Mobil

Mobil Vacuoline™ 1400 Series

Mobil Industrial , Bermuda

Hydraulic and Way Lubricants

Product Description

Mobil Vacuoline™ 1400 Series oils are extra high performance lubricants specifically designed to satisfy the requirements of machine tools that use one oil for both hydraulic systems and way lubrication. They are formulated using high quality mineral base oils and a unique additive technology that provides excellent lubricity properties to eliminate stick-slip and chatter of heavily loaded and vertical box ways. They exhibit a high degree of oxidation and thermal stability that increases the service life and helps keep lubricated surfaces clean and free from corrosion or deposits that could detract from finished parts quality and accuracy. Mobil Vacuoline 1400 Series oils provide the optimum balance between these divergent requirements.

These products are the result of an innovative technology to meet the low frictional properties required to assure acceptable production levels of quality parts with minimum downtime in today's high output machine tools. They exhibit the ability to inhibit oxidation and the formation of lacquers and deposits on ways and in hydraulic systems while providing excellent load-carrying performance to control component wear and extend equipment service life.

Features and Benefits

The Mobil Vacuoline 1400 Series oils have been developed to provide an extra margin of machinery protection by satisfying the requirements of hydraulic systems while meeting the stringent demands of the ways. Their outstanding oxidation and thermal stability characteristics improve machine cleanliness and reduce the needs for frequent maintenance services. The dual purpose nature does not compromise either hydraulic system performance or the stick-slip or chatter of ways allowing their effective use in both systems while reducing the potential negative effects of cross contamination of lubricants and water or water-based coolants.

Features	Advantages and Potential Benefits
Low Frictional Characteristics	Eliminates stick-slip and chatter of ways Improves precision of parts Provides consistent good work piece finish
Oxidation and Thermal Stability	Allows extension of service intervals Reduces deposit and sludge formation Keeps equipment lubricated surfaces clean
Rust and Corrosion Protection	Maintains excellent finish on ways Reduces maintenance for rust and corrosion removal
Water and Water-Based Separability	Reduces the negative effects of these materials on working surfaces Enhances aqueous coolant batch life and performance Facilitates removal of water and water-based coolants from hydraulic systems and enhances service life
Adhesive Properties	Resists wash-off from ways Protects surfaces from rust and corrosion Assures consistent parts finish and accuracy
Load-Carrying Properties	Reduce wear Extend equipment life
Multi-metal Compatibility	Provides protection of ferrous and non-ferrous components

Features	Advantages and Potential Benefits
Dual Purpose Design	Eliminates concerns of cross contamination and product mis-application Reduces need of extra product

Applications

- Machine tools with a common system for hydraulics and way lubrication
- Applications where cross-contamination of way lube with hydraulic oil can result in poor performance
- Machinery with separate systems for ways and hydraulics where one oil is desirable for both systems
- Areas where conventional mineral based lubricants are not adequately protecting way surfaces

Properties and Specifications

Property	MOBIL VACUOLINE 1405	MOBIL VACUOLINE 1409	MOBIL VACUOLINE 1419
Grade	ISO 32	ISO 68	ISO 220
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1B	1B
Flash Point, Cleveland Open Cup, °C, ASTM D92	210	218	257
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	5.3	8.57	19.0
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	32	68	215
Pour Point, °C, ASTM D97	-12	-6	-6
Rust Characteristics, Procedure A, ASTM D665	PASS	PASS	PASS
Viscosity Index, ASTM D2270	96	96	96

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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