

This is a general specification leaflet; for specific applications not covered herein, contact Suntec.

As the standard **AL**, this SUNTEC oil pump incorporates a blocking solenoid valve with in-line cut-off function. Thanks to the development of the gear components, this pump has a reduced power consumption.

## COMPATIBILITÉ

- Domestic oil, HVO, B30 (biofuel blend with the addition of 30% FAME, as defined in DIN SPEC 51603-6), 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 dump all oil which is not required at the nozzle.

In two-pipe operation, the by-pass plug must be fitted in the return port, which ensures that the oil dumped 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

Bleeding in two-pipe operation is automatic: it is assured by a bleed flat on the piston.

In one-pipe operation, the plug of a pressure gauge port must be loosened until the air is evacuated from the system.

### Cut-off

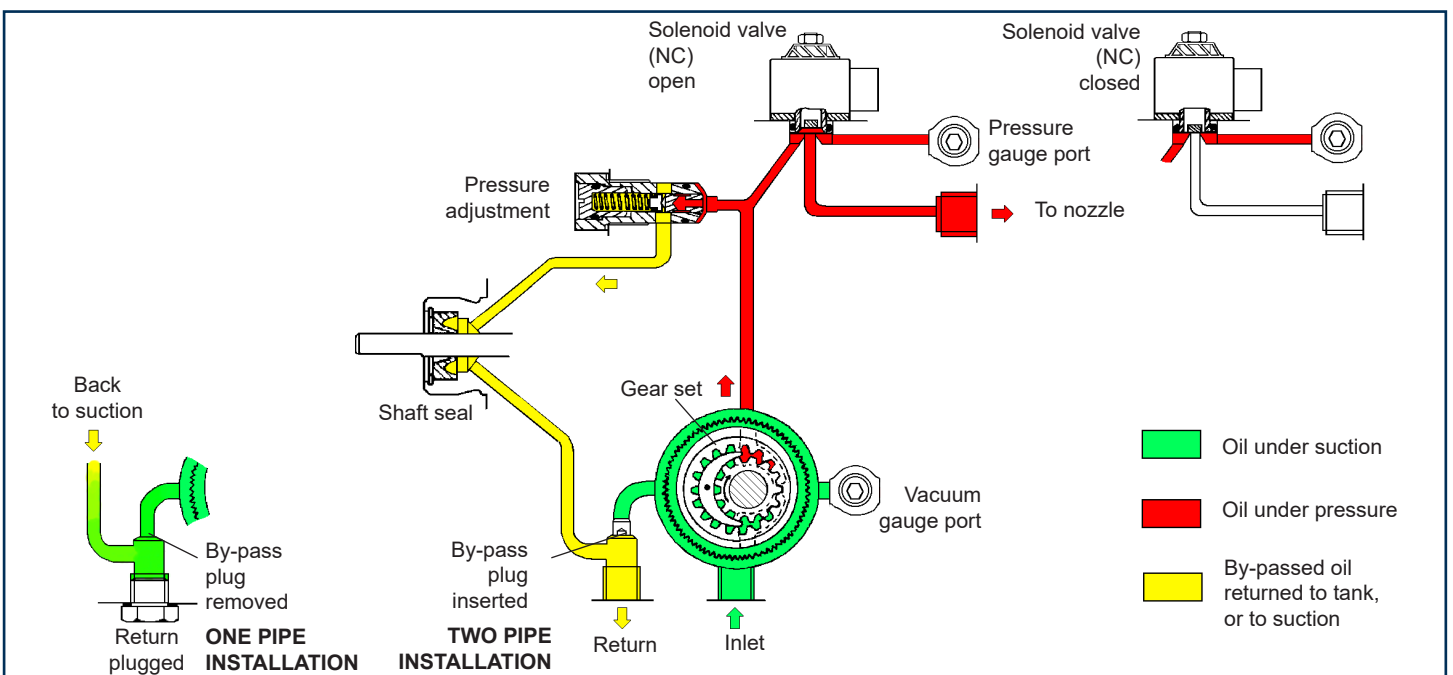
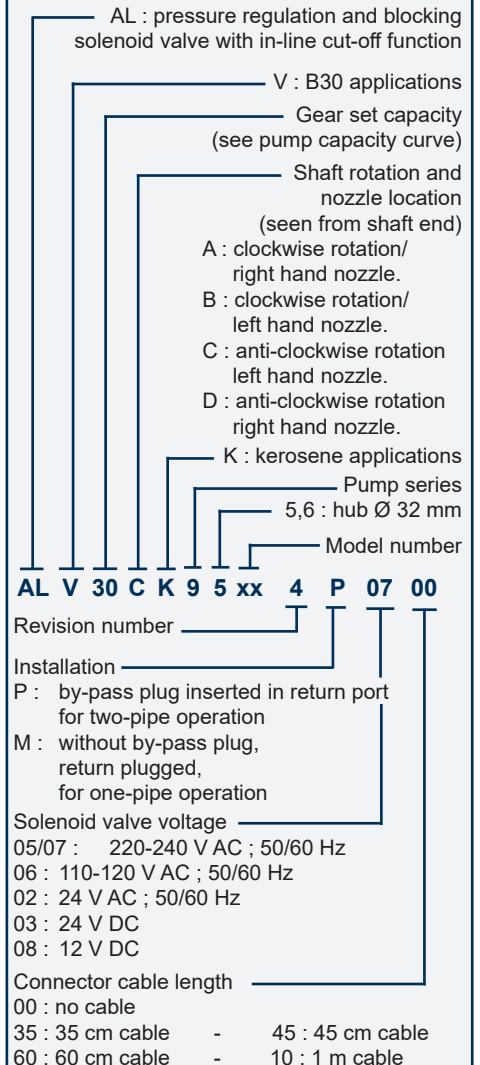
The solenoid valve of the AL pump is of the "normally closed" type and is situated in the nozzle line. This design ensures extremely fast response and the switching can be selected according to the burner operating sequence and is independent of motor speed.

