01
17	Handle	Alluminium	01
18	Handle Fitting Bolt & Plug Washer	S. S. 304	01

### Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		L S/E	L1 F/E	Port	ØD	b	Øg	f	ØJ	N	PCD	Weight Approx.	
	MM	Inch											S/E	F/E
GMS/GMF - 15	15	1/2"	65	107.9	15	90	8	37.9	2	15.9	4	60.3	1.00	1.82
GMS/GMF - 20	20	3/4"	75	117.3	20	100	8.9	42.9	2	15.9	4	69.9	1.40	2.06
GMS/GMF - 25	25	1"	85	127	24	110	9.6	50.8	2	15.9	4	79.4	1.74	3.00
GMS/GMF - 32	32	1.1/4"	110	139.7	30	115	11.2	63.5	2	15.9	4	88.9	2.12	3.80
GMS/GMF - 40	40	1.1/2"	114	165.1	37	125	12.7	73	2	15.9	4	98.4	2.36	4.78
GMS/GMF - 50	50	2"	125	177.8	49	150	14.3	92.1	2	19.05	4	120.7	3.00	6.64
GMS/GMF - 65	65	2.1/2"	--	190.5	64	180	15.9	104.8	2	19.05	4	139.7	-	-
GMS/GMF - 80	80	3"	--	203.2	75	190	19.05	127	2	19.05	4	152.4	-	-
GMS/GMF - 100	100	4"	--	228.6	98	230	22.3	157.2	2	19.05	8	190.5	-	-

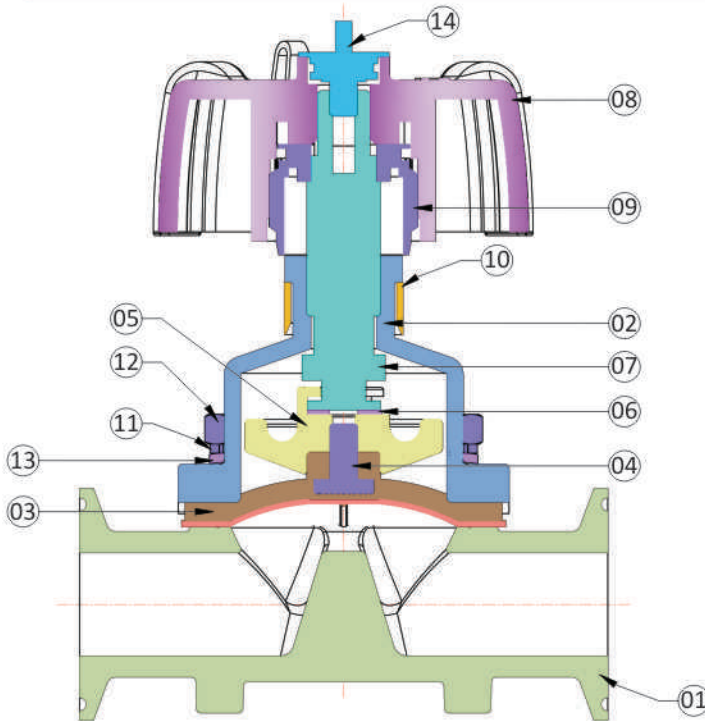
Size Range : 1/2" to 4" Triclover End

### Operating Principles

- The Diaphragm provides the body seal as well as the seat seal. There are no paths the outside environment as such the valve is suitable for aseptic processes.
- As the valve is closed a pressure pad which supports the diaphragm moves towards the sealing face on the body. As the pressure plate moves the diaphragm flexes and is forced down onto the seal area in the center of the body thus closing off the flow path through the body.
- The inter-relationship of body to the pressure plate prevent over compression of the diaphragm.
- The valve can be actuated either manually or pneumatically and controlled by control tops and solenoid valves.

### Applications

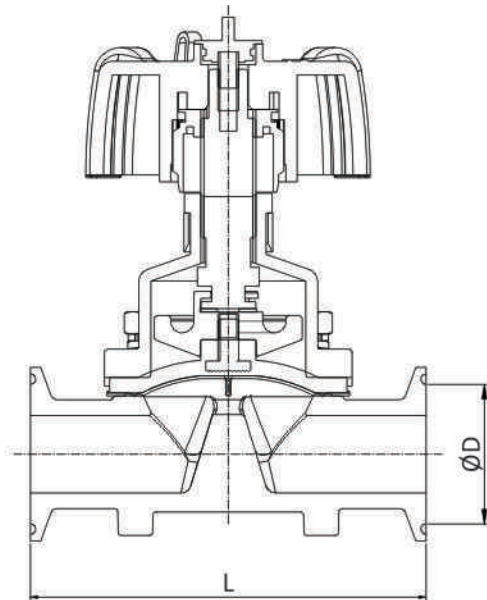
- Diaphragm valves, manually or pneumatically operated, and specially design for use on hygienic and aseptic process in the pharmaceutical industries.
- The valves is excellent for flow control as well as for Open / Close duties.



