

Size range: 4" - 12"

EAC



Profit check valves type WCV are swing-type twin disc check valves that allow water flow in one direction. The valves are designed to be used in fire protection sprinkler systems.

Characteristics

- In- and outdoor use.
- Resilient seating for perfect tightness, also at low differential pressure.
- Double door check valve system.
- Spring assisted disc for excellent dynamic behaviour.
- Short face to face dimensions and compact design.
- Installation in vertical and horizontal pipes is allowed.
- Installation by use of two extra gaskets between pipe-flanges, flange types: EN 1092/PN10/PN16 and ANSI B16.1/Class 125/Class 150.
- Anti-corrosion protection: high grade polyester powder coating, RAL 3000.

Working pressure

16 barg / 230 psi



Approvals

- EAC certified

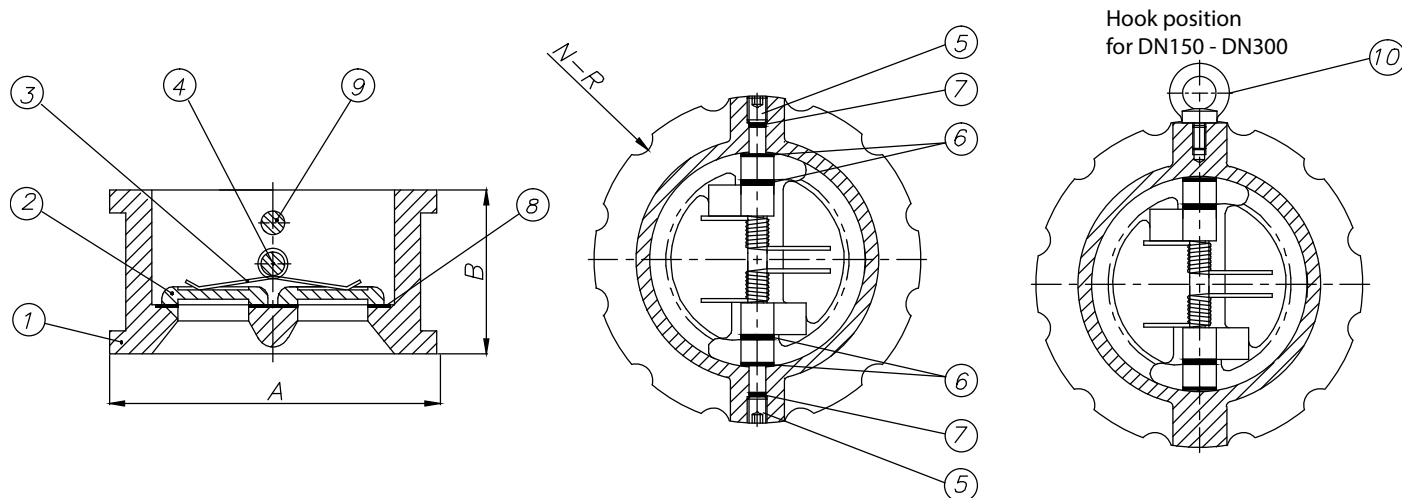
Working temperature

-10°C to +120°C

Material specifications

Part N°	Component	Specification	European standard	ASTM standard
1	Body	Grey cast iron	EN-GLJ-250	A 126 Class B
2	Disc	Stainless steel	X5CrNi18-10 (cast)	A 351 Grade CF8
3	Spring	Stainless steel	X5CrNi18-10	AISI 304
4	Hinge pin	Stainless steel	X20 Cr13	A 276 Type 420
5	Pin retainer	Stainless steel	X5CrNi18-10	AISI 304
6	Washer	Commercial PTFE	\	\
7	Gasket	EPDM rubber	\	D2000
8	Seat resilient ring	EPDM rubber	\	D2000
9	Stop pin	Stainless steel	X20 Cr13	A 276 Type 420
10	Eye bolt	Carbon steel	Carbon steel	A29M Gr.1025

