PUMP TYPE E

E

E - 11 - Ed 3 - January 2025

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

The SUNTEC **E** oil pump is specially designed for heavy oil applications: it is fitted with a special shaft seal type resisting high temperature and with a preheater location to ease cold starting.

COMPATIBILITY

- Heavy, light and medium oil, HVO, B100 (biofuel blend with the addition up to 100% FAME, as defined in DIN SPEC 51603-6 or EN 14214).
- One or two-pipe system.
- Pump associated with in-line solenoid valve to assure cut-off function.

PREHEATING FACILITY

The body of the E pump includes a drilling to accept an electric preheater. This cavity has been designed to give maximum heat transfer from the heater to the oil in the pump avoiding any direct contact between the heater cartridge and the oil. The heating cartridge can be fitted either by right-hand side or by left-hand side. The preheater should be connected for a period of time prior to starting the pump. When the right temperature is reached, it can be switched off or left permanently switched on to maintain fluid oil in the pump during the periodic burner shut-downs. The oil supply, pipes and filters must be separately heated.

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 that does not go through the nozzle line will be by-passed through the valve back to the return line in two pipe installation or, if it is a one-pipe installation, back to the suction port in the gear-set. 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 :

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.

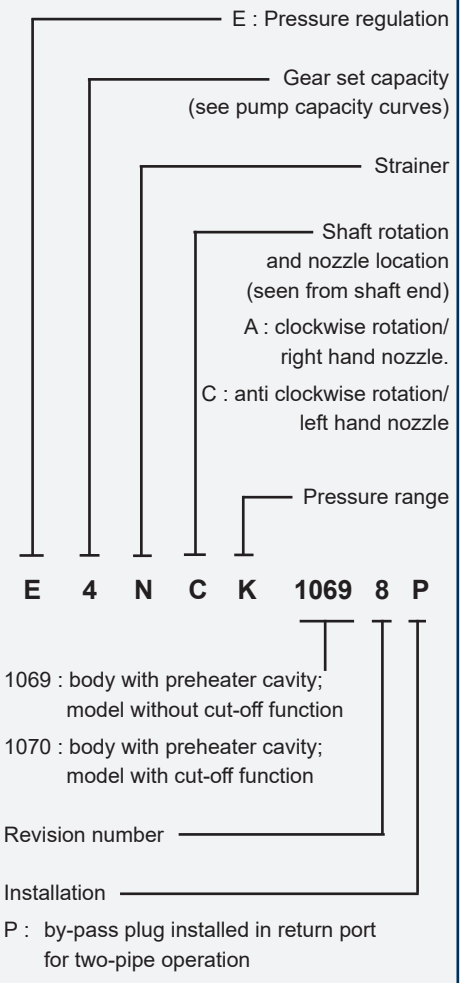
For the first start up, bleeding can be accelerated by loosening the plug in the pressure gauge port.

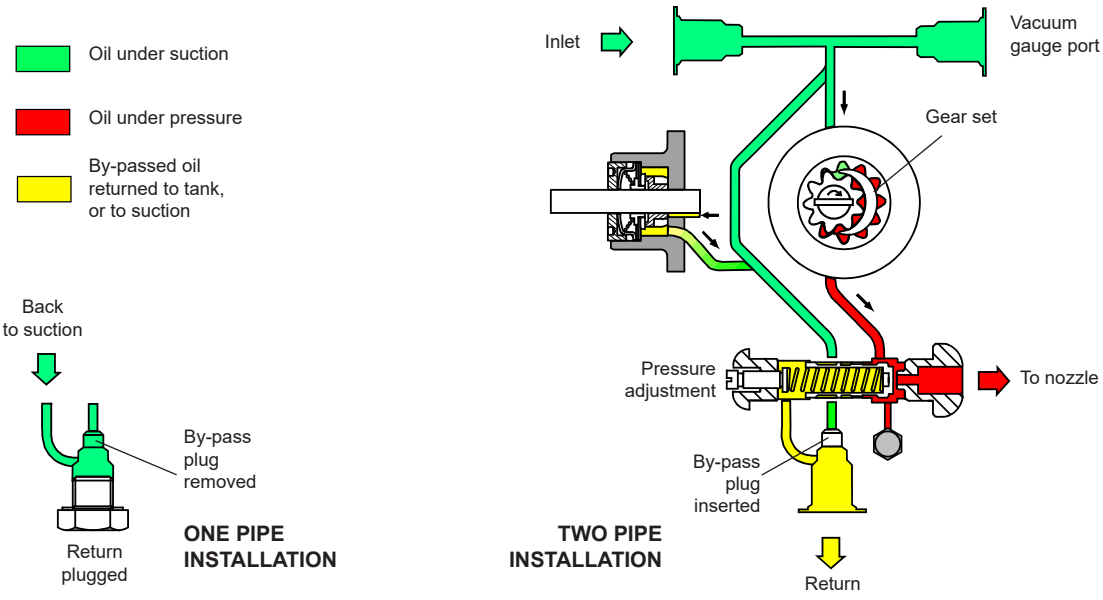
Note :

Models 1069 have no cut-off function. Cut-off must be provided by an external solenoid valve.