No.	Description	Material	Qty.
01	Body Triclover End	CF3M	01
02	Bonnet	CF3M	01
03	Diaphragm	PTFE / NBR / EPDM	01
04	Bolt For Diaphragm	S. S.	01
05	Compressor	CF8	01
06	Retainer	Nylon	01
07	Stem	S. S. 304	01
08	Handle Wheel	ABS	01
09	Handle Wheel Sleeve	ABS	01
10	Indicator	Nylon	01
11	Bonnet Fitting Bolt	S. S. 304	04
12	Nut For Fitting Bolt	S. S. 304	04
13	Spring Washer	S. S.04	04
14	Handle Wheel Lock Bolt	ABS + S. S.	01

### Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		L	ØD	Weight Approx.
	MM	Inch			
PDV - T - 15	15	1/2"	108	34	0.418
PDV - T - 20	20	3/4"	117	34	1.158
PDV - T - 25	25	1"	127	50.5	1.675
PDV - T - 32	32	1.1/4"	146	50.5	----
PDV - T - 40	40	1.1/2"	159	50.5	3.171
PDV - T - 50	50	2"	190	64	4.382
PDV - T - 65	65	2.1/2"	216	91	----
PDV - T - 80	80	3"	254	106	----



# Drum Type of Control Valves



F  
FLOAT VALVE



H  
OPERATED DRUM VALVE



P  
PRESSURE REDUCING VALVE &  
PRESSURE RELIEF VALVE



P  
PRESSURE SUSTAINING VALVE



E  
EXTERNAL SHAFT PRESSURE CONTROL VALVE



## SERIES : D



609 - 0055

CML-3812155

C I M F R

INDIAN BUREAU OF STANDARDS

"Suzhik" Offer High Flow Drum Type Pressure Reducing Valves Suitable for Air, Water, Steam, Gas & Oil ect.

**Size Range : 2" to 24" Flanged**

**Relevant Standard :**

Face To Face Of Valve As Per Manufacturing Standard  
Flanges of Valve As Per ASME B 16.5 RF

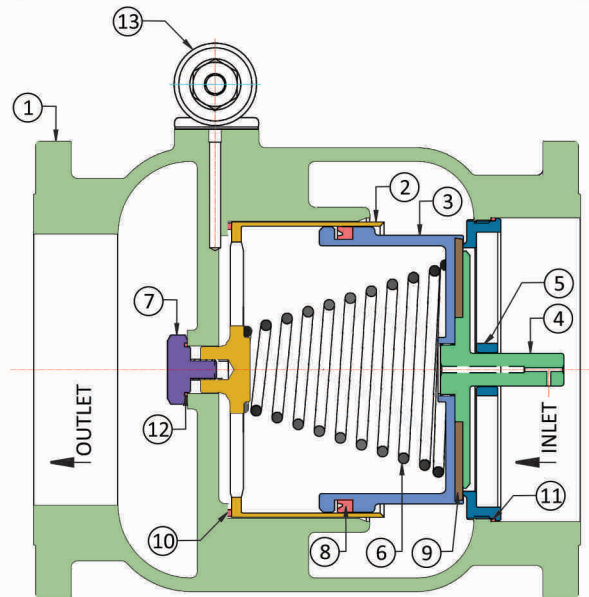
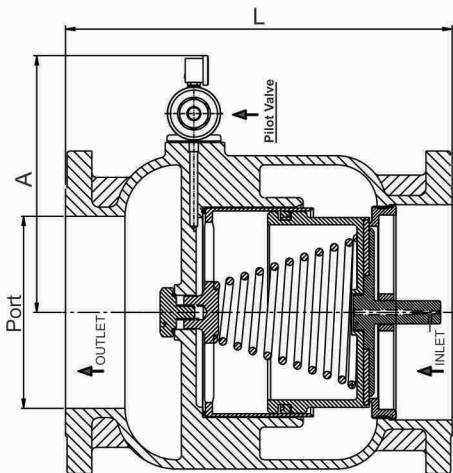
**Features :**

- Smart Design with High Flow Characteristics
- Pressure reducing valve can be installed in water supply, air conditioning and fire control systems to maintain the Constant outlet pressure.
- The pressure reducing valve used a sub-valve (pilot valve) to control the main valve. When the outlet pressure reaches the setting range of pressure reducing pilot valve, the pilot valve will automatically sense the outlet pressure and adjusting the pressure of the back pressure chamber in the main valve, so the valve gate can be opened and consequently maintains the out let pressure.
- The pressure gauge on the pilot valve shows the outlet pressure. When the outlet opens, the valve of the pressure gauge will decrease.



