

## OIL PUMP TYPE AN GEAR SIZES 47-57-67-77-97

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

The SUNTEC **AN** oil pump is the basic model incorporating a pressure regulating valve with cut-off.

## APPLICATIONS

- Light oil, B10 heating oil/biofuel blend (as defined in DIN V51603-6) and kerosene.
- One or 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 which does not go through the nozzle line will be by-passed through the valve back to the return line, in a 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.

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 special flat on the piston, back to the return. Once the speed reaches a certain value and the flow can no longer pass through this flat, 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 flat flow.

The cut-on and cut-off speeds depend on the gear-set size, and set pressure.

#### Bleed:

Bleeding in two pipe operation is automatic, but it could be accelerated by loosening the plug in a pressure gauge port.

In one pipe operation, a pressure port must be opened to bleed the system.

AN				
AN	- 11 - Ed 16 - January 2019			
PUMP IDENTIFICATION				
	model combinations are available ult your Suntec representative)			
	AN : basic valve with cut-off			
	V : B10 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. C : anti clockwise rotation /

3 XX

6 P

1

Revision number

Model number

AN V 47 C

Pump series .

1000 : standard 7000 : with side

2 : hub Ø 54 mm 3 : hub Ø 32 mm

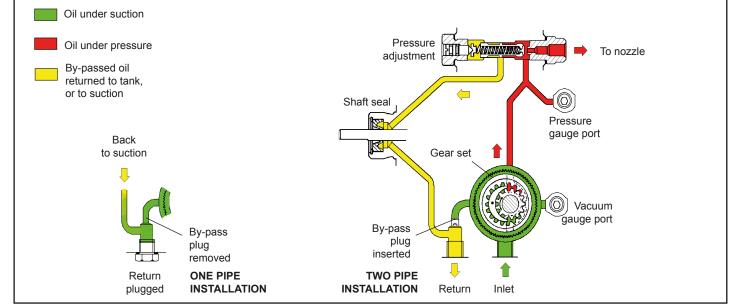
pressure ports

Installation -

P: by-pass plug installed in return port for two-pipe operation.

Κ

M : without by-pass plug, return plugged for one-pipe operation.



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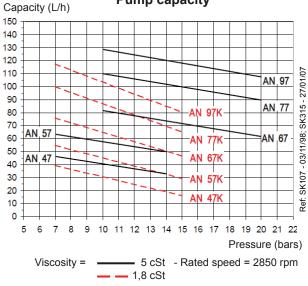
## **TECHNICAL DATA**

#### General

Mounting	Flange or hub according to EN 225
Connection threads	Cylindrical according to ISO 228/1
Inlet and return	G 1/4 (with facilities for conical sealing on revision 6 models)
Nozzle outlet	G 1/8
Pressure gauge ports	G 1/8
Vacuum gauge port	G 1/8
Valve function	Pressure regulating and cut-off
Strainer	Open area : 6 cm² (AN 47/47K, 57/57K, 67/67K)
	20 cm <sup>2</sup> (AN 77/77K, 97/97K)
	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 - 1,3 kg (depending on the model)

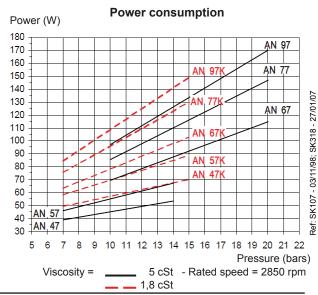
### Hydraulic data

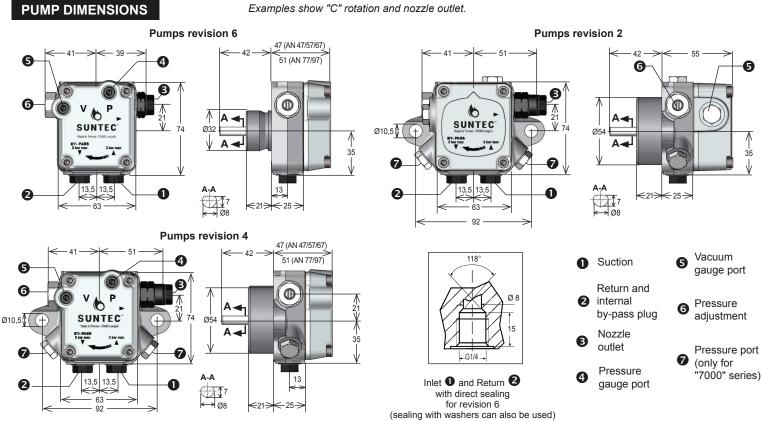
Gear size	Nozzle pressure range*	Factory setting
47/57	7 - 14 bars	9 bars
67/77/97	10 - 20 bars	14 bars
47K/57K/67K/77K/97K	7 - 15 bars	9 bars
* other ranges availabl	e on request, refer to the specifie	ed range of the particular fuel unit.
Operating viscosity	7/67/77/97	
	1,25 - 75 mm²/s (cSt) for AN 47	′K/57K/67K/77K/97K
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 prev	ent air separation from oil.
Rated speed	3600 rpm max.	
Torque (@ 45 rpm)	0,10 N.m (AN 47/47K, AN 57/5	7K)
	0,12 N.m (AN 67/67K)	
	0,14 N.m (AN 77/77K)	
	0,20 N.m (AN 97/97K)	



**Pump capacity** 

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





We reserve the right to change specifications without prior notice.