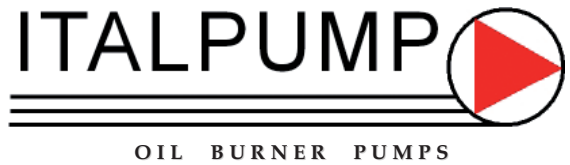


LIGHT OIL BURNER PUMP



Series GBE-LE



CHARACTERISTICS

Applications:

- Light oil.
- Two pipe system.
- Single stage.
- Cartridge filter.
- Solenoid valve, normally closed, with cut-off function.
- Capacity from 20 l/h to 75 l/h.
- Low emission on burner start and stop.

FUNCTION

The special model GBE-LE is engineered to be mounted in domestic low capacity burner and working with a no-drip nozzle and a preheater mounted in the burner enabling a reduction of start-stop emissions.

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

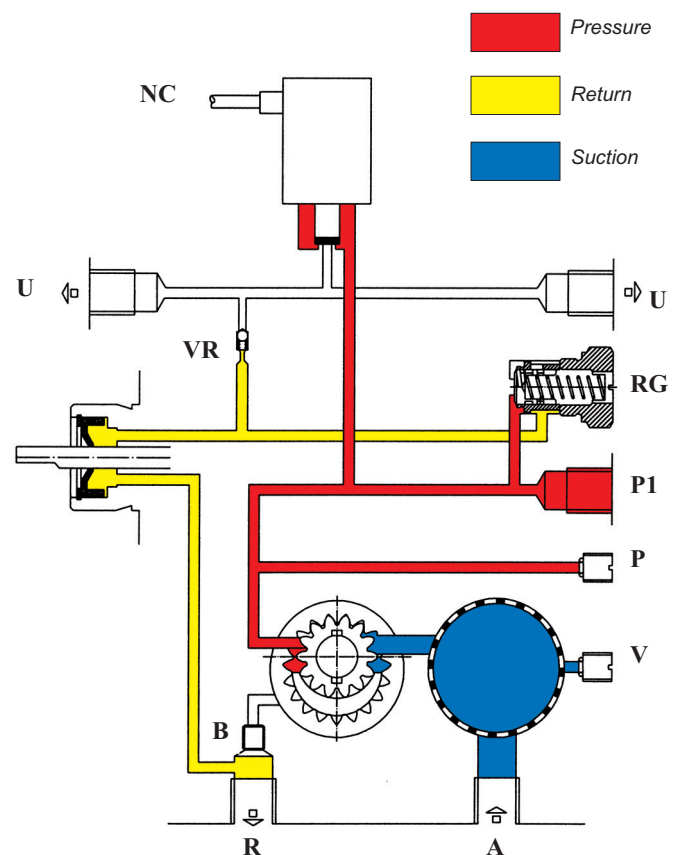
During the prepurge cycle the "NC" solenoid valve prevents the exit of the fuel from the nozzle outlet "U" the total amount of processed fuel is sent on the return line "R" set by pressure adjustment screw "RG".

When the voltage is applied to the "NC" solenoid valve, the fuel is sent to the nozzle at the pressure value set by pressure adjustment screw "RG", only the exceeding fuel is sent on the return line "R".

During the operation it is possible to measure the suction vacuum by the vacuum gauge port "V" and the pressure by the pressure gauge port "P"; it is also available on the pump an auxiliary delivery port "P1".

The expansion of the oil due to the presence of a preheater is prevented by the presence of the relief valve "VR" which discharge it on the return line. The relief valve opens at lower pressure than the nozzle opening.

When the burner stops the voltage to the "NC" solenoid valve is cut-off and immediately the oil flows to the return line "R".



GBE-LE TECHNICAL DATA

HYDRAULIC DATA

Factory settings	10 bar
Pressure range	5 - 16 bar
Viscosity range	2 - 12 cSt
Oil temperature	0 - 60°C
Inlet pressure	1,5 bar max
Return pressure	1,5 bar max
Suction height	0,45 bar max
Speed	2800 - 3480 rpm
Starting torque	0,10 Nm
Capacity	see graphs
Power consuption	see graphs

