

Oil Pump Type BFP 51 Size 6, 8, 11, 13



General Data Sheet

For specific information on this product, please contact Danfoss Burner Components

Identification

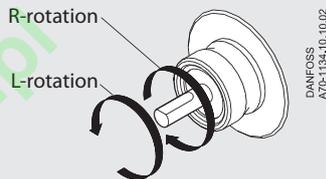
BFP 51 L13 L (Example)

- L** Left hand nozzle outlet
- R** Right hand nozzle outlet
- 6** Capacity 60 l/h
- 8** Capacity 80 l/h
- 11** Capacity 110 l/h
- 13** Capacity 130 l/h
- R** Clockwise rotation
- L** Counterclockwise rotation
- 1** One solenoid valve
- 5** Two stages, two pressure regulators

Capacity at 4.3 cSt., 10 bar, 2800 min⁻¹.

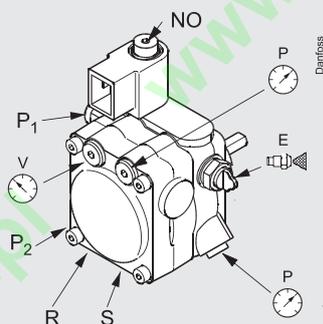
Note!

Shaft rotation, location of nozzle outlet and other connections are seen from shaft end.



Connections

Example shows BFP 51 L13L.

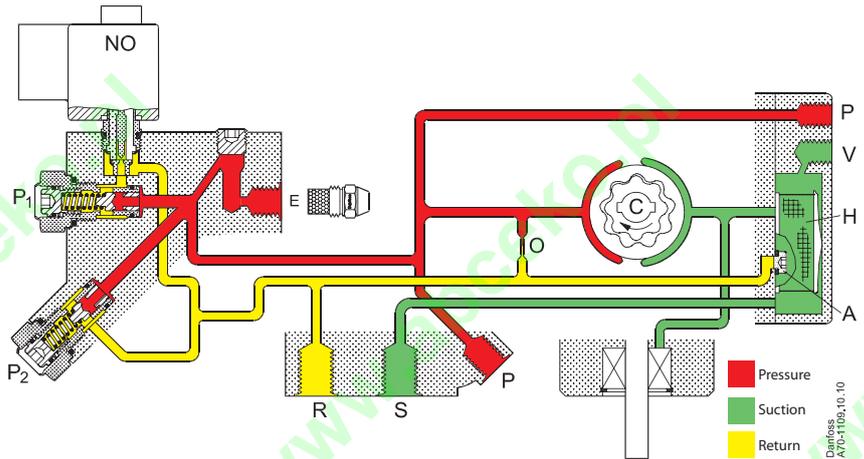


- P₁** Pressure adjustment, stage 1
- P₂** Pressure adjustment, stage 2
- S** Suction inlet G 1/4
- R** Return outlet G 1/4
- E** Nozzle outlet G 1/8
- P** Pressure gauge port G 1/8
- V** Vacuum gauge port G 1/8
- H** Filter

BFP 51 sizes 6, 8, 11, 13 oil pumps are designed for medium-sized/large 2-stage domestic oil burners up to 130 l/h.

Application and features

- Light oil and kerosene
- 1 or 2-pipe operation
- 2-stage
- Two built-in pressure regulators
- Ring filter



Function

From the suction inlet (S) oil is drawn through the filter (H) to the gear set, where the pressure is increased. By means of the piston in the pressure regulator for stage 1, the pressure is kept constant at the value set on adjustment screw (P₁). When voltage is applied to the NO-valve, it closes and puts pressure regulator 1 out of action. The pressure will now rise to the value set for stage 2 on (P₂).

In 2-pipe systems the excess oil is led back to the return outlet (R) and the tank. In 1-pipe systems with plugged return outlet (R) and a bypass washer (horseshoe) mounted on screw (A), the oil is returned internally to the gear set (see details in below figure).

Cut-off function

The pumps have no built-in cut-off function. In systems using these pumps, a separate cut-off valve must be installed in the nozzle line.

Bleeding

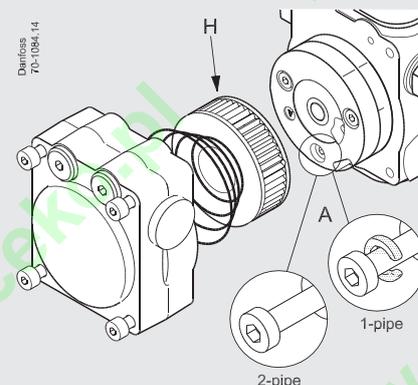
In 2-pipe systems the pump is self-priming, i.e. bleeding is performed via the constriction (O) to the return outlet (R).

