

HELICAL OIL SEPARATORS & RESERVOIRS



Product introduction ;

The function of a Helical Oil Separator is to efficiently remove oil from the discharge gas and return it to the compressor crankcase in a proper and precise manner.

This helps maintain the oil level of the compressor crankcase and raises the efficiency of the system by preventing excessive oil circulation. Helical oil separators provide a higher level of efficiency compared to a conventional oil separator with float mechanism.

Helical oil separators can be used in a wide variety of applications.

Helical oil separators are intended for low pressure oil management systems, but they can also be used in high pressure oil management systems.

These oil separators are designed for use with scroll and reciprocating type compressors.

They are not suitable to use with screw compressors.

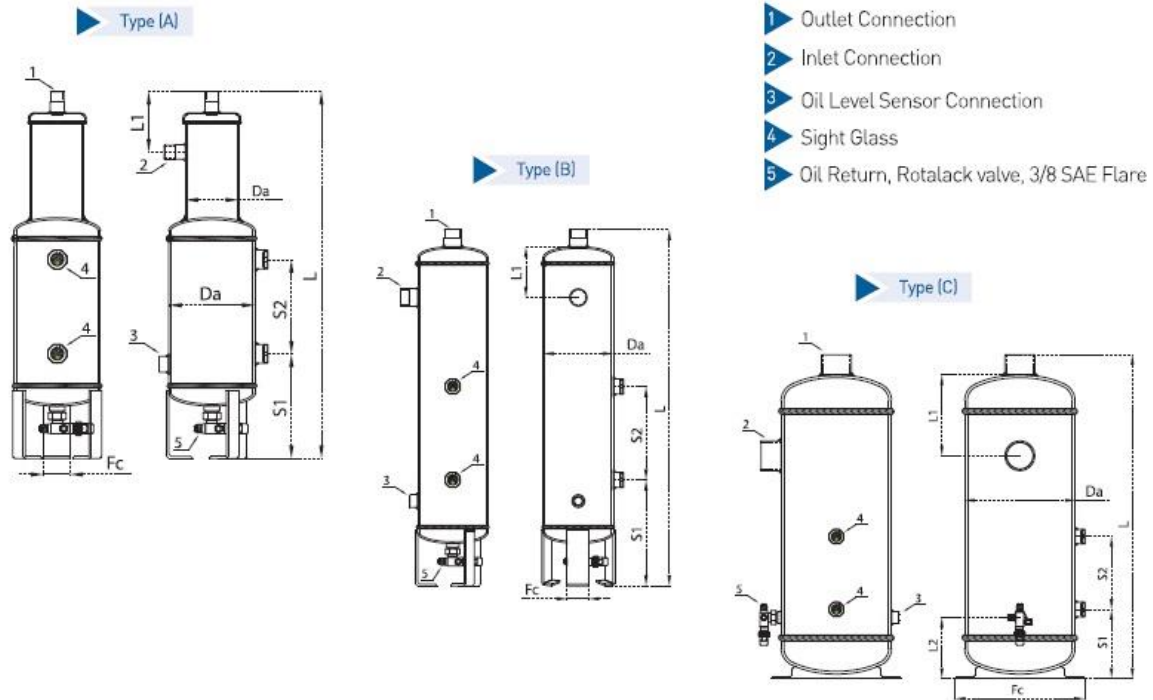
There is an oil reservoir in the lower chamber of the helical oil separators.

1 unit of 3/8" SAE rotalack valve is supplied as installed on each reservoir to facilitate easy control of the oil fill and drain.

Oil reservoirs have 2 sight glasses for visual indication of the oil level. Sight glasses are designed considering minimum and maximum levels. Level indicator balls in the sight glass provide great convenience to see the oil level.

With proper selection, oil separation efficiency is typically 95%.

