OIL PUMP TYPE CJM
Methanol applications

CJM

CJM - GB - Ed 2 - Nov. 2019

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

The SUNTEC **CJM** oil pump incorporates a pressure regulating valve with a cut-off feature.

APPLICATIONS

- Kerosene, light oil and methanol blends (Pump life time is not guaranted for this application, test with real methanol blends have to be performed before using the pump in a burner) .
- Two-pipe system.
- Normally associated with in-line solenoid valve.

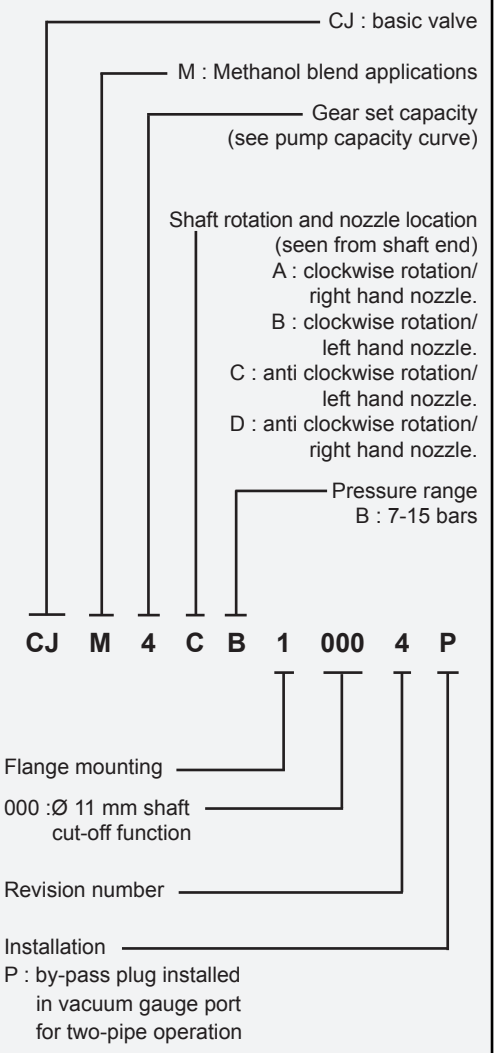
PUMP OPERATING PRINCIPLE

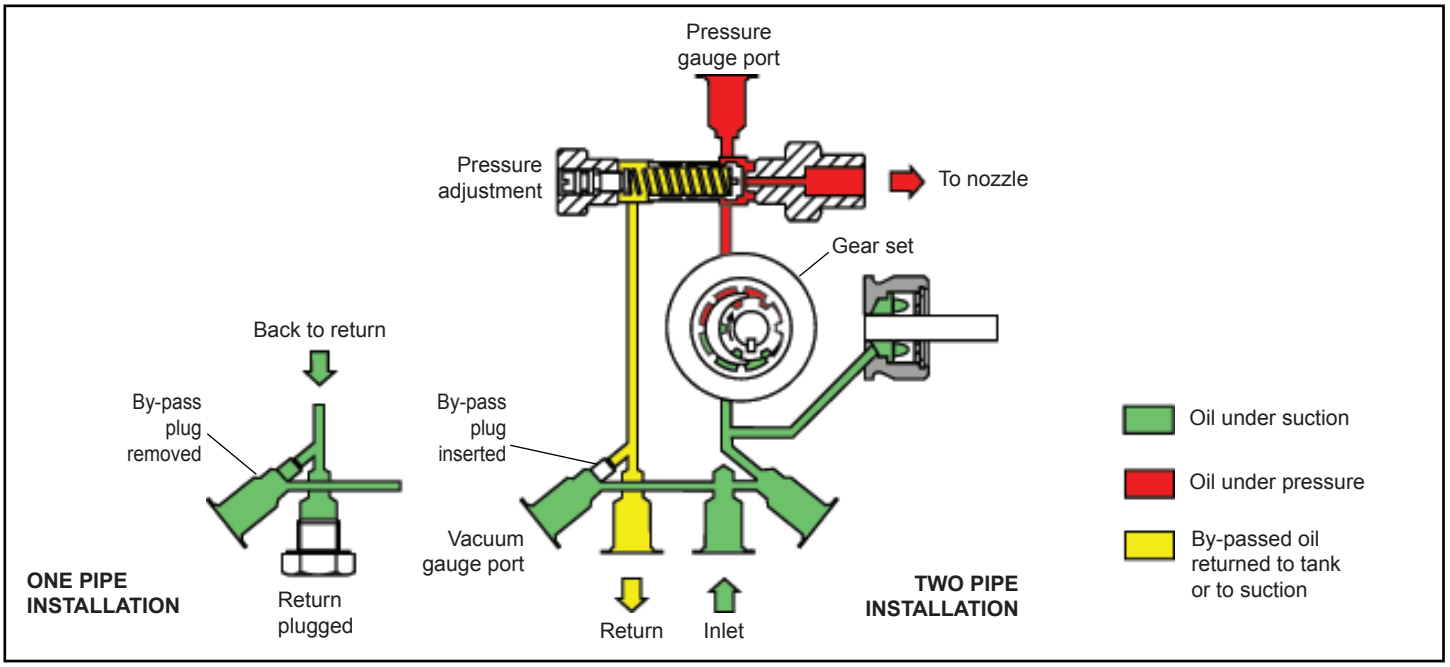
The gear set draws oil from the tank through the built-in filter and transfers it to the valve that regulates the oil pressure to the nozzle line.
All oil that does not go through the nozzle line will be by-passed through the valve back to the suction port in the gear-set.
For a two pipe installation, the by-pass plug must be inserted in the vacuum gauge port , so that the by-passed oil is transfered to the return.
The valve also has a cut-off function as follows :
