

Deaerators

Art. 520 – 521



100% MADE IN ITALY 

Function The presence of air inside heating or cooling systems can cause corrosive phenomena that could negatively affect the correct functioning and performance of the system itself.

In particular it can lead to:

- Corrosion produced by oxygen
- Noise
- Arrest of the regular fluids flow
- Cavitation in circulation pumps

Pintossi+C deaerators have the function of **continuously and automatically removing the air** that can form inside **heating or cooling systems**.

The air can result for different reasons, such as near the internal surfaces during the combustion processes of the boilers due to high temperatures; or during cavitation phenomena, which can occur near pumps, pressure reducers, etc.

Thanks to the special **internal stainless steel cartridge** and the variation of the passage section, the flow produces particular swirling motions that favor the release of micro bubbles. In addition, the low resistance to flow passage ensures very **low pressure losses**. These micro bubbles are collected on the surface of the internal cartridge and once they have reached a suitable size, they rise upwards and are expelled by the action of the float.



Finally, the upper part of the deactivator is 360° swivel and this permits to direct the discharge of the air according to the needs.



Product range

Art. 520	3/4" – 1"	Female linear connections
Art. 521	3/4" – 1"	Female swivel connections

Technical specifications

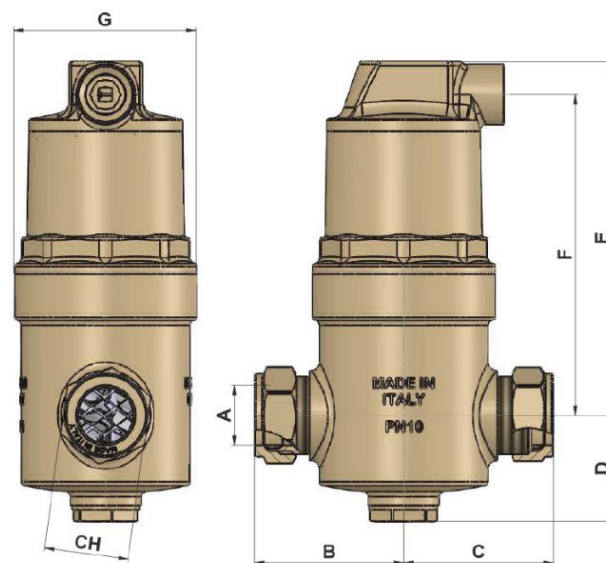
Fluids:	Water or glycol solutions
Max glycol:	30%
Max working temp.:	100°C
Max working pressure:	10 bar

Materials

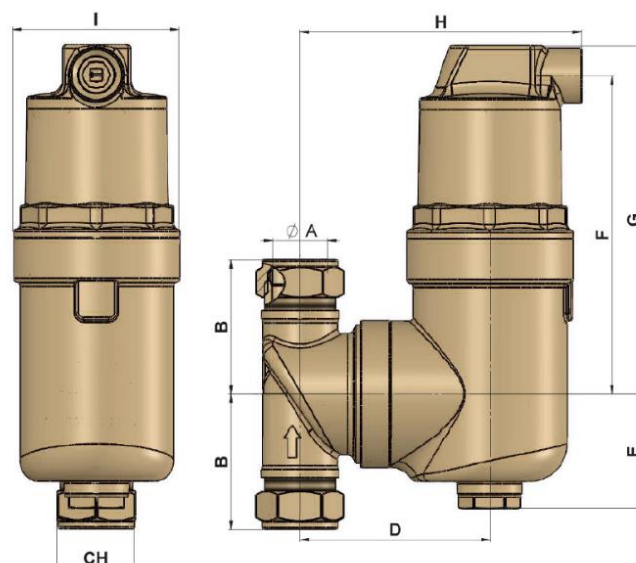
Body:	Brass CW617N
Float:	Polypropylene
Internal cartridge:	Stainless steel AISI 302
Gaskets:	EPDM
Spring:	Stainless steel AISI 302

