OIL PUMP TYPE D
GEAR SIZES 45-47-55-57-67

D

D - 11 - Ed 4 - Feb. 97

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

The SUNTEC **D** oil pump is specially adapted for heavy oil (up to 200 cSt) and high working temperature (up to 90°C).

APPLICATIONS

- Medium and heavy oils.
- One-pipe or two-pipe system.
- System with in-line solenoid valve for cut-off.

PUMP OPERATING PRINCIPLE

The gear set draws oil from the tank through the built-in filter and transfers it to the valve that regulates the oil pressure to the nozzle line. All oil which does not go through the nozzle line will be dumped through the valve back to the return line, in a two-pipe installation or, if installation is one-pipe, back to the suction port in the gear set.

Bleed :

Bleeding in two pipe operation is automatic.

In one pipe operation, during the starting period, air is purged through the nozzle line : the by-pass hole of the nozzle plug allows air to pass to the nozzle line without opening of the regulator valve.

For the first start up, bleeding can be accelerated by loosening the plug in a pressure gauge port.

Note :

Owing to the presence of the nozzle by-pass hole, the pump has no cut-off function. Cut-off must be provided by an external solenoid valve.

Models gear sizes "45" and "55" have a piston with a bleed slot to avoid build up of pressure in the nozzle and suction lines during shut down due to the expansion of oil caused by nozzle line heaters.

PUMP IDENTIFICATION

D : basic valve without cut-off heavy oil applications.

Gear set capacity (see pump capacity curves)

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.

D	57	C	7	2	73	3	P

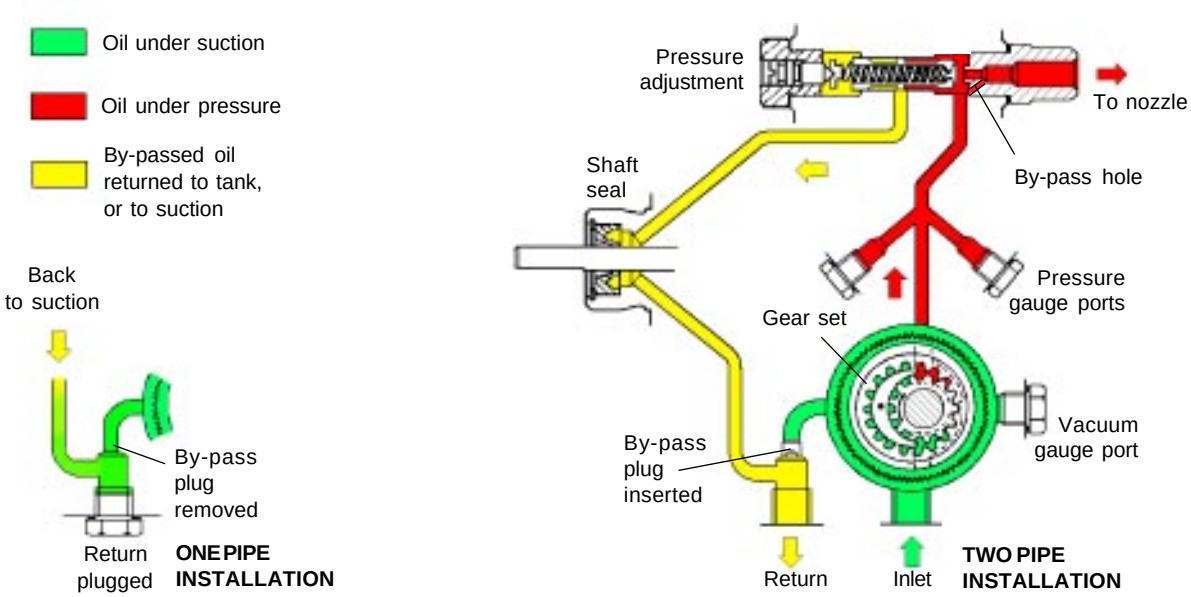
Pump series

2 : hub Ø 54 mm
3 : hub Ø 32 mm

Model number

Revision number

Installation
P : by-pass plug inserted for two-pipe operation.
M : without by-pass plug, return port sealed by steel plug for one-pipe operation.



SUNTEC INDUSTRIES FRANCE - 1, rue Lavoisier - BP 102 - F-21603 LONGVIC Cedex - Tel. 33 3 80706070 - Telex 350 892 - Fax 33 3 80672111

TECHNICAL DATA

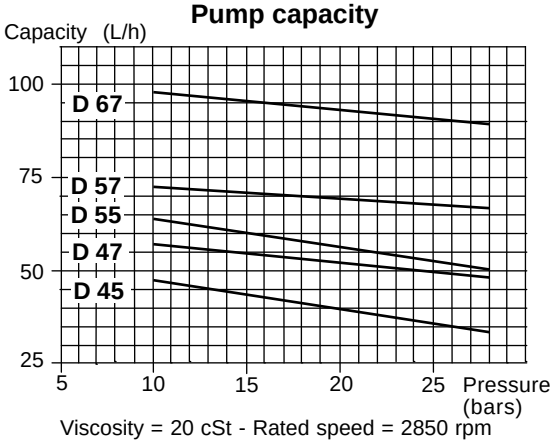
General

Mounting	Flange or hub according to European Standard 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 1/4" or G 1/8"
Valve function	Pressure regulating without cut-off
Strainer	Open area : 12 cm^2 Opening size : 530 μm
Shaft	Ø 8 mm according to European Standard 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	1,8 - 1,9 kg (depending on the model)

