

Technical Data Sheet Model: 239A Oil Separator

Description:

The Series 239A coalescent oil separator is specifically designed for transcritical CO₂ high- medium- and low-temperature applications. It is designed to remove oil from the refrigeration gas flow by using three filters. Then the oil is returned to the compressor.

The main purpose of the oil is to lubricate the moving parts of the compressor. When oil circulates through the system instead, it builds up a film on the internal surfaces of the heat exchangers and acts as an insulator. This robs the system of efficiency, raises energy consumption, and lowers the available refrigerant volume in the evaporator. The compressor must run longer to achieve the desired Net Refrigeration Effect. Coalescing separators are capable of removing 95% to 99% of the oil component of mass flow.

Specifications:

- Application Range: suitable for CO₂ (R744) transcritical applications and CO₂ subcritical under certain conditions.
- Dual function: filters dirt out of the refrigerant and oil; separates the oil from the refrigerant gas.
- Efficiency: nominal 98.5%+ separation efficiency rating across the widest range of mass flows.
- Filtration: sub-micron particulate retention rating. Three internal coalescent filters capture dirt and effluent down to .3 micron.

Physical:

Overall height:	1160mm (45.67 in.)	Oil Charge:	9.3 Liters (2.46 Gallons)
Outside diameter:	324mm (12.76 in.)	Max WP:	130 Bar (1885.49 PSI)
Connectors:	Available in 2.5" BW or 2.5" MPT or 2-5/8" ODS for Inlet/Outlet and ¼" FPT oil return	Max Temp:	160° C (320° F)
		Min Temp:	0° C (32° F)
		Paint:	Baked on dry powder coat
		Sensor Port:	¾" FPT
Weight:	230kg (506 lbs.) shipping		
	1016mm (40 in.) x 1219mm (48 in.) x 533mm (21 in.) shipping		

Regulatory Compliance:

- CE Marked: compliant with the European Pressure Equipment Directive
- UL approval pending
- ASME available
- CRN in process*

*Contact Temprite for individual product certification details.

Miscellaneous:

Every unit is pressure/leak tested as required by its regulatory code. Every unit is injected with a Nitrogen charge during the packing operation in order to inhibit oxidation (rust) formation.

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