

OIL RESERVOIRS

The function of an Oil Reservoir is to provide a holding charge of oil, as part of the Low Pressure Oil Management System. The amount of oil circulating in a system varies depending on the operating conditions. The oil reservoir caters for these fluctuations by providing additional storage capacity.

Rotalock valves are supplied with each reservoir to facilitate easy oil fill and drain. A connection is provided at the top of the unit for fitting a pressure vent valve. Models are provided with either two or three sight glasses for visual indication of oil level.

Applications

The reservoirs are suitable for HCFC and HFC refrigerants, along with their associated oils.

Main Features

- Three sizes available in both standard and high pressure ranges
- Robust construction
- All models supplied with Rotalock valves
- Sight glass with floating ball
- Models supplied with mounting brackets

Technical Specification

Allowable operating pressure = 0 to 31 barg

Allowable operating temperature = -10°C to +130°C

Materials of Construction

The shell, end caps and fitting connections are made from carbon steel.

Selection Guidelines

Henry reservoirs include three different oil holding capacities of approximately 6.7, 10.4 and 14.2 litres.

The required holding capacity is dependent on a number of system design factors such as oil return piping practice, compressor type, number of compressors, compressor run times, etc.

For single stage parallel systems, a simple selection guide can be used. For other systems, please contact Henry Technologies. The selection guide uses total compressor theoretical displacement, V_h , as an indicator of required oil reservoir capacity.



Example:

8 compressors each with a theoretical displacement of 17 m³/hr.

Therefore V_h (total) = 136 m³/hr.

The selected model is S-9109, with a V_h rating of up to 150 m³/hr.

Refer to selection table.

Note: It is known that some users select oil reservoir capacity using different rules from the above or from field experience. The method presented above is for guidance purposes only. If in doubt, select a larger capacity reservoir.

Installation – Main issues

1. Full instructions are given in the Product Instruction Sheet, included with each reservoir.

OIL RESERVOIR CAPACITY TABLE

Part No	Reservoir capacity within dimension shown (litres)			
	D	E	F	A
S-9109	2.5	2.7	N/A	6.7
S-9108U	2.5	6.5	N/A	10.4
S-9108	2.5	5.2	5.2	14.2

Part No	Dimensions (mm)						Drawing reference	Weight (kg)	MWP (barg)	CE Cat
	A	B	C	D	E	F				
S-9109	430	511	152	167	165	N/A	fig.1	9.4	31	Cat II
S-9108U	655	735	152	177	394	N/A	fig.1	12.8	31	Cat II
S-9108	883	965	152	165	311	311	fig.2	16.0	31	Cat II

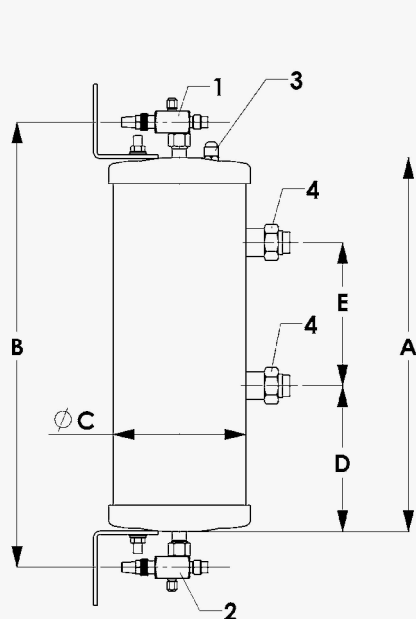


Fig. 1

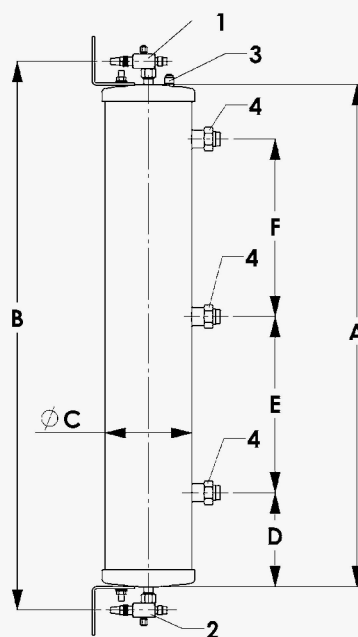


Fig. 2

- 1 Inlet, Rotalock valve, 3/8 SAE Flare*
- 2 Outlet, Rotalock valve, 3/8 SAE Flare*
- 3 Vent, 3/8 SAE Flare
- 4 Sight glass

OIL RESERVOIR SELECTION TABLE

Part No	Capacity (litres)	$V_{h, \text{ total}}$ (m ³ /hr)
S-9109	6.7	up to 150
S-9108U	10.4	150-300
S-9108	14.2	300-400

Note: V_h = Summation of the theoretical displacement for all compressors in system