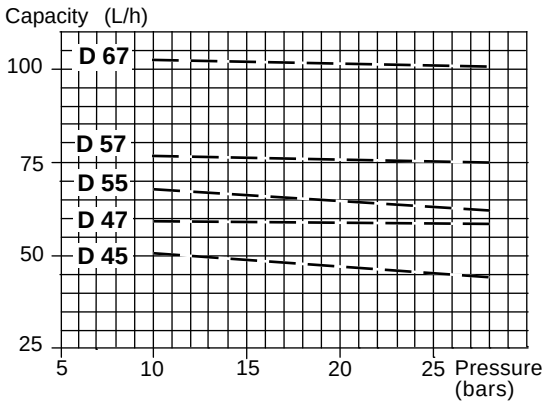
Hydraulic data

Nozzle pressure range	10 - 28 bars
Factory setting	14 bars
Operating viscosity	2 - 200 cSt
Oil temperature	90°C max. 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.
Starting torque	0,10 N.m (D 45/47/55/57) 0,12 N.m (D 67)

Pump capacity



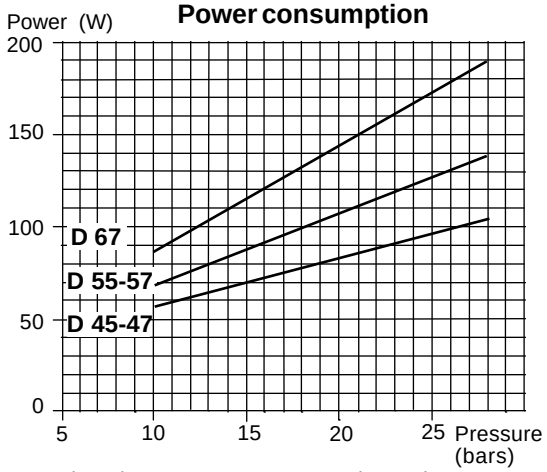
Viscosity = 20 cSt - Rated speed = 2850 rpm



Viscosity = 200 cSt - Rated speed = 2850 rpm

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

Power consumption

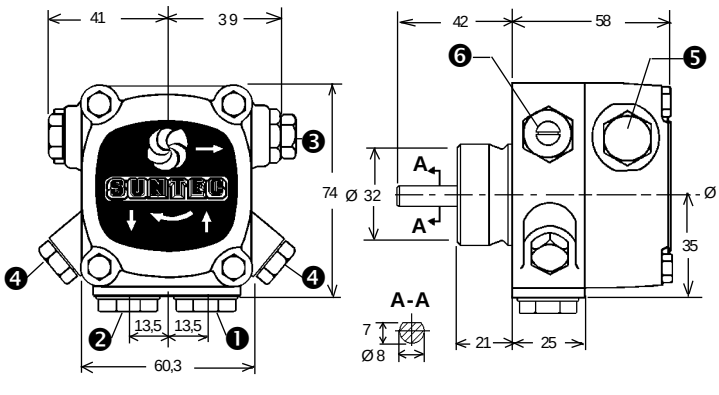


Viscosity = 20 - 200 cSt - Rated speed = 2850 rpm

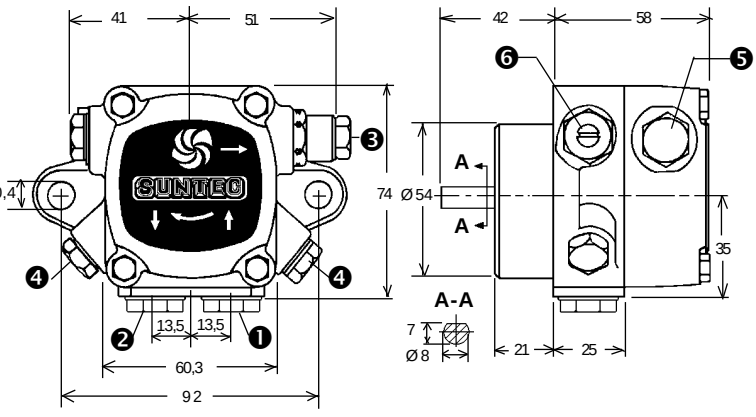
PUMP DIMENSIONS

(Examples show "C" rotation and nozzle outlet)

Hub mounting



Flange mounting



❶ Suction

❷ Return and internal by-pass plug

❸ Nozzle outlet

❹ Pressure gauge port

❺ Vacuum gauge port

❻ Pressure adjustment