



ENGINEERS • FABRICATORS • CONSTRUCTORS

Roeslein Coolant Filtration Systems



System Capabilities

- Standard 3M Cuno cartridge filter housings handle up to 520 gpm [1968 lpm]
- Larger 3M Cuno cartridge filter housings handle up to 850 gpm [3,217 lpm]
- First set of 3M Micro-Klean III resin bonded filter cartridges supplied



Standard System Features

- Units are fully tested at Roeslein Modular Fabrication Facility prior to shipping
- Automatic changeover from Primary to Secondary Cuno Filters
- Automatic constant supply pressure control to Bodymakers
- End suction centrifugal main tank pumps
- Vertical centrifugal pumps at Sump Tank
- Air Operated Double Diaphragm Pump (AODDP) at Sump Tank for pit/trench scavenging
- Dosatron positive displacement metering unit for metering Neat Oil with make-up/fill water
- ifm efector sensors



Standard System Features (continued)

- Paul Mueller or Tranter plate and frame heat exchanger(s)
- Oil Mop LLC rope mop skimmer
- Two Metering pumps for Biocide and Neat Oil
- Waste oil separation tank integrated into the top of the main tank with underflow weir for separation of coolant from tramp oil
- Waste Oil collection tank with AODDP for automatic discharge to waste oil hold/collection tank
- Automatic Blowdown PLC controlled, solenoid valve activated drain, purge and fill for Cuno Filter Housings
- System with standard tank volume ships in single container



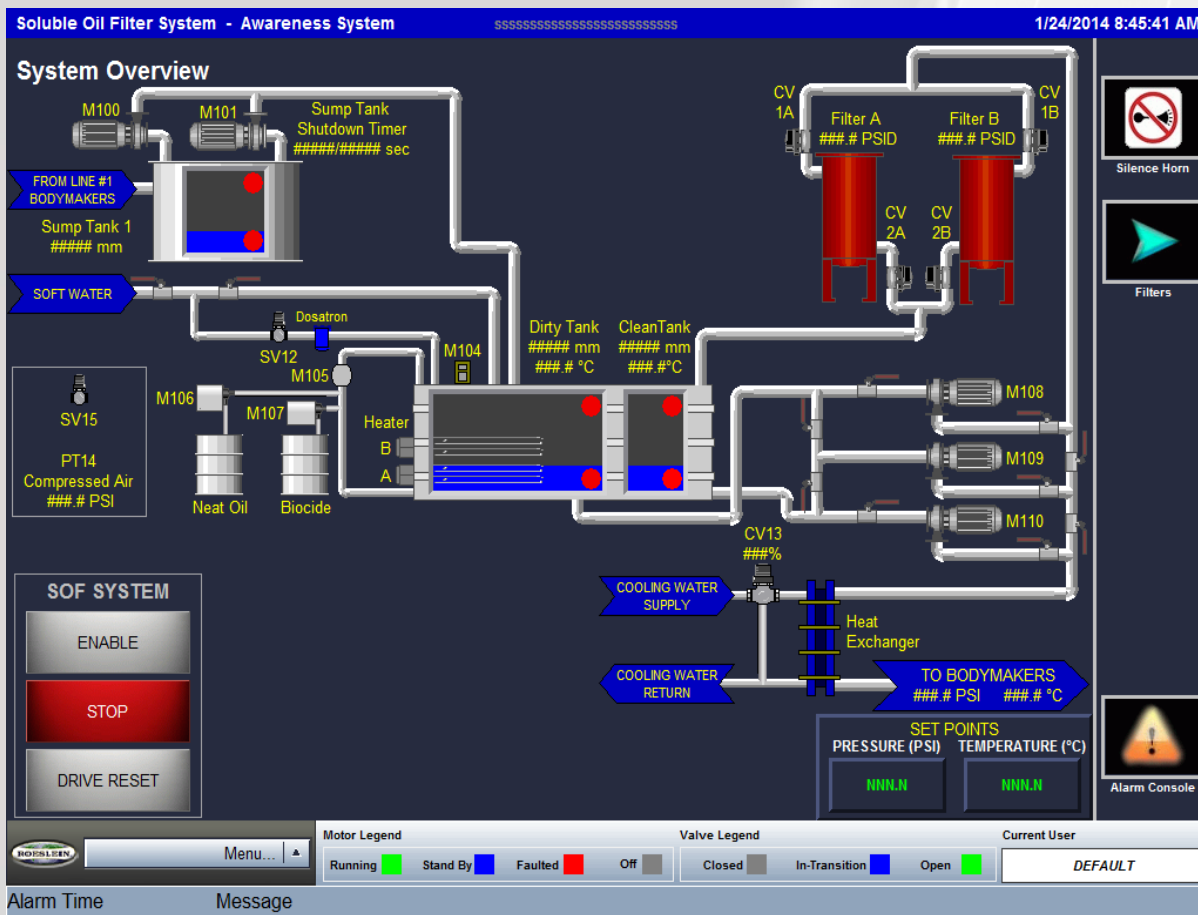
Controls - Overview

User control ability

- Enable and Stop the system
- Reset Drive/Motor faults
- Review the overall system status
 - Tank levels & temperature
 - Drive/Motor status
 - Control Valve & Solenoid status
- Filter status