During starting period when the gear-set speed is increasing, all the oil passes through a bleed slot in the piston, back to the return. Once the speed reaches a certain value and the flow can no longer pass through this bleed slot, then the pressure increases rapidly overcoming the valve spring force and opens the valve.
During the stop sequence, the gear-set speed slows down and the valve closes when the gear-set capacity is lower than the bleed slot flow.
The cut-on and cut-off speeds depend on the gear-set size and set pressure.

Bleed :
In one pipe operation, a pressure port must be opened to bleed the system.
Bleeding in two pipe operation is automatic, but it could be accelerated by loosening the plug in a pressure gauge port.

PUMP IDENTIFICATION

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





SUNTEC INDUSTRIES FRANCE - 1, rue Lavoisier - CS 60102 - F-21603 LONGVIC Cedex - Tel. 33 (0)3 80 70 60 70 - Fax 33 (0)3 80 70 61 11- www.suntec.fr

TECHNICAL DATA

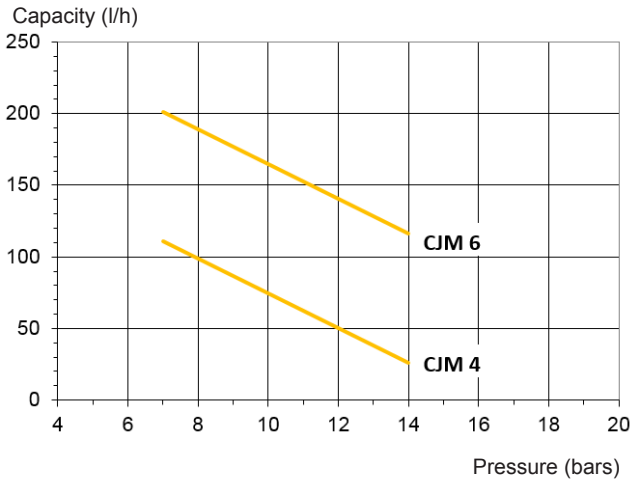
General

Mounting	Flange 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 and cut-off
Strainer	Open area : 30 cm² - opening size : 120x150 µm
Shaft	Ø 11 (7/16")
By-pass plug	Inserted in return port for two-pipe system ; to be removed from return port with a 4 mm Allen key for one pipe system.
Weight	1,7 kg