When the solenoid is non-activated, the valve is closed and all oil pressurized by the gear set passes through the regulator to the suction or return line, depending upon the 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)



## TECHNICAL DATA

### General

Mounting	Hub mounting according to EN 225
Connection threads	cylindrical according to ISO 228/1.
Inlet and return	G 1/4
Nozzle outlet	G 1/8
Pressure gauge port	G 1/8
Vacuum gauge port	G 1/8
Valve function	Pressure regulation
Strainer	open area : 6 cm <sup>2</sup> opening size : 150 µm.
Shaft	Ø 8 mm according to EN 225
By-pass plug	inserted in return port for two-pipe system ; to be removed with a 4 mm Allen key for one pipe system.
Weight	1,1 kg

### Hydraulic Data

Gear size	Nozzle pressure range*	Factory setting
30	4 - 18 bars @ 5 cSt	12 bars
30K	5 - 15 bars @ 1,8 cSt	12 bars

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

Viscosity range	2 - 12 mm <sup>2</sup> /s (cSt) for AL30 1,25 - 12 mm <sup>2</sup> /s (cSt) for AL30 K
Oil temperature	0 - 60°C in the pump
Inlet pressure	2 bars max.
Return pressure	2 bars max.
Suction height	0,45 bars max. vacuum to prevent air separation from oil
Rated speed	3600 rpm max.
Torque (@ 45 rpm)	0,09 N.m

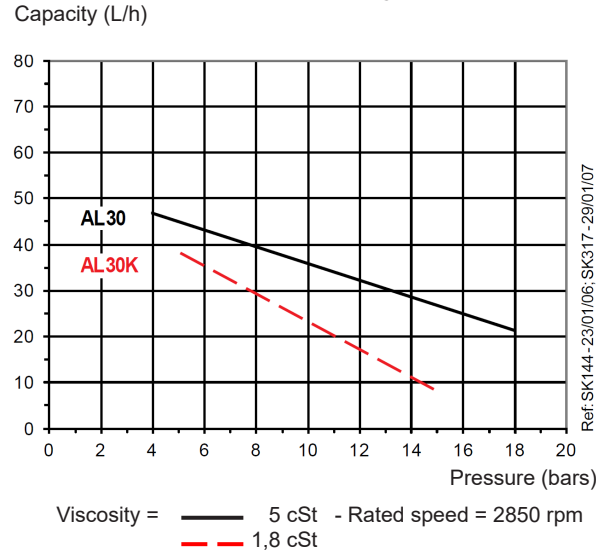
### Solenoid valve characteristics

Voltage	220-240 or 110-120 or 24 V; 50/60 Hz
Consumption	9 W
Coil Code*	Ambient temperature
06/02/05	0 - 60 °C
07	0 - 80 °C

*\*Refer to "Pump identification - solenoid coil voltage".*

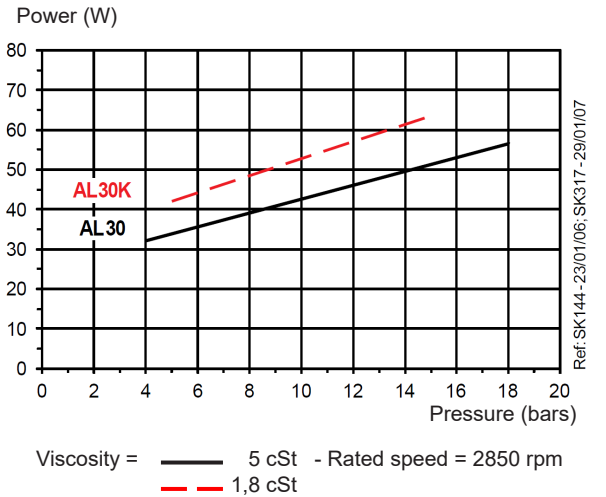
Maximum pressure	25 bars
Certified	TÜV Nr stamped on pump cover
Protection class	IP 54 according to EN 60529, when used with SUNTEC connector cable.

### Pump capacity



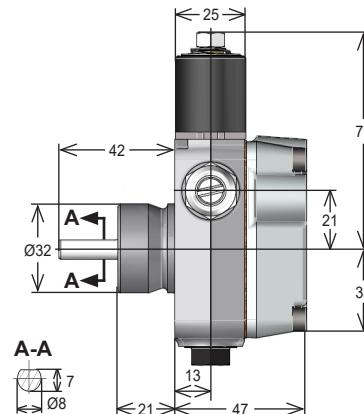
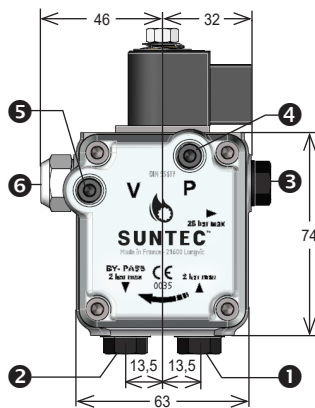
Data shown take into account a wear margin.  
Do not oversize the pump when selecting the gear capacity.

### Power consumption



## PUMP DIMENSIONS

Example shows "C" rotation and nozzle outlet.



- |                                    |                       |                       |
|------------------------------------|-----------------------|-----------------------|
| ① Suction                          | ③ Nozzle outlet       | ⑤ Vacuum gauge port   |
| ② Return and internal by-pass plug | ④ Pressure gauge port | ⑥ Pressure adjustment |