

FLOVEL

Single Disc Check Valves



FLOVEL Valves Pvt. Ltd., earlier known as Arpita Enterprise, has been manufacturing Check Valves since 1984. It is committed to manufacture high performance Check Valves within the range of ¼” to 48”. Wafer Check is now an established concept and it has an edge over conventional Swing / Lift Check Valves. It is used in Petrochemicals, Refineries and Oil & Gas Sectors.

Some of our valued customers

GSFC	BAYER	BSIL	PDO
GNFC	STERLITE	DLF	PETRONAS
IPCL	VOLTAS	GMM	TOTAL
GACL	ONGC	AMUL	SAIPEM
GHCL	IOCL	RELIANCE	MAERSK
HPCL	HINDALCO	ESSAR	OCCIDENTAL

FLOVEL Check Valves are exported to Malaysia, Oman, Italy, Qatar, Jordan, Thailand, Germany, U.S.A., U.K. and U.A.E.

Approved by the following Engineering and Contracting companies

TOYO	UDHE	KVAERNER	TECNIMONT
TCE	PDIL	LINDE	JACOBS
BECHTEL			

Certifications under Third Party Inspection

ISO 9001 : 2000
 CE PED
 API 6D
 IBR, Lloyds, DNV, BUREAU VERITAS



Manufacturing Plant, 1987



Manufacturing Plant, New Unit



Monochromatic light, Checks Lapping



Manufacturing Process



SINGLE DISC CHECK VALVE

Features

Flovel general purpose non return valves are WAFER DESIGNED check valves to prevent 'Flow Reversal' for wide range of applications.

Applications

These are best used in Process Lines, Down Stream of Pumps, Heating Installations, Steam Condensate Lines and also in Compressed Air, Gases and Vacuum Lines.

Design Standard: EN 558-1

Testing Standard: DIN 3230 / API 598

Ends / Installations

Wafer end valves are suitable to install between ANSI 150 Or 300 flanges. Dimension D2 for 300 class D1 for 150 class flanges. Mounts in any direction. Even compatible with DIN Standard flanges. Wafer ends are serrated finished to Ra 125.

Degree Of Tightness : DIN 3230

Spring Opening

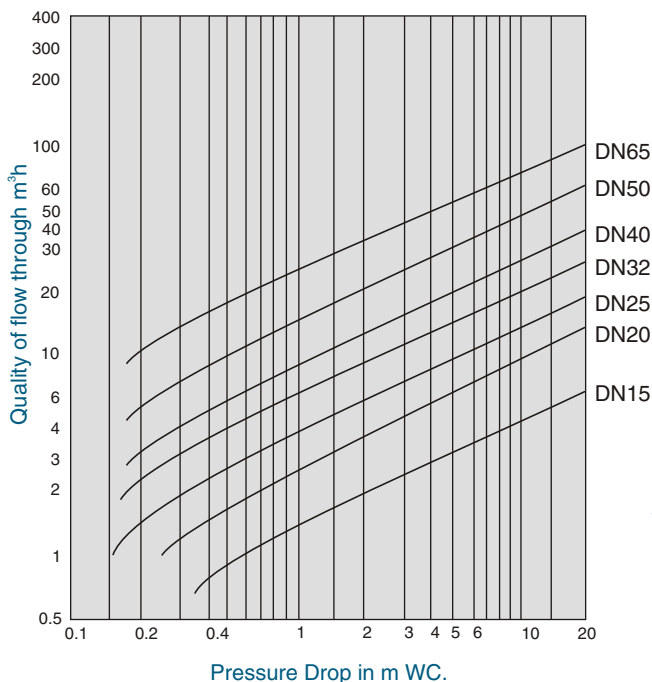
The spring determines the differential pressure required to open the valve. This parameter is elucidated in the table below.

Types Of Valves

Flovel Single Disc Checks are available in 2 different types Series: CV-40, CV-10 as per different material grouping

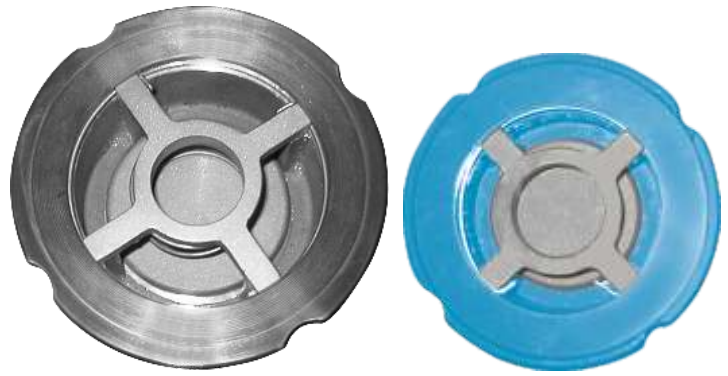


Pressure Drop Curve
(Fig. 1.0)



Opening Pressure : Water Column (mm) in horizontal installation

DN		15	20	25	32	40	50	65	80	100
←	→	300	200	150	150	160	160	160	180	180



SINGLE DISC CHECK VALVE

DIN # PN 10

Series : CV-10

Features

Flovel CV-10 are Grey Cast Iron body valves for economy without compromising salient features of Wafer Check Valves.