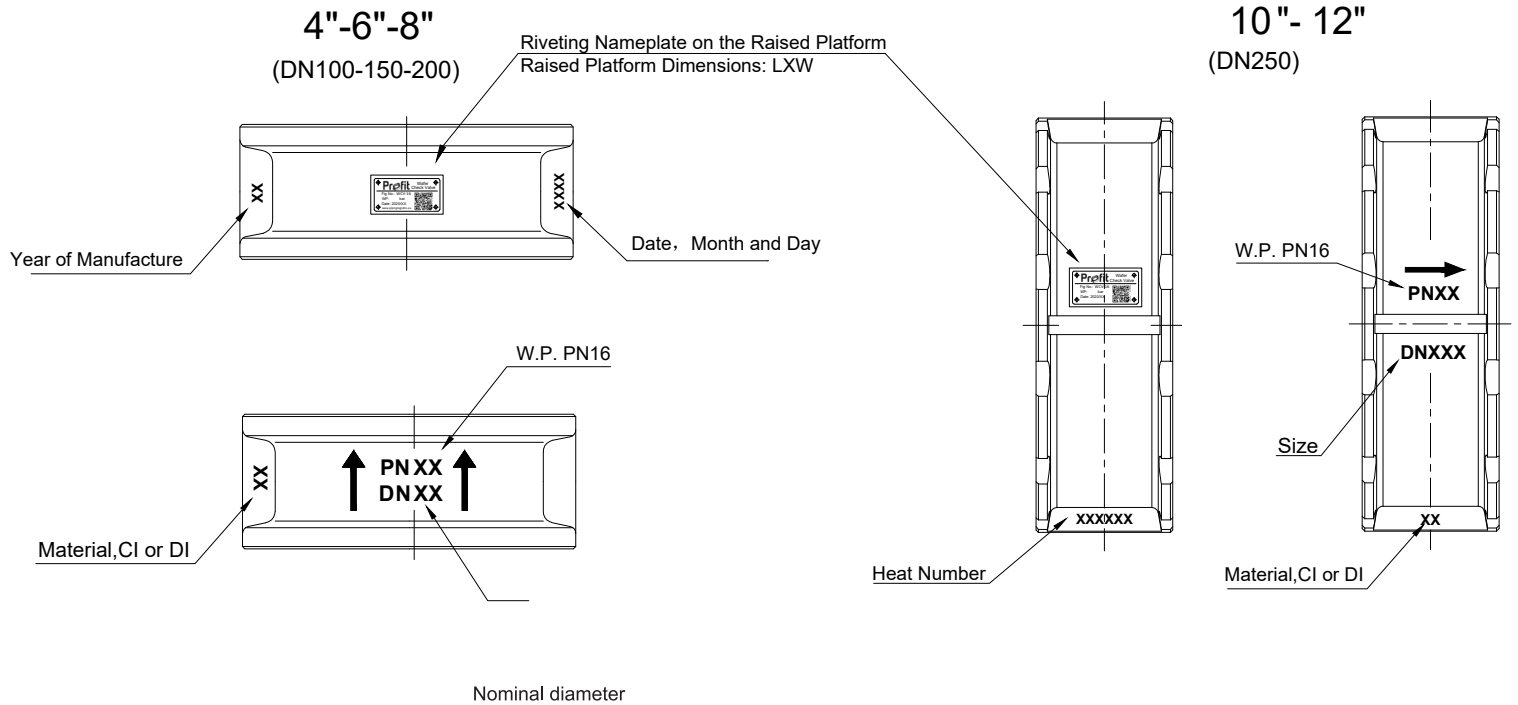
Dimensions



Main dimensions (mm)					
DN		A	B	N-R	Weight Kg
mm	inch	EN1092-2 PN16 Flange			
100	4	161	64	\	4,00
150	6	217	76	\	7,25
200	8	272	95	12-R12,5	13,00
250	10	327	108	12-R15	20,00
300	12	382	143	12-R15	31,00

Marking

Body:

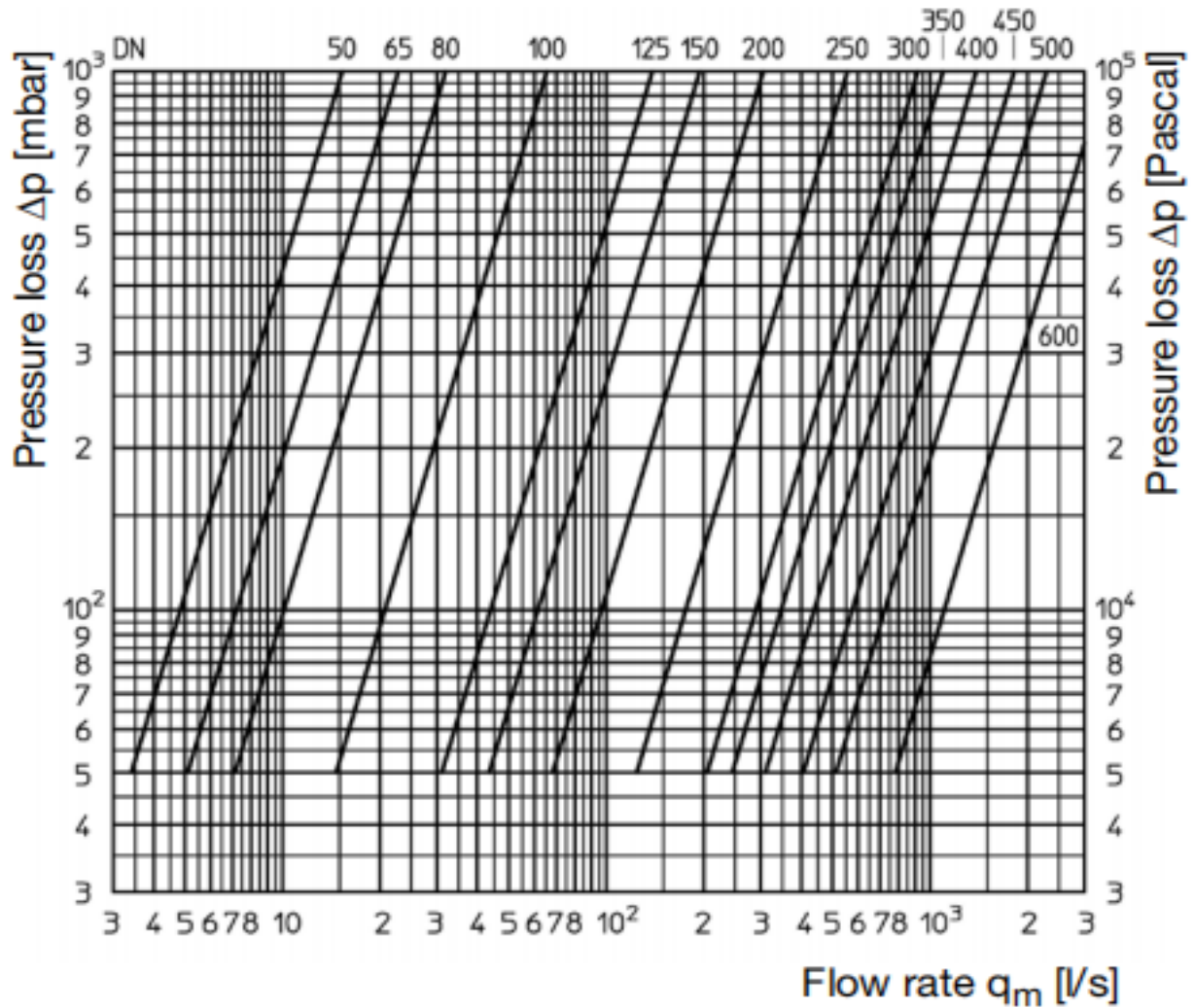


Marking-plate:



Performances

Pressure drop chart:





Storage and handling

- Upon receipt, carefully check complete the valve on any damage during shipment.
- Valves should be unloaded carefully, they should not be lifted by using the waterway passage through the valve. Heavy valves have an eye-bolt on top for lifting purposes. Do not drop the valve onto the ground.
- WCV valves must be stored indoor, protect the rubber seating from direct sunlight. When stored outside, protect the valve from weather conditions and avoid accumulation of water, dirt or debris.



