



UNIVERSAL HYDRA 1000 HEAVY DUTY HYDRAULIC OIL

Universal Hydra 1000 Hydraulic Oils are premium anti-wear oils which provide maximum pump life and trouble-free service. The rust and oxidation preventive capabilities of Hydra 1000, including superior demulsibility properties, make these oils rugged, even in high-output systems. These oils also feature excellent vane pump and piston pump performance, anti-foam characteristics and superior hydrolytic stability. Hydra 1000's ability to control formation of contaminants helps prevent filter blockage.

Universal Hydra 1000 Hydraulic Oils resist deterioration and perform at superior levels, even at high operating temperatures, pressures and speeds and low pour point ensures easy system startup in cold conditions.

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>R&O/AW ISO #22</u>	<u>R&O/AW ISO #32</u>	<u>R&O/AW ISO #46</u>	<u>R&O/AW ISO #68</u>	<u>R&O/AW ISO #100</u>	<u>R&O/AW ISO #150</u>	<u>R&O/AW ISO #220</u>
Viscosity @ 40°C, cSt	D445	22.14	31.20	46.07	68.10	101.29	149.54	219.50
Viscosity @ 100°C, cSt	D445	4.35	5.25	7.00	8.80	11.5	15.10	19.12
Viscosity Index	D2270	103	98	109	101	100	101	98
Flash Point, COC, °C	D92	199	210	216	220	232	254	238
Flash Point, COC, °F	D92	390	410	420	428	450	490	460
Pour Point, °C	D97	-42	-39	-36	-36	-24	-15	-15
Pour Point, °F	D97	-44	-38	-33	-33	-11	5	5
Color	D1500	1.0	1.0	1.0	1.5	1.5	2.0	3.0
Gravity, °API	D287	32.8	31.5	30.5	29.5	28.2	28.3	27.6
Turbine Oil Oxidation	D943	3600+	3600+	3600+	3600+	3600+	3600+	3600+
Copper Strip	D130	1b	1b	1b	1b	1b	1b	1b
Rust Test	D665	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Vane Pump, mgs wt loss	D2882	12	12	12	12	12	12	12
Dielectric Strength, kv		35	35	35	35	35	35	35

Meets or exceeds the following tests and requirements:

- AFNOR E 48-603
- B. F. Goodrich - 0152
- Cincinnati Milacron - P-68, P-69, P-70
- Denison - HF-0, HF-1, HF-2
- DIN 51524, Part 2
- Ford - M-6C32
- General Motors - LH-04-1, LH-06-1, LH-15-1
- Jeffrey - #87
- Lee Norse - 100-1
- Racine - Model S, variable volume vane pump
- U.S. Steel - 136, 127
- Vickers - I-286-S, M-2950-S, 35VQ25

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