

Unicla Series III Oil Separators

IMPROVE system reliability • **EXTEND** compressor life • **INCREASE** cooling performance

Oil separators are recommended when:

Oil in the heat exchangers affects efficiency in systems with marginal evaporator and condenser capacity

Why?

- Less oil in the evaporator = Better evaporator saturation temperatures and optimum refrigerant heat absorption
- Less oil in the condenser = Improves refrigerant ability to reject heat and lowers operating discharge pressure

How oil return to the compressor can be compromised by system design or adverse operating conditions:

- Extra-long hose runs (upwards of 6 m) = Pressure drop and reduced refrigerant / oil flow
- Large or multiple heat exchangers (such as rooftop units for bus / coach / mining = Places where oil can pool
- Continuous high-revving or high-ambient $> 30^{\circ}\text{C}$ operation = Excessive oil discharge from the compressor in relation to oil return

The solution:

Unicla oil separators retain more than 70% of the original compressor oil level (COL) or approximately 40 – 60% of the recommended total system oil quantity (SOQ)

A-Type Oil Separator

Part No. 35401-000010

Male insert O-ring connections (#8:

3/4-16 UNF) for easy integration in the discharge line, and a **male flare** (**7/16-20 UNF**) for the oil return line. The A-Type oil separator is ideal for use with all Unicla 45 to 200 series compressors **45 to 200 cc**.

Suitable for:

Sanden SD7H15, SD7H13

Valeo TM13, TM15, TM16, TM21

Unicla 120 series, 150 series, 170 series, 200 series



B-Type Oil Separator

Part No. 35401-000030

Male insert O-ring connections (#10:

3/4-16 UNF) for easy integration in the discharge line, and a **male flare** (**7/16-20 UNF**) for the oil return line. The B-Type oil separator is ideal for use with all Unicla 200 and 330 series compressors **200 to 330 cc**.

Suitable for:

Valeo TM31

Unicla 200 series, 330 series

Note: Suitable for 200 series and TM21 compressors where the line length is $>6\text{m}$



D-Type Oil Separator

Part No. 35401-000050

Male insert O-ring connections

(#12: **1-1/16-14 UNF**) for easy integration in the discharge line, and a **male flare** (**7/16-20 UNF**) for the oil return line. The D-Type oil separator is ideal for use with all Unicla 330 and 380 series compressors **330 to 380 cc**.

Suitable for:

Valeo TM43

Unicla 330 series, 380 series



F-Type Oil Separator

Part No. 35401-000070

Male flare connections (#16:

1-5/16-12 UNF-2A) for easy integration with the discharge line, and a **male flare** (**7/16-20 UNF**) for the oil return line. The F-Type oil separator is ideal for use with all Unicla UWX series compressors **508 to 675 cc**.

Suitable for:

Valeo TM55, TM65

Unicla UWX series

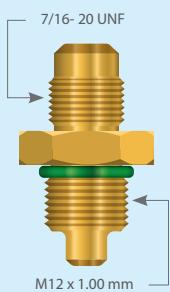


Unicla Oil Return Fitting

Part No. 42203-000161

Connection:

Male flare (7/16-20 UNF) into compressor port M12 x 1.00 mm



Application:

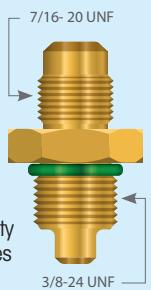
Supplied as standard on all Unicla F model compressors, and 200 to UWX series compressors

Sanden Oil Return or Pressure Switch Fitting

Part No. 42203-000280

Connection:

Male flare with Schrader valve (7/16-20 UNF) into compressor port 3/8-24 UNF



Application:

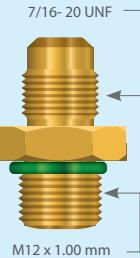
Direct installation of a variety of switches or oil return lines to Sanden compressors

Unicla Pressure Switch Fitting

Part No. 42203-000150

Connection:

Male flare with Schrader valve (7/16-20 UNF) into compressor port M12 x 1.00 mm



Application:

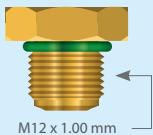
Direct installation of a variety of switches to both the low and high-side access ports

Unicla Blanking Plug

Part No. 13201-000010

Connection:

M12 x 1.00 mm



Application:

To blank off any access port

Oil Return Line - 2m

Part No. OSH-2

Connection:

Female Flare (7/16-20UNF) – Straight & 90° angle



Oil Separator Bracket

Part No. 11615-005740
(suits A-Type and B-Type)

Part No. 11615-005770
(suits D-Type and F-Type)

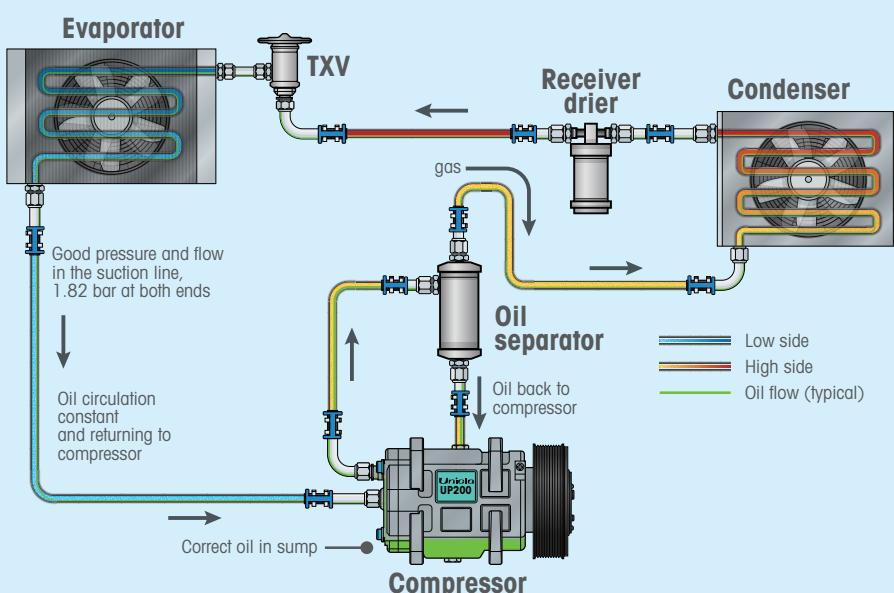


If you are after a specific part only, or require a shorter or longer oil return line, give your local branch a call using the individual part numbers listed above or the #4 assembled hose lines shown adjacent.

NOTE: Individual oil separators are supplied with a bracket as standard.

- Part No. OSH-1 I #4 Oil Return Line - 1m
- Part No. OSH-1.5 I #4 Oil Return Line - 1.5m
- Part No. OSH-2 I #4 Oil Return Line - 2.0m
- Part No. OSH-3 I #4 Oil Return Line - 3.0m

This diagram shows a Unicla oil separator installed into the circuit with the oil return line connected to the top of the compressor oil return port, and the added benefit where compressor oil level (COL) is increased and oil in circulation (OIC) is reduced.



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