

Lubricants – Industrial oils

Version: EEE/55

Valvoline[™] Circulation Oil ML 460

Valvoline Circulation Oil ML 460 oil is made of quality solvent neutral base oils of paraffin base with high viscosity index with the addition of additives that meet the advanced MORGOIL requirements for use in systems where lot of water penetrates. They differ from ordinary MORGOIL requirements in that they have a remarkable demulsibility property ("super demulsibility") and water separation at normal operating temperatures when they pass through the bearings (52-60°C). Doesn't contain zinc and has excellent oxidation stability, excellent resistance to corrosion in the presence of water in the system, as well as good deaeration and antifoaming properties.

| Performance levels |
|--|
| ISO L-HL |
| ISO 6743-4 |
| ISO 11158 (HL) |
| DIN 51 517 deo 2 (CL) |
| DIN 51 524 deo 1 (HL) |
| MORGAN MORGOIL Lubricant Specification New Oil |
| MORGAN MORGOIL Advanced Lubricant New Oil |
| Danieli 0.000.001 rev.15 |

Applications

Valvoline Circulation Oils ML are specially developed oils for MORGAN constructions of roller bearings requiring "super demulsibility". These oils are recommended for circulation systems where there is a significant risk of water contamination, such as roller bearings in rolling mills for steel sheets and rolling mills for non-ferrous metal sheets; big low-speed gears in mixers and mills.

Features & Benefits

Thermal and oxidation stability

The conventional Circulation Oil has a good thermal and oxidation stability. This helps to reduce the formation of deposits which can lead to unwanted downtime.

Wear protection

The anti-wear properties of the Valvoline Circulation Oil protect against wear, even for heavily loaded bearings.

"Super demulsibility"

They meet the most stringent demulsibility requirements (MORGOIL ADVANCED).

Rust protection

Valvoline Circulation Oil has excellent anti-rust properties which protects the gears and bearings in wet environments and provides protection against corrosion.

Keeping the world moving since 1866™

Serving more than 100 countries around the globe, Valvoline is a leading marketer, distributor and producer of quality branded automotive and industrial products and services. Products include automotive lubricants; transmission fluids; gear oils; hydraulic lubricants; automotive chemicals; specialty products; greases, and cooling system products.

For more information on Valvoline products, programs and services please visit www.valvolineeurope.com

Typical properties

Typical property characteristics are based on current production. Whilst future production will conform to Valvoline specifications, variations in these characteristics may occur.

| Valvoline Circulation Oil ML 460 | |
|---|-------------|
| Viscosity, mm ² /s @ 100 °C. ASTM D-445 | 30,0 |
| Viscosity, mm ² /s @ 40 °C. ASTM D-445 | 460 |
| Viscosity Index ASTM D-2270 | 95 |
| Pour Point, °C ASTM D-97 | -9 |
| Specific Gravity @ 15.6°C. ASTM D-1298 | 0,903 |
| Flash Point, COC, °C. ASTM D-92 | 260 |
| Demulsibility at 52 / 82°C ASTM D-2711, non EP | |
| -Free water, ml | >26 / >26 |
| -Water in oil, % | <1,5 / <1,5 |
| -Emulsion, ml | <1,0 / <1,0 |

This information only applies to products manufactured by:

Ellis Enterprises East doo Kruševac,
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Registration nr: 21368997 / TIN: 110618744

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Health & Safety

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet <http://sds.valvoline.com>

Protect the environment

Take used oil to an authorized collection point. Comply with local regulations. Do not discharge into drains, soil or water.

Storage

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

Replaces –