

CARDEV

Oil Filtration and Coolant Handling Specialists



1S120PG

Removes Contaminants

Extends Oil Life

Reduces Component Wear

Removes all Water

Saves Machine Downtime

Reduces Disposal Costs

Simple to Install & Use

Low Maintenance Costs

Built in Sampling Points



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1S120PG



Industrial Filtration



Biodegradable Lubricants

1S120 - SPECIFICATION			
Electric Motor	VOLTS	110	230
	Kws	0.09	0.09
	Amps	2	0.9
	RPM	1400	1400
	Protection	IP 55	
Pump Performance	120 litres/hour @ 2.8 bar (ISO 46 Hydraulic oil at 40°C)		
Pump Suction Lift	Self priming to 5.5 metres		
Operating Temperature	10-90°C		
Dimensions	Length	350 mm	
	Width	240 mm	
	Height	550 mm	
Weight	22 kg		
Filtration System	1 x SDU H8		
Cartridge Type	1 x SDFC—Fitted as standard. Supplied in boxes of 6		
Accessories	6 metres of reinforced 3/4" hose with couplings Plug to suit voltage (UK only)		
Options	110v and air motors/ Flow Meter SDFC-P Cartridges for water based fluids		

Description

The 1S120PG Micron Filtration System is a compact free standing off line oil cleaning and filtration system, capable of removing fine dirt particles and totally removing water. Filter cartridges are also available for use on water based fluids

Set Up Operation

1. Cut hose to suit IN or OUT requirements. Insert in oil.
2. Prime pump before use—pour oil down inlet hose.

Starting

1. Turn ON/OFF switch to position 1.

Cold Starting

If oil is thick, pressure may rise and the oil will by-pass through the built in pressure control valve at approximately 4.0 Bar. As the oil warms up, the pressure control valve will automatically close.

Performance Guide

To achieve optimum cleanliness, the contents of each tank should pass through the filter a minimum of 4-5 times.

E.g. a 120 litre tank at 40°C will take approximately 4-5 hours to clean.

Note: The above is a guide only, and results will depend on the contamination level in each tank.

Cartridge Change Intervals

- When oil pressure is 1.5 Bar above normal
- When the pressure control valve is continuously open and chattering.
- 200 hours or monthly

Cartridge Change Procedure

1. Switch off motor
2. Remove "IN" hose
3. Depress nodule on inlet coupling and run motor for 30 secs. to purge the units of oil.
4. Release lid securing bolt.
5. Remove cartridge using attached straps.
6. Change the cartridge and replace lid seal.
7. Replace lid and tighten firmly by hand.
8. Check for leaks.
9. Run for 10 mins. and confirm lid bolt secure.

Electrical Switch

Position "1" - system running
Position "0" - system stopped

Protection

1. Pressure relief valve set at 4.0 Bar.

TROUBLE SHOOTING

1. System pumps slowly

- a. Check hose is below oil but not sucking against the floor or wall of tank.
- b. Check pre-filter for leaks and check clean.
- c. Check inlet hose for leaks & blockages.
- d. Check quick release coupling—remove to clean.
- e. Ensure cartridge has been changed.
- f. If none of the above, check pump.

Contamination Monitoring

The 1S120PG is fitted with 2 sample points for use with portable UCC CM20 particle counter or similar device. Connect the appropriate pipes:

RED - high pressure in
YELLOW - low pressure return

This will enable an ISO rating/particle count to be taken whilst the system is in operation.

