

Pretreatment, Cleaning, Disinfection and Recharge of Fresh Coolant

Sump and Machine Cleaning

With really Good Coolant Management one can minimize the practice of Draining and Cleaning and Optimize on Quality, Cost and Productivity.

Coolant Sump Pretreatment

- Treat the Sump for Bio–Contamination using a Biocide / Fungicide as per the procedure laid down by the Coolant Manufacturer.
- Old fluid with the biocide should be run for a minimum of 48 to 72 hours.
- The mixture should be dumped and disposed off safely according to Local, State and Federal Regulations.

Coolant Sump Cleaning

- Pump the Sump out.
- Shovel out all Swarf, Fines and Chips.
- Clean out the Oily Residues that remain on any surfaces.
- Clean as much as you can.

All areas must be cleaned no matter how hard they are to reach. Unclean areas provide a source of Bacteria those rapidly contaminate the Fluid used to refill the Sump after cleaning.

- Add your Cleaner.
- Always put water in first and cleaner last to avoid Foaming.
- Cleaner should be Hot Water mixed with a good Alkaline Machine Cleaner.
 - Compatible with the Selected Metal Working Fluid (in case some traces remain in the system)
 - Low Foaming to prevent Pump Cavitation, which is the sudden formation and collapse of low-pressure bubbles induced by the pump.
 - Resistant to short term rusting between clean out and recharge.

- Circulate the Cleaner for several hours to loosen and remove any Hardened Deposits, Oily Films or Gummy Residues. The Cleaner should run through the System just like the Coolant for up to 3 hours.
- Hose down the Cleaner, throughout the whole inside.
- While the Cleaning Solution is circulating, equipment if leaking should be repaired.
- Clean the outside of the Machine and the Coolant Sump.
- Wipe down the outside with the fresh Cleaner Solution having the same dilution.
- If possible troublesome area to be Steam Cleaned.
- Once this Cleaning Step has been completed, the Cleaner should be dumped.

Coolant Sump Rinsing

- After thorough Cleaning and Inspection, the Residual Cleaning Solution must be Rinsed from the Equipment. Fresh water should be circulated through the system twice to rinse off any Residual Cleaner.
- Wipe Cleaning Solution Residues from the Sump.
- Do the First Rinse.
- To protect against Flash Rusting, a small Fluid Concentrate (0.5 – 1%) should be added to Rinse Water.
- Wipe off Cleaned Surfaces that are not contacted by the Rinse Water Cycling through the system.
- Do the Second Rinse.

Rinse Water should then be placed in the system along with 50:1 ratio of Coolant to Rinse the Cleaning Agent out.

- This must run for approximately 15 minutes.
- The interior of the Machine should also be Rinsed Down with the Solution.
- The Rinse Water should also be disposed off properly.

Coolant Sump Recharging

- While the Rinsing Process is on, you should mix up your Coolant at the Recommended Ratio and have it ready to place into the Coolant System immediately after Pumping Out the Rinsing Agent. You can also add another dose of Biocide to Start-Off.

- Once the Rinse Solution is completely Drained-Off, the Coolant System can be charged with Freshly Prepared Fluid.
- The Machine should then be Turned-On and Run for about 30 minutes so as to get the Coolant well-disposed on all parts of the exposed portion of the Machine Area.
- The Fluid should then be circulated for atleast 15 minutes prior to Production.