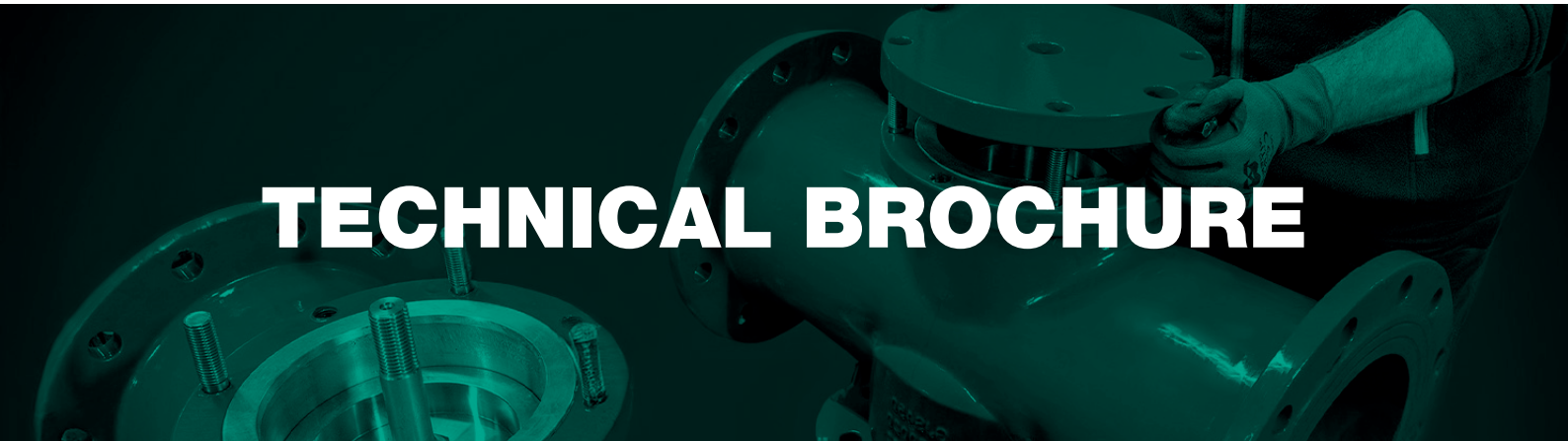
Pietro Fiorentini

VNT

Automatic air valve for aqueduct



TECHNICAL BROCHURE

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VNT_technicalbrochure_ENG_revB

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Single-acting automatic air valve

VNT HP

VNT series air valves are automatic devices that allow the release of air pockets formed in pipelines during operation.

The VNT HP model, with its compass construction and only one moving part, guarantees automatic degassing with a pressure of 0.1 to 40 bar. Its technical characteristics place it at the highest level of quality on the market.

Constructive features and advantages

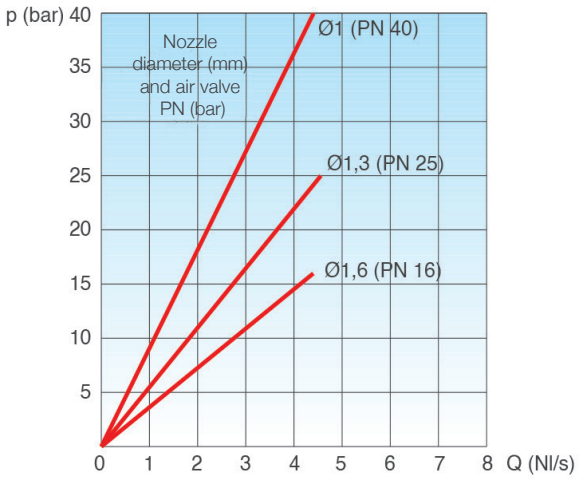
- Body and cap made of ductile cast iron GJS 450-10, class PN 40.
- AISI 304 or 316 stainless steel float.
- AISI 303 or 316 stainless steel joint and pins.
- AISI 303 or 316 stainless steel nozzle.
- Compass construction to facilitate degassing through the nozzle.
- Double O-ring to ensure a perfect water tightness during operation.
- Adjustable nozzle to control gasket compression.
- AISI 304 or 316 stainless steel nuts and bolts.
- Minimum operating pressure 0.1 bar.