Design Standard: EN 558-1

Testing Standard: DIN 3230 / API 598

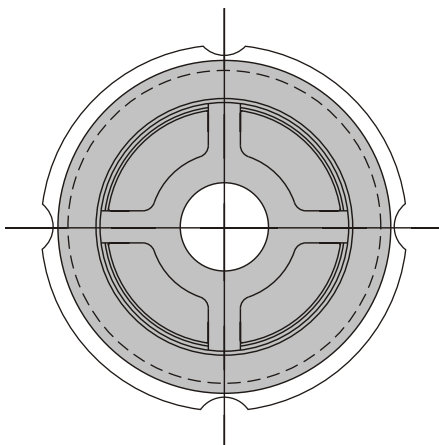
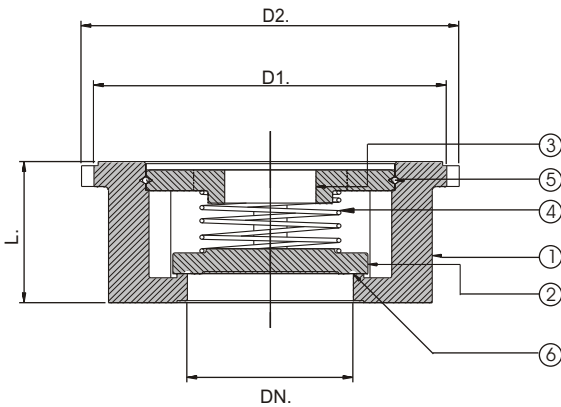
Degree Of Tightness: DIN 3230

Rating: PN 10

Size Range: DN 32 ~ DN100

Seat: EPDM / BUNA-N / VITON

Opening Pressure as per Table and Pressure Drop Characteristic as per Fig. 1.0



Valves Construction Break-Up

1	Body	Cast Iron, ASTM A 126
2	Disc	A 351 Gr. CF8 and CF8M (Cast Stainless Steel)
3	Star	ASTM A 351 Gr. CF8 / CF8M (Cast Stainless Steel)
4	Spring	AISI 304 / AISI 316
5	Circlip	AISI 304 / AISI 316
6	Body Seat	Soft Rubber, EPDM / BUNA-N / VITON

Single Disc Check Valve Dimensions

Valve Size	Constructional Dimension mm					
DN	32	40	50	65	80	100
L	28	32	40	46	50	60
D1	72	85	95	115	132	152
D2	81	91	106	126	141	167
Approx.Wt.in kg.	0.5	0.7	1.3	1.7	2.8	4.5

Operating Range (Pressure bar)

PN	Temperature					
	-10°C - 120°C	200°C	250°C	300°C	350°C	400°C
10	10	08	08	-	-	-
16	16	14	13	11	10	08
40	40	35	32	28	24	21

Test Pressure (Pressure bar)

Rating	Shell	Seat
PN 10	15	10



SINGLE DISC CHECK VALVE

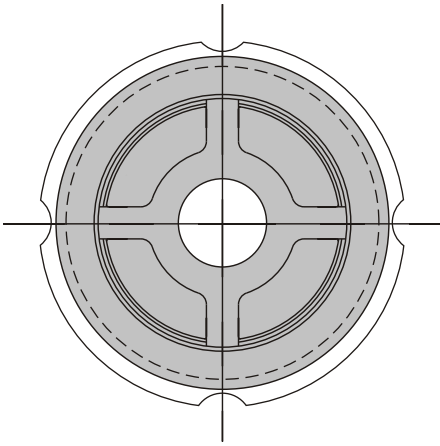
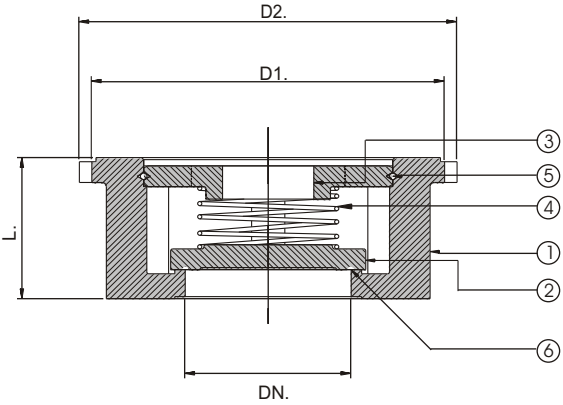
DIN # PN 40

Series : CV - 40

Features
 These are Carbon Steel, austenitic Stainless Steel or Higher Alloy Valves for variety of applications.

