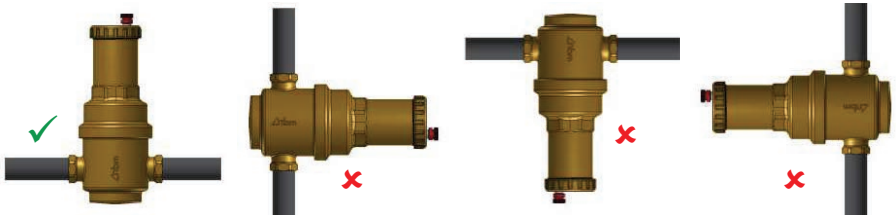
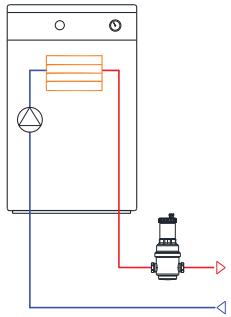
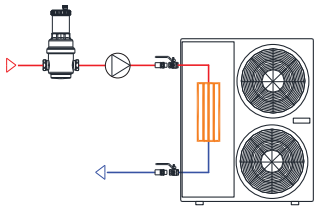
Installation

- Install on the warmest side of the system as this is the area where micro-bubbles form more easily.
- Install on the boiler outlet on heating systems and in the return pipe on cooling systems to chiller units.
- It is recommended to install isolating valves upstream and downstream of the de-aerator in order to allow for scheduled maintenance work and filter cleaning.
- The ZILMET micro-bubble de-aerator is bi-directional therefore it has the same efficiency irrespective of flow direction.
- The de-aerator must be installed vertically in horizontal pipework with the automatic air vent at the top.





De-aerator installed on the flow from the boiler



De-aerator installed on the return to the chiller

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5-27-2019

ZILMET

Inline De-Aerator

Installation and Maintenance Instructions

Introduction

The ZILMET inline de-aerators are suitable of eliminating micro bubbles from heating and cooling systems in commercial and public buildings.

The de-aerators use two separate principles to operate.

ACTIVE: The area where micro-bubbles are formed as a result of strong turbulence and swirling motion. Micro-bubbles collect together to form bigger bubbles.

PASSIVE: The float operated automatic air vent to expel the collected air bubbles.

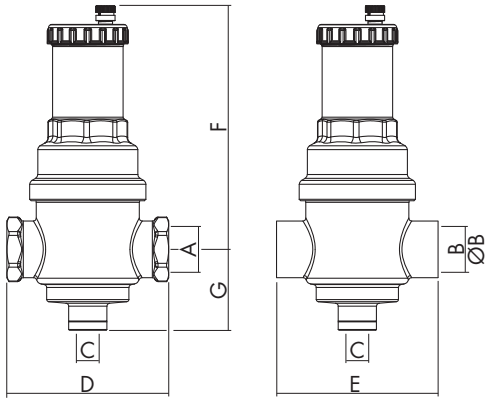
The use of de-aerators by removing air from the system helps to prevent unnecessary failures by helping to;

- Increase heating and cooling efficiency
- Reduces the formation of corrosion in all parts of the system.
- Reducing the amount of maintenance required
- Reduces the effects causing system noise.
- Lower running costs.

Products

Micro-bubble De-aerator with ¾" NPT Threaded Connections	ZU0001
Micro-bubble De-aerator with 1" NPT Threaded Connections	ZU0002
Micro-bubble De-aerator with 1¼" NPT Threaded Connections	ZU0003
Micro-bubble De-aerator with ¾" Solder Ends to ANSI B16.22	ZU0004
Micro-bubble De-aerator with 1" Solder Ends to ANSI B16.22	ZU0005
Micro-bubble De-aerator with 1¼" Solder Ends to ANSI B16.22	ZU0006

Dimensions

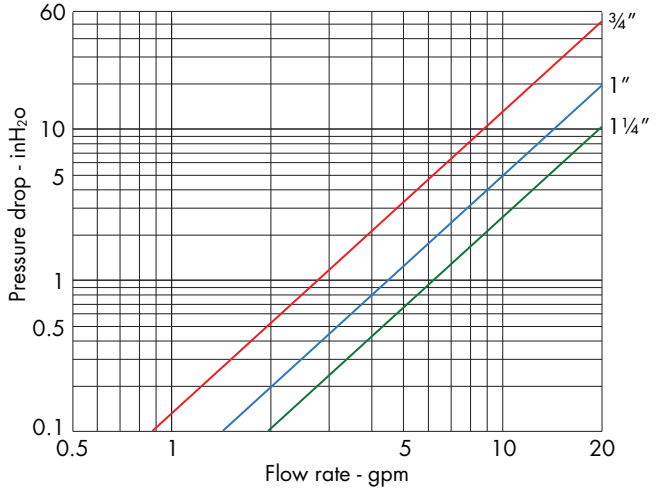


Size	A	B	ØB	C	D	E	F	G
¾"	¾"- NPT	¾"Solder	0.88"	½"- NPT	4.33"	4.33"	6.52"	2.16"
1"	1"- NPT	1"Solder	1.33"	½"- NPT	4.33"	4.33"	6.52"	2.16"
1¼"	1¼"- NPT	1¼"Solder	1.38"	½"- NPT	4.33"	4.33"	6.52"	2.16"

Technical Specification

Fluid:	Water
Maximum glycol percentage:	50%
Maximum temperature:	230°F
Maximum working pressure:	150 psi
Maximum discharge pressure:	150 psi

Flow Data and Cv Values



Size	¾"	1"	1¼"
Cv	14.65	23.65	32.56

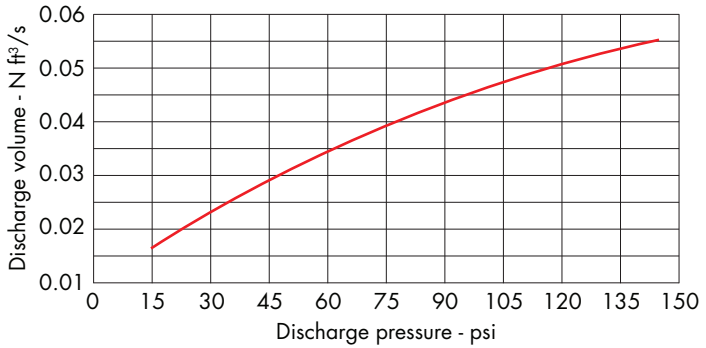
It is recommended to keep the maximum flow velocity of the fluid in the pipework within 4 ft/s.

Higher flow velocities will reduce the efficiency of the de-aerator and it's ability to discharge the collected air.

The table opposite shows the corresponding quantity of fluid in gpm corresponding to 4 ft/s.

Size	gpm
¾"	6.0
1"	9.3
1¼"	15.4

Air Discharge Capacity Diagram



NOTE: N ft³/s is the discharge in ft³/s at atmospheric pressure