

CARDEV

Oil Filtration and Coolant Handling Specialists



CCS

***Cleans Contaminated Coolant
For Re-Use***

***Removes Particles And Tramp
Oil***

Controls Bacterial Growth

***Provides A Constant Supply Of
Clean Coolant***

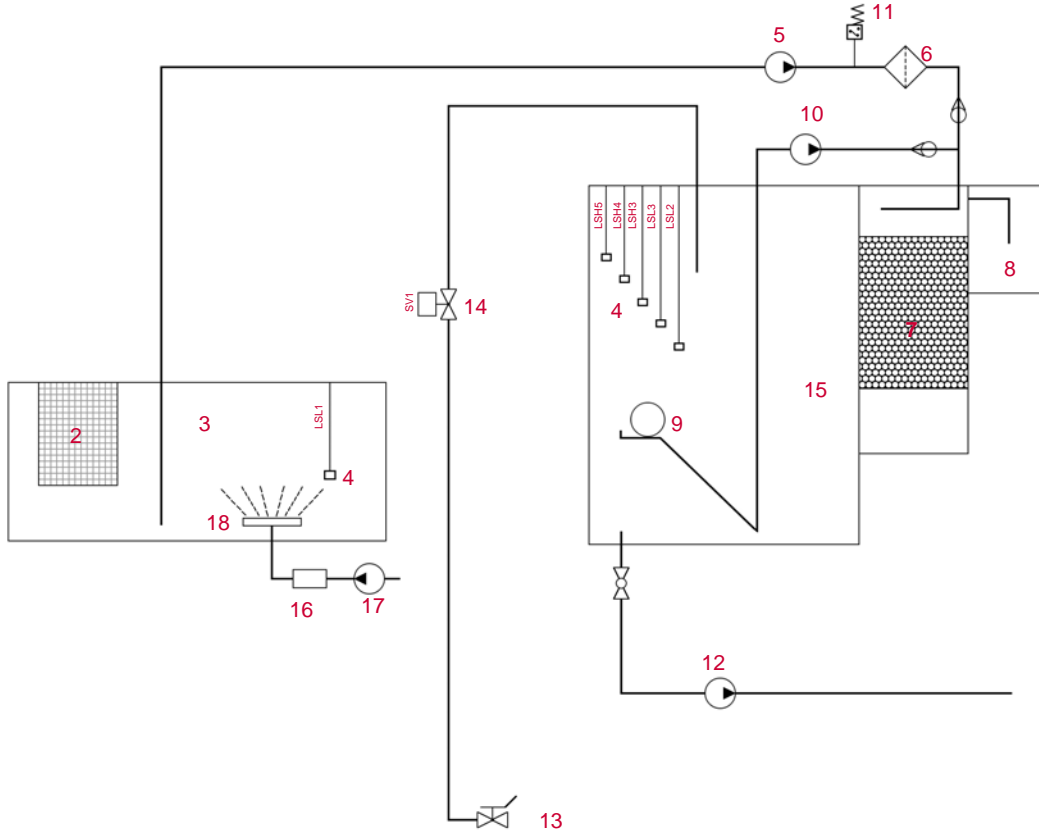
Compact And Easy To Use



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2	BASKET FILTER
3	HOLDING TANK
4	LEVEL SWITCH
5	FILL PUMP
6	PRE-FILTER
7	COALESCER
8	WASTE OIL RECEIVER
9	FLOATING PICK-UP
10	CIRCULATION PUMP
11	PRESSURE SWITCH
12	AIR-OPERATED DIAPHRAGM PUMP
13	DISPENSING POINT
14	SOLENOID VALVE
15	MAIN TANK
16	OZONE GENERATOR
17	OZONE AIR PUMP
18	AIR STONE

INTRODUCTION

The Cleaning Station is a semi-automatic self-contained system, designed to hold a supply of re-cycled and new coolant, for supply to a dispensing point or a distribution system.

