

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

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

## APPLICATIONS

- Light oil.
- 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 dumped 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 vacuum gauge 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 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 :

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.

\* Owing to the presence of the nozzle by-pass hole, AJ 1002 models have no cut-off function. Cut-off must be provided by an external solenoid valve.



