CARDEV **Oil Filtration** and **Coolant Handling** Specialists

6S1500E 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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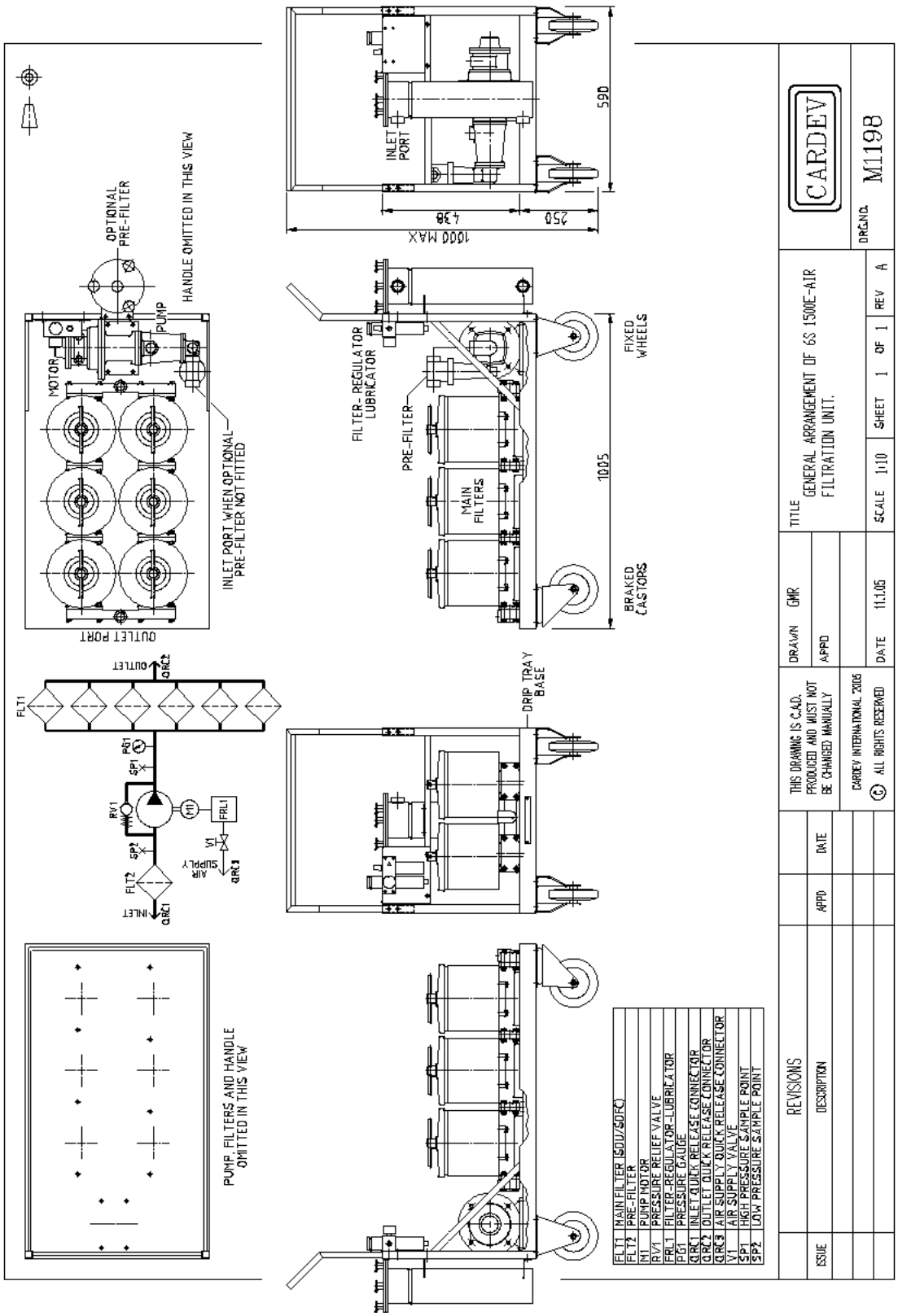
nqa. ISO 9001 Registered
UKAS QUALITY MANAGEMENT 015

6S1500EAIR SCHEMATIC

CARDEV
Industrial Filtration
PANOLIN®
Biodegradable Lubricants

6S1500EAIR - SPECIFICATION		
Pump Performance	1500 litres/hour @ 2.6 bar (ISO 46 Hydraulic oil at 40°C) 1600 litres/hr @ 1 bar—transfer rate using valve	
Pump Suction Lift	Self priming to 5.5 metres	
Pump Motor	0.75 kW equivalent air motor 1500r pm flange mounted Max. air consumption 45 cfm/1.27m³/min	
Operating Temperature	10-90°C	
Dimensions	Length	1180 mm
	Width	595 mm
	Height	1000 mm
	(with handle removed)	780 mm
Weight	119 kg	
Filtration System	6 x SDUFB-C	
Cartridge Type	6 x SDFC—Fitted as standard. Supplied in boxes of 6	
Accessories	6 metres of reinforced 1” hose with quick release couplings	
Options	110V230V and 3-phase 45 cm bag-type pre-filter Flow meter, Polypropylene Cartridges for water based fluid	