PRINCIPLE OF OPERATION

Coolant for re-cycling is put in the holding tank 3 via the bag filter 2 in order to remove large particles.

Placed in the bottom of this tank is an air-stone, through which ozone and air are diffused through the coolant to control bacteria and fungal growth.

Following this treatment, the coolant is pumped through a fine filter 6 by pump 5. Should this filter become blocked, pressure switch 11 will stop the pump and activate the fault beacon and the amber warning light "CHARGE PUMP PRESSURE FAULT" on the control panel. The coolant is then passed through the coalescer 7 to remove tramp oil and into the clean holding tank 15. The pump 5 stops when the level in tank 3 falls to LSL1 or when the level in tank 15 rises to LSH4. Should an overfill situation arise, LSH5 will signal a shutdown at the control panel and activate a warning beacon.

Pump 10 provides a continuous circulation of coolant through the coalescer 7, drawing through the floating pick-up 9. This pump will stop when pump 5 is running to maintain an even flow through the coalescer.

When a coolant demand occurs, e.g. by opening a valve at a dispensing point, the air diaphragm pump 12 senses a drop in the line pressure and commences delivery. If the coolant level in the main tank falls to the position of level switch LSL3, pump 5 re-starts and replenishes the supply.

Note: In order to obtain the optimum results from the CCS, the machine used to transfer used coolant to the holding tank should be kept clean and have an effective filter fitted. We recommend the use of the OSCAR S100-OSCAR S500 machines or similar.

1. Transfer the used coolant to the holding tank, ensuring that the coolant enters via a suitable nylon bag filter within the mesh basket.
2. If ozone injection is required, the ozone switch should be in the "ON" position.
3. Switch on the mains supply at the control panel and press the green SYSTEM START button. The main switch on the coolant mixing system should also be turned to the "ON" position.
Note: the ozone will run for a set time (e.g. 2 hours) before the transfer begins.
4. If the filter in the fill pump circuit becomes blocked, the warning beacon will flash and the pump will automatically stop. This condition will be shown on the control panel by CHARGE PUMP PRESSURE FAULT. This indicates that the filter element needs to be cleaned or changed.
5. If the coolant level in the main tank becomes too high, generally due to a fault, the warning beacon will flash and the control panel will show CLEAN TANK OVER-FULL. This condition is reset by opening any valve in the distribution system, thereby allowing the level in the main tank to fall.

