# 613

Omega®
The Ultimate Lubricant

## DESCRIPTION:

Omega 613 is a superb air compressor & vacuum pump lubricant designed to provide a new dimension to compressor/vacuum pump safety and cost-saving functionality. The ideal characteristics such an oil should have are, high chemical stability, good flash point, high thermal stability, high degree of refinement and purity, and it must be heavily fortified against the formation of rust, corrosion and oxidation. It must have a balanced viscosity that will ensure the essential protection for fine clearances and tolerances.

## CARBON RESISTANCE:

Omega 613 resists the formation of carbon. Ordinary oils promote this formation because of their high degree of impurity and their susceptibility to contamination. This combination forms rapid 'hot spots' that soon develop into granite-like carbon deposits. Omega 613's exceptional lubricity not only closes seals and thereby improves pressure output, but also resists high temperature destruction.

**The use of ordinary or inadequate lubricants in today's compressors is dangerous. A reaction caused when heat and carbon formation are swept into the receiver can be an explosion or a hazardous fire. Unfortunately, this fact is often ignored or misunderstood until it is too late.**

## VISCOSITY STABLE:

Omega 613 has built-in viscosity improvers that provide the added fine clearance protection essential to long term compressor/vacuum pump efficiency. The fluidity or lubricant texture remains stable despite temperature variations.

## OXIDATION RESISTANT:

Omega 613 provides exceptional protection against oxidation. Since compressor and/or vacuum pump equipment is constantly subjected to the oxygen in the air, unless exceptional protection is provided, oxidation will occur. Oxidation causes corrosion which leads to the disintegration of costly equipment.

## APPLICATIONS:

Omega 613 is extremely versatile and can be used on all types of compressor equipment including:

Screw Compressors (dry and flooded)
Rotary Compressors
Gear Compressors
Centrifugal Compressors
Twin-Lobe Compressors
Axial Flow Compressors
Internally Compounded Compressors
All types of Vacuum Pumps

The major function in all cases is based on a superiority in the suction, transfer, compression and discharge actions. Generally speaking, this type of equipment can be divided into two categories.

(A) The Mechanical or positive displacement category.
(B) The Centrifugal or active force acting type for moving entrapped gas.

Omega 613 provides the necessary protection and acts as a safety factor, regardless of whether the equipment is the Multistage Reciprocating Compressor type or the Expansion System type (with a cryogenic temperature of exceptionally low variance) or Vacuum Pumps.

## SUPERIOR FOR VACUUM PUMPS:

Since Vacuum Pumps function similarly to Air Compressors - in reverse - Omega 613 is also strongly recommended for achieving maximum performance with all types of vacuum pumps.

## CORRECT TEXTURE FOR DRIP FEEDING:

One major problem with all ordinary oils is the poor viscosity - preventing correct drip and feed speed. Omega 613 however, has built-in stability so that feed timing can be accurately calculated to meet the demands of the equipment. Too fast an input leads to carbon build-up and too slow an input means disastrous metal-to-metal contact.

## TYPICAL DATA:

| TEST | ASTM TEST METHOD | TEST RESULT | | | |
|---|---|---|---|---|---|
| | | SAE 10 | SAE 20 | SAE 30 | SAE 40 |
| ISO Viscosity Grade | D-2422 | 32 | 68 | 100 | 150 |
| Density, kg/L @ 15°C | D-1298 | 0.867 | 0.871 | 0.871 | 0.882 |
| Viscosity, cSt @ 40°C | D-445 | 32.9 | 68 | 100 | 150 |
| Viscosity, cSt @ 100°C | D-445 | 5.8 | 8.7 | 11.3 | 14.8 |
| Viscosity Index | D-2270 | 105 | 105 | 101 | 101 |
| Flash Point, COC, °C | D-92 | 215 | 243 | 261 | 264 |
| Pour Point, °C | D-97 | -21 | -27 | -27 | -24 |
| Aniline Point °C | D-611 | 116 | 119 | 111 | 113 |
| Copper Corrosion (3 hrs, 100°C) | D-130 | 1b | 1b | 1b | 1b |
| Foaming Characteristics - | | | | | |
| All Sequences, After Settling | D-892 | Nil | Nil | Nil | Nil |
| Oxidation Characteristics - | | | | | |
| TOST life, hours | D-943 | >5000 | >5000 | >5000 | >4000 |
| Rust-Preventing Characteristics | D-665 | Pass | Pass | Pass | Pass |
| Air Release, 2 min | Typical NFT 60149 | 2 min. | 2 min. | 2 min. | 2 min. |
| Zinc, % Mass | AA | 0.027 | 0.027 | 0.027 | 0.027 |

# The characteristics given above are typical of current production only and slight batch to batch variations should be expected.