**Pressure / Temperature**

Temperature Range 80 °C ( For Water ) / 180 °C ( For Steam )  
Maximum Inlet Pressure Cast Iron Body - 14 Kg/cm<sup>2</sup>  
WCB / S. S. Body - 21 Kg/cm<sup>2</sup>  
Pressure Adjusting Range 1 ~ 7 Kg/cm<sup>2</sup> / 4 ~ 12 Kg/cm<sup>2</sup>  
( 1 Kg/cm<sup>2</sup> = 14.2 PSI )



**Dimensions :** (All Dimensions are in mm)

Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
DPF - 50	50	2"	60	186	190	75	9.180
DPF - 65	65	2.1/2"	69	196	210	105	11.960
DPF - 80	80	3"	84	211	225	140	17.580
DPF - 100	100	4"	110	223.5	250	260	23.340
DPF - 125	125	5"	131.5	242	280	390	49.560
DPF - 150	150	6"	158.5	256.5	309.5	550	49.560
DPF - 200	200	8"	208.5	303	419	1000	92.300
DPF - 250	250	10"	257	336	473	1699	124.320
DPF - 300	300	12"	302	370	532	2200	196.840
DPF - 350	350	14"	324	415	598.4	3000	265.000
DPF - 400	400	16"	345	413	634	4000	278.600
DPF - 450	450	18"	472	407	766	5300	457.000
DPF - 500	500	20"	472	493	772.7	6100	491.450
DPF - 600	600	24"	589	533	900	9200	----

No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Pilot PRV Valve	STD.	01

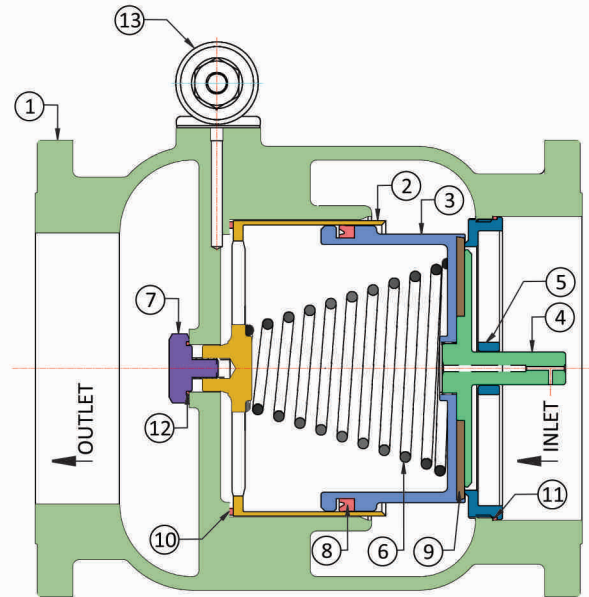
**Size Range : 2" to 24" Flanged**

**Features :**

- Pressure relief valve is installed on the outlet pipe of water supply pipeline. It can maintain safe water supply pressure inside the pipe and prevent pipeline and equipment damage caused by accidental escalation of water pressure.
- When water pump stops functioning or pipeline gate suddenly closes, abnormal pressure forms inside the pipe. As the pressure gets over a certain the water high pressure. When pressure returns to safety value, pressure relief valve will auto-matically close to ensure the safety of equipment.
- Pressure Adjusting Range : 0.5 kgf/cm<sup>2</sup> ~ 10 kgf/cm<sup>2</sup> 7 kgf/cm<sup>2</sup> ~ 20 kgf/cm<sup>2</sup>
- Applied Temperature : -15 ~ 100 °C 100 ~ 180 °C ( For Steam )
- Valve Body Testing Pressure : 35 kgf/cm<sup>2</sup> ( 1 kgf/cm<sup>2</sup> = 14.2 psi )
- Maximum Applied Pressure : 25 kgf/cm<sup>2</sup> the outlet opens, the valve of the pressure gauge will decrease.

