



# ANTI-WEAR HYDRAULIC OIL

## INDUSTRIAL LUBRICANTS AND GEAR OILS

OEMs continue to evolve hydraulic equipment and pump designs. Pumps get smaller and power output increase and the lubricants performance demands rise. Escalating power density leads to higher operating temperatures and pressures. One brand has evolved right alongside today's equipment – Volotec. Only the most advanced industrial lubricants meet the difficult challenges of effectively balancing performance, strength and durability.

### SUPERIOR PROTECTION

Volotec hydraulic oils are designed to help improve uptime, reduce costs and increase productivity. Our hydraulic oils offer energy-efficient benefits and improved performance across a wide range of temperatures. They specifically designed to meet the demands of high-pressure, industrial and mobile equipment hydraulic systems. Formulated to provide 5,000 hours of oxidation stability.

### POWERFUL ANTI-FRICTION, ANTI-WEAR CHEMISTRY

Volotec provides outstanding control of friction and wear. Advanced molecules bond together to create a wear-resistant shield that works to build barriers that reduce friction and wear.

### WITHSTANDS THE MOST EXTREME CONDITIONS

Volotec Anti-Wear Hydraulic Oils provide unsurpassed protection even in the harshest conditions to fight oxidation, separate air and water and improve filtration.

### ANTI-WEAR HYDRAULIC OILS

The latest Volotec Anti-Wear Hydraulic Oils are specially engineered and formulated to provide:

#### **PERFORMANCE**

Extra protection for equipment life and reliability.

Excellent varnish control and cleanliness.

#### **STRENGTH**

Outstanding wear and corrosion protection.

#### **DURABILITY**

Formulated to provide 5,000 hours of oxidation stability.

Optimized maintenance cost and uptime.

TYPICAL PROPERTIES

Viscosity Grade		Anti-Wear ISO 22	Anti-Wear ISO 32	Anti-Wear ISO 46	Anti-Wear ISO 68	Anti-Wear ISO 100	All Year Hyd
Calcium, wt. %	ASTM D5185	0.003	0.003	0.003	0.003	0.003	-
Color	ASTM D1500	0.5	0.5	0.5	0.5	0.5	0.5
Gravity, °API	ASTM D287	33.50	32.44	31.46	30.71	30.12	33.09
Oxidation Hours	ASTM D943	5000	5000	5000	5000	5000	5000
Phosphorus, wt. %	ASTM D5185	0.033	0.033	0.033	0.033	0.033	0.034
Pour Point °C (°F)	ASTM D5950	-42°C (-44°F)	-39°C (-38°F)	-33°C (-27°F)	-30°C (-22°F)	-30°C (-22°F)	-42°C (-44°F)
Specific Gravity @ 60°F (15.6°C)	ASTM D4052	0.8576	0.8631	0.8683	0.8723	0.8755	0.8597
Sulfur, wt. %	ASTM D4951	0.065	0.065	0.065	0.065	0.065	0.071
Viscosity @ 100°C cSt	ASTM D445	4.36	5.55	6.95	8.95	11.31	7.89
Viscosity @ 40°C cSt	ASTM D445	21.82	32.11	46.03	69.25	99.86	44.86
Viscosity Index	ASTM D2270	107	110	105	103	99	148
Zinc, wt. %	ASTM D5185	0.041	0.041	0.041	0.041	0.041	0.043
Flash Point °C	ASTM D92	-	210	225	228	-	-
Flash Point °F	ASTM D92	-	410	437	442	-	-
Vapor Pressure at 20°C		-	<0.013 kPa at 20°C	<0.013 kPa at 20°C	<0.013 kPa at 20°C	-	-

INDUSTRY/OEM APPROVALS

Title	Anti-Wear ISO 22	Anti-Wear ISO 32	Anti-Wear ISO 46	Anti-Wear ISO 68	Anti-Wear ISO 100	All Year Hyd
ASTM D6158	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements	-
Bosch Rexroth	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
DIN 51524, Part 1,2,3	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
Eaton E-FDGN-TB002-E, 35VQ25A	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements	Meets Requirements	-
General Motors LS-2	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
JCMAS HK	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
Parker Denison HF-0, HF-1	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
Parker Denison HF-2	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
Racine	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
Sperry						
Vickers/Eaton I-286-S, M-2950-S	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-	-
US Steel 127, 136	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	Suitable for Use	-
Cincinnati/MAG IAS P-68	-	Suitable for Use	-	-	-	-
Cincinnati/MAG IAS P-70	-	-	Suitable for Use	-	-	-
Cincinnati/MAG IAS P-69	-	-	-	Suitable for Use	-	-
Sperry						
Vickers/Eaton I-286-S, M-2950-S	-	-	-	-	Suitable for Use	-

Information accurate as of September 9, 2024