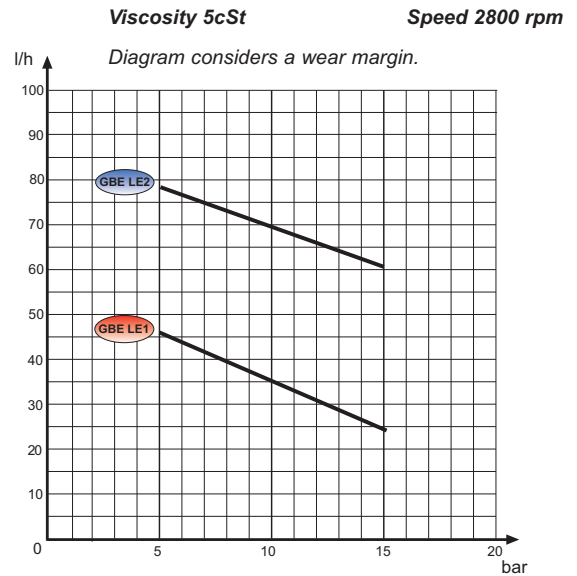
GENERAL DATA

Mounting	Hub \varnothing 32 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
Nozzle outlet	Left and Right	
Filter	Open aria	9 cm ²
	Mesh	200 μ m
Weight	1,1 kg	

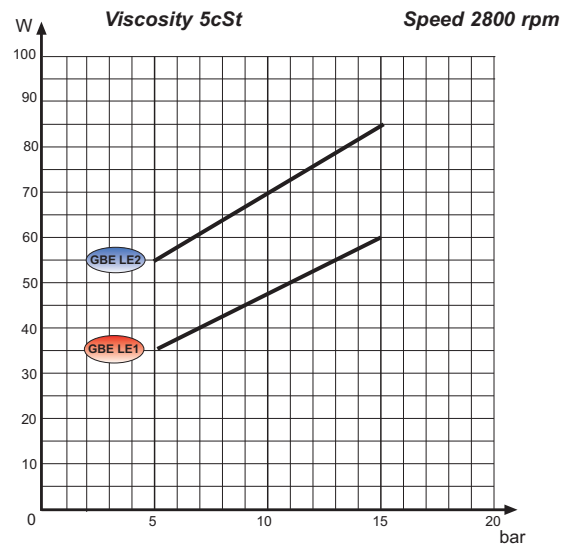
SOLENOID VALVE DATA

Pressure max	20 bar
Voltages	220-240V, 110V, 24V;
	50/60Hz
Absorption	9 W
Ambient temperature	0-70°C

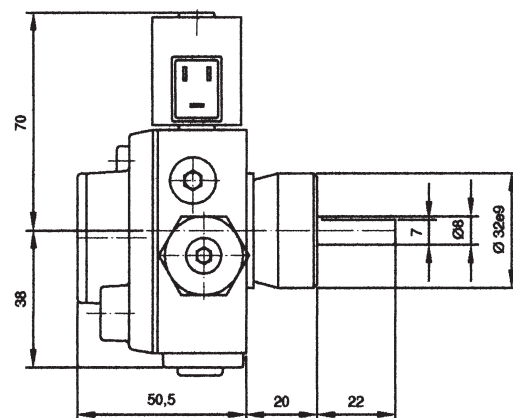
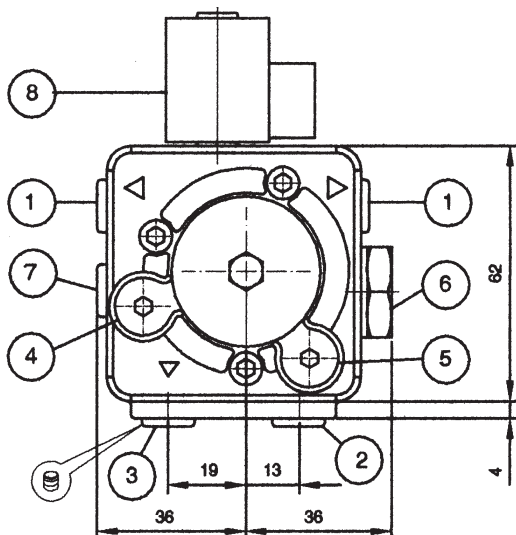
PRESSURE - CAPACITY DIAGRAM