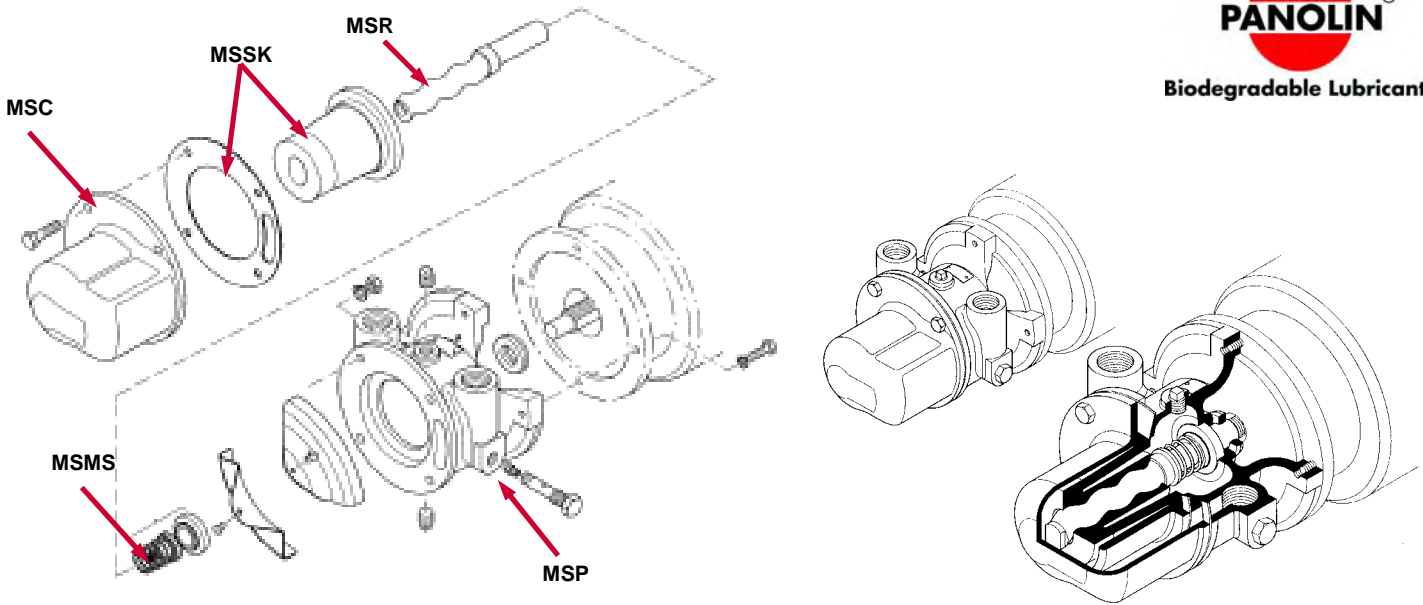
MAINTENANCE

1. The cover on the used coolant holding tank should be periodically removed and the inside of the tank thoroughly cleaned. The frequency of the cleaning operation will depend upon the state of the used coolant being re-cycled.
2. The air valve at the base of the coalescer (oil separator) should be opened daily to agitate the separator media and dislodge any oil build-up in the mid-layers.

INSTALLATION

The equipment should be installed indoors upon a solid level foundation. The following external connections are required:

- A) Clean coolant output to dispensing / distribution system
- B) 1/2" cold water supply to coolant mixing system
- C) Compressed air supply
- D) Electrical supply—240v single phase fused at 16 amps.



Stator

This is removed by undoing the four nuts and bolts securing the barrel which is then pulled off the body. This exposes the stator which can then be removed from the rotor.

Rotor

This is removed by holding the motor shaft with a spanner on the two flats on the shaft and unscrewing the rotor with the aid of a second spanner on the flats on the end of the rotor. The threads are LEFT HAND and so the rotor should be screwed in a clockwise direction (when looking at the end of the rotor.) Removal of the rotor also releases the mechanical seal and care should be taken not to damage the mating sealing edges.

Seal

If this is disturbed or removed because of damage, when replacing or fitting a new seal, ensure it is correctly assembled before re-fitting into the pump. The rubber seal and stationary seat should be pressed into the body housing and the rotating portion assembled on to the rotor shaft before screwing the rotor back on to the motor shaft which is then locates the mechanical seal with its correct tension.

To Re-Fit

The reverse procedure is used to that of dismantling.

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

MS: 230v

MOTOR

MSM: 230v

CAPACITOR

MSC: 230v

CCS

SPARE PARTS LIST-CCS



Industrial Filtration



Biodegradable Lubricants



AIRSTONE
AIR STONE



AIRSTONE SEAL
ASSEAL-CCS



FLOAT SWITCH-WATER
TANK
CFRS



FILTER BASKET
FB



FILTER BAG
SB200

PRESSURE SWITCH
PS208CE



BIG BLUE FILTER
STPBH-410



BIG BLUE FILTER BAG
STPBH410-5 (5 MICRON)
STPBH410-10 (10 MICRON)
etc

OZONE PUMP
OZPUMP-CCS



AIR REGULATOR
AIRREG-CCS



FLOATING PICK-UP
FPU-CCS



OZONE REGULATOR
OZREG-CCS

CHECK VALVE
VLV-CH12



AIR PUMP
AIRPUMP-CCS

REPAIR KIT—AIR PUMP
APREPKT-CCS



CONTROL RELAY
CR