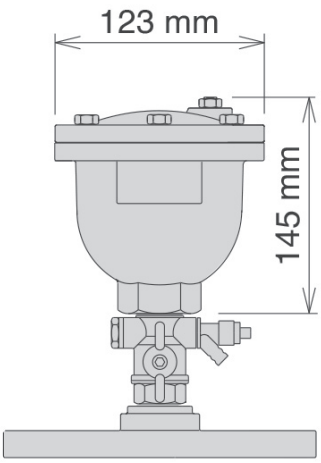
Main applications

- Water distribution networks, irrigation, buildings
- Pumps
- Control valves and regulation systems
- In general, where only the degassing of pressurised air is necessary. It can be installed in combination with WAVE series automatic air valves, which ensure the entrance and discharge of large quantities of air

Technical data

Air flow characteristic charts





AIR FLOW RATE DURING DEGASSING
The air flow rate charts were obtained in Kg/s, from laboratory tests and numerical analysis, and converted to Nl/s by applying a safety factor.

Operating conditions

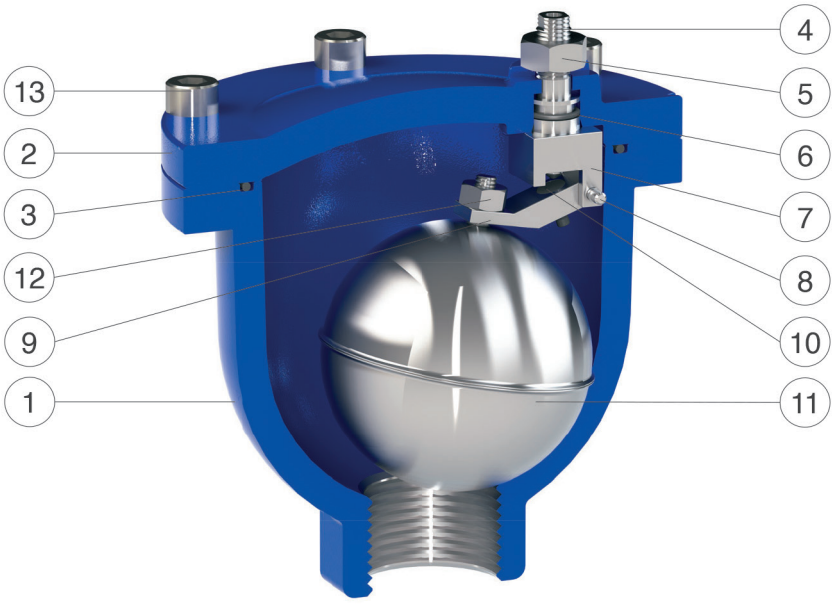
Maximum treated water	60°C (Higher temperatures on request)
Maximum pressure	40 bar
Minimum pressure	0.1 bar (lower on request)

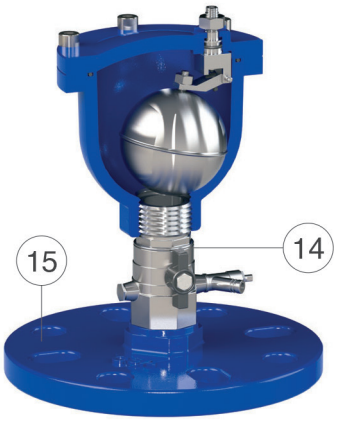
Standard

- Design according to EN 1074/4
- 1" thread as standard, flanges on request with drilling according to EN 1092/2
- Fluid bed coating RAL 5005 blue

Modifications to painting and flanging standards on request.