Dimensions

ART.	ØA	B	C	D	E	F	G	CH
520	3/4"	47	47	39	130	118	67	33
	1"	50	50	39	130	118	67	38
	1 1/4"	50	50	39	132	118	67	47



ART.	ØA	B	C	D	E	F	G	CH
521	3/4"	46	49	77	46	128	140	113
	1"	46	49	77	46	128	140	113

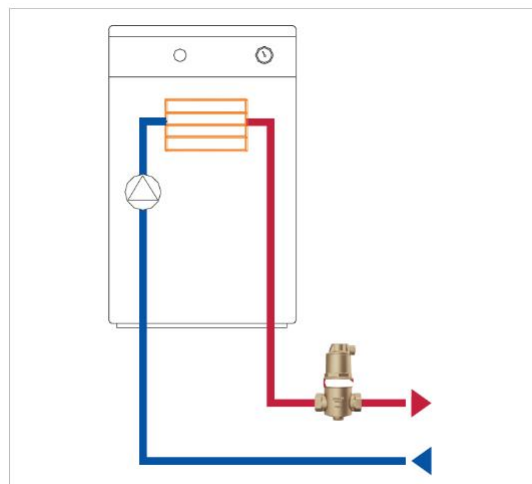
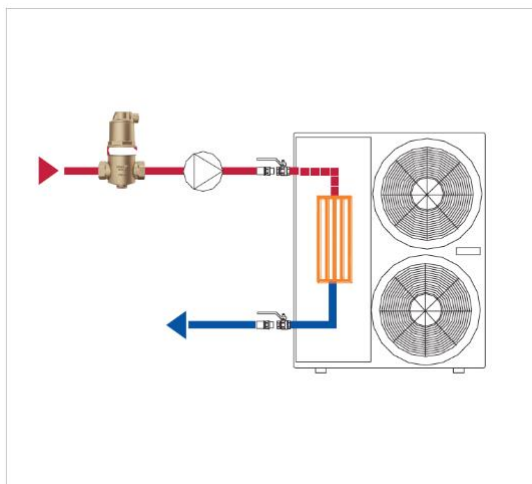


Installation

The Pintossi + C deaerators can be installed on both heating and cooling systems.

In heating systems, it is recommended to install the deaerator immediately downstream of the boiler.

In cooling systems, it is recommended to install the deaerator upstream of the cooling unit (chiller).

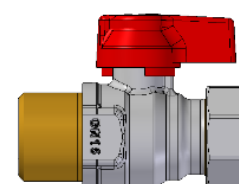


The sense of the fluid is indifferent in the case of deaerators with linear connections (art.520), while in the case of deaerators with swivel connections (art.521) it must follow the direction of the arrow printed on the body.