Customer specified password access, the user will be able to manually:

- Change coolant supply Pressure & Temperature set points
- Change sump & clean tank operating levels
- Operate every motor on the main skid
- Operate solenoids & control valves



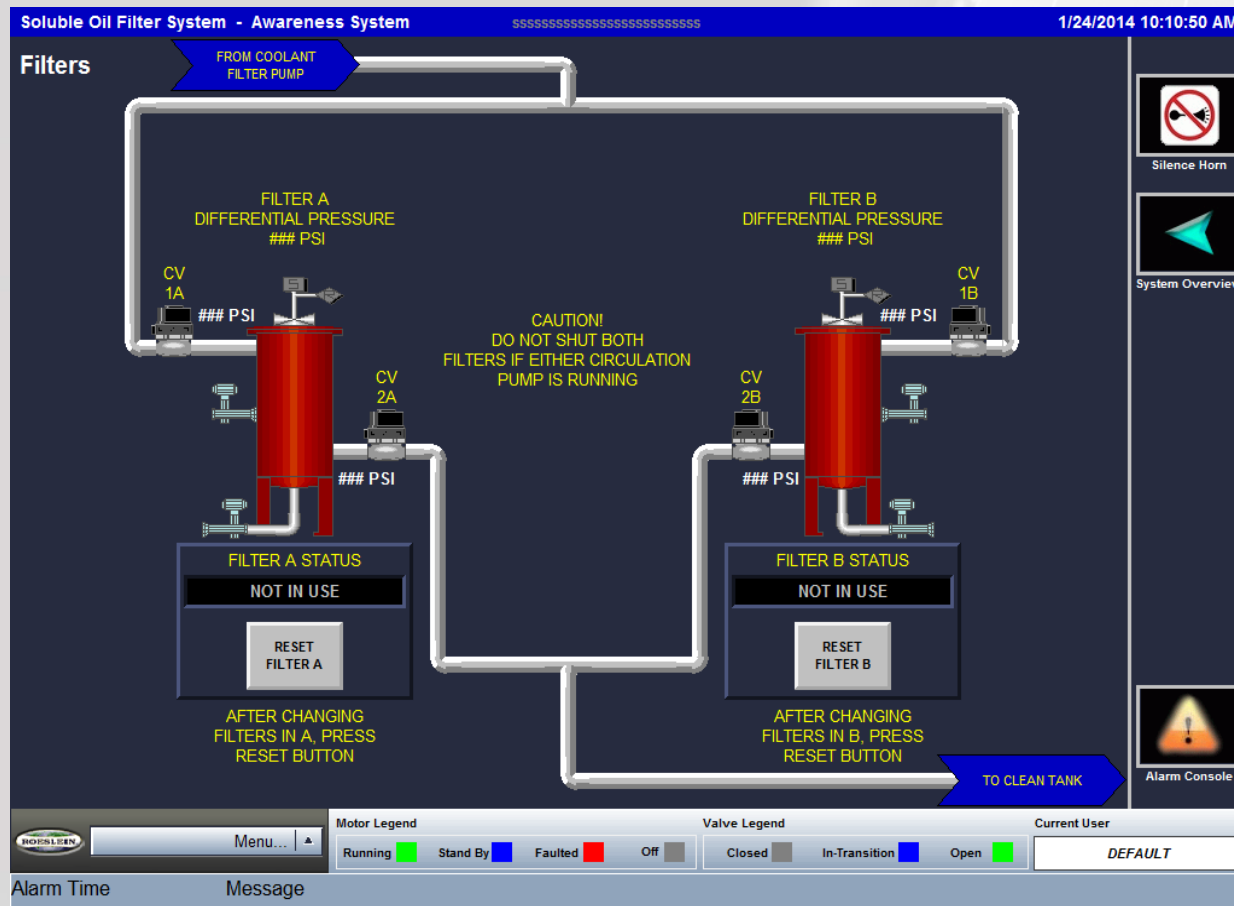
Controls - Filters

User ability

- Review the differential pressure of the filter in use
- Reset the status of the filter after cartridge change

