

CARDEV

Oil Filtration and Coolant Handling Specialists



1S250P AIR

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



Air Operated

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1S250P AIR

CARDEV

Industrial Filtration



Biodegradable Lubricants

1S250P AIR - SPECIFICATION		
Pump Performance	250 litres/hour @ 2.0 bar with 5.0 bar inlet air pressure. (ISO 46 Hydraulic oil at 40°C)	
Pump Suction Lift	Max Lift Dry 2.5-3 metres	
Operating Temperature	10-82°C	
Dimensions	Length	340mm
	Width	240mm
	Height	585mm
Weight	16 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 quick release couplings SDFC-P Cartridges for water based fluids	

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Description

The 1S250P AIR 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.
2. Insert in oil.
3. Prime pump before use—pour oil down inlet hose.
4. Set the air pressure on the regulator to 5 bar.
5. Open the air inlet valve.
6. The air should be controlled by the regulator to produce a normal operating pressure of 2 bar as indicated on the filter pressure gauge.

Starting the System

To start the system, the air supply valve should be opened.

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 250 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 motor has stalled
- 200 hours or monthly

Cartridge Change Procedure

1. Switch off the air supply.
2. Remove the INLET hose.
3. Depress the centre of the inlet coupling and re-start the pump for 30 seconds to purge the filter units of oil.
4. Release lid securing nuts.
5. Remove cartridges using the attached straps.
6. Change the cartridges and replace the lid seal.
7. Replace lids and tighten firmly by hand.
8. Re-start the pump and check the filters for leaks.
9. Run for 10 mins. and confirm lid bolts are secure.

N.B. WHEN REMOVING THE FILTER LID ENSURE THAT THE AIR SUPPLY IS TURNED OFF, PREFERABLY DISCONNECTED, AS THE PUMP MAY BE IN A STALLED CONDITION WITH THE AIR SUPPLY ON.

Cleaning the Pre-filter

All systems are fitted with a 500 micron pre-filter as standard. the pre-filter should be cleaned at each cartridge change.

Protection

The pump is self protecting and in the case of a blocked filter, the pump will stall.

System Maintenance

The regulator air filter is fitted with an automatic drain but a periodic visual inspection should be carried out in accordance with normal maintenance procedures. The lubricator should be topped up as required and checked for operation through the sight glass.

TROUBLE SHOOTING

System pumps slowly

- a. Check hose is below oil but not sucking against the floor or wall of tank.
- b. Clean pre-filter and check "o" ring seal is secure.
- 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 1S250P Air 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