6S1500EAIR


OPTIONAL PRE-FILTER
HANDLE OMITTED IN THIS VIEW
PUMP
MOTOR
INLET PORT WHEN OPTIONAL PRE-FILTER NOT FITTED
OUTLET PORT
INLET PORT
590
250
438
1000 MAX
FILTER-REGULATOR LUBRICATOR
PRE-FILTER
MAIN FILTERS
1005
FIXED WHEELS
BRAKED CASTORS
DRIP TRAY BASE
OUTLET
INLET
AIR SUPPLY
PUMP, FILTERS AND HANDLE OMITTED IN THIS VIEW
FLT1 MAIN FILTER (SOU/SOFC)
FLT2 PRE-FILTER
M1 PUMP MOTOR
RV1 PRESSURE RELIEF VALVE
FRL1 FILTER-REGULATOR-LUBRICATOR
PG1 PRESSURE GAUGE
QRC1 INLET QUICK RELEASE CONNECTOR
QRC2 OUTLET QUICK RELEASE CONNECTOR
QRC3 AIR SUPPLY QUICK RELEASE CONNECTOR
V1 AIR SUPPLY VALVE
SP1 HIGH PRESSURE SAMPLE POINT
SP2 LOW PRESSURE SAMPLE POINT
REVISIONS
ISSUE
DESCRIPTION
APPD
DATE
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DATE 11.1.05
TITLE
GENERAL ARRANGEMENT OF 6S 1500E-AIR FILTRATION UNIT.
SCALE 1:10
SHEET 1 OF 1
REV A
CARDEV
DRG.NO. M1198

6S1500EAIR OPERATING INSTRUCTIONS

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Description

The 6S1500E 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 6-7 bar .
5. Open the air inlet valve.
6. The air should be controlled by the regulator to produce a normal operating pressure of 2.5 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 1500 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.

Transfer Pump Action

To use the system as a transfer pump - without filtration - remove the hose coupling from the filter outlet adaptor and re-connect it to the coupling on the pump outlet.

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 6S1500E 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 6S1500E Air system carries a 12 month warranty on all parts. Full details are given on the guarantee card attached to the system.

6S1500EAIR PUMP / MOTOR

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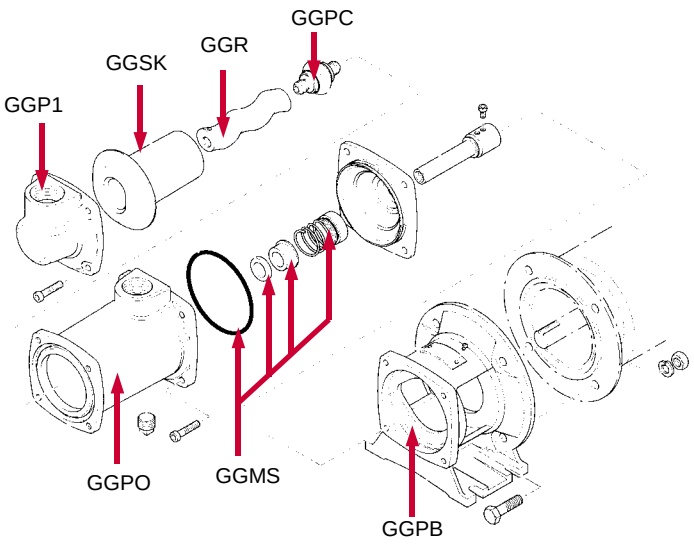
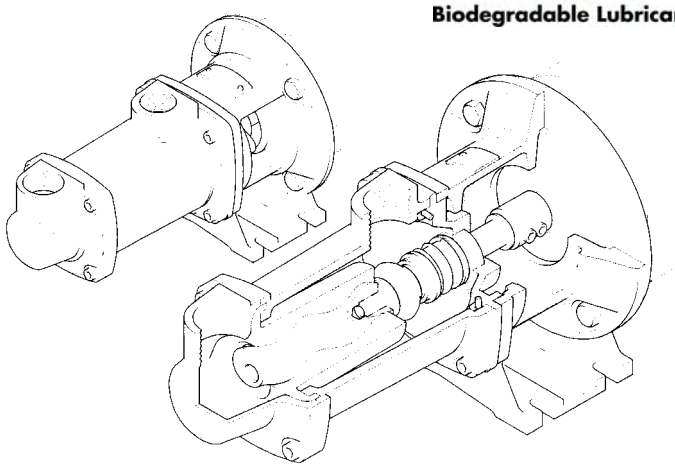




Maintenance
Under normal working conditions, this range of pumps should require little attention, but when required the following procedure can be adopted.

Stator
This is removed by undoing the four caphead screws and removing the end cover. This exposes the stator which can then be pulled off the end of the rotor. This can be helped by inserting the blade of a screwdriver under stator flange to lift it away from the barrel.