Construction details





No.	Component	Standard material	Optional
1	Body	ductile cast iron GJS 450-10	
2	Cap	ductile cast iron GJS 450-10	
3	O-ring	NBR	EPDM/Viton/silicone
4	Nozzle	AISI 303 stainless steel	AISI 316 stainless steel
5	Nut	AISI 304 stainless steel	AISI 316 stainless steel
6	Nozzle O-ring	NBR	EPDM/Viton/silicone
7	Upper joint	AISI 303 stainless steel	AISI 316 stainless steel
8	Joint pin	AISI 303 stainless steel	AISI 316 stainless steel
9	Lower joint	AISI 303 stainless steel	AISI 316 stainless steel
10	Nozzle gasket	silicone	
11	Float	AISI 304 stainless steel	AISI 316 stainless steel
12	Nut	AISI 304 stainless steel	AISI 316 stainless steel
13	Screws	AISI 304 stainless steel	AISI 316 stainless steel
14	Ball valve (on request)	nickel-plated brass OT58	AISI 316 stainless steel
15	Multiple flange (on request)	ductile cast iron GJS 450-10	Fe 37 coated/AISI304/316

The table of materials and components is subject to change without notice.

Single-acting automatic air valve

VNT LP

VNT series air valves are automatic devices that allow the release of air pockets formed in pipelines during operation.

The VNT LP model ensures automatic degassing with a pressure of 0.1 to 25 bar.

Technical features and advantages

- Upper and lower body of ductile cast iron GJS 450-10, class PN 25.
- AISI 304 stainless steel float coated with vulcanised NBR or EPDM rubber.
- AISI 303 or 316 stainless steel nozzle.
- Screws and nuts made of AISI 304 or 316 stainless steel.
- Easy maintenance and compact size.

Main applications

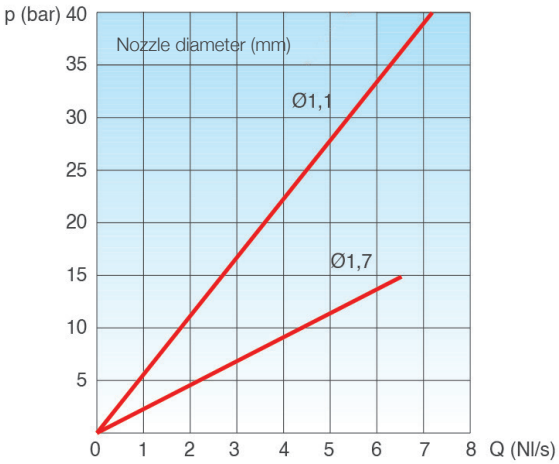
- Water distribution networks
- Irrigation, heating systems
- Buildings

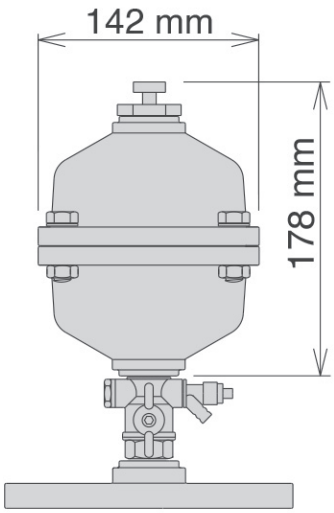
Note

The air valve is equipped with a 1" threaded connection; on request it is supplied with a ball valve and flange.

Technical data

Air flow characteristic charts





AIR FLOW RATE DURING DEGASSING
The air flow rate charts were obtained in Kg/s, from laboratory tests and numerical analysis, and converted to Nl/s by applying a safety factor.

