

SECONDARY REFRIGERATION SYSTEM AIR SEPARATOR

Applications

Air is present in all hydronic systems, in particular water based system it is dissolved in the water in micro bubble format. The rate of air dissolvment depends mainly on pressure and temperature as illustrated in the following graph. Higher system pressures result in higher air dissolvment and it must be minimised in order to protect the Secondary Refrigeration circuit.

If air is not eliminated it causes fatal oxygen based corrosion as well as blockage for the small orifice areas by creating ice particles below freezing temperatures.

The air separator should be installed the lowest possible pressure point for the system which is generally on the return leg of the main circuit. The type of air purge to use and where to place it in the system depends on the design and size of the system. If not sure, please consult our sales team.

Active air purges like HY-VENT SUPER reduce almost all remaining air bubbles circulating in the liquid. HY-VENT SUPER has a concentrator in stainless steel, micro-bubbles pass through the concentrator where they are trapped and merge to a bubble that can discharge via a top float air purge on the top of the vessel. This top air purge is provided with a shut off valve in order to ensure that no air can enter the system or leak out brine.

HY-VENT SUPER is provided with service valves on each side of the concentrator for manometer, drain valve in the bottom and initial force valve for by-pass of the air purge.

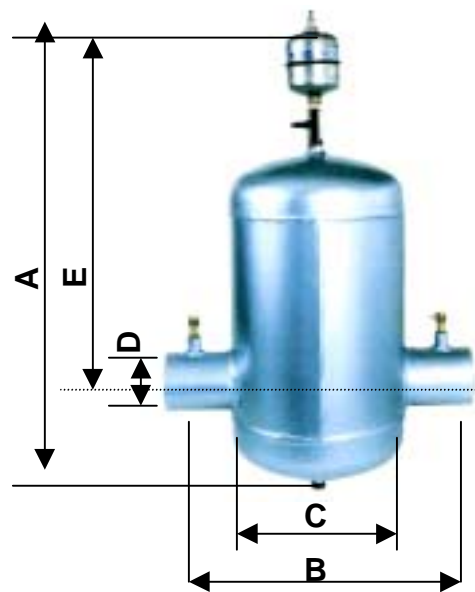


Installation

HY-VENT SUPER must be installed where the pressure is lowest and the temperature highest in the system. A suitable location is in the return line from the refrigerated units but before the expansion line.

Technical Data:

Operating pressure	: 10.0 bar
Test pressure	: 20.8 bar
Operating temperature	: -40° C / + 99° C
Concentrator	: Steel P265GH, TTSt35N
Absorption net	: Stainless steel SIS 2343 A351 CF8M
Drain	: 1/2"
Force purge	: 1/2"
Connection	: Welding



Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Weight (kg)	Volume (Lt.)	LIST Price (£)
DN 65	390	380	178	76	242	9.0	6.3	1,038.00
DN 80	425	430	245	89	295	19.5	17.7	1,100.00
DN100	425	474	273	145	275	22.0	21.9	1,209.00

Technical Support:

EPS offers full site as well as laboratory back up to assist in proper maintenance and integration of any new or existing installations as part of our customer commitment.

Please consult our technical sales team at

sales@epsLtd.co.uk for your specific application or visit our

web site www.epsLtd.co.uk.



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