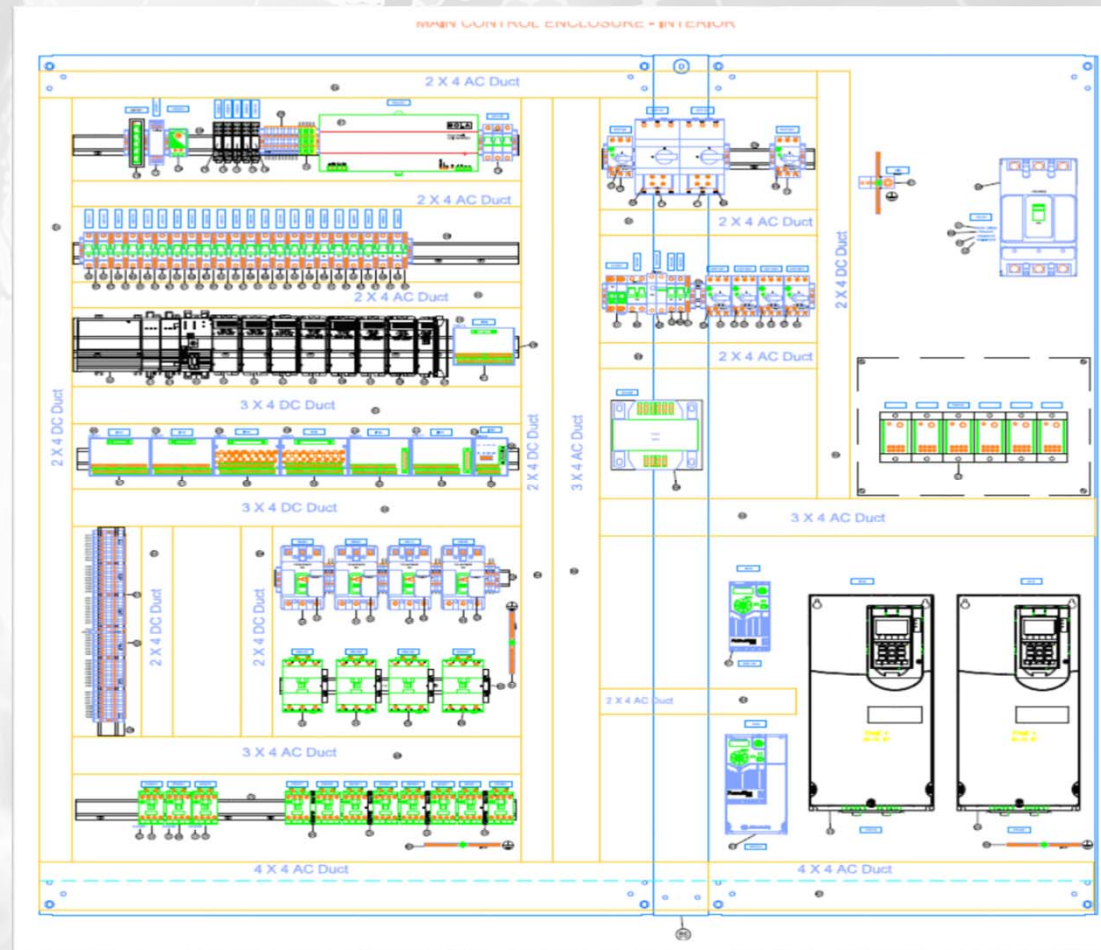
Other Features

- Active Alarm screen
- Alarm History screen with password protected clearing of alarms
- Neat Oil can be added manually in liters with current dosing time displayed
- Biocide can be added manually or automatically (based on On and Off times) in liters with current dosing time displayed



Panel Design

- Allen-Bradley HMI and Drives
- Single NEMA 4/12 Control Panel with air conditioner mounted on main skid
- Variable Speed Drives for all main pumps
- Local Sump Tank control station with pump motor Drives
- Ethernet communication between main skid and sump tank.
- Field Wiring - Use of quick connections on complete machine to aid in the installation process and maintenance activities



Tramp Oil Control/Removal Options

- **Micro Dispersed Air Flotation**
 - Air bubbles are injected at the bottom of the unfiltered coolant tank to improve the raising of tramp oil droplets to the surface
- **Extended Tank or Satellite Tank**
 - Increased residence time
- **Main Tank Coalescer**
 - Improved tramp oil removal while retaining more “good” coolant
- **Suparator Tank - Enhanced Tramp Oil Removal**
 - Pro-active tramp oil separation through Suparator Tank with increased residence time and oil removal through application of Bernouilli’s principle. Removes thin oil films while coalescers require the development of a thick oil film.



Other Options

- **Pumpback Tanks**
 - Local dedicated sump tank with low sheer pump at each Bodymaker
 - Reduced depth trenching & single sump tank eliminated
 - Only shallow housekeeping trenches are required in Front End when overhead wet can conveyor systems are used
- **CE Certified Systems for European Union**



Soluble Oil Filter Experience

- Successfully installed 32 Coolant Filter Systems since 2009 for 16 different customers
- Multiple systems on each continent
- Retrofitted existing paper and press systems to Cuno cartridge filters
- Expanded existing systems to support additional can lines
- Start up and Commissioning typically takes 3-4 days
- Spare parts available through Roeslein (instead of contacting multiple suppliers)
- Roeslein's approach to customer support is well known throughout the industry
- Mechanical and electrical engineers are available after Start up and Commissioning to answer any questions customers may have
- Maintain good relationships with Henkel and Quaker coolant supply companies when troubleshooting unique operational issues

