

## UNITED HYDRO VESTA HYDRAULIC OIL HV

United Hydro Vesta Hydraulic Oil HV are petroleum-based fluids recommended for hydraulic systems, transmissions and pumps operating under widely varying conditions and temperatures. The products' high viscosity indices and low pour points provide fluids with low viscosity for proper flow at cold temperatures and exceptional fluid-film strengths at high temperatures.

United Hydro Vesta Hydraulic Oil HV are produced from carefully selected high quality, highly refined hydro-treated base oil and the addition of a balanced additive system, including a shear stable viscosity index improver in these oils, thereby providing total year-round protection in a variety of application.

United Hydro Vesta Hydraulic Oil HV protect equipment from rust and corrosion and provide long-term oxidation stability. Anti-wear agents in United Hydro Vesta Hydraulic Oil HV provide protection for all types of hydraulic pumps.

### APPLICATIONS / BENEFITS

- Outstanding cold temperature flow properties.
- Excellent anti-wear performance.
- Superior rust, anti-corrosion and oxidation stability.

### TYPICAL CHARACTERISTICS

TEST DESCRIPTION	METHOD	TYPICAL RESULTS			
ISO Viscosity Grade	SAE J 300	15	22	32	46
Specific Gravity @ 15 °C	ASTM D 4052	0.821	0.835	0.855	0.862
Flash Point, °C	ASTM D 92	164	182	200	212
Pour Point, °C	ASTM D 97	-45	-45	-39	-36
Kinematic Viscosity @40°C	ASTM D 445	15.02	22.4	31.6	44.5
@100°C	ASTM D 445	4.23	5.63	6.21	7.8
Viscosity Index	ASTM D 2270	207	210	150	146
Color	ASTM D 1500	<0.5	<0.5	<0.5	<0.5

**TYPICAL CHARACTERISTICS**

TEST DESCRIPTION	METHOD	TYPICAL RESULTS		
ISO Viscosity Grade	SAE J 300	68	100	150
Specific Gravity @ 15 °C	ASTM D 4052	0.865	0.868	0.882
Flash Point, °C	ASTM D 92	210	230	232
Pour Point, °C	ASTM D 97	-36	-33	-30
Kinematic Viscosity @40 °C (cSt)	ASTM D 445	66.1	99.6	145
Kinematic Viscosity @100 °C (cSt)	ASTM D 445	10.6	14.8	19.1
Viscosity Index	ASTM D 2270	150	155	150
Color	ASTM D 1500	<0.5	<0.5	<1.5

**MEETS THE REQUIREMENTS OF**

- AFNOR NF E 48-690(Dry) & 691 (Wet)
- ASTM D6158 HM (2005)
- Bosch Rexroth
- Bosch Variable Volume Vane Pump
- Cincinnati Machine (MAG IAS) P- 68 ( ISO 32)
- Cincinnati Machine (MAG IAS) P- 69 ( ISO 68)
- Cincinnati Machine (MAG IAS) P- 70 ( ISO 46)
- Commercial Hydraulics ( Except Silver coated PM-500 series)
- DIN 51524 Part II
- DIN 51524 Part III HVLP
- Eaton brochure 03-401-2010
- Eaton Vickers I-286-S
- Eaton Vickers M-2950-S
- FZG A/8.3/90 Load test (DIN 51354) at 12th Stage level
- General Motor LH-03
- General Motor LH-04
- General Motor LH-06
- General Motors LS2 (2004)
- ISO 11158 HM (FDIS 2008)
- JCMAS HK P041 (2004)
- Parker Hannifin France (Denison) HF-0 (Revision J)
- Parker Hannifin France (Denison) HF-1, HF-2
- SAE MS1004
- Sauer Danfoss
- SEB 181 222 (2007)
- US Steel 126
- US Steel 127
- US Steel 136