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- 1 Outlet Connection
- 2 Inlet Connection
- 3 Oil Level Sensor Connection
- 4 Sight Glass
- 5 Oil Return, Rotalack valve, 3/8 SAE Flare

| Model | Volume (Lt) | Dimensions | | | | | Type | Connection Sizes | | | | CE | |
|---------------|-------------|------------|--------|---------|---------|---------|------|-----------------------|-------------------------------|-----------|-------------------------|----------------|-----------------|
| | | Da (mm) | L (mm) | L1 (mm) | L2 (mm) | Fc (mm) | | Inlet & Outlet (Inch) | Oil Reservoir Outlet (Inch) | sv (Inch) | Sight Glass | PED 33 Bar | 97/23/EC 45 Bar |
| OS/OR/A-7/8 | 6,8 | ∅165 | 700 | 115 | - | ∅125 | A | 7/8" ODS | Rotalack Valve 3/8" SAE Flare | 1/2" NPTF | SW36 with Swimming Ball | CAT II / A1 | CAT II / A1 |
| OS/OR/A-1 1/8 | | 11/8" ODS | | | | | | | | | | | |
| OS/OR/B-1 3/8 | 13,2 | ∅165 | 840 | 160 | - | ∅125 | B | 13/8" ODS | Rotalack Valve 3/8" SAE Flare | 1/2" NPTF | SW36 with Swimming Ball | CAT II / A1 | CAT II / A1 |
| OS/OR/B-1 5/8 | | | 845 | 165 | | | | | | | | | |
| OS/OR/B-2 1/8 | 14,2 | ∅165 | 900 | 170 | - | ∅125 | B | 21/8" ODS | Rotalack Valve 3/8" SAE Flare | 1/2" NPTF | SW36 with Swimming Ball | CAT II / A1 | CAT II / A1 |
| OS/OR/C-2 1/8 | 21,5 | ∅219 | 700 | 200 | 120 | ∅249 | C | 21/8" ODS | Rotalack Valve 3/8" SAE Flare | 1/2" NPTF | SW36 with Swimming Ball | CAT III / B+C1 | CAT III / B+C1 |
| OS/OR/C-2 5/8 | 38,3 | ∅273 | 800 | 250 | 150 | ∅320 | | 25/8" ODS | | | | | |
| OS/OR/C-3 1/8 | 54,7 | ∅324 | 830 | 300 | 170 | ∅320 | | 31/8" ODS | | | | | |

| Model | kW | | | | | | | Maximum Discharge Volume (m3/hr) |
|---------------|---|-------|-------|-------|--------|--------|-------|----------------------------------|
| | Capacity In kW Of Refrigeration At Nominal Evaporator Temperature | | | | | | | |
| | R404A / 507 | | R22 | | R717 | | | |
| | -40°C | 5°C | -40°C | 5°C | -40°C | 5°C | | |
| OS/OR/A-7/8 | 26,8 | 33,4 | 27,1 | 31,0 | N/A | N/A | 12,6 | |
| OS/OR/A-1 1/8 | 44,4 | 55,3 | 44,9 | 51,3 | N/A | N/A | 20,8 | |
| OS/OR/B-1 3/8 | 66,3 | 82,6 | 67,0 | 76,6 | N/A | N/A | 31,0 | |
| OS/OR/B-1 5/8 | 92,6 | 115,3 | 93,6 | 107,0 | 94,03 | 125,38 | 43,3 | |
| OS/OR/B-2 1/8 | 96,8 | 120,5 | 97,8 | 111,8 | 98,27 | 131,02 | 45,3 | |
| OS/OR/C-2 1/8 | 205,8 | 236,7 | 208,8 | 219,5 | 214,40 | 257,28 | 74,1 | |
| OS/OR/C-2 5/8 | 241,6 | 301,0 | 244,3 | 279,2 | N/A | N/A | 113,1 | |
| OS/OR/C-3 1/8 | 342,4 | 426,6 | 346,2 | 395,7 | N/A | N/A | 160,2 | |

All data is for a 38°C condensing temperature, 18°C suction temperature and a connection size the same as the compressor discharge valve