

WHP 6503 Water Hammer Protector with bypass for increased durability

**WHP swing check valve with bypass
and increases the service life of piping systems**



An effective way to minimize the risk of expensive repairs due to pressure surges



WHP Water hammer protector and lifting device

WHP is a swing check valve that evacuates excess pressure during a pressure surge. The valve also has a vacuum valve that opens at a negative pressure of 0.03 bar and allows air to pass through during the negative pressure phase of the pressure surge.

The valve is intended for water and sewage. The housing has angled seat for best tightness at low pressure differences. The flap is made of steel envulcanized in NBR rubber. The flap is reversible.

The valve has full throughput and very low pressure drop. The valve is equipped with lifting device, which allows evacuation of the medium on the pressure side during service and can be used when emptying the pipe. Flange connection, PN10/16.

Available in three smart versions



WHP with bypass and lifting device



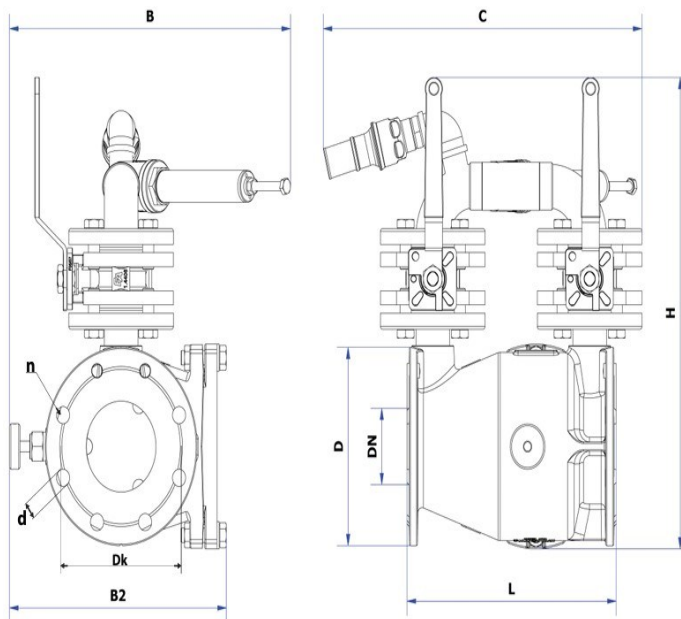
WHP with ball valve and eldon



WHP with plugged holes, possibility of retrofitting vacuum bypass

WHP 6503

- A unique swing check valve with the possibility of extension of bypass that eliminate pressure surg
- Handles both excess and negative pressure
- Minimizes the number of breaks in the piping system
- Increases the service life of all pipe systems
- Simple assembly
- Low energy costs
- Can replace hydraulic backflow valves



TECHNICAL DATA

Max. Pressure	DN 100-150 / 16 bar DN 200-500 / 16/10 bar
---------------	---

Max. Temperature	80°C
------------------	------

MATERIAL

Body	EN-JS 1030
Cover	EN-JS 1030
Flap	NBR
Cover gasket	NBR
Lifting device	Messing
Screws	A2
Coating	EKB 250 my
Overall length	Din 3202 F6

Type	DN	H	C	B	B2	L	ΦD	ΦDk	n	Φd	Kg
BPS6503100	100	515	448	391	315	300	220	180	8	18	28,5
BPS6503125	125	554	448	440	393	350	250	210	8	18	48
BPS6503150	150	589	448	446	418	400	285	240	8	22	64
BPS6503200	200	665	572	490	520	500	340	295	8	22	116
BPS6503250	250	754	572	524	615	600	405	350	12	22	162
BPS6503300	300	808	572	574	630	700	455	400	12	22	222
BPS6503350	350	970	786	730	716	800	505	460	16	22	300
BPS6503400	400	1105	880	756	868	900	565	515	16	26	425
BPS6503500	500	1210	1050	793	970	1100	670	620	20	26	618

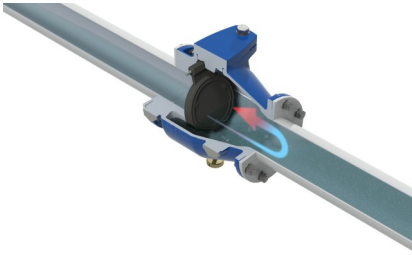
Pressure drop

DN	100	125	150	200	250	300	350	400	500
ΔP/bar	0,013	0,017	0,014	0,020	0,020	0,020	0,020	0,020	0,020

Max. Recommended speed is 2m/sec. At this flow rate, the valve has an extremely low pressure difference.

