

## HYDRAULIC H OILS

Multigrade high viscosity index, high thermal stability, low pour point premium hydraulic fluids developed for use in all types of hydraulic equipment operating in a wide range of temperature conditions.

These products are designed with highly refined lubricating base oils and zinc anti-wear additives for automotive and industrial hydraulic systems, transmissions and pumps.

They also inhibit foam from forming in the oil and offer protection against rust and corrosion in the event of water contamination.

### ADVANTAGES

- Exceptional shear stable fluid-film strengths at high temperatures.
- Shear stable viscosity index improver provides longlife, year round protection
- Protects equipment from rust and corrosion, providing long term oxidation stability.
- Excellent anti-wear properties promote protection in pumps, bearings, and other components.

- Outstanding cold temperature flow properties.
- Good de-aeration and low foaming properties.
- Good demulsifying properties allows for rapid condensation/water separation to avoid the formation of water and oil sludge.
- Good elastomer compatibility, avoids shrinkage and swelling of seals.

Meets the following hydraulic oil performance requirements;

- ✓ AFNOR NFE 48-691 (Wet)
- ✓ US Steel 126, 127
- ✓ Denison HF-0, 1, 2
- ✓ DIN 51 524 part 2 (HLP), part 3
- ✓ ASTM D2619 HF-0
- ✓ Sperry Vickers 1-286-S, M-2950-S
- ✓ Cincinnati Machine P68 (ISO 32), P70 (ISO 46), P69 (ISO 68)
- ✓ General Motors LH-04-1, 06-1, 15-1
- ✓ Saucer Danfoss
- ✓ Rexroth
- ✓ Bosch variable vane pumps

| Product Name<br>ISO Grade                        | Test          | Unit              | HYDRAULIC<br>H15 | HYDRAULIC<br>H22 | HYDRAULIC<br>H32 | HYDRAULIC<br>H46 | HYDRAULIC<br>H68 | HYDRAULIC<br>H100 |
|--|---------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| Hydraulic oil type<br>acc. to DIN 51 524<br>pt 2 |               |                   | HLP 15           | HLP 22           | HLP 32           | HLP 46           | HLP 68           | HLP 100           |
| Viscosity @ 40 °C                                | ASTM<br>D445  | cSt               | 15               | 22               | 32               | 46               | 68               | 100               |
| Viscosity @ 100 °C                               | ASTM<br>D445  | cSt               | 4.0              | 4.7              | 6.0              | 7.8              | 10.2             | 14.8              |
| Viscosity Index                                  | ASTM<br>D2270 |                   | 180              | 140              | 135              | 140              | 135              | 135               |
| Density @ 15 °C                                  | ASTM<br>D4052 | Kg/m <sup>3</sup> | 0.86             | 0.86             | 0.86             | 0.88             | 0.88             | 0.88              |
| Flashpoint<br>Cleveland open cut                 | ASTM<br>D92   | °C                | 170              | 200              | 210              | 215              | 230              | 230               |
| Pourpoint  | ASTM<br>D97   | °C                | -30              | -30              | -30              | -30              | -30              | -30               |

**Pack Sizes**

**1000 litre**

**205 litre**

**20 litre**

The information contained herein is accurate at the time of this review. However specifications change from time to time. Ensure specifications meet equipment manufacture requirements.