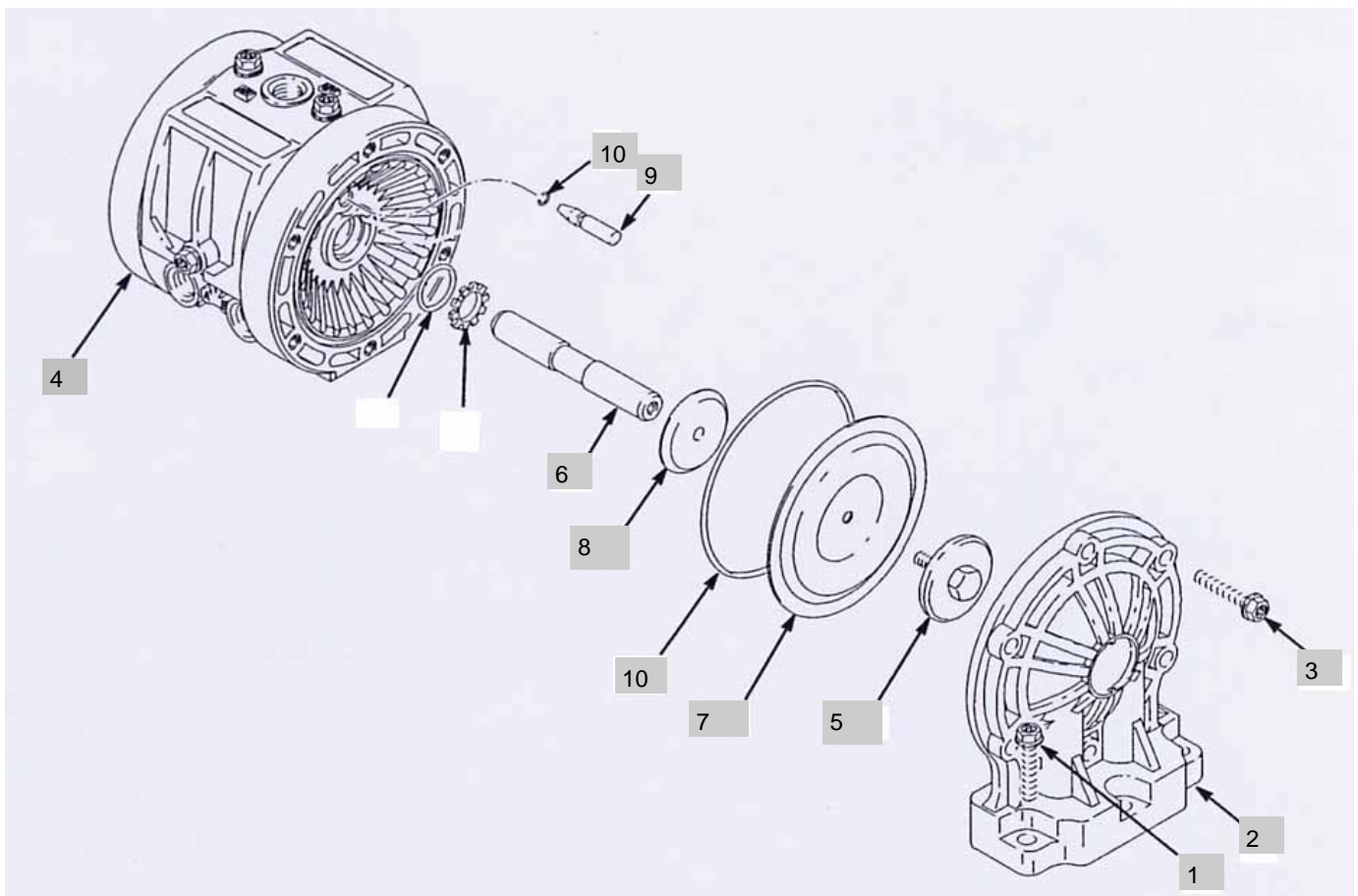
Through a CARDEV filter SDFC, the level of filtration is ISO4406, ISO <13/9 and the equivalent NAS 1638 class 4/5. Water is removed to below 0.05%

Guarantee

The 1S250P Air system carries a 12 month warranty on all parts. Full details are given on the guarantee card attached to the system.

Replacing Diaphragms

- 1 **Relieve the pressure**, and disconnect the air line from the pump.
- 2 Remove the eight screws (1) that fasten the two fluid covers (2) to manifold and remove the fluid cover/centre housing assembly from the manifold.
- 3 Remove the six screws (3) that fasten each fluid cover (2) to the centre housing (4) and pull the fluid covers off the centre housing.
- 4 Remove the diaphragm places (5) from the shaft (6) and remove the diaphragms (7) and air-side diaphragm plates (8).
- 5 Remove the diaphragm pins (9), remove and replace the o-rings (10), and reinstall the diaphragm pins in the centre housing (4).
- 6 Reinstall the diaphragm shaft (6).
- 7 Install the new diaphragms (7) with the concave side toward the centre housing (4).
- 8 Screw the diaphragm plates (5) onto the shaft (6) and torque to 40 in-lb (4.5 N.m.)
- 9 Replace the fluid covers (2) on the centre housing (4), replace the screws (3) that fasten the fluid covers to the centre housing, and torque the screws to 40 in-lb (4.5 N.m.).
- 10 Replace the manifold covers/centre housing assembly on the manifold, replace the screws (1) that fasten the manifold covers/centre housing assembly to the manifold, and torque the screws to 40 in-lb (4.5 N.m.).
- 11 Reconnect the pump.



SDUH8