Operating conditions

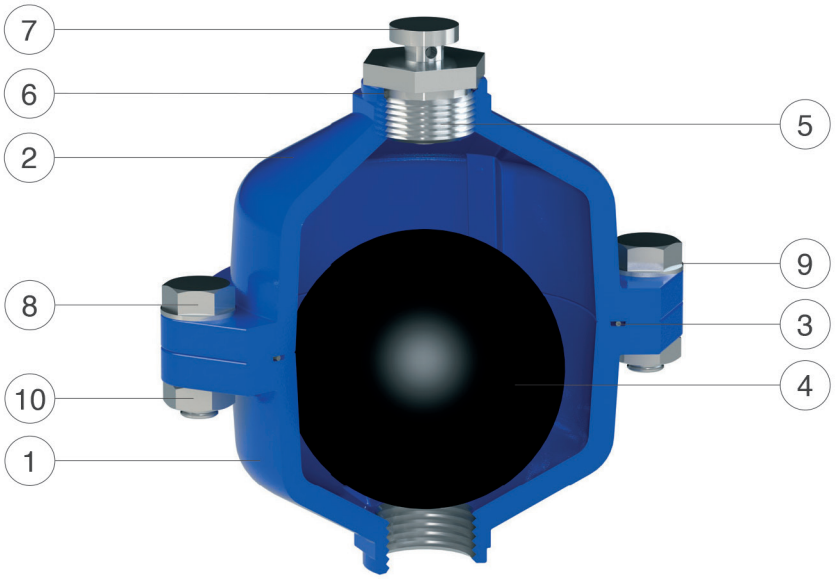
Maximum treated water	60°C Higher temperatures on request
Maximum pressure	25 bar.
Minimum pressure	0.1 bar

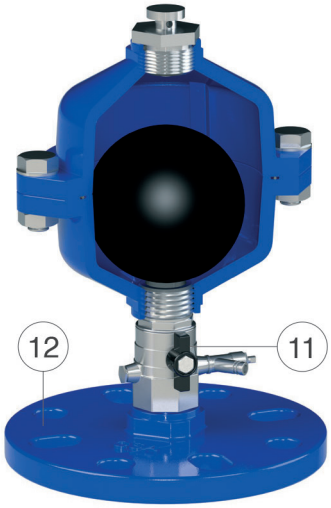
Standard

- Design according to EN 1074/4
- Thread 1" BSP as standard, flanges on request with drilling according to EN 1092/2
- Fluid bed coating RAL 5005 blue

Modifications to painting and flanging standards on request.

Construction details





No.	Component	Standard material	Optional
1	Lower half-body	ductile cast iron GJS 450-10	
2	Upper half-body	ductile cast iron GJS 450-10	
3	O-ring	NBR	EPDM/Viton/silicone
4	Float	AISI 304 stainless steel rubberised NBR or EPDM	
5	Nozzle	AISI 303 stainless steel	AISI 316 stainless steel
6	O-ring	NBR	EPDM/Viton/silicone
7	Nozzle cap	AISI 303 stainless steel	AISI 316 stainless steel
8	Screws	AISI 304 stainless steel	AISI 316 stainless steel
9	Washers	AISI 304 stainless steel	AISI 316 stainless steel
10	Nuts	AISI 304 stainless steel	AISI 316 stainless steel
11	Ball valve (on request)	nickel-plated brass OT58	AISI 316 stainless steel
12	Multiple flange (on request)	ductile cast iron GJS 450-10	Fe 37 coated/ AISI304/316

The table of materials and components is subject to change without notice.

Sustainability

Here at Pietro Fiorentini, we believe in a world capable of improvement through technologies and solutions that can shape a more sustainable future. That is why respect for people, society and the environment form the cornerstones of our strategy.

Our commitment to the world of tomorrow

While in the past we limited ourselves to providing products, systems and services for the oil & gas sector, today we want to broaden our horizons and create technologies and solutions for a digital and sustainable world, with a particular focus on renewable energy projects to help make the most of our planet's resources and create a future in which the younger generations can grow and prosper.

The time has come to put the why we operate before the what and how we do it.

Pietro Fiorentini

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Product designed and manufactured by **CSA S.r.l.** and distributed by **Pietro Fiorentini S.p.A.**

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Pietro Fiorentini CSA