

QUALITY

INNOVATION

RELIABILITY

THE ONE®

UNIQUE AND EXCLUSIVE TO CALEFACTIO

The only device combining an expansion tank with a replaceable bladder, an air separator and a dirt separator.

BENEFITS

- ✓ Money Saving
- ✓ Time Saving
- ✓ Reduces the number of joints and weldings
- ✓ Reduces risks of leakage



PATENT PENDING

THE INDUSTRY'S MOST PERFORMANT AIR, SOLIDS AND SLUDGE SEPARATOR

With an oversized chamber to absorb the system's shocks.

- Stainless steel coalescent media
- Minor pressure loss (CV22)
- High efficiency micro-bubble separation
- Superior performance in solids and dirt separation
- Brass & copper housing

3 IN 1

AIR AND SLUDGE SEPARATOR

- Air & Sludge separator with Calefactio's technology
- Extract the smallest micro-bubbles and the finest sludges



REPLACEABLE BLADDER EXPANSION TANK

- Water is in the bladder
- No contact with steel
- Shell and water no rust or corrosion of the steel shell
- Possibility to inspect the coalescent media



HIGH EFFICIENCY AUTOMATIC AIR VENT

- Oversized air chamber
- Larger space between water and aeration valve
- Brass housing



DRAIN VALVE

- Can drain while system is operating
- Garden hose fitting
- Easy to purge
- Brass housing



Because of its large diameter, THE ONE® allows to quickly reduces fluid velocity quickly, resulting in effective micro-bubbles, solids and sludge removal.

EXPANSION TANK

In every heating and cooling system, the coolant or heating fluid reacts to temperature variations, expanding when heated and compressing when cooled. To protect the system from these dangerous pressure variations, it is important they be absorbed. Expansion tanks perform this function when the expanded liquid lands in the tank bladder.

TO15 and TO30 tanks are oversized to offer the same expansion volume as Calefactio's traditional tanks, models HGT15 and HGT30. The replaceable bladder attaches to the tank by a bolted flange at the top, and retained on each side and at the bottom by lateral connections.

TECHNICAL SPECIFICATIONS

Materials	Temperature range
Housing: steel	32-240°F (0-115°C)
Bladder: EPDM	
Paint: electrostatic	Maximum pressure
	115 PSI
Compatible Fluids	
Water and glycol solutions (50%)	

Model	Total Volume		Net Volume		Max. op. Pressure	Connect. MNPT	Width		Height	
	gal	L	gal	L			mm	in	mm	in
TO15	2.7	10	2.1	8	115 PSI	1 po	325	12.8	395	15.6
TO30	5.3	20	4.8	18	115 PSI	1 po	325	12.8	570	22.4

AUTOMATIC AIR VENT

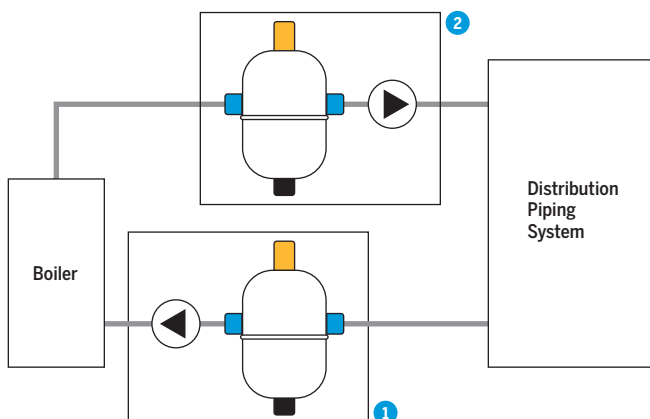
The air vent's chamber is under a smaller chamber, increasing the distance between the water level and the deaeration valve, thereby reducing the risk of contamination.

TECHNICAL SPECIFICATIONS

Materials	Compatible Fluids
Housing: brass	Water and glycol solutions (50%)
Cover: brass	
Float: polypropylene	Temperature range
Float guide: brass	32°F-250°F (0°-121°C)
Float membrane: stainless steel	Maximum pressure
Spring: stainless steel	150 PSI
O-Ring: EPDM	

INSTALLATION DIAGRAM

2 POSSIBLE CONFIGURATIONS



AIR, SOLIDS AND SLUDGE SEPARATOR

At the center of THE ONE® tank is an air, solid and sludge separator made of superior quality, highly resistant brass. Owing to its size, its efficiency rate is 40% greater than other air/dirt separators.

As the heating fluid flows into the tank, its speed immediately decreases as it enters the larger slotted pipe. The slots allow bigger bubbles to be released into the upper portion of the tank where they enter the separation column. Solids drop to the bottom of the tank. The heating fluid continues flowing through the separator where the coalescent media's vast contact area promotes better adhesion and collision rates.

After that first drop in speed as it enters the slotted pipe, the liquid slows down once again owing to the separator's diameter which is even larger than the connectors'. Because of the heating fluid's drag effect, displaced micro-bubbles hook onto the coalescent media. They merge to form bigger bubbles, detach themselves from the media and then float up into the upper portion of the separator where they are released through the automatic air vent. The same phenomenon applies to sludge that falls downward due to gravity, and is evacuated through the built-in drain.

TECHNICAL SPECIFICATIONS

Materials	Connection
Housing: brass	1 in MNPT
Internal element: stainless steel	
Seal: EPDM	
Compatible Fluids	
Water and glycol solutions (50%)	

DRAIN VALVE

The drain valve is a threaded ball valve compatible with garden hoses, and closed by simply screwing it shut. The drainage can be done at any time, even when the system is in operation.

TECHNICAL SPECIFICATIONS

Materials	Maximum pressure
Housing: brass	150 PSI
Ball: stainless steel	
Compatible Fluids	Temperature range
Water and glycol solutions (50%)	32°F-250°F (0°-121°C)

Calefactio Solutions Inc.
Quebec (Canada)

T 450 951.0818
F 450 951.2165

info@calefactio.com
calefactio.com

