

Why use Kerr's KV-9003-100 instead of manufacturers equivalents, and conventional solvent refined crude stock oils?



1. KV-9003-100 is a hydrogen-cracked, dewaxed, paraffinic oil lubricant specifically designed for long life under severe conditions. A hydrogen-cracked oil has significantly less impurities than the conventional solvent refined crude stocks and provides better protection for a longer period. See details on page 3.
2. KV-9003-100 is a much better vacuum pump lubricant than any other conventional mineral based oils. It is recommended by Busch for rotary vane vacuum pump applications with high inlet temperature, high ambient temperature, high water vapor loads or when a standard mineral based oil carbonizes before the normal oil change interval is reached. See the Technical Data Sheet on page 2.
3. KV-9003-100 saves you money, labor, and equipment down time. Although it is roughly twice as expensive as mineral oils, it will last up to 4 times as long as recommended oil change interval of 750 to 1000 hours. Changing your oil less often saves labor hours, equipment down time and the cost of oil filters for every oil change that is no longer necessary.
4. KV-9003-100 comes with a **free oil sample program (ask for details)** to determine the optimum oil change interval for your application.
5. KV-9003-100 is less expensive than the other rotary vane manufacturers equivalents.

KV-9003-100

PRODUCT DESCRIPTION

Kerr's KV-9003-100 is a custom formulated lubricant specifically designed for long life under the severe, demanding conditions normally encountered in recirculating systems such as rotary screw compressors and vacuum pumps. It has a very low vapor pressure, making it an excellent lubricant for vacuum applications.

KV-9003-100 is based on highly refined, hydrocracked, dewaxed paraffinic oil. This special refining coupled with state-of-the-art additive technology results in performance improvements beyond other compressor oils. Among these are:

- Exceptional oxidative stability
- Less frictional drag
- Low evaporation loss
- Viscosity stability
- Thermal & hydrolytic stability
- Rust and corrosion inhibitors
- Resistance to carbon buildup
- Long life
- Less down time
- Improved performance
- Consistent quality
- Lower equipment maintenance
- Improved economy
- Low sludging tendency

ADDITIVES

Antioxidant- Retards oxidative decomposition by decomposing peroxides and terminating free-radical reactions.

Rust and Corrosion Inhibitors- Prevents corrosion and rusting of metal parts in contact with the lubricant. Does this by preferential adsorption of polar constituent on metal surfaces to provide a protective film or neutralize corrosive acids.

Metal Deactivator (Passivator) - Reduces the catalytic effect of metals on the oxidation rate by forming an inactive film on metal surfaces by complexing with metallic ions.

Antifoamant - Prevents lubricant from forming a persistent foam, by reducing surface tension which speeds the collapse of the foam.

All the additives are sacrificial and are depleted as they work to protect the pump parts. So, unless they are added back, their beneficial effects will be greatly reduced or gone.

TYPICAL PROPERTIES* (*These values are not intended for use in preparing specifications.)

Viscosity @ 40°C, cSt, ASTM D445	108
Viscosity @ 100°C, cSt	12.0
Viscosity @ 100°F, SUS	120.8
Viscosity @ 210°F, SUS	12.5
Viscosity Index, ASTM D2270	100
Density, lb/gal, 60°F, ASTM D4052	7.2
Pour Point °F (°C), ASTM D97	10 (-12)
Flash Point, C.O.C., °F (°C), ASTM D92	485 (251)
Fire Point, C.O.C., °F (°C), ASTM D92	510 (265)
Specific Gravity, ASTM D4052	0.864

Hydrogen-Cracked Lubricants

Introduction to Refining Lubricants

Since the 1920's, lubricants for air compressors and vacuum pumps have remained virtually unchanged. Namely, amber-colored, solvent refined derivatives from crude stocks that contain up to 20% impurities. Conversely, the expectations and demands imposed upon today's compressors and vacuum pumps have increased significantly: Higher operating temperatures and pressures. Extreme operating-temperature ranges. Extended hours between oil changes and the quest for longer intervals between overhauls. Couple that with Federal and local mandates concerning environmental and public health issues, and it is readily apparent why yesterday's lubricants have no place in today's-and certainly not tomorrow's-highly competitive, environmental- and cost-conscious world. Even the more recent advent of Diesters-while cleaner performing than conventional, solvent refined lubricants-often caused down-stream problems such as non-compatibility with seals and gaskets along with adverse effects on polycarbonate filters and lubricator bowls.

What our industry needed was a clean performance breakthrough.

The Hydrogen-Cracked Process – Base Stocks that Contain >90% Saturates!

Today's clean performance breakthrough is the *Hydrogen-Cracked* Process-the latest development in lubricant refining technology. In the refining process, gas oil is combined with hydrogen in the presence of a catalyst and subjected to extreme pressure and temperature. Nitrogen, Sulphur, and Oxygen contaminant compounds are driven off. Dewaxing and distillation remove additional unwanted materials. The result: A hydrocarbon base stock that contains >90% saturates. Using *Hydrogen-Cracked* base stocks, Kerr's KV-9003-100 is formulated to be the absolute cleanest, petroleum-based, lubricant in ISO 100 grade (Group2) for vacuum pumps regardless of the manufacture or application.