For Coolant and Lubricant Systems

Mobile Coolant and Lubricant Service Unit
Internormen Product Line

EATON
Powering Business Worldwide
Features
The MKS 601 system simplifies the draining of CNC machine tanks containing coolant and/or lubricant and removes contaminants in the emulsion generated by the machining process. An air pressure membrane pump feeds the equipment for a mechanical cleaning of the emulsion. The medium passes through a filter unit to a 160-gallon reservoir tank. After a period of time in the reservoir, any incorporated oil is separated from the emulsion and removed by using a skimmer technique and oil separation mechanism.

The MKS 601 system may also be applied as an off-line filtration circuit. Used in this way, the fluid is conducted out of the machine tank through the filter unit, freed from its finest particles, and directed back to the machine by a return line. A control block, located upstream in the pressure line, provides various operating alternatives. For example, fluids may be directed to the exit line without passing through the filter element. This is a useful and time-saving option for a coolant/lubricant change-out. Users may also activate the low pressure cleaning gun intended for a careful and effective system cleaning. In this case, the cleaning gun is supplied from the machinery tank.

Individual components of the MKS 601 system can be quickly disassembled for easy maintenance.

Details

Filter Unit
The TEF 952 return-line filter is mounted directly on top of the tank and connected to the pressure line. An Interpor fleece (VG) filter element is used. It features deep filtration at a low pressure differential and high dirt holding capacity.

Control Block
Positioned up-flow of the membrane pump, the control block can route fluids to the return-line filter unit, exit line, or the low pressure cleaning gun. In addition, it features an extension port for fitting other components.

Air Pressure Membrane Pump
This self-priming pump is air driven and designed especially for conveyance of chemical fluids. Its main advantages are low maintenance, dry run resistance, and easy handling.

Oil Separation Mechanism
The MKS 601 features a floating oil separator with adjustable oil supply. This guarantees the highest separation performance even at variable fluid levels.
Advantages of the MKS 601 Separation Tank

Incorporating a service system like Eaton’s Internormen MKS 601 to your coolant and lubricant fluids maintenance program offers a number of advantages. Among them are: fewer fluid changes, decreased consumption, and less fluid disposal. The coolant/lubricant itself may also perform better.

The MKS 601 system will allow you to decrease fluid concentrate consumption over 15%. The length of service time per fluid change-out can be reduced by about two hours in comparison to conventional machinery system services. Furthermore, the time between changes may be extended considerably.

This generates additional advantages, including increased environmental protection and decreased user exposure to contaminated fluids. The MKS 601 combines these benefits in an easy-to-use, multi-functional system, making it an intelligent solution to your fluid maintenance needs.

MKS 601 - Mobile Service Unit

<table>
<thead>
<tr>
<th>Technical Data</th>
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</thead>
<tbody>
<tr>
<td>Weight (approx.)</td>
<td>595 lbs (270 kg)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>57” x 44” x 47” (1440 x 1116 x 1200 mm)</td>
</tr>
<tr>
<td>Operation</td>
<td>Air pressure</td>
</tr>
<tr>
<td>Reservoir volume</td>
<td>160 gal (600 liters)</td>
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<tr>
<td>Extraction of other fluids</td>
<td>Yes</td>
</tr>
<tr>
<td>Extraction of particles</td>
<td>0.24” maximum grain size - (pilot filter suggested)</td>
</tr>
<tr>
<td>Separation of other fluids</td>
<td>Separation tank</td>
</tr>
<tr>
<td>Separation of solid particles</td>
<td>1 µm to 25 µm filter fineness</td>
</tr>
<tr>
<td>Cleaning of the machine</td>
<td>Hand cleaning gun, up to 87 psi (6 bar)</td>
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</tbody>
</table>

Function of Separation Tank

Clean Phase                       Dirt Phase
Clean Side                              Dirt Side
Separation Gap                        Separation Plate
Deflector Plates
Other Eaton Internormen Product Lines

Filter Technology
- Hydraulic oils and lubrication fluids
- Process filtration
- Single or duplex configurations
- Up to 5,300 GPM and 20,000 psi
- Filter elements in glass fiber, paper, and stainless steel wire mesh
- Highest dirt holding and pressure differential capacities

Fluid Management
- Off-line filtration units
- Stationary and mobile versions
- Heat exchanger option
- Watersorp elements
- Vacuum dehydration systems

Electronic Contamination Control Systems
- Laser particle counters
- Mobile and stationary water sensors
- Electronic sensor systems
- Bottle sampling system

For more information, please e-mail us at filtrationinfo@eaton.com
Visit us online at eaton.com/filtration for a complete list of Eaton’s filtration products

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