OIL PUMP TYPE OL 9100

OL 9100

OL 9100 - US - Ed4 - June 2019

The SUNTEC **OL** oil pump incorporates a blocking solenoid valve with in-line cut-off function.

APPLICATIONS

- Fuel oil #2 and lighter,
 special "B"models for B6-B20 and "K" models for Kerosene.
- One or two-pipe system.

PUMP OPERATING PRINCIPLE

The gear set draws oil from the tank through the built-in filter and transfers it to the nozzle line via the cut-off solenoid valve . A pressure regulating valve is used to by-pass all oil which is not required at the nozzle.
In two-pipe operation, the by-pass plug is fitted in the return port, which ensures that the oil by-passed by the regulating valve is returned to the tank and the suction line flow is equal to the gear set capacity.
In one-pipe operation, the oil which does not go through the nozzle line is returned directly to the gear inlet and the suction line flow is equal to the nozzle flow. In that case, the by-pass plug must be removed from the return port, and the return port sealed by steel plug and washer.

Bleed

In one-pipe operation, the bleeder valve must be loosened (or a pressure port must be opened) until the air is evacuated from the system.
Bleeding in two-pipe operation is automatic : it is assured by a bleed flat on the piston.

Cut-off

The solenoid valve of the OL pump is of the "normally closed" type and is situated in the nozzle line. This design ensures extremely fast response and the switching can be selected according to the burner operating sequence and is independent of motor speed.
When the solenoid is non-activated, the valve is closed and all oil pressurized by the gear set passes through the regulator to suction or the return line, depending upon pipe arrangement.
As soon as the solenoid is activated, oil passes to the nozzle line at the pressure set by the pressure regulating valve.