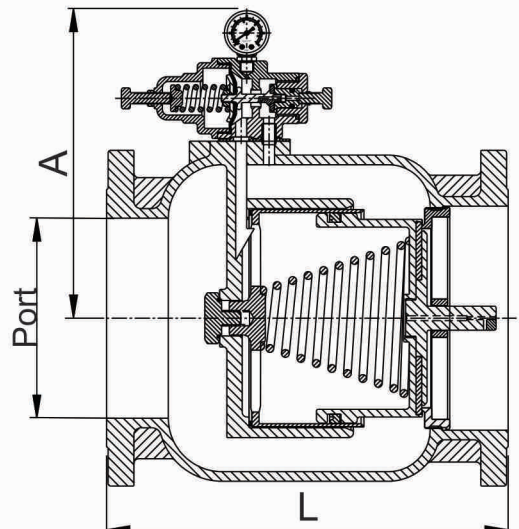



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Pilot PLV Valve	STD.	01



**Dimensions :** (All Dimensions are in mm)

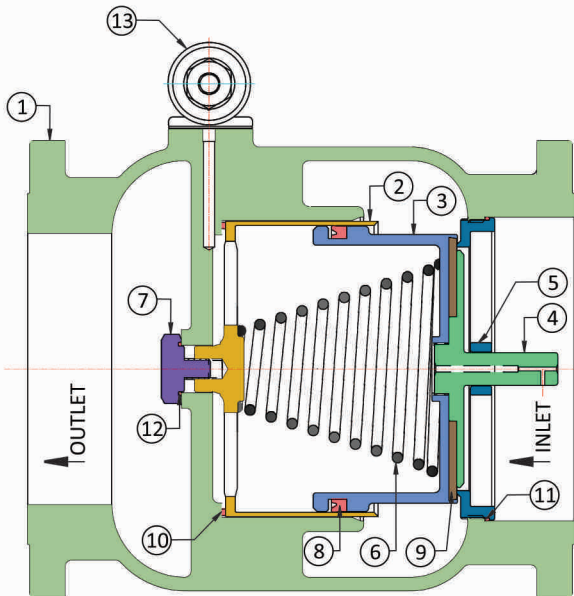
Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
DRF - 50	50	2"	60	186	190	75	12
DRF - 65	65	2.1/2"	69	196	210	105	15
DRF - 80	80	3"	84	211	225	140	18
DRF - 100	100	4"	110	223.5	250	260	24
DRF - 125	125	5"	134.5	242	280	390	32
DRF - 150	150	6"	158.5	256.5	309.5	550	44
DRF - 200	200	8"	208.5	303	419	1000	87
DRF - 250	250	10"	257	336	473	1699	152
DRF - 300	300	12"	302	370	532	2200	202
DRF - 350	350	14"	324	415	598.4	3000	265
DRF - 400	400	16"	345	413	634	4000	279
DRF - 450	450	18"	472	497	766	5300	457
DRF - 500	500	20"	472	493	772.7	6100	492
DRF - 600	600	24"	589	533	900	9200	----



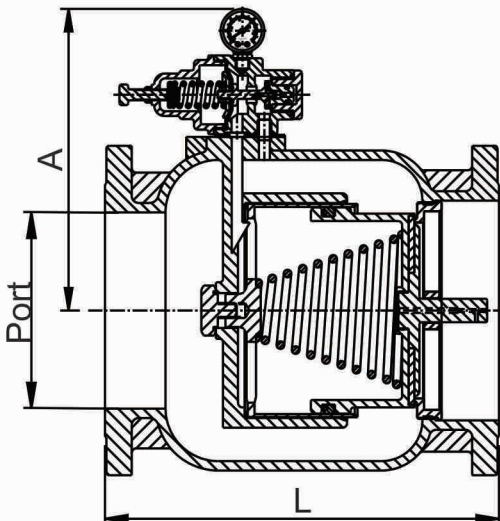
Size Range : 2" to 24" Flanged

Features :

- Pressure sustaining valve is utilized when installing pipes for users. It primarily matches up with the minimum working pressure inside the tap water pipe, balancing up-stream and down-stream pressure during normalcy and emergency, and maintains constant pressure inside the pipe.
- Pressure sustaining valve can sustain the maximum working pressure inside the pipe when installed in water supply areas.
- Pressure adjusting range : 0.2 ~ 4 kgf/cm<sup>2</sup>, 3 ~ 10 kgf/cm<sup>2</sup>, (1 kgf/cm<sup>2</sup> = 14.2 psi)
- The working pressure should be greater than 0.3 kgf/cm<sup>2</sup> and gate fully open with 1.5 kgf/cm<sup>2</sup>, please check the pressure before installation.



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Pilot Sustaining Valve	STD.	01



Dimensions : (All Dimensions are in mm)

