

CIMCOOL® Product Focus

Milacron Marketing Company | Cincinnati, Ohio 45209 | Consumable Products Division

Metalworking Fluids Used As Gearbox & Way Lubes

Objective: Use CIMCOOL® water-based metalworking fluid as a “multi-purpose” lubricant in machines (i.e. screw machines) where contamination from way and gearbox lubricants is a concern.

Note: CIMCOOL® water-based “multi-purpose” lubricants undergo special testing for thermal stability, anti-gelling, and bimetallic corrosion properties.

Typical CIMCOOL® Multipurpose Gearbox Lubricants:

CX-1015 EM
CIMPERIAL® 15 GB

Typical CIMCOOL® Multipurpose Way Lubricants:

CX-1015 EM

Advantages For Using A Metalworking Fluid Concentrate As A Gearbox Lubricant?

- Eliminate concern of the gearbox lubricant leaking into and contaminating the metalworking fluid in the machine reservoir.
- Reduce extraneous contamination of the metalworking fluid when the fluid concentrate is used as the gearbox lubricant.
- The fluid concentrate that leaks from the gearbox acts as fluid makeup instead of a contaminant that requires removal.
- Cost savings with reduction of leakage and tramp oil disposal
- Environmental benefit of using water based fluid over oil

Gearbox Lube Concentrate Characteristics

- Good thermal stability
- Good bimetallic corrosion control
- Good anti-gelling properties
- Good cleanliness: no sludge, residue or deposits in the gearbox
- Mixes easily with the fluid in the sump

- Mild to operator
- Good biological control

Advantages For Using A Metalworking Fluid Concentrate As Way Lubricant?

- Eliminate issues related to compatibility of the way oil and the metalworking fluid.
- Reduce extraneous contaminants in the metalworking fluid.
- Environmental benefit of using water based fluid versus oil
- Cost savings with reduction of leakage and tramp oil disposal

Way Lube Characteristics

- Good cleanliness: no residue or deposits
- Good coverage of the ways for corrosion control
- Mixes easily with the fluid in the sump
- Mild to operator
- Good biological control
- Good physical lubrication properties

Success Stories

A. Bearing Manufacturer

- Chucker & Screw Machines
- Cimperial®1070 (similar to other “multipurpose” soluble oils) used in the gearboxes and as a metalworking fluid of approximately 14 screw machines
- Recycle fluids to greatly reduce soluble oil cost versus straight oils

B. Automotive Parts Manufacturer

- CX-1015EM used in 50 Davenport screw machines as a way lube, gearbox lube and a machining fluid (5% concentration).
- Eliminated compatibility problems
- Minimal residue
- Good biological control
- Good corrosion control
- Good thermal stability

C. Automotive Manufacturer

- CIMPERIAL®15GB used in the gearboxes of 12 Acme Gridley/New Britain machines
- High oil leakage from the gearboxes was maintenance and cost issue, solved with CIMPERIAL®15GB
- Provides good performance as a dual purpose product