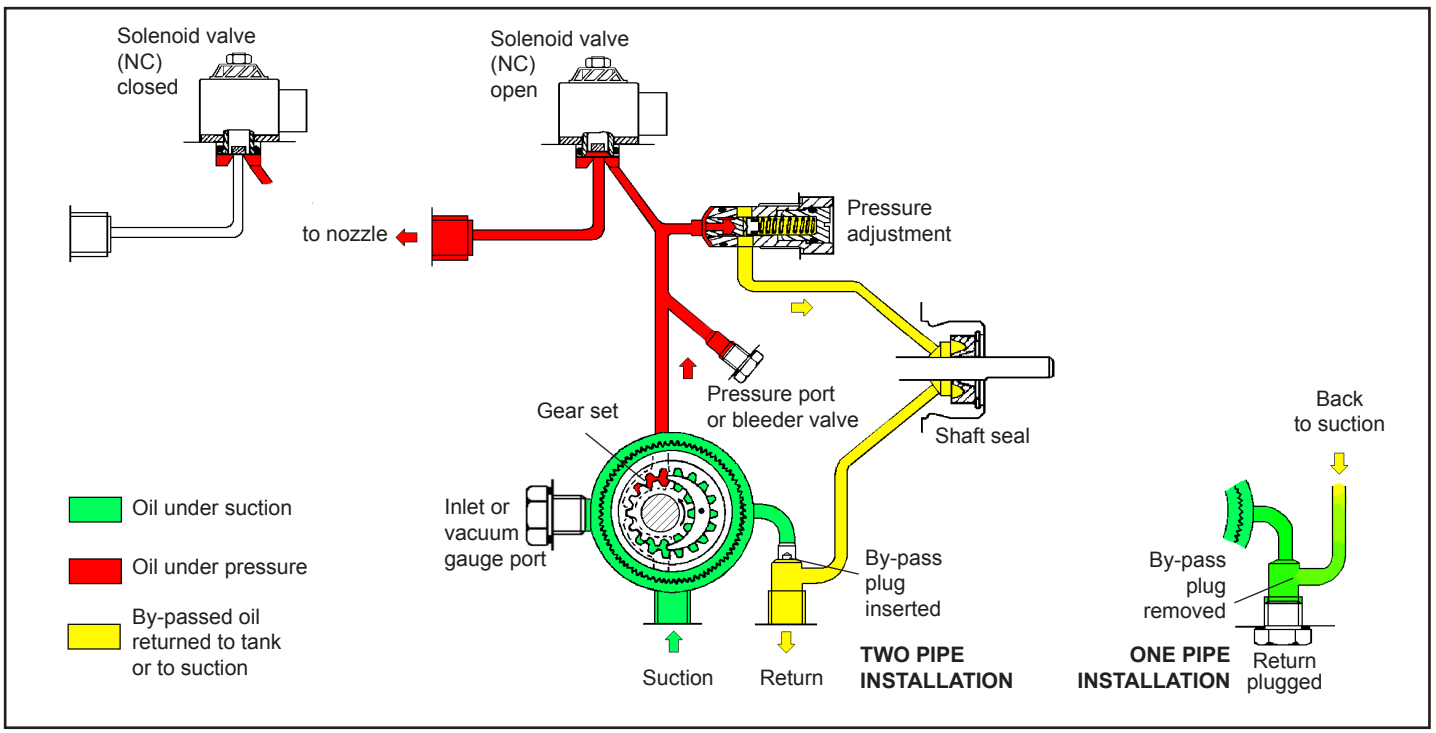
PUMP IDENTIFICATION

(Not all model combinations are available
Consult your Suntec representative)

OL: pressure regulation and blocking solenoid valve with in-line cut-off function
Gear set capacity (see pump capacity curves)
B : B6-B20 applications
Shaft rotation and nozzle location (seen from shaft end)
A: clockwise rotation/ right hand nozzle.
B: clockwise rotation/ left hand nozzle.
C: anti-clockwise rotation left hand nozzle.
D: anti-clockwise rotation right hand nozzle.
K: kerosene applications
Model number

OL 35 B C K 91xx 1 P 06

Revision number
Installation
P : by-pass plug inserted in return port for two-pipe operation
M : without by-pass plug, return plugged, for one-pipe operation
Solenoid valve voltage
02 : 24 V ; 50/60 Hz
06 : 110-120 V ; 50/60 Hz
05 : 220-240 V ; 50/60 Hz



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TECHNICAL DATA

General

Certification	UR, cUR recognized
Mounting	Flange mounting
Connection threads Inlet and return Nozzle outlet Pressure gauge port	 1/4 NPTF 1/8 NPTF 1/8 NPTF
Valve function	Pressure regulation
Strainer	Open area : 0,93 in² Opening size : 5.90 mil
Shaft	5/16 " dia.
By -pass plug	Inserted in return port for 2 pipe system; to be removed with a 5/32" Allen key for 1 pipe system.
Weight	3 lBs

Hydraulic data

Gear size	Nozzle pressure range	Factory setting*
35/55/65	60 - 260 or 120 - 210 psi @ 5 cSt	130 or 175 psi
35K/55K/65K (Kerosene models)	120 - 210 psi @ 1,8 cSt	175 psi

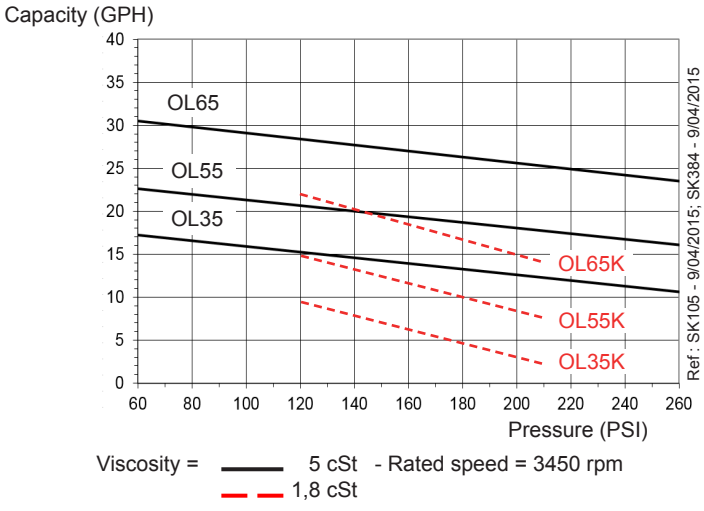
**other ranges available on request, refer to the specified range of the particular fuel unit.*

Operating viscosity	2 -12 cSt for OL 35/55/65 1.25 - 12 cSt for OL 35K/55K/65K
Oil temperature	32 - 140°F in the pump
Inlet and return pressures *NFPA limits pressures to 3 psi max*	10 psi max.
Suction height	Single pipe : 6" Hg max. vacuum, Two-pipe : 12" Hg max. vacuum, to prevent air separation from oil
Rated speed	3600 rpm max.
Torque (@ 45 rpm)	0.88 lb.in (OL 35/35K/55/55K) 1.06 lb.in (OL 65/65K)

Solenoid valve characteristics

Voltage	220-240V or 110 - 120 V or 24V ; 50/60 Hz
Consumption	9 W
Ambient temperature	32 - 140°F
Maximum pressure	300 psi