Design Standard: EN 558-1
Testing Standard: DIN 3230 / API 598
Degree Of Tightness: DIN 3230
Rating: PN 40
Size Range : DN 15 ~ DN100
Seat: Standard shall be Metal to Metal. Special Seal for compressed Air, Gas or Vacuum service, available on request

- Opening Pressure as per Table and Pressure Drop Characteristic as per Fig. 1.0
- Valves in higher Alloys like ASTM Gr.CF3M., Duplex, Hastelloy, Monel, etc., available on request



Valves Construction Break-Up

1	Body	ASTM A216 Gr.WCB / A351 Gr.CF8M (Cast Steel, Cast Stainless Steel)
2	Disc	A 351 Gr. CF8 and CF8M (Cast Stainless Steel)
3	Star	ASTM A 351 Gr. CF8 and CF8M (Cast Stainless Steel)
4	Spring	AISI 304 / AISI 316 / Inconel
5	Circlip	AISI 304 / AISI 316
6	Body Seat	Cladded 13% Cr / Metal to Metal / Viton / BUNA-N Soft Seat

Single Disc Check Valve Dimensions

Valve Size	Constructional Dimension mm									
DN	15	20	25	32	40	50	65	80	100	
L	17	20	23	28	32	40	46	50	60	
D1	43	53	63	72	85	95	115	132	152	
D2	50	60	70	81	91	106	126	141	167	
Approx.Wt.in kg.	0.18	0.2	0.25	0.5	0.7	1.3	1.7	2.8	4.5	

Operating Range (Pressure bar)

	Temperature						
PN	-10°C - 120°C	200°C	250°C	300°C	350°C	400°C	
10	10	08	08	-	-	-	
16	16	14	13	11	10	08	
40	40	35	32	28	24	21	

Test Pressure (Pressure bar)

Rating	Shell	Seat
PN 40	64	40

SCREWED END NOZZLE CHECK VALVE



ANSI # 300

Series : SE-300

Applications

Compressed Air, Chemical Process Plants, Natural Gas, Refineries, Pump Discharge, Critical Equipment Discharge, Pump Bypass, Storage Facilities, Offshore and Nuclear Power Plants.

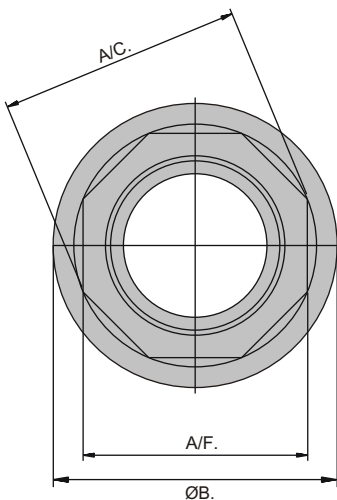
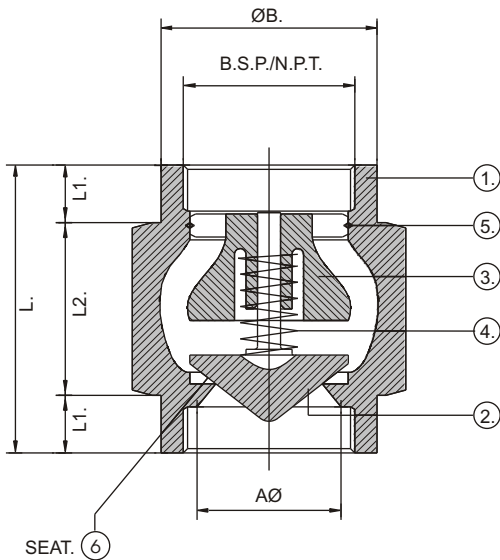
Features

- Non-slamming valve closes prior to reverse flow
- Nozzle Check Design offers Higher Cv, Less Pressure Drop
- Short stroke length reduces closure time and eliminates water hammer
- Metal to Metal sealing and Soft Sealing
- Conical seating surface is self-aligned and provides tight shut-off
- Minimum pressure loss with excellent dynamic performance
- Spring loaded disc design allows mounting in any direction
- No scheduled maintenance

Size Range: ½" ~ 2"

Rating: ANSI Class 150, 300

Seat: Metal to Metal or Resilient on Request



Valves Construction Break Up

1	Body	A 351 Gr. CF8M (Cast Stainless Steel)
2	Disc	A 351 Gr. CF8M (Cast Stainless Steel)
3	Diffuser	A 351 Gr. CF8M (Cast Stainless Steel)
4	Spring	AISI 316 / Inconel
5	Circlip	AISI 316
6	Body Seat	Metal to Metal / Resilient

