DISCALSLIM®
Deaerator

551 series

www.caleffi.com

PATENT PENDING

- Automatic and continuous separation of the air from HVAC systems, down to the micro-bubble level (slow, continuous degassing).
- Its adjustable fittings make it ideal for installation on both horizontal and vertical pipes.
- Its special internal configuration eliminates micro-bubbles with very low pressure drops.
- Equipped with a hygroscopic safety cap to prevent damaging leaks.
- Circulation of fully deaerated water allows the systems to operate in optimal conditions, free from any noise, corrosion, localised overheating or mechanical damage.
- This special series of compact deaerators is specially suited to installation under the boiler, on both copper and steel pipes.

CALEFFI
Hydronic Solutions

PRODUCT RANGE

CODE	CONNECTIONS
551805	3/4" F
551806	1" F

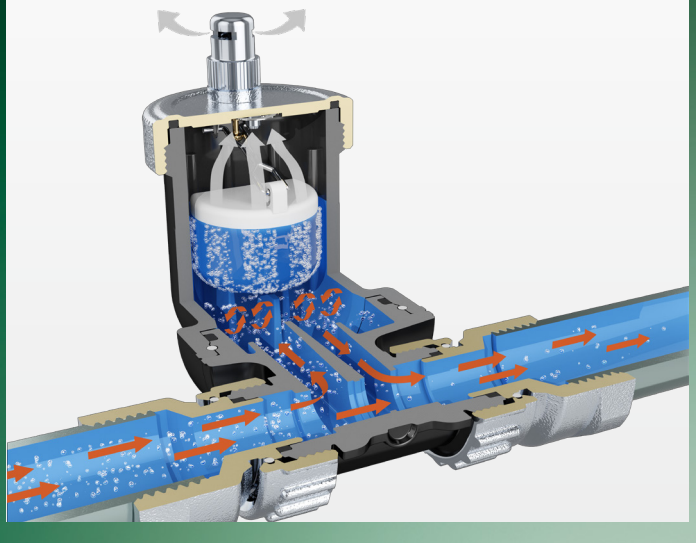
CODE	CONNECTIONS
551801	∅ 18
551802	∅ 22

TECHNICAL SPECIFICATIONS

Body material	PPAG40
Medium	water, glycol solutions
Max. glycol percentage	30%
Max. working temperature	110°C
Max. working pressure	3 bar

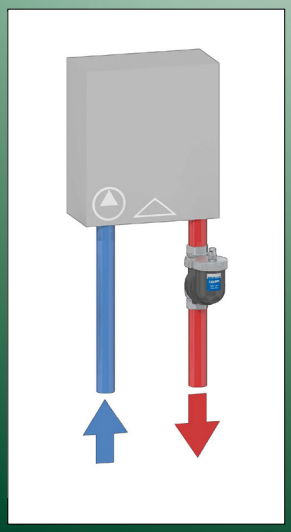
INSTALLATION

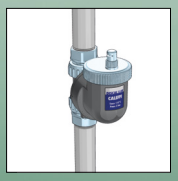
The special internal configuration of DISCALSLIM® reduces pressure drops to a minimum.
Its internal profile deviates part of the flow into the deaeration chamber. In the chamber, the water is slowed down and broken up by fins in secondary chambers, creating a turbulent flow.
The resulting mini-vortices separate the air bubbles from the flow, collecting them in the bottom of the chamber, where they aggregate to form large bubbles which rise upwards through discharge ducts located at the side of the float.
Once they reach the top of the valve, the aggregated bubbles push the float downwards, thus opening the vent valve and discharging the accumulated air.

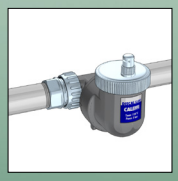


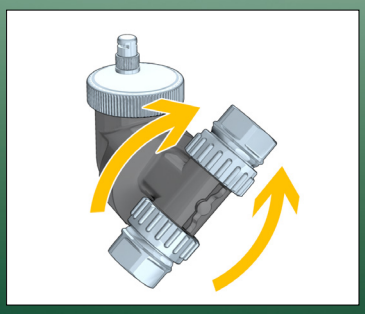
OPERATING PRINCIPLE

Installs on both horizontal and vertical pipes. Not upside down.









CONSTRUCTION DETAILS

Hygroscopic cap

The operating principle of the hygroscopic cap is based on the properties of the cellulose fibre disks which form the seal cartridge. These discs increase in volume by 50% when they come into contact with water, thus closing the valve. This avoids any damage in the event of water leakage.

Technopolymer

The deaerator is made from a technical polymer specifically selected for heating and cooling system applications.
The main features of the technopolymer are:

- high strain strength while maintaining good ultimate elongation;
- good resistance to crack propagation;
- very low humidity absorption, for consistent mechanical behaviour;
- high resistance to abrasion caused by continuous medium flow;
- performance maintained over temperature variation;
- compatibility with glycols and additives used in circuits.

These basic material characteristics, combined with the appropriate shaping of the most highly stressed areas, enable a comparison with the metals typically used in the construction of deaerators.

REFERENCE DOCUMENTATION

551 series - Technical brochure 01337

CALEFFI Hydronic Solutions

0362319GB

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