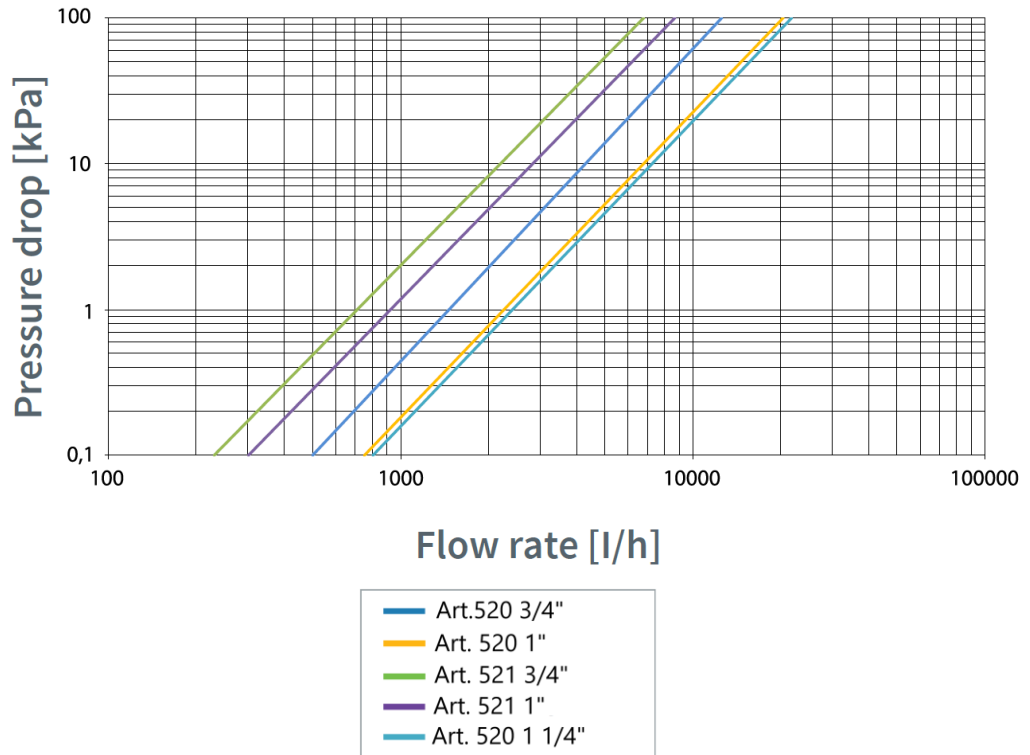
The deaerator must always be installed in a vertical position with the air discharge device facing upwards.



It is advisable to install shut-off valves upstream and downstream of the filter, such as the art.5553 series, in order to allow routine and extraordinary maintenance operations



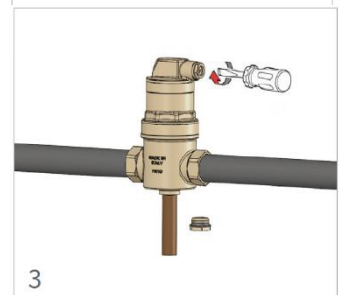
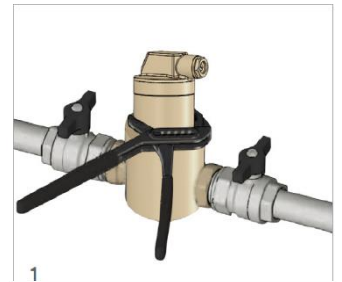
Head loss diagram



Maintenance

Follow the steps below in case of malfunctioning of the air vent valve or to carry our routine cleaning operations:

1. Close the ball valves upstream and downstream of the deaerator. Through the use of a wrench, unscrew the upper body, using the appropriate octagonal ring.
2. Unscrew the air vent valve and clean or replace the internal component. For the correct insertion of the rod on the internal float keep the top of the deaerator upside down and proceed to screw the air vent valve.
3. It is important to ensure that the air vent valve screw is always unscrewed to release the air automatically. It is therefore possible to tighten the screw completely to block its operation. At the bottom of the deaerator there is a 1/2" closure cap where it is possible to install a drain valve if necessary.



Fluid characteristics

Reference standard for water treatments in heating systems is Norm UNI 8065:2019 which regulates the parameters that must be observed to avoid scale and corrosion phenomena.

In order to grant product warranty, the fluid characteristics must comply with the rules in force in the country of relevance or at least present features not less to the ones prescribed by the Norm UNI 8065:2019.

In particular, minimum standards necessary but not sufficient to control are the following:

Fluid aspect: Limpid

PH: Between 7 and 8

Iron (FE): < 0,5 mg/kg (< 0,1 mg/kg for steam)

Copper (CU): < 0,1 mg/kg (< 0,05 mg/kg for steam)

Antifreeze: Passivated Propylene Glycol

Conditioning: as indicated by the producer

In any case when using antifreeze and conditioning solutions, is required to control and verify the correct compatibility between these substances and the construction materials stated in Pintossi+C technical datasheet.