### LIGHT OIL BURNER PUMP

# Series AG





# **CHARACTERISTICS**

# Applications:

- Light oil.
- One pipe or two pipe systems.
- Self-priming.
- Hub ø 32 mm or hub ø 54 mm with flange.
- Capacity from 50 l/h to 280 l/h.

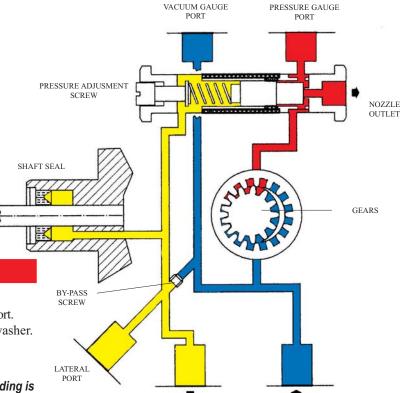
### **FUNCTION**

The suction vacuum generated by the gears sucks up the fuel through the suction connection; it crosses the filter and the fuel is sent under pressure to the pressure adjustment screw.

The hydraulic valve opens when oil pressure gets over spring strength settled by pressure adjustment screw and the oil reaches nozzle line.

In two pipe systems the exceeding oil flows into the tank through the return line; in one pipe system, after the removing the by-pass screw, it goes back to the gears.

When burner stops, the oil pressure immediately comes down and the spring strength moves the piston which stop the fluid flow to the line and at the same time allows the forwarding of the light oil to the return line.



RETURN

SUCTION

### **CONVERSION 2 PIPES - 1 PIPE SYSTEM**

For the conversion proceed as follow:

- Remove the by-pass screw, located inside the lateral port.
- Lock the return port with a steel plug G 1/4 and washer.

Pressure

Return

Suction

## ATTENTION:

In two-pipe system oil pump is self-priming, the bleeding is obtained through the return line.

In one-pipe system the return line is closed by plug, the bleeding must be obtained through the nozzle or opening the pressure gauge port, to accelerate the way out of the air.

# **TECHNICAL DATA**

#### HYDRAULIC DATA

Factory settings 12 bar Pressure range 4 - 25 bar Viscosity range 2,8 - 75 cSt Oil temperature 70°C max 2 bar max Inlet pressure Recycle pressure 2 bar max Suction vacuum 0,45 bar max Speed 2800 - 3480 rpm Starting torque 0,30 Nm Capacity see graphs

## **GENERAL DATA**

Power consuption

Mounting Hub ø 32 mm or Flange ø 54 mm

according to EN 225

Connections Nozzle outlet G 1/8

Pressure gauge port G 1/8
Vacuum gauge port G 1/8
Suction G 1/4
Return G 1/4

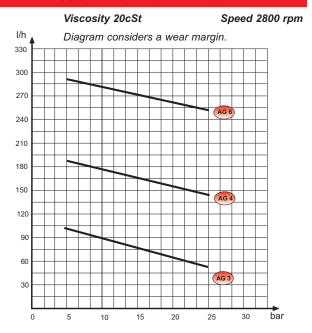
see graphs

Strainer Open aria 142 cm<sup>2</sup>

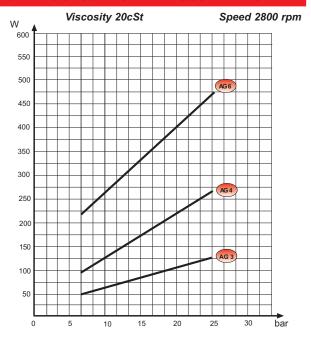
 $Mesh \hspace{1.5cm} 100 \; \mu m$ 

Weight 2,0 kg

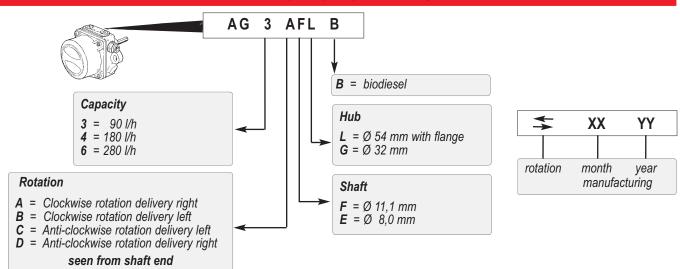
### **PRESSURE - CAPACITY DIAGRAM**



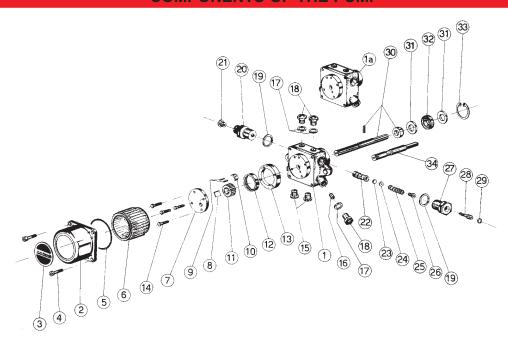
#### **POWER CONSUPTION - PRESSURE DIAGRAM**



# **IDENTIFICATION OF THE PUMP**



# **COMPONENTS OF THE PUMP**



### **INSTALLATION OF THE PUMP**

- The pump can be installed in all indicated positions.
- Make sure that the characteristics of the pump are compatible with those of the motor or of the boiler.
- Control the rotation of pump-motor.



In the hub muonting version the coupling pump-motor must be realized using 3 head screws without; otherwise you can have significant reductions of pump life.



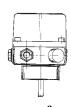






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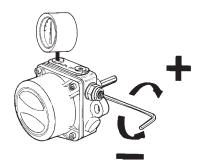




## **REGULATION OF THE PUMP PRESSURE**

- Apply the manometer on the pressure gauge port.
- Rotate with the slotted screwdriver changing the pressure which has to be:

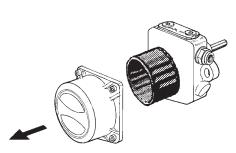
Pressure max: 25 bar Pressure min: 4 bar



# **CLEANING OF THE FILTER**

- Remove the cover as indicated in the figure.
- Extract the filter and clean it with the clean oil fuel.

ATTENTION: This operations have to be made periodically by the technical personnel.

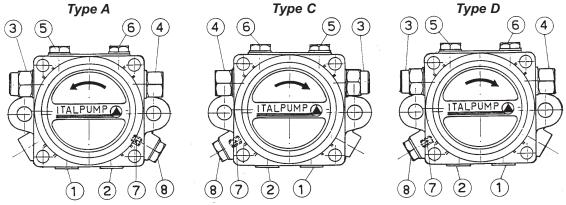




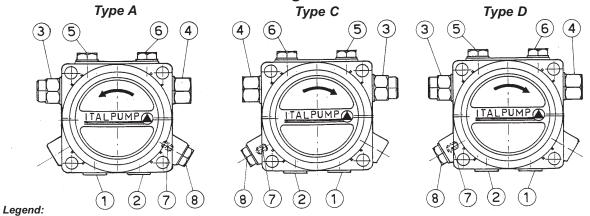
The repairs which require the substitution of pieces, must be realized by the manufacturer.

# **VERSIONS OF THE PUMP**

# Flange mounting connection Ø 54 mm



# Hub mounting connection Ø 32 mm



- 1 Suction 2 - Return
- 3 Nozzle outlet
- 4 Pressure adjustment screw
- 5 Pressure gauge port6 Vacuum gauge port
- 7 By-pass screw
- 8 Lateral port

## **DIMENSIONS OF THE PUMP**