Screwed End Valve Constructional Dimension mm

Size DN	15	20	25	32	40	50
B.S.P. / N.P.T.	½"	¾"	1"	1 ¼"	1 ½"	2"
ØA	15	20	25	32	40	50
ØB	37	44	54	65	78	95
A/C	34.6	39.0	49.8	59.5	65.0	81.2
A/F	32	36	46	55	60	75
L	57	60	71	76	86	100
L1	15	15	18	18	18	20
L2	27	30	35	40	50	60

Note:

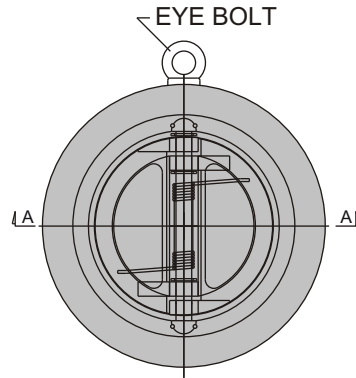
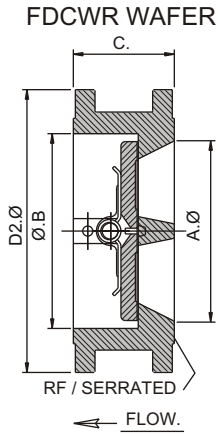
The Company reserves the right to change product design and specifications without prior notice.

ADDITIONAL PRODUCTS

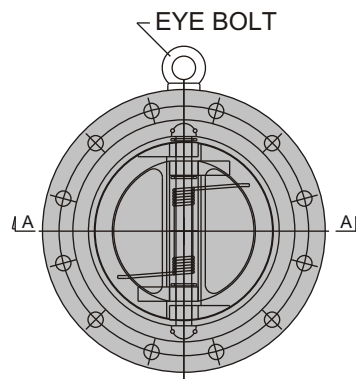
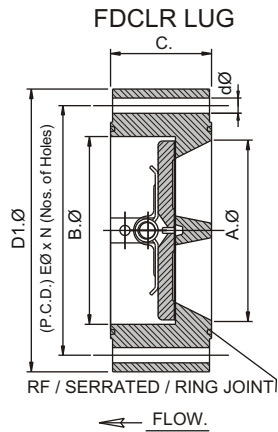
DUAL PLATE CHECK VALVES

Design Standard : API 594, API 6D, API 6F

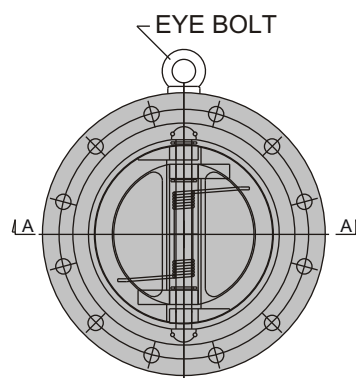
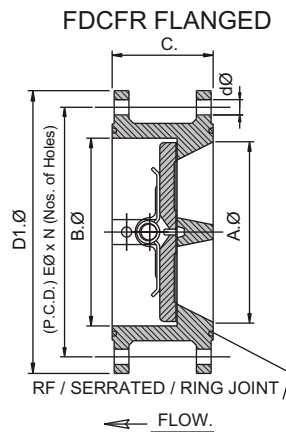
Wafer End - Retainerless
Series: FDCWR
Size Range: 2"~48"
Rating: ANSI # 150, # 300,
600, # 900,
1500, # 2500



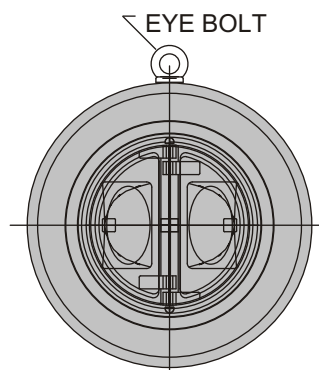
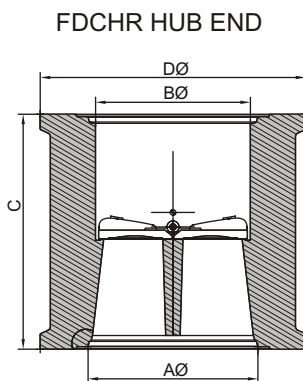
Lugged End - Retainerless
Series: FDCLR
Size Range: 2"~10"
Rating: ANSI # 150, # 300,
600, # 900,
1500, # 2500



Flanged End - Retainerless
Series: FDCFR
Size Range: 12"~48"
Rating: ANSI # 150, # 300,
600, # 900,
1500, # 2500



Hub End - Retainerless
Series: FDCHR
Size Range: 2"~20"
Rating: ANSI # 600, # 900,
1500, # 2500





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