After prolonged use, the flap should be replaced. Checking the overpressure protection and the operation of the vacuum valve should be carried out regularly.

Without WHP (Water Hammer Protection) With WHP (Water Hammer Protection)



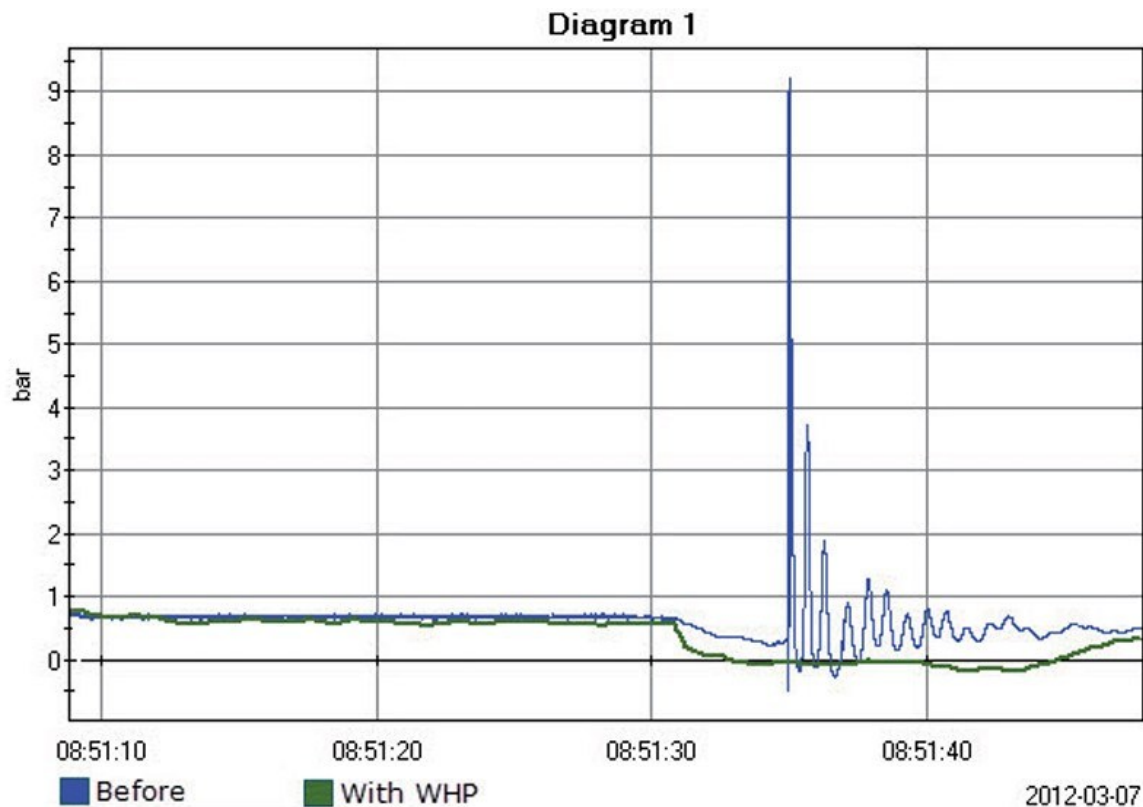
When the pump is turned off, the medium continues forward, creating a vacuum. When the medium then returns with full force, an overpressure is created. This can cause powerful pressure surges.



When a vacuum occurs, the vacuum valve opens and lets air in. The air acts as an air cushion when the medium returns, damping the pressure surge.



If the overpressure from the medium becomes too high, the valve opens and allows the medium to pass through the bypass.



Installation of WHP (Water Hammer Protection) 6503 at a pump station with DN150 pipes.

The **BLUE** curve represents pressure surges with conventional check valve.

The **GREEN** curve represents the result after the installation of WHP 6503.

"Our goal is to provide long-term and profitable solutions to our customers."