

Product Description

TVN V206 Nozzle / Axial Silent Check Valve, also known as non-slam check valves and spring-assisted check valves reduce or eliminate water hammer and its effects.

Water hammer refers to the high-pressure shock waves that occur when the flow of fluid abruptly stops (due to pump shut down or a valve disc quickly closing) in a piping system. When water hammer occurs, the resulting flow reversal places severe stress on the pipe, endangering its structural integrity, and opening it to potential rupture and damage. Swing check valves, tilting disc check valves, and double door check valves, among others, often contribute to water hammer problems.

To control water hammer and reverse flow, the use of silent check valves is recommended. When the source moving the fluid shuts down and the forward flow of the fluid decreases, the specially designed stainless steel spring action of the silent check valve controls the valve disc closure to occur prior to flow reversal. This spring assist insures that the valve does not slam shut, and the occurrence of water hammer is eliminated.



Technical Data	
Size range	DN100 - DN1000
Pressure range	PN 10 -16
Temperature	EPDM : -10°C to +80 °C NBR - 10°C to +60 °C VITON -10°C to +110 °C
Design	EN 12334 / EN 16767
Face to face	EN 558 Series 8a / ISO 5752 Series 8
Connection	Threaded EN 1092-2 / ISO 7005-2
Coating	Electrostatic / Thermoplastic Powder Epoxy
Testing	EN 12266-1
Marking	EN 19

Application Range

- Transmission pipeline compressor discharge
- Water treatment
- Cooling water system (Ethylene, LNG)
- Multiphase pumping
- Subsea pump and flowline application
- Hydropower installations
- Potable water transmission systems

Related Products

- V106 Double Eccentric Butterfly Valve
- V151 Gate Valve
- V852 Basket Strainer
- V251 Dismantling Joint



