# **DEMIBLA VALVES LTD.**



# AXIAL NOZZLE CHECK VALVE



# **SERIES - AXCV -01**

Aiming at perfection

More Info - www.dembla.com

Axial Nozzle Check Valves are designed to have drip tight sealing in case of back flow. Moreover, the valve disc also guarantees complete closure.

Due to its spring mechanism, closure of the valve is obtained before back flow reaches the valve, thereby minimizing the surge conditions.

As a result, DEMBLA Check Valve operates in a fast way and closes silently.

Check Valve body is design to minimize the head loss, and can be installed in any position, flow up or flow down.

## Spare & weight Savings

The short Face to face dimensions of the compact design allows for installation in application where space and weight are at a premium, such as offshore platforms & FPSOs.

The reduced body length & its consequent reduce weight, offers significant cost savings compared with long pattern types, The savings in capital purchase costs are further complimented by low life cycle cost afforded by the low pressure loss ring disc.

When supplying valves can be available with Flanged, Wafer, Solid Lug, Hub End and Butt-weld End connections.

## Maintenance Free

The Dembla Axial Check Valve designs use no soft parts and are therefore inherently fire-safe. Also, as there are no wearing parts, it is considered maintenance free. The springs are sized according to the flow rates to ensure that the valves are in the fully open position during normal use.

This minimises cycling of the spring, giving the valves a long design life without the need for regular maintenance.

## **Optimised Disc Design :**

#### **Ring Disc**

The Ring Disc design in sizes 12" and above ensures that the disc remains light and

responsive even in large sizes. Radial guide assembly or a shaft with a single, centrally mounted, spring the disc moves freely without any of the frictional forces associated with the solid disc and shaft design.

With a flow path both around and through the centre of the disc the flow capacity of the valve is best in class. Due to the excellent pressure recovery properties of the diffuser, the minimal pressure drop across the valves gives lifetime energy savings when compared to more conventional check valve designs.

### **Centre Guided Ring Disc**

For the design valve, we have focused on laying the centre of gravity of our only moving part, the disc, over the centre of the surface it is sliding on.

Due to the design change we are able to use softer springs, which function at very low flow rates, mainly because we have eliminated the tilting effect of the moving component all together.

# Non-Slam: Quick Response

Low weight discs, short stroke lengths and spring assistance combine to ensure that the Axial type check valve responds quickest to change in flow direction.

This fast response ensures reverse velocity cannot build up to a level that can damage pumps, pipes or related equipment. As pressure surges can occur when a valve is closed against a moving body of fluid, the quick closure results in a considerably lower pressure peak than with other types of check valve.

# Main technique number

Nominal press	sure PN(mm)	1.0	1.6	2.5	МРа				
Test pressure (Mpa)	Shell stength	1.5	2.4 3.75						
	Sealing performance	1.1	1.76	2.75					
Working te (°C	emperature )	0 °C-200 °C							
Applicable media		water, oil Ect.							



No.	Name	Material	No.	Name	Material			
1	Body	GGG40 /50						
2	Seat	SS316						
3	Disc	SS316/CF8M						
4	Spring	SS316						
5	Stem	SS316						
6	Nozzle	SS316						

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Naminal diamatan	PN16							PN25						
DN(mm)	L	D	D1	D2	f	b	Z-ød	L	D	D1	D2	f	b	Z-ød
DN50	120	165	125	102	3	20	4-18	120	165	125	102	3	20	4-18
DN65	150	185	145	122	3	20	4-18	150	185	145	118	3	22	8-18
DN80	180	200	160	133	3	22	8-18	180	200	160	132	3	24	8-18
DN100	230	220	180	158	3	24	8-18	230	235	190	156	3	24	8-22
DN125	252	250	210	184	3	26	8-18	252	270	220	184	3	26	8-26
DN150	266	285	240	212	3	26	8-22	266	300	250	211	3	28	8-26
DN200	293	340	295	268	3	30	12-22	293	360	310	274	3	30	12-26
DN250	330	405	355	320	3	32	12-26	330	425	370	330	3	32	12-30
DN350	382	520	470	430	4	36	16-26	382	555	490	450	4	38	16-33
DN400	410	580	525	482	4	38	16-30	410	580	525	503	4	40	16-36
DN 500	460	715	650	585	4	40	20-33	460	715	650	609	4	44	20-36
DN600	640	840	770	725	5	54	20-36	640	845	770	720	5	58	20-39
DN800	356	1070	990	930	5	56	24-48	356	1070	990	930	5	64	24-48

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