# **Mobil**<sup>®</sup>

# Mobil Vactra™ Oil Numbered Series

Mobil Industrial , Morocco

Way and Slide Lubricants

# Product Description

The Mobil Vactra<sup>™</sup> Oil Numbered Series are premium-quality slideway lubricants specifically designed to meet the requirements for accuracy, aqueous coolant separability, and equipment protection of precision machine tools.

The Mobil Vactra Oil Numbered Series is carefully formulated from high-quality base stocks and performance balanced with an advanced additive system that provides controlled frictional properties, compatibility with aqueous metal working fluids and corrosion protection of parts and equipment. The unique additive package provides exceptional frictional properties on a wide variety of way materials, including steel on steel and steel on polymer, reducing stick-slip and chatter. This allows smooth, uniform motion at design travel speeds enhancing machine productivity and accuracy helping to prolong tool life and enhance surface finish. The Mobil Vactra Oil Numbered Series has been optimized to provide separability from many aqueous coolants while minimizing the corrosive effects of high pH coolants on lubricated surfaces.

## Features and Benefits

The Mobil Vactra Oil Numbered Series has been developed and specifically designed to provide an extra margin of machinery protection by satisfying the stringent demands of slide ways. The oils exhibit excellent lubricity and load-carrying performance contributing significantly to improving the production of quality parts. The Mobil Vactra Oil Numbered Series provides separability from many water and aqueous coolants reducing the potential negative effects of cross contamination which helps to enhance the service life and performance of both the lubricant and coolant.

| Features                                | Advantages and Potential Benefits  |
|---|--|
| Controlled Frictional Characteristics   | Helps eliminate stick slip; allows consistently accurate machining                               |
| Multi-material Capabilities             | Suitable for a wide range of way material combinations allowing for product consolidation        |
| Water and Aqueous Coolant Separability  | Helps improve the life and performance of many aqueous coolants                                  |
| Adhesiveness                            | Prevents removal of lubricant from critical surfaces   |
| Long Term Rust and Corrosion Protection | Helps reduce the deterioration of sliding surfaces in the presence of water and aqueous coolants |

## Applications

Mobil Vactra Oil Numbered Series products are recommended for the lubrication of machine tool slideway systems. They are designed for use with combinations of cast iron, steel and non-metallic way materials. Mobil Vactra Oil Numbered Series may be applied by hand, forced-feed lubricator or in flood application by circulation system.

• Mobil Vactra Oil No. Series of products are suitable for use in applications that require Fives Cincinnati specifications P53, P47, and P50.

• Mobil Vactra Oil No. 1 and No. 2 are recommended for horizontal slideways on small to medium size machine tools. They are also suitable for circulating application in large machines and as a moderate duty hydraulic fluid.

• Mobil Vactra Oil No. 3 and No. 4 are normally recommended for large machines where way pressures are high and good precision is required. They are also recommended for vertical and inclined slideways where drain-down can be a problem and for moderate service machine tool gear drive mechanisms.

- Mobil Vactra Oil Numbered Series can be used for lubrication of ball screws, linear guides, headstocks, translating screws.
- Mobil Vactra Oil Numbered Series is recommended for applications where oil contamination of the aqueous coolants shortens coolant batch life.

## Mobil Vactra™ Oil Numbered Series

#### Specifications and Approvals

| This product is recommended for use in applications requiring: | NO. 1 | NO. 2 | NO. 3 | NO. 4 |
|--|-------|-------|-------|-------|
| Fives Cincinnati P-47  |       | х     |       |       |
| Fives Cincinnati P-50  |       |       |       | х     |
| Fives Cincinnati P-53  | х     |       |       |       |

| This product meets or exceeds the requirements of: | NO. 1 | NO. 2 | NO. 3 | NO. 4 |
|--|-------|-------|-------|-------|
| DIN 51502 CGLP                                     | Х     | Х     | Х     | Х     |
| ISO L-GA (ISO 6743-13:2002)                        |       | Х     | Х     | Х     |
| ISO L-GB (ISO 6743-13:2002)                        |       | х     | х     | Х     |

#### **Properties and Specifications**

| Property  | NO. 1  | NO. 2  | NO. 3   | NO. 4   |
|---|--------|--------|---------|---------|
| Grade   | ISO 32 | ISO 68 | ISO 150 | ISO 220 |
| Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130 | 1B     | 1B     | 1B      | 1B      |
| FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1  | 13     | 13     | 13      | 13      |
| Flash Point, Cleveland Open Cup, °C, ASTM D92         | 216    | 228    | 248     | 240     |
| Kinematic Viscosity @ 40 C, mm2/s, ASTM D445          | 32     | 68     | 156     | 221     |
| Pour Point, °C, ASTM D97                              | -30    | -9     | -6      | -6      |

#### 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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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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