



EXPANSION VESSELS

CALEFFI
Hydronic Solutions



ACCOMMODATES WATER EXPANSION IN HEATING SYSTEMS

FUNCTION AND FEATURES

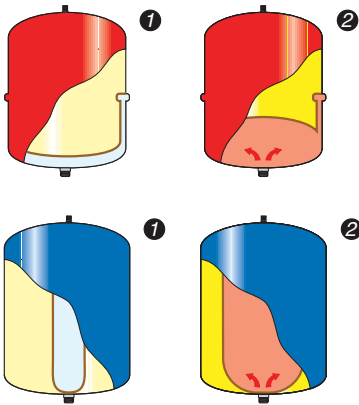
- Nitrogen filled vessel reduces corrosion inside the vessel and prevents the loss of pre-charge pressure
- Available in 8, 12, 18 & 25L vessels; larger upon request
- Removable top cap protects the gas pre-charging valve from changing the set pressure
- Suitable for use in closed loop heating systems

OPERATING PRINCIPLE

Expansion vessel for heating and domestic water circuits.

The closed expansion vessel with membrane consists of a closed container divided into two parts by a membrane which separates the water from the gas (usually nitrogen) and acts as an expansion accommodator.

Following an increase in temperature, an increase in pressure takes place in the vessel in relation to the pre-charge pressure when cold (fig.1) until it reaches the value corresponding to the maximum expansion (fig.2).

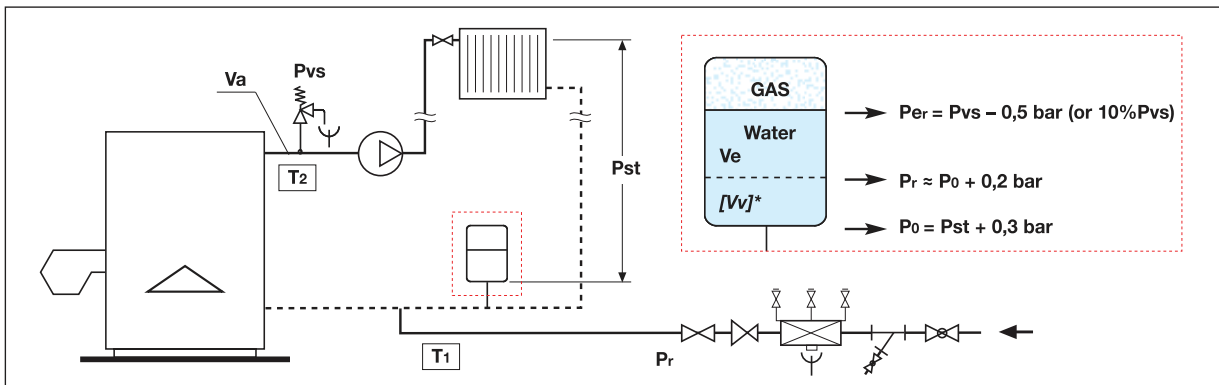


MATERIALS	
BODY	steel
MEMBRANE	SBR
TYPE OF MEMBRANE	diaphragm
PIPE CONNECTION	galvanised steel
PROTECTION FOR PIPE CONNECTION	-
COLOUR	red

PERFORMANCE	
MEDIUM	water, glycol solutions
MAX. PERCENTAGE OF GLYCOL	50%
MAX. WORKING PRESSURE	6 bar
PRE-CHARGE PRESSURE	1,5 bar
SYSTEM WORKING TEMPERATURE RANGE	-10 – 120°C
MEMBRANE WORKING TEMPERATURE RANGE	-10 – 70°C
CONSTRUCTION	conforms to DIN 4807-2 and EN 13831

CONNECTION	
PIPE CONNECTION	8-50 l: 3/4" M (ISO 7-1) 80-600 l: 1" M (ISO 7-1)

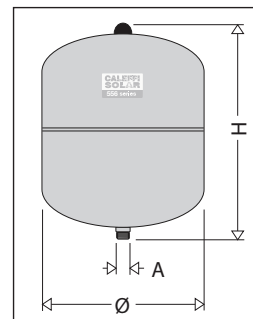
HEATING SYSTEM



HEATING VESSEL SIZE CHART

Boiler output		Vessel size per system static head		
kw	btu/hr	5 m (litre)	10 m (litre)	15 m (litre)
10	34120	8	12	18
15	51180	12	18	24
20	68240	12	18	35
25	85300	18	25	35
35	119421	25	35	50
40	136480	35	35	80
		0.5 bar	1.0 bar	1.5 bar
vessel pre-charge (set by installer)				

DIAGRAM



CODE	556008	556012	556018	556025
A	3/4"	3/4"	3/4"	3/4"
Ø	206	280	280	280
H	285	275	345	465
MASS (kg)	1.7	2.3	2.8	3.5
LITERS	8	12	18	25



All Valve
INDUSTRIES

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