Installation

- Inspection before installation. Checklist:
 1. Check pressure rating of the valve is compatible with the service conditions. WCV valves may be installed with any schedule or pressure class of pipe that is listed or approved.
 2. Check that the standard of the piping flanges both sides are drilled according standard EN 1092-2/PN10/PN16 or ASME B16.1/Class 125/150. Check that the facings of all flanges are free of dirt and /or mechanical damage.
 3. Check that the available length between the pipe-flanges matches the total length of the valve (+ 2x gasket-thickness).
 4. Verify that there are two gaskets available to install in between the flanges on both sides. Check the pressure / temperature rating of the gaskets.
 5. Check availability of correct bolts & nuts to complete both flange-connections.
 6. Check that the pipe-flanges are parallel.
 7. No need to lubricate the clapper-hinges or the rubber seating inside.
 8. Check that valve-body and adjacent pipes are clean inside and free of dust / debris.
 9. Pipework must be supported near the valve and pipes (flanges) must be well aligned so that no extra stress will be exerted on the valve-body during installation.
 10. To prolong the valve-life, we recommend to install the valve not closer than 5-6 x DN when installed downstream near fittings (bends, tees, reducers, pumps etc...)
 11. The valves have a flow direction to be respected at installation.
 12. There is a clear flow direction arrow on the body.
 13. In vertical pipes the flow MUST always be upwards.
 14. For replacements: all pipes need to be depressurised and purged before starting the installation.
 15. Personnel for the installation must be qualified for the task.

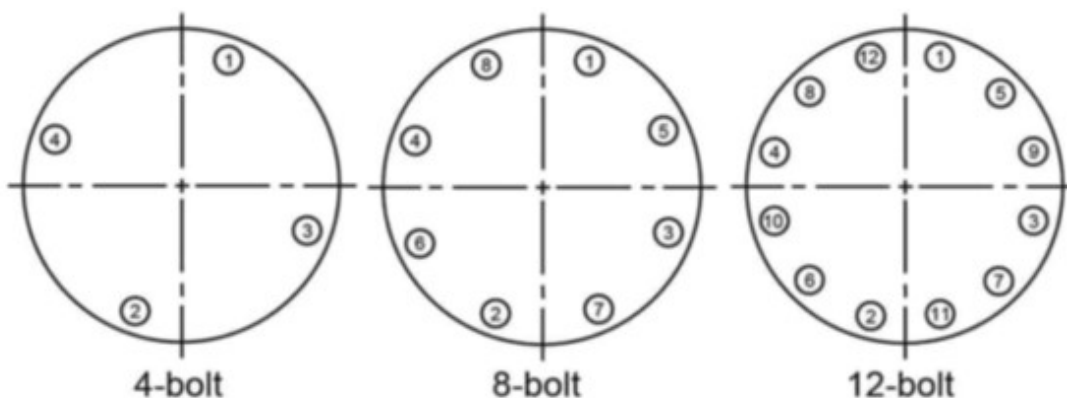
- Installation of the valve:
 1. Separate the 2 pipe-flanges and position de valve between the flanges.
Note: in horizontal pipes, we recommend to install the valve with the disc hinge pin in vertical position, if possible.
 2. Relax the flanges and install all bolts and nuts handtight.
 3. Tighten now all bolts using the recommended torque values of table below.
 4. For correct tightening please apply cross-over sequence.
 5. Bolt torque: please consult gasket datasheet / supplier.

Bolt dimensions for PN-16 bolt connections (EN 1092-PN16)

DN	Number of bolts	Bolt-nut size mm	Bolt length mm
100	8	M 16	140
150	8	M 20	160
200	12	M 20	190
250	12	M 24	210
300	16	M 24	250

BOLT TORQUE SEQUENCE

(Bolt N°1 is the bolt closest to biggest gap between the 2 flanges)



Our advice =

- STEP 1 = 30%
- STEP 2 = 60%
- STEP 3 = 100%

BOLT TORQUE = depends on gasket type used and bolt material grade.



Maintenance

- WCV valves are basically installed maintenance-free. When a major problem of any kind occurs, please contact technical dpt. of Piping Logistics.

GENERAL INFO

- Installers should be trained or experienced to install and understand the product.
- Read and understand all technical datasheets and installation instructions before attempting to install, remove or adjust any Profit piping products.
- Depressurise and drain the sprinkler installation system before attempting to install, remove or adjust any Profit piping products.
- Never work on piping-systems that are pressurised and /or filled with water.
- Use the necessary Personal Protection Equipment (PPE) to avoid personal injury (helmet, safety shoes and goggles, Profit gloves).



Failure to follow these instructions could result in death or serious injury and property damage.

We advise to always store our products in closed and dry environments, the products do not need any specific maintenance once installed on an aboveground sprinkler installation.

REVISION TABLE

Date	△	Notes
13/06/2024	A	Page 1 - The approvals have been added.