

**WORLD CLASS LUBRICATION RELIABILITY PROGRAM
BEST PRACTICE PROCEDURES
LARGE PVC MANUFACTURING COMPANY, East Georgia**

- ✓ **Conducted Plant Survey**
- ✓ **Marked and Color Coded Equipment to Reduce Cross Contamination**
- ✓ **Reduced Lubricant Storage Floor Space and Eliminated Mess with Tote-A-Lube and Oil Safe**
- ✓ **Eliminated Man Hours using Non-Contaminated Color-Coded Containers**
- ✓ **Reduced Contamination by Filtering with Y2K Filter Panel and Drum Cart**
- ✓ **Safely Extended Drain Intervals from 6 Months to Projected 6 to 8 Years Using LE Enhanced Lubricants and LEAP Oil Analysis Program**
- ✓ **Oil Temperature Dropped an Average of 25 Degrees Before Installing Y2K Filter/Cooler Panel Units**
- ✓ **Best Practice Education and Training**

CUSTOMER PROFILE

Large PVC manufacturing plant, manufactures a broad range of PVC pipe products servicing primarily the plumbing and DIY (do-it-yourself), and underground markets.

APPLICATION

Develop a World Class Lubrication Reliability Program (WCLRP) plant wide using Best Practice Lubrication methods.

AREA OF INTEREST

The Plant Manager and Maintenance Manager were interested in cooling and oil filtration of their Cincinnati Milacron extruders. They experienced high heat, metal wear and failures in their equipment due to an extremely harsh and abrasive environment of plastic extrusion. They wanted to know if there were better methods to improve their equipment reliability and cleanliness.

LE's MLT-1 Certified Lubrication Consultant, Mark D. Jones, displayed the Y2K Panel Units with Water - Oil Cooler and discussed the benefits of filtration.

Mark also presented LE's solution on developing a World Class Lubrication Reliability Program (WCLRP) and

using best Practice Lubrication Methods. Mark explained the benefits of a plant survey, lubrication storage and handling, education and LE Enhanced Lubricants for extended oil drains.

LE SOLUTION

After surveying the entire plant, Mark recommended the correct LE Enhanced Lubricants for equipment that had been filled with the improper oil viscosity instead of what was recommended by the extruder manufacturer. Working closely with Y2K, a total of four Y2K panel units w/water cooler were purchased to cool, and filter the oil in the extruders. Next a drum filter cart was purchased to transfer and filter the oil from drums to the extruder.

This was just the beginning of cleaner filtered oil. Mark then demonstrated that best practice lubrication begins in the lube storage room. Mark presented a complete lube room set up in which to facilitate a safer, better organized, cleaner lubrication and properly marked Lubrication Storage Room.

The LEAP (Lubrication Engineers Analysis Program) is being implemented to extend the drain interval of the oil in the extruders. The current drain interval is 6 months. The goal is to use condition based maintenance

and change the oil when the samples indicate. The projected oil drain interval based on other companies using LE Enhanced Lubricants is 6 to 8 years for the extruders. Oil temperatures dropped 25 degrees even without the Y2K filter/cooler panels. The next step in the reliability program is education; using hands on training taught by LE Certified Lubrication Consultant Mark D. Jones.

OTHER PRODUCTS USED

- ✓ 4059 H1 Quinplex® Penetrating Oil & Lubricant
- ✓ 4622 Monolec® Multiplex Lubricant
- ✓ 9102 Syntemp® Synthetic Lubricant
- ✓ Des-Case Flowguard filter cart

We would like to thank the management team for supporting and implementing LE's World Class Lubrication Reliability Program and LE Lubrication Consultant, Mark Jones (pictured), for the information provided to prepare this report..

