

## 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 :

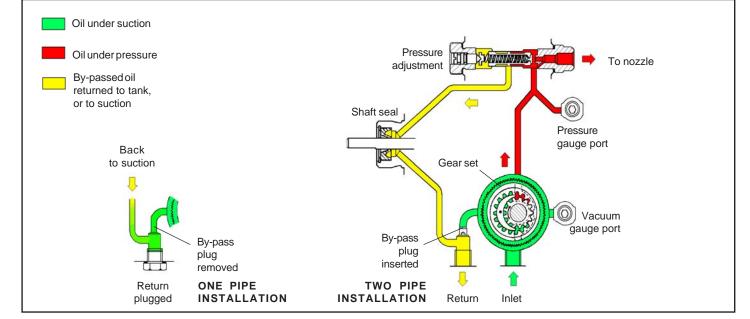
Bleeding in two pipe operation is automatic, but it could be accelerated by loosening the plug in a pressure gauge port.

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

PUMP IDENTIFICATION					
(Not all model combinations are available Consult 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. D : anti clockwise rotation / right hand nozzle. K : Kerosene applications					
AN V 47 C K 1 3 xx 6 P Pump series T T T T T T T T T T T T T T T T					
2 : hub Ø 54 mm 3 : hub Ø 32 mm					
Model number					
Revision number					
P: by-pass plug installed in return port for two-pipe operation.					

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

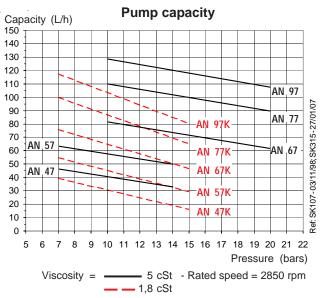


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## TECHNICAL DATA

#### General

Flange or hub according to EN 225			
Cylindrical according to ISO 228/1			
G 1/4			
(with facilities for conical sealing on revision 6 models)			
G 1/8			
G 1/8			
G 1/8			
Pressure regulating and cut-off			
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			
Ø 8 mm according to EN 225			
Inserted in return port for two-pipe system;			
to be removed with a 4 mm Allen key for one-pipe system			
1 - 1,3 kg (depending on the model)			



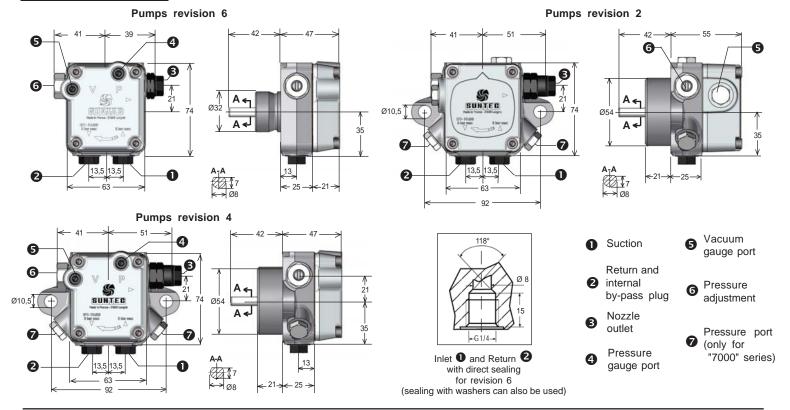
Data shown take into account a wear margin. Do not oversize the pump when selecting the gear capacity.

### Hydraulic data

			Power (W)	Power consumption
Gear size	Nozzle pressure range*	Factory setting	( )	
17/57	7 - 14 bars	9 bars	180	AN 97
67/77/97	10 - 20 bars	14 bars	170	
47K/57K/67K/77K/97K	7 - 15 bars	9 bars	160	AN 97K AN 77
	* other ranges available of	n request, refer to the specified range	150	
	of the particular fuel unit		140	AN 77K
Operating viscosity	2 - 75 mm <sup>2</sup> /s (cSt) for AN	47/57/67/77/97	- 130	AN 67
	1,25 - 75 mm <sup>2</sup> /s (cSt) for A	N 47K/57K/67K/77K/97K	_ 110	
Oil temperature	0 - 60°C in the pump.		100	AN 67K
Inlet pressure	2 bars max.		90	AN, 57K
Return pressure	2 bars max.		- 80 - 70 - 70 - 70 - 70 - 70 - 70 - 70	AN 47K
Suction height	0,45 bars max. vacuum to	prevent air separation from oil.	60	
Rated speed	3600 rpm max.		50 40 AN 57	
Torque (@ 45 rpm)	0,10 N.m (AN 47/47K, AN 5	57/57K)	- 40 30 AN 47	
	0,12 N.m (AN 67/67K)		5678	3 9 10 11 12 13 14 15 16 17 18 19 20 21
	0,14 N.m (AN 77/77K)		5070	Pressure (ba
	0,20 N.m (AN 97/97K)		Viscosi	
			- VISCOS	

#### PUMP DIMENSIONS

Examples show "C" rotation and nozzle outlet.



We reserve the right to change specifications without prior notice.