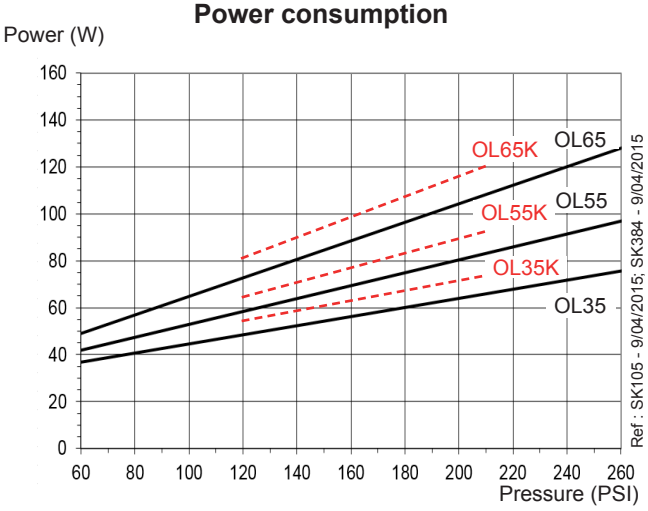
Pump capacity



Viscosity = ——— 5 cSt - Rated speed = 3450 rpm
— — 1,8 cSt

Data shown take into account a wear margin.
Do not oversize the pump when selecting the gear capacity.

Power consumption



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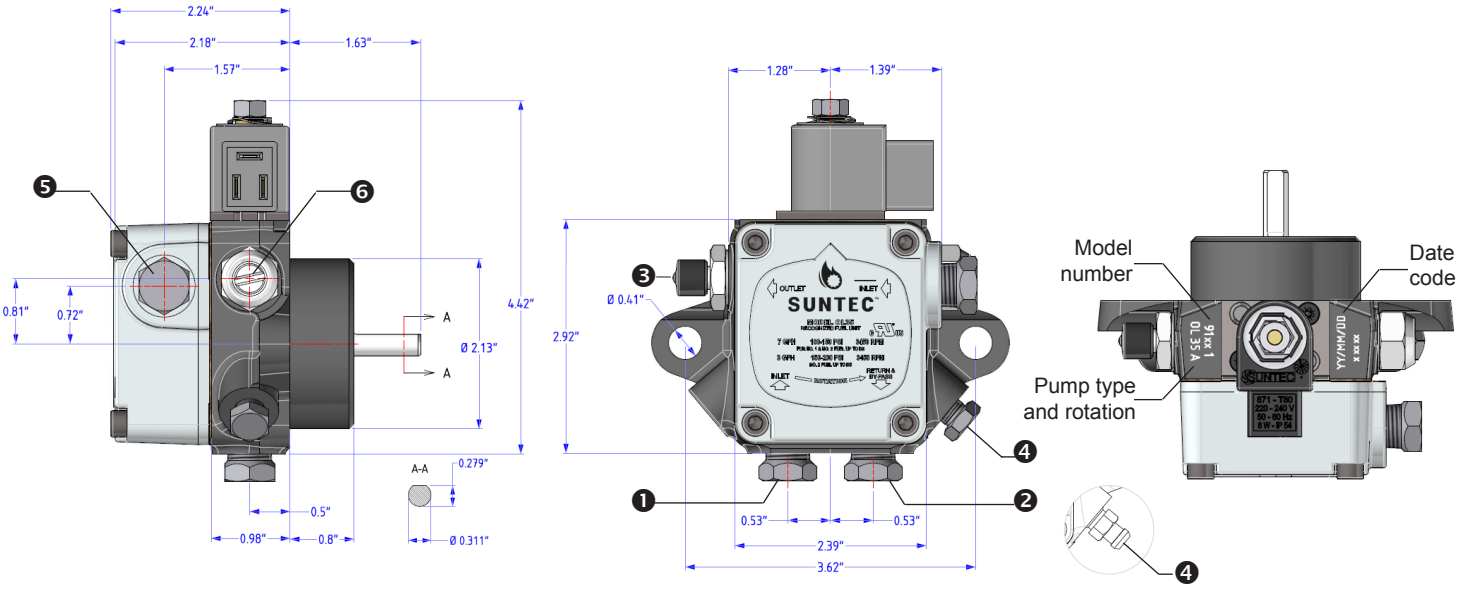
PUMP DIMENSIONS

Example shows "A" rotation and nozzle outlet



❶ Suction ❷ Return and internal by-pass plug ❸ Nozzle outlet ❹ Pressure gauge port or bleeder valve ❺ Inlet or vacuum gauge port ❻ Pressure adjustment