Hydraulic Data

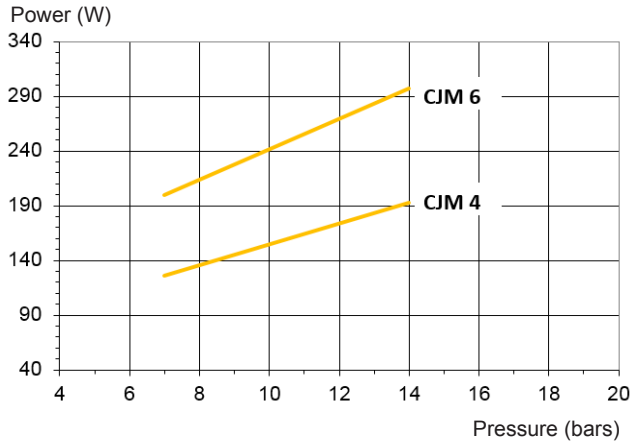
Nozzle pressure range	7 - 15 bars
Delivery pressure setting	12 bars
Operating viscosity	0,75 -12 mm²/s (cSt)
Oil temperature	0 - 60°C in the pump
Inlet pressure	2 bars max.
Return pressure	2 bars max.
Suction height	0,45 bars max. vacuum to prevent air separation from oil
Rated speed	3600 rpm max
Torque (@ 45 rpm)	0,15 N.m

Pump capacity*



Viscosity= 0,75 cSt - Rated speed = 2850 rpm

Power consumption*

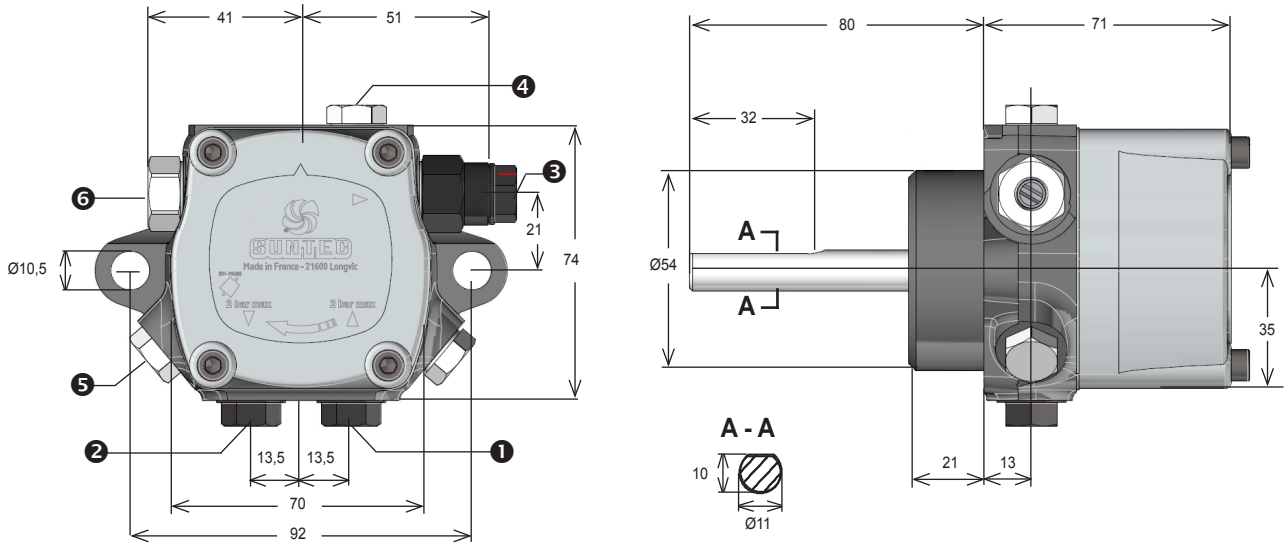


Viscosity = 0,75 cSt - Rated speed = 2850 rpm

* Data given for a Methanol blend with 91% Methanol, 3% Acetone, 3%Xylene, 3% Acetate.
This blend may not be representative of the Methanol blend used in your market.
Tests with local blend have to be performed before using the pump in a burner.

DIMENSIONS

Example shows "C" rotation and nozzle outlet



❶ Suction ❷ Return ❸ Nozzle outlet ❹ Pressure gauge port ❺ Vacuum gauge port and internal by-pass plug ❻ Pressure adjustment