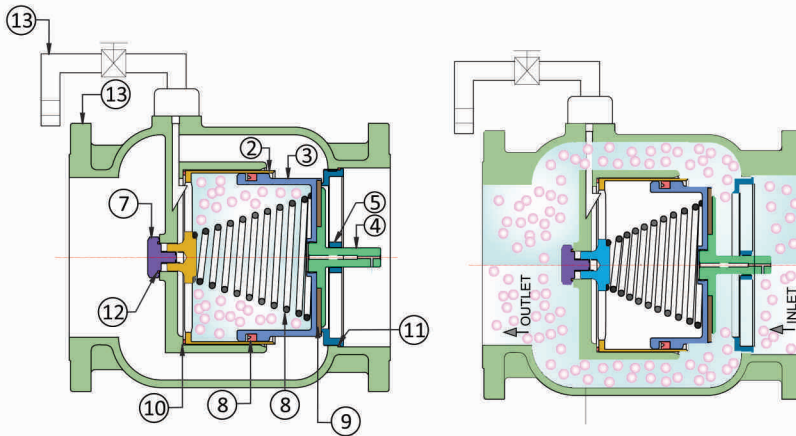
Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
DSF - 50	50	2"	60	186	190	75	9.180
DSF - 65	65	2.1/2"	69	196	210	105	11.960
DSF - 80	80	3"	84	211	225	140	17.580
DSF - 100	100	4"	110	223.5	250	260	23.340
DSF - 125	125	5"	134.5	242	280	390	49.560
DSF - 150	150	6"	158.5	256.5	309.5	550	49.560
DSF - 200	200	8"	208.5	303	419	1000	92.300
DSF - 250	250	10"	257	336	473	1699	124.320
DSF - 300	300	12"	302	370	532	2200	196.840
DSF - 350	350	14"	324	415	598.4	3000	264.900
DSF - 400	400	16"	345	413	634	4000	278.600
DSF - 450	450	18"	472	497	766	5300	457.000
DSF - 500	500	20"	472	493	772.7	6100	491.450
DSF - 600	600	24"	589	533	900	9200	-----



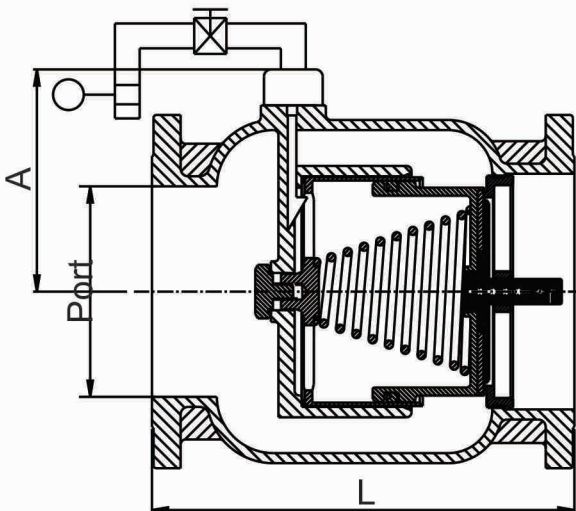
## Size Range : 2" to 24" Flanged

### Features :

- Float valve uses a sub-valve (floating ball switch) to control the main valve. When the water level elevates to the full water level set by sub-valve (floating ball switch), the sub-valve (floating ball switch) closes and the back pressure chamber inside the main valve accumulates pressure rapidly, which reversely pushes the piston valve to close. By this mechanism, the float valve can thus control the water level. In order to save space inside the pool and for easy maintenance, it is recommended to install the float valve outside the pool.
- The working pressure should be greater than 0.3 kgf/cm<sup>2</sup> and gate fully open with 1.5 kgf/cm<sup>2</sup>, please check the pressure before installation.
- Please remove impurities or metal dusts inside the pipe thoroughly. If possible, please add filter to prevent pipe blocking.
- Vertical and horizontal installation is acceptable. Avoid upside-down installation under insufficient flow.
- Please uses high pressure float ball switch.



No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Float Valve	STD.	01



### Dimensions :

(All Dimensions are in mm)

Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
DFF - 50	50	2"	60	162.5	190	75	9.880
DFF - 65	65	2.1/2"	69	172.5	210	105	12.660
DFF - 80	80	3"	84	187.5	225	140	18.280
DFF - 100	100	4"	110	200	250	260	24.040
DFF - 125	125	5"	134.5	218.5	280	390	50.260
DFF - 150	150	6"	158.5	241.5	309.5	550	50.260
DFF - 200	200	8"	208.5	279.5	419	1000	93.000
DFF - 250	250	10"	257	312.5	473	1699	125.020
DFF - 300	300	12"	302	346.5	532	2200	197.540
DFF - 350	350	14"	324	390	598.4	3000	265.600
DFF - 400	400	16"	345	390	634	4000	279.300
DFF - 450	450	18"	472	473	766	5300	458.000
DFF - 500	500	20"	472	473	772.7	6100	492.150
DFF - 600	600	24"	589	565	900	9200	---