Rotor and Coupling
Having removed the end cover and stator, undo the four caphead screws securing the barrel to the body. The barrel can now be withdrawn from the body to expose the rotor, coupling and seal housing for disassembly.

Motorised Pump
Disassembly of the rotor and coupling is perhaps best effected by unscrewing the shaft extension to the motor shaft. The whole assembly can then be withdrawn from the pump (Rotor, coupling, seal housing and shaft extension) to facilitate the ease of dismantling. By holding the rotor in the soft jaws of a vice, the coupling/shaft extension can be unscrewed (standard right hand threads) to separate the individual components for replacement if necessary, taking particular care not to damage the seal faces.

Air Motor
When fitting a replacement motor to an assembled pump, ensure the motor shaft and flange are clean and free from burrs. The pump shaft extension should be pressed home on to the motor shaft before tightening the locking capscrews down into the key slot location.

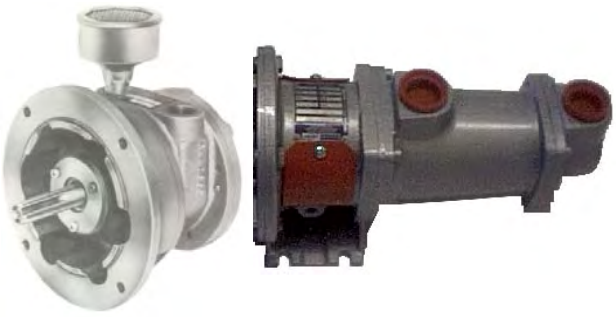
Re-fitting
This should be done in exactly the reverse order to the dismantling sequence, always ensuring parts are clean and free from burrs and other defects.

START-UP PROCEDURE

Pumps must be filled with liquid before starting. The initial filling is not for priming purposes, but to provide the necessary lubrication of the stator until the pump primes itself.
When the pump is stopped, sufficient liquid will normally be trapped in the rotor/stator assembly to provide lubrication upon re-starting. If, however, the pump has been left standing for an appreciable time, moved to a new location, or has been dismantled and re-assembled, it must be refilled with liquid and given a few turns before starting.

PUMP MOTOR ASSEMBLY

MOTOR
COMPLETE WITH SILENCER
AIRMOT1/6



PUMP
MG

6S1500EAIR SPARE PARTS LIST

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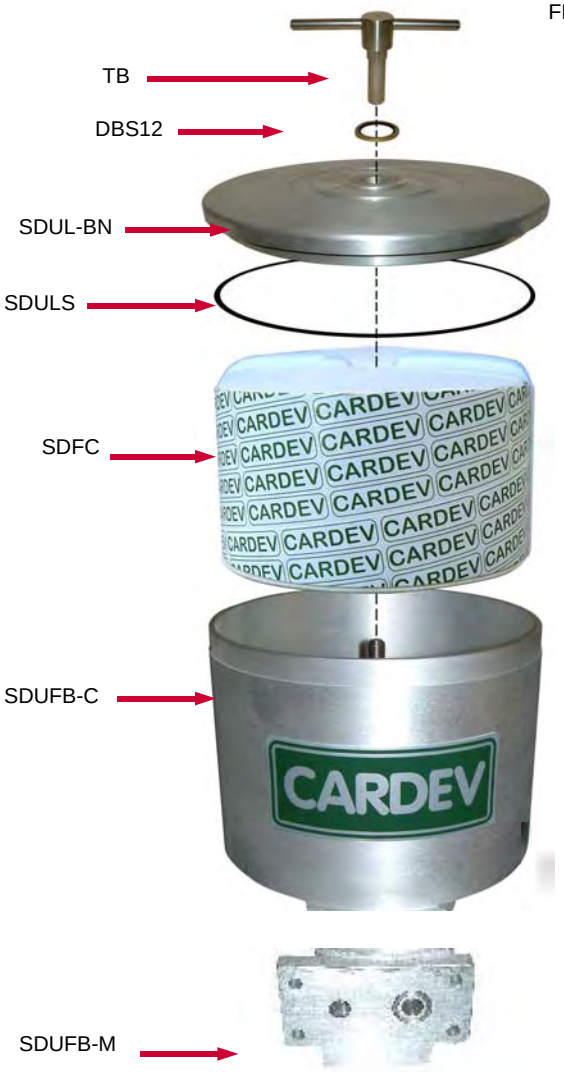
FLOW METER
(OPTION)
FLOWK400

AIR REGULATOR
AIRREG4/6

SDUH8



QUICK RELEASE
COUPLING SET
QRS12

FIXED WHEEL
WFC6

BRAKED WHEEL
WSWB6

PRE-FILTER
PF34NPT

PRE-FILTER BAGS
G09NM50etc
G09P10etc
VARIOUS MICRON
AVAILABLE

PRE-FILTER SEAL
PFG09LS

PRE-FILTER KNOBS
(SET OF 3)
PFG09LIDKNOB

HOSE WITH FITTINGS
COMPLETE
OST4/6DRS

PRE-FILTER
STRAINER
GG09

LARGE PRE-FILTER
(OPTIONAL)
PFG09SS