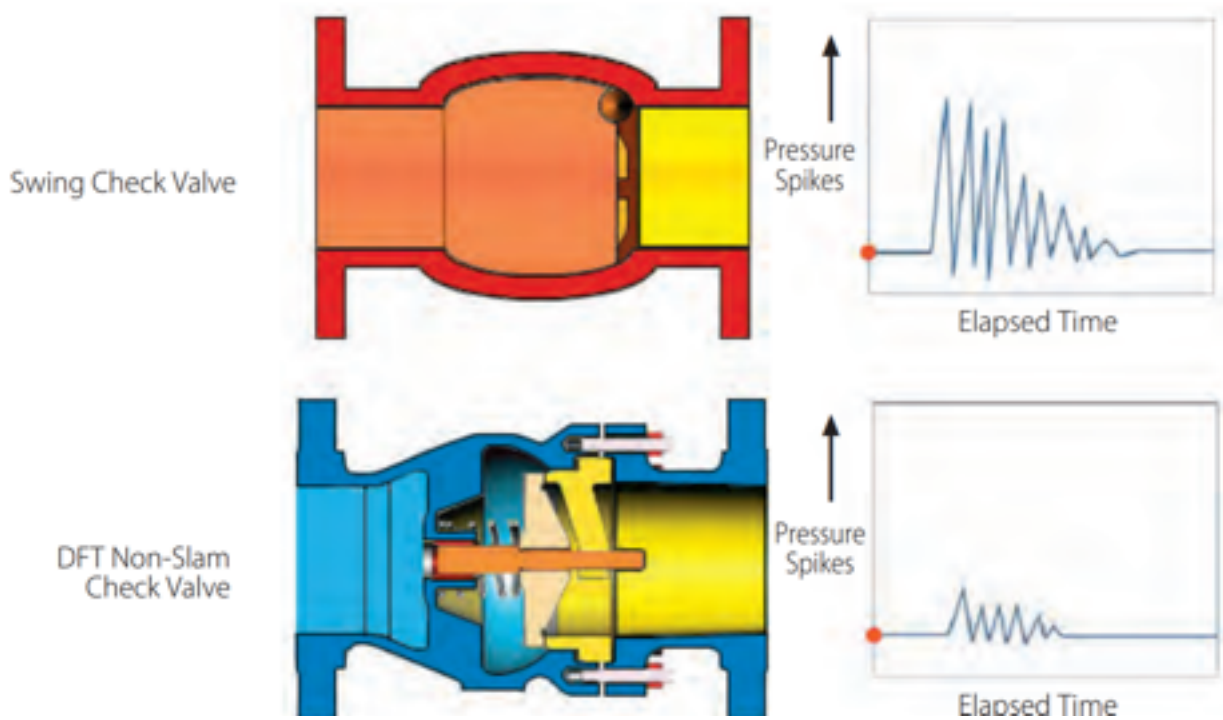
IRRIGATION



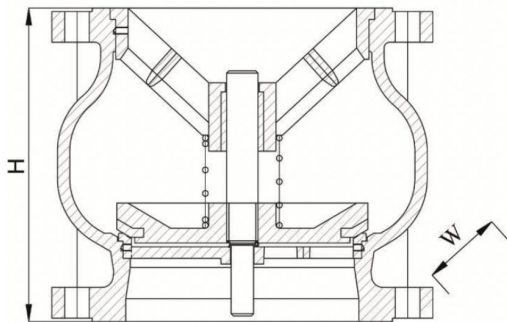
POTABLE WATER

Product Features

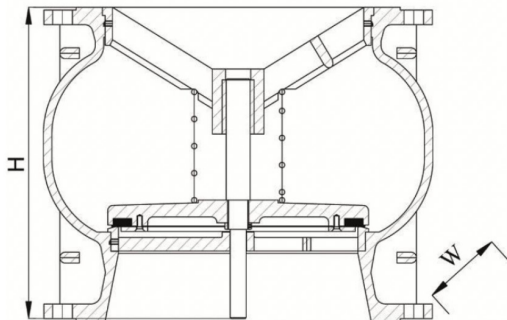
- Streamlined flow path through full-port expanded body avoids turbulence and prevents erosion and vibration. Process downtime and maintenance costs are eliminated.
- The full opening flow passage and high-pressure recovery of the venturi-shaped body result in very low pressure loss: reduced operating cost of pumps and compressors.
- The stability of a compressor system during startup benefits from a low cracking pressure. This is achieved with a large disc that has identical effective pressure areas on both sides (line contact sealing).
- The spring-assisted design ensures ultra-fast closing with virtually no backflow and pressure surges in critical applications such as multi-pump systems or LNG trains.
- Internal construction is based on the application of sound basic mechanical engineering principles. Consequently axial check valves do not require any maintenance.
- Both the pressure drop and the dynamic behavior can be predicted with great accuracy, based on full-scale laboratory flow tests and a mathematical model developed in cooperation with a recognized fluid hydraulics laboratory.
- Hydrostatic test pressure for seat: PN x 1.1 , for shell: PN x 1.5 according to EN 12266-1.



Material List & Dimensions Table



Ø80-400



Ø500-600

No	Part	Material
1	Body	GGG50 Ductile Iron
2	Body Bushing	Bronze
3	Disc Sealing	EPDM
4	Disc	GGG50 Ductile Iron
5	Spring	AISI 304 Stainless Steel
6	Stem	AISI 304 Stainless Steel
7	Stem Centering Part	GGG50 Ductile Iron

DN	ø D	ø K	ø d	C	f	øL x n	L
100	220	180	156	19	3	19x8	175
125	250	210	184	19	3	19x8	200
150	285	240	211	19	3	23x8	225
200	340	295	266	20	3	23x8	275
250	405	350	319	22	4	23x12	325
300	460	400	370	24.5	4	23x12	375
350	520	460	429	26.5	4	23x16	425
400	580	515	480	28	4	28x16	475
450	640	565	530	30	4	28x20	500
500	670	620	582	36.5	4	28x20	550
600	840	725	682	42	5	31x20	600
700	910	840	794	39.5	5	31x24	650
800	1025	950	901	43	5	34x24	700
900	1125	1050	1000	54	5	34x28	800
1000	1255	1160	1112	50	5	37x28	900