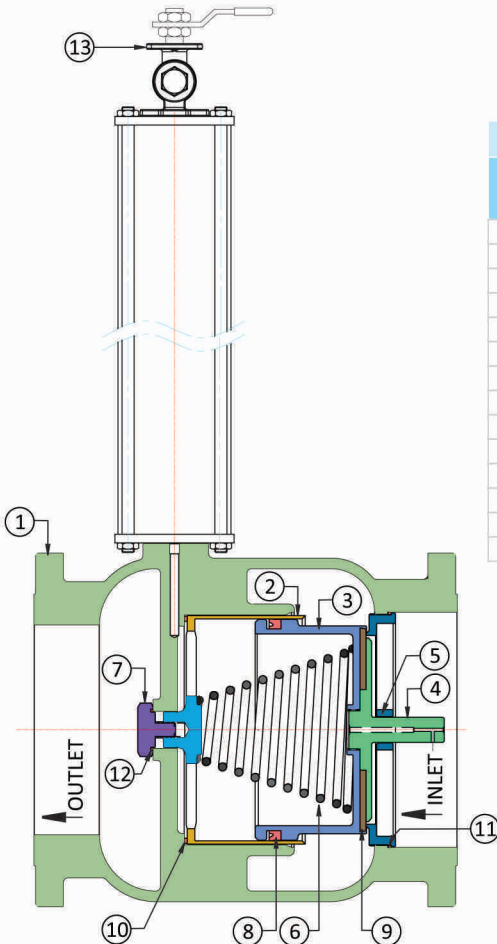
Size Range : 2" to 24" Flanged

Features :

- "Suzhik" Extended Stem Multi function Actuator Control Valve is ultimate solution for Under Ground & Over head Pipe Line used in Water Supply Boards. Main Valve to be mounted at its original place, keeping its controlling valve (Actuator) on ground level for convenient operation. Special Design Namur style Ball Valve mounted on main valve, couple with Pneumatic or Electric Actuator for operation. It's simple Technique stands against other Control Valve. High Flow factor and simple Pilot Control makes its very user friendly.
- Advance option for extended stem Globe & Gate valve used for Water supply Boards & Other process control application.
- Main Valve Body can be mounted at depth or excessive height by keeping its Controlling unit on ground level for convenient operation.
- High Cv Value, with Low Pressure Hammering
- Choice of operating Control available in Manual / Pneumatic / Electric Actuators.
- On-Off & Proportionate (Modulating) control having Input Single of 4~20mA available in Pneumatic / Electric Actuator
- Precise Pressure control and repeatability can be achieved for Proportionate Control Application.
- Low Noise & Friction at the time of Controlling.
- Cost affective and long working life.
- Vertical & Horizontal installation can be done.



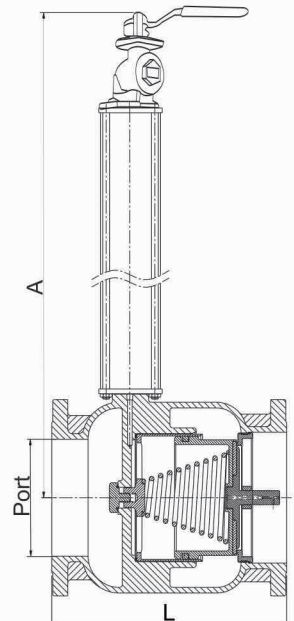
 Suzhik



Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
DXF - 50	50	2"	60	On Request	190	75	8.380
DXF - 65	65	2.1/2"	69		210	105	11.160
DXF - 80	80	3"	84		225	140	16.780
DXF - 100	100	4"	110		250	260	22.540
DXF - 125	125	5"	134.5		280	390	48.760
DXF - 150	150	6"	158.5		309.5	550	48.760
DXF - 200	200	8"	208.5		419	1000	91.500
DXF - 250	250	10"	257		473	1699	123.520
DXF - 300	300	12"	302		532	2200	196.040
DXF - 350	350	14"	324		598.4	3000	264.100
DXF - 400	400	16"	345		634	4000	277.800
DXF - 450	450	18"	472		766	5300	456.500
DXF - 500	500	20"	472		772.7	6100	490.650
DXF - 600	600	24"	589	900	9200	---	

No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01
13	Extended Shaft Valve	STD.	01