PUMP IDENTIFICATION

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





TECHNICAL DATA

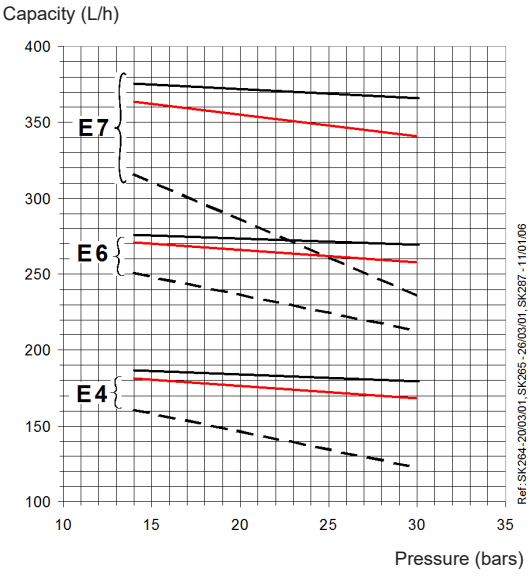
General

Mounting	Flange mounting according to EN 225.
Connection threads	Cylindrical (according to ISO 228/1)
Inlet and return	G 1/2
Nozzle outlet	G 1/4
Pressure gauge port	G 1/8
Vacuum gauge port	G 1/2
Valve function	Pressure regulating and cut-off (except for models 1069)
Strainer	Open area : 45 cm² Opening size : 550 µm
Shaft	Ø 11mm according to EN 225.
By-pass plug	Inserted in return port for 2 pipe system; to be removed with a 3/16" Allen key for 1 pipe system.
Weight	4 kg
Certified	

Hydraulic data

Nozzle pressure range	14 - 30 bars
Delivery pressure setting	20 bars
Operating viscosity	3 - 75 mm²/s (cSt)
(Higher viscosity oil can be used by feeding the pump or by heating the oil to lower its viscosity under 75 cSt)	
Oil temperature	0 - 130°C in the pump.
Inlet pressure	light oil : 0,45 bars max. vacuum to prevent air separation from oil. heavy oil : 3,5 bars max.
Return pressure	light oil : 3,5 bars max. heavy oil : 3,5 bars max.
Rated speed	3600 rpm max.
Torque (@ 40 rpm)	0,30 N.m
Choice of heater	
Cartridge	Ø 12 mm
Fitting	according to EN 50262
Rating	50 - 80 W

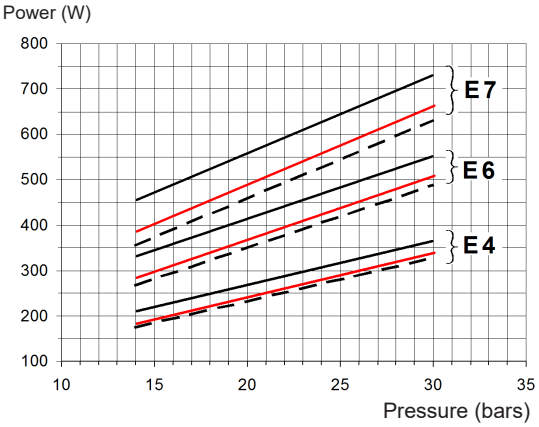
Pump capacity



Viscosity = 75 cSt
20 cSt
5 cSt - Rated speed = 2850 rpm

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

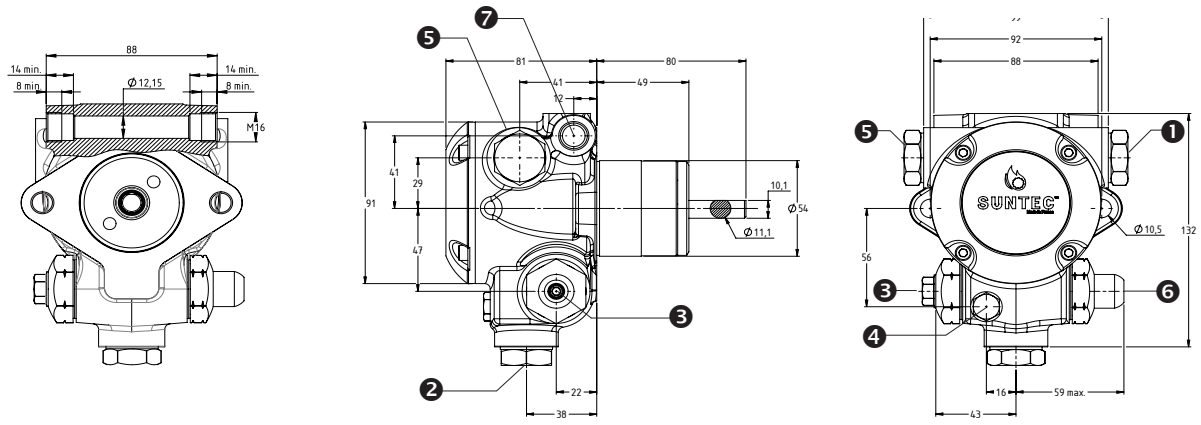
Power consumption



Viscosity = 75 cSt
20 cSt
5 cSt - Rated speed = 2850 rpm

PUMP DIMENSIONS *(in mm)*

Examples shows "A" rotation and nozzle outlet.



❶ Suction or vacuum gauge port
❷ Return and internal by-pass plug
❸ Nozzle outlet
❹ Pressure gauge port
❺ Vacuum gauge port or suction
❻ Pressure adjustment
❼ Preheater cavity