POWER CONSUMPTION - PRESSURE DIAGRAM



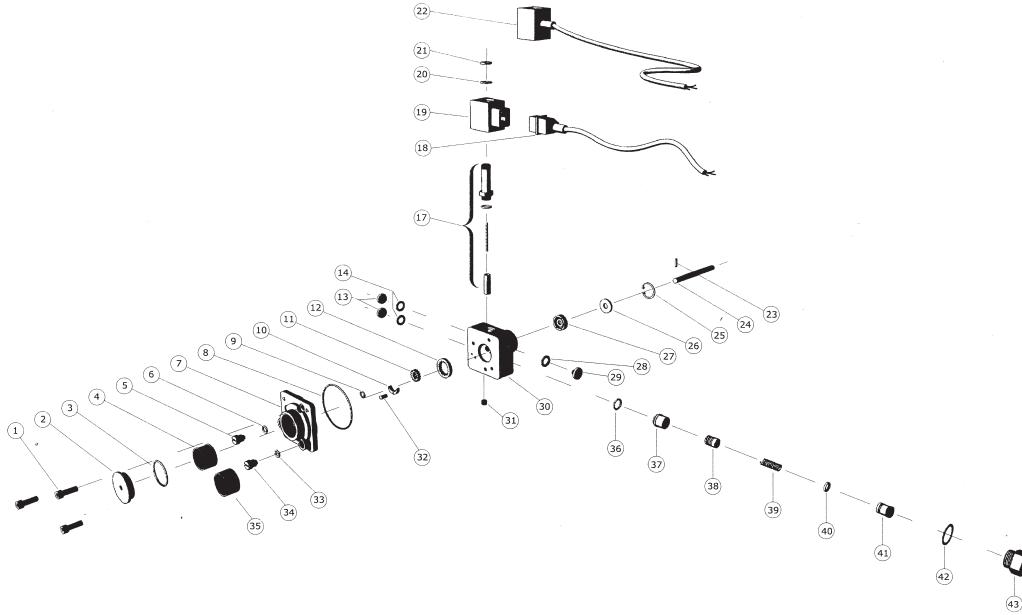
DIMENSIONS OF THE PUMP



Legend:

- | | |
|-------------------------------|-----------------------------------|
| 1 - Nozzle outlet G 1/8 | 5 - Vacuum gauge port G 1/8 |
| 2 - Suction G 1/4 | 6 - Pressure adjustment screw |
| 3 - Return G 1/4 | 7 - Auxiliary delivery port G 1/8 |
| 4 - Pressure gauge port G 1/8 | 8 - Solenoid valve N.C. |

COMPONENTS OF THE PUMP



INSTALLATION OF THE PUMP

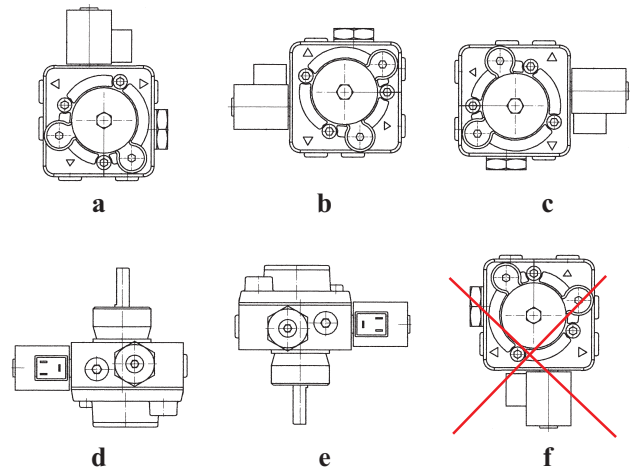
• The pump can be installed in the indicated positions: it is suggested position **a**.

It has to be absolutely avoid the position **f**.

- 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.

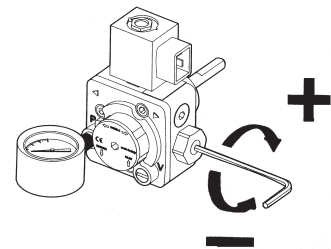


The coupling pump-motor must be realized using 3 head screws without; otherwise you can have significant reductions of pump life.



REGULATION OF THE PUMP PRESSURE

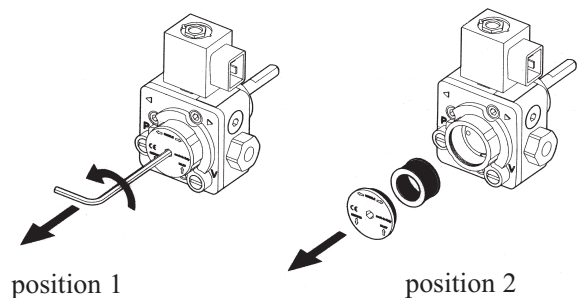
- Apply the manometer on the pressure gauge port (P).
- Rotate with the allen key of 4 mm changing the pressure which has to be:
 Pressure max: 16 bar
 Pressure min: 5 bar



CLEANING OF THE FILTER

- Remove the cover as indicated in the position 1.
- Extract the filter and clean it with the clen oil fuel. (position 2).

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.

IDENTIFICATION OF THE PUMP