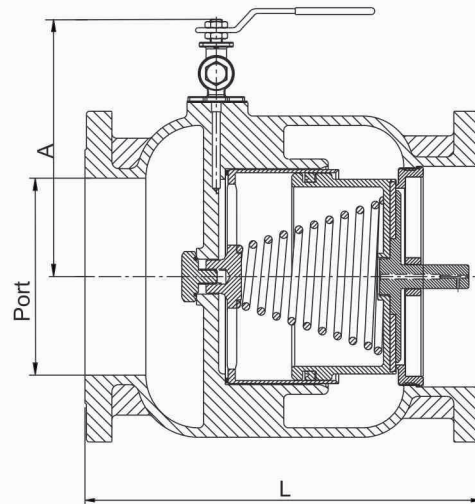
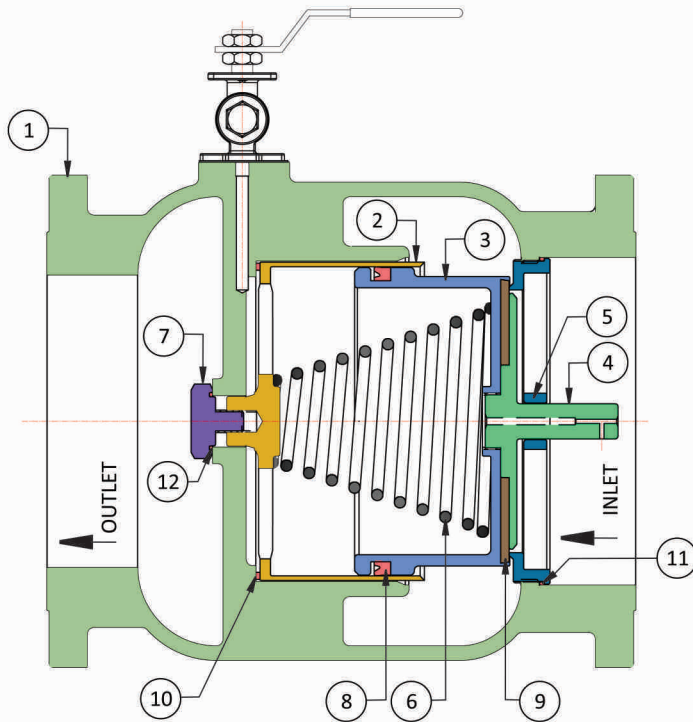




## Size Range : 2" to 24" Flanged

### Features :

- "Suzhik" Multi function Drum Type Control Valve with Manual Controller can be used as isolating valve and also for flow controlling application. Special Design Namur style Level Operated Ball Valve mounted on main valve for operation. Its simple Technical and heavy duty design impact a unique stands against other Control Valve. High Flow factor and simple Pilot Control makes its very user friendly.
- Exclusive design having for bigger sizes Municipal Water Supply Boards & cross country Pipe line Projects.
- High Cv Value, with Low Pressure Hammering via smooth operation in Actuator
- Lever Operated Low Torque PTFE Seated Ball Valve for smooth and trouble free operation
- Low Noise & Friction at the time of Controlling.
- Vertical & Horizontal installation can be done.



### Dimensions : (All Dimensions are in mm)

Valve Model	Valve Size		Port	A	L	CV	Weight (Approx.)
	MM	Inch					
DHF - 50	50	2"	60	152	190	75	8.580
DHF - 65	65	2.1/2"	69	162	210	105	11.660
DHF - 80	80	3"	84	177	225	140	17.280
DHF - 100	100	4"	110	189	250	260	23.040
DHF - 125	125	5"	134.5	208	280	390	49.260
DHF - 150	150	6"	158.5	269	309.5	550	49.260
DHF - 200	200	8"	208.5	269	419	1000	92.000
DHF - 250	250	10"	257	352	473	1699	124.020
DHF - 300	300	12"	302	336	532	2200	196.540
DHF - 350	350	14"	345	381	598.4	3000	264.600
DHF - 400	400	16"	345	379	634	4000	278.300
DHF - 450	450	18"	472	469	766	5300	457.000
DHF - 500	500	20"	472	459	772.7	6100	491.150
DHF - 600	600	24"	589	499	900	9200	----

No.	Description	Material	Qty.
1	Body	WCB / C.I. / D.I. / CF8 / CF8M	01
2	Cover	Stainless Steel 304 / 316	01
3	Plug	Stainless Steel 304 / 316	01
4	Piston	Stainless Steel 304 / 316	01
5	Piston Guide	Stainless Steel 304 / 316	01
6	Spring For Piston	S. S. 304	01
7	Piston Cover Lock Bolt	S. S.	01
8	V - Seal For Piston	NBR / Viton / EPDM	01
9	Piston Seat Ring	NBR / Viton / EPDM	01
10	Flat Ring	NBR / Viton / EPDM	01
11	O - Ring For Piston Guide	NBR / Viton / EPDM	01
12	O - Ring For Piston Lock Bolt	NBR / Viton / EPDM	01