Oil Sampling

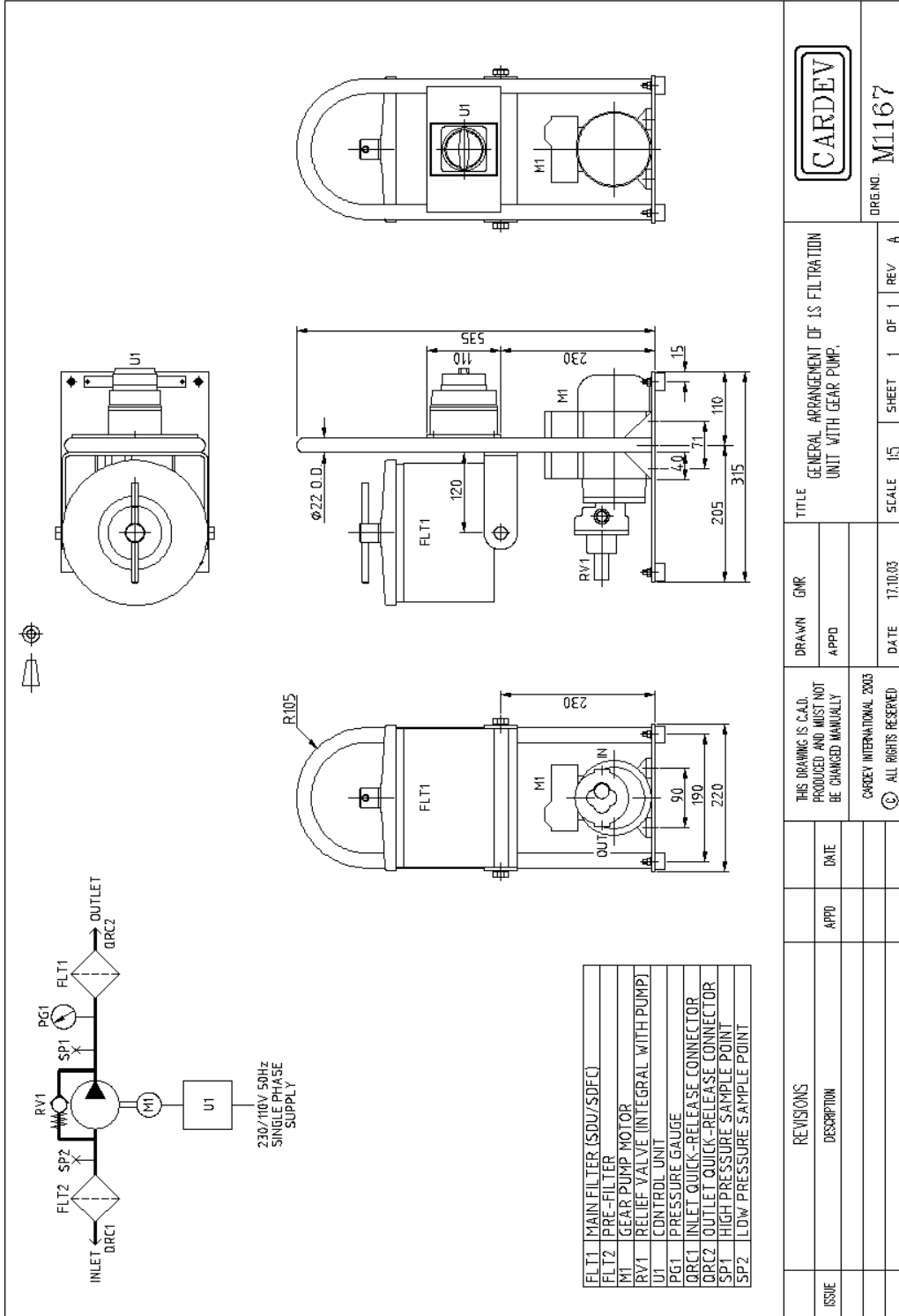
To take an oil sample, connect only to the red sample point—wait for a steady flow before sampling.

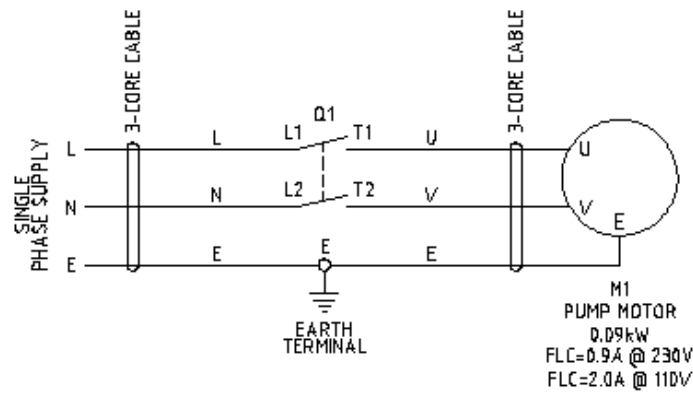
Filtration Levels

Through a CARDEV filter SDFC, the level of filtration is ISO4406, ISO <13/9 and the equivalent NAS 1638 class 4/5. Water is removed to below 0.05%

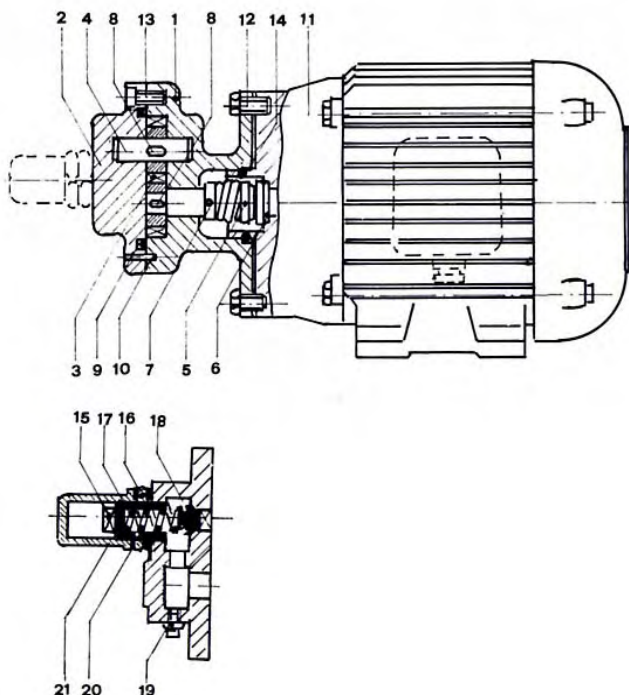
Guarantee

The 1S120PG system carries a 12 month warranty on all parts. Full details are given on the guarantee card attached to the system.