In 1-pipe systems with plugged return outlet (R), bleeding must be performed through the nozzle outlet (E) or the pressure gauge port (P).

Warranty

For pumps used outside the stated technical data and used with oil containing abrasive particles Danfoss cannot give any warranty.

Change-over between 1 and 2-pipe operation. Filter replacement



2-pipe operation:
Screw (A) without
bypass washer

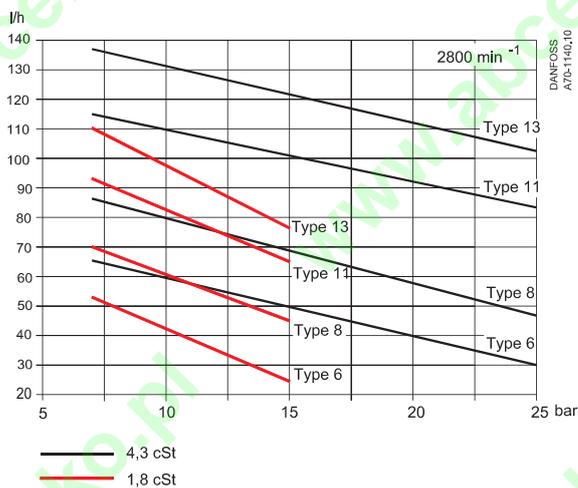
1-pipe operation:
Bypass washer
fitted on screw (A)

Technical Data

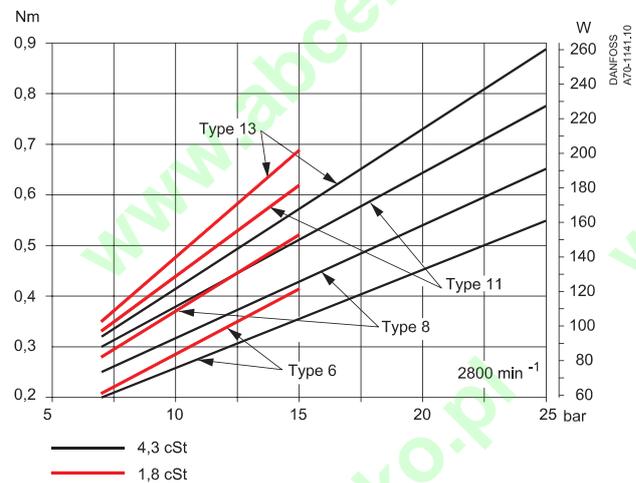
BFP 51	Size	6	8	11	13
Viscosity range (measured in suction inlet)	cSt. (mm ² /s)	(1.3) 1.8 - 12.0			
Filter area/mesh	cm ² /μm	13/200			
Pressure range, stage 1 ¹⁾	bar	7-15			
Pressure range, stage 2 ¹⁾	bar	12-25			
Factory setting stage 1/stage 2	bar	10/13 ±1			
Max. pressure in suction inlet/return outlet	bar	2			
Speed	min ⁻¹	2400-3450			2400-2850
Max. starting torque	Nm	0.14	0.23	0.24	0.25
Ambient/transport temperature	°C	-20 to +60			
Temperature of medium	°C	0 to +60			
Coil power consumption	W	9			
Rated voltage (other voltages on request)		230 V, 50 Hz			
Coil enclosure		IP 40			
Shaft/neck		EN 225			

¹⁾ Max. 12 bar at 1.3 cSt., max. 15 bar at 1.8 cSt.

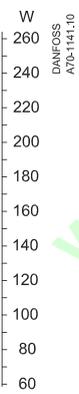
Nozzle capacity



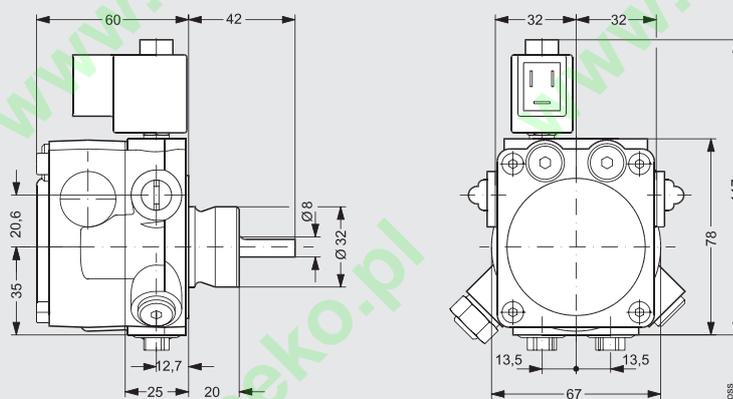
Operating torque



Power consumption



Dimensions



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