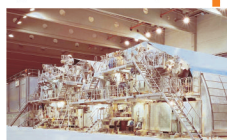
# Clients



## Application

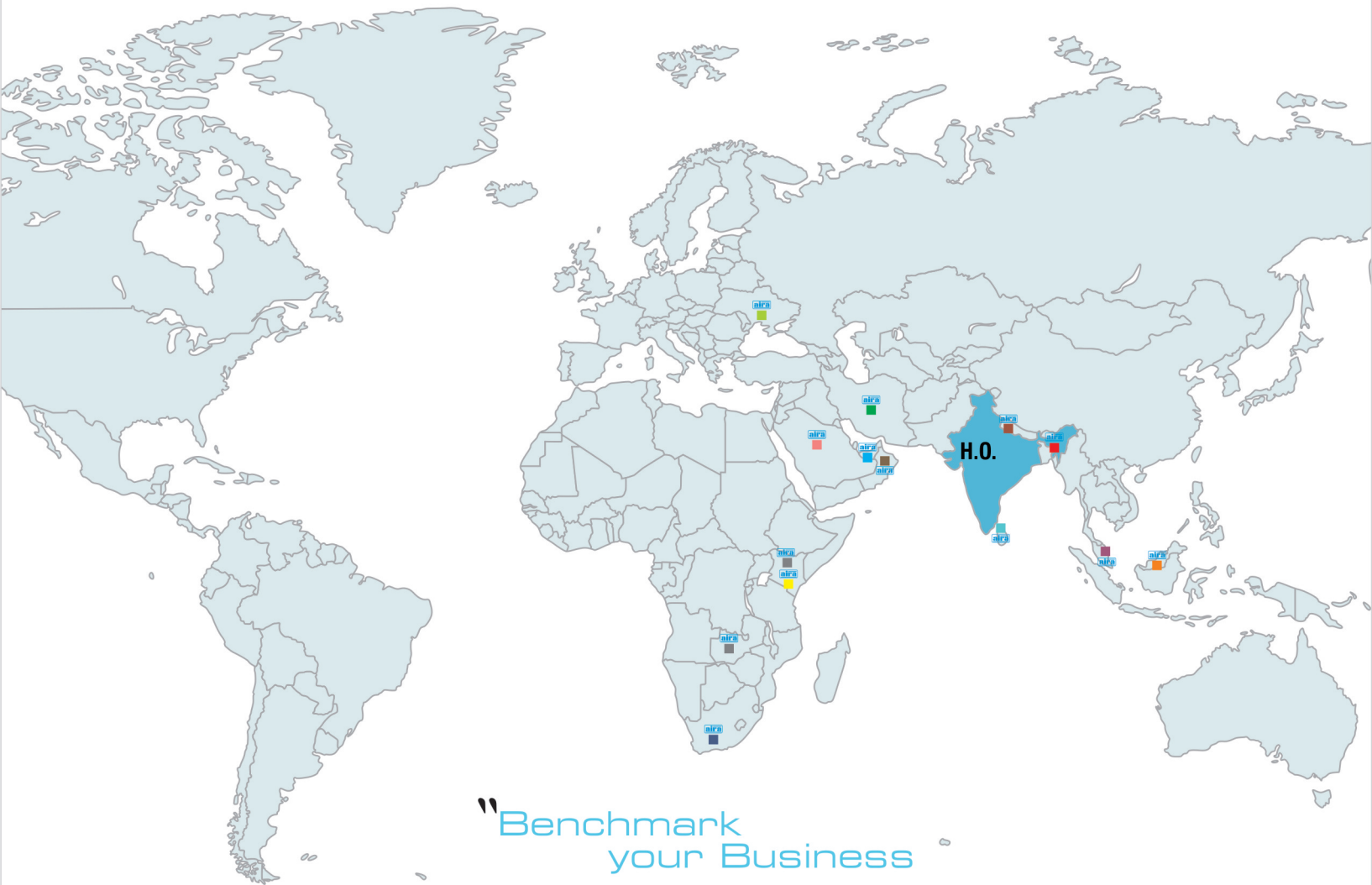
- Process & Chemical
- Refineries & Petrochemicals
- Drugs & Pharmaceuticals
- Thermal Power Stations
- Dyes & Intermediates
- Breweries & Distilleries
- Steel Plants
- Solvent Extraction Plants
- Sewage
- Cooling Water
- Ship Yards and Marine Management
- LPG Bottling Plants

- Fertilizers
- Textiles
- Sugar
- Nuclear & Atomic Power Stations
- Paints & Varnishes
- Soaps & Detergents
- Slurry & Ash handling
- Food & Oil Industry
- Effluent & Water Treatment
- Water Works
- Pulp & Paper
- Onshore & Offshore platforms



This Products is Generally made to use on the High Pressure Piping system, It is Widely Applied for Major Industrial Sector





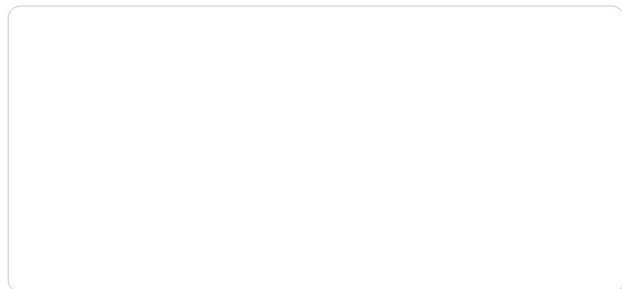
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