	DRAWN GMR	MAT	TITLE IS 120-PG SWITCH, SINGLE PHASE 230/110V.		
	APPD	FINISH			
© CARDEV INTERNATIONAL LTD. 2004 ALL RIGHTS RESERVED	DATE 12.3.04	TOL.	SCALE	SHEET 1 OF 1	REV A



No	Description
1	Pump Body
2	Cover
3	Gears
4	Driven shaft
5	Mechanical Seal
6	Seal matching surface
7	Ring nut
8	Key
9	O-Ring
10	Plug
11	Electric motor
12	Screw
13	Socket head screw
14	O-Ring
15	Bush
16	Lock nut
17	Spring
18	Plug
19	Plug
20	Grommet
21	By-pass cover

APPLICATIONS

The BMF series are volumetric pumps with single-impelled gearing suitable for transferring of viscous and devoid of suspended solid substances liquids.

These are self-priming pumps and are supplied with 4-pole motors for liquids bearing a viscosity up to 10° E and with 6-pole motors for liquids with higher viscosity.

They are employed for the transferring of fuel oil, petroleum products, cosmetic items, foodstuffs, varnishes, lubricant oils, etc.

CONSTRUCTION

The standard execution of the BMF series pumps is in cast iron with steel gearing and shafts; mechanical seal in Viton.

The suction and delivery nozzles have the same diameter and are on the same axis (in line).

In the standard version they can operate with a maximum liquid temperature of 140°C.

For higher temperatures or particular applications the pumps can be supplied flanged to allow connection with B3/B14 or B3/B5 motor forms.

It is possible to fix on the pump delivery an over-pressure bypass valve thus protecting the pump from dangerous over-pressures.

The by-pass valve is of the inner recycle kind and it can be calibrated by acting on the adjusting screw. The sense of rotation is right-hand looking from the pump side, the delivery is on the left (from the by-pass valve side), the suction is on the right.

The BMF pumps with suitable sealing can be reversible.



PUMP AND MOTOR

120PG 230V

120PG 110V

MOTOR

120PMM 230V

120PMM 110V

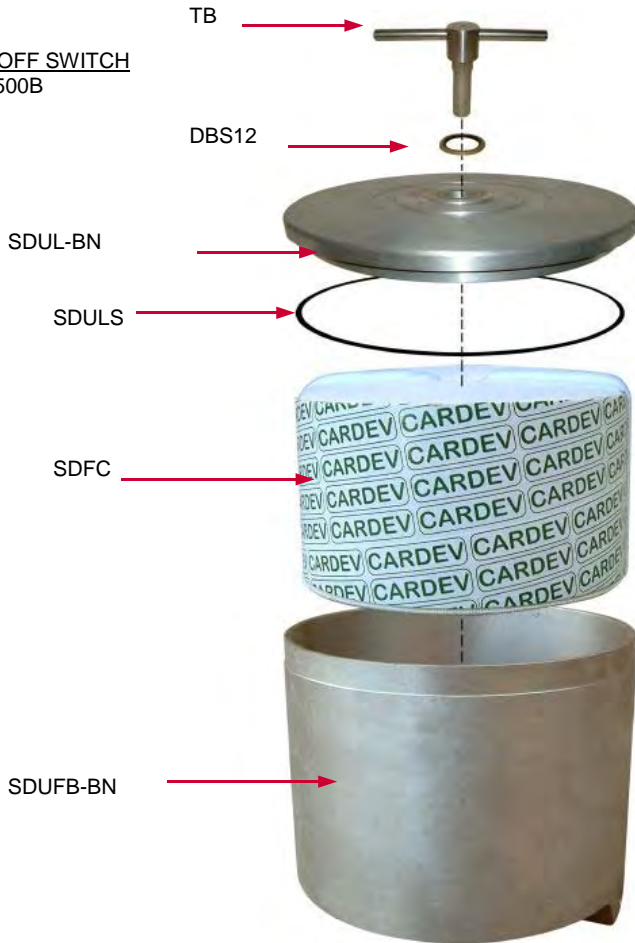


FLOW METER (OPTION)
FLOWK400

SDUH8



ON/OFF SWITCH
SW500B



PRESSURE GAUGE
PG160F



QUICK RELEASE COUPLING SET
QRS08



PRE-FILTER (Y)
PFY38BSP



HOSE AND COUPLING SET (COMPLETE)
OST1/2DRS