



Turbine Oil

Bel-Ray® Turbine Oils are rust and oxidation inhibited industrial oils specifically engineered for the lubrication of medium and heavy-duty, high temperature gas, steam, and hydraulic turbine systems. Bel-Ray Turbine Oils offer superior protection from rusty water contaminated systems and aggressively prevent sludge and deposit formation caused by oil oxidation. In addition, Bel-Ray Turbine Oils protect against wear of critical components under severe operating conditions and systems that function under high temperatures and pressure.

EQUIPMENT BENEFITS

- Exceptional oxidation and thermal stability for long service life at severe temperatures
- Minimal deposit formation
- Maximum oxidation life for extended service intervals
- Exceeds industry and OEM oxidation requirements
- Excellent foam control and demulsibility (water separation)
- Formulated with premium base oil technology and an ashless, zinc-free additive package
- Outstanding rust and corrosion protection
- High viscosity index helps ensure minimum viscosity change when variations in temperature occur
- Fast air release minimizes possibility of pump cavitation in systems with high circulation rates and lesser residence time

PRODUCT FEATURES

Bel-Ray Turbine Oil has exceptional thermal and oxidative stability. It is suitable for use in non-geared gas and steam turbines where extreme temperatures are experienced and require circulation systems with exceptional high temperature stability. Bel-Ray Turbine Oil combines highly refined group II base stocks and a unique ashless, zinc-free formulation minimizing the formation of deposits in reservoirs, high temperature bearings and other hot areas of the turbine.

APPLICATIONS

Bel-Ray Turbine Oil is formulated to meet the critical demands of non-geared gas, steam and hydroelectric turbine bearing lubrication and R&O service in marine reduction gears. They are additionally suitable for industrial severe service requiring an R&O, ISO 32, 46, 68 and 100 circulating oil with extended service capability.

- General Electric GEK32568J
- SIEMENS TLV 9013 04
- ALSTOM HTGD 90117
- Solar Turbines ES 9-224
- DIN 51515

Turbine Oil
Typical Physical Properties

Property	Test Method	32	46	68	100	150	220
API Gravity @ 60°F	D4052	32.9	31.5	30.4	29.6	29.2	28.6
Density@15 °C, g/cm ³	D4052	0.8603	0.8676	0.8735	0.8779	0.8801	0.8833
Viscosity @ 40°C, cSt	D445	30.8	45.0	64.2	94.5	142.2	214.7
Viscosity @ 100°C, cSt	D445	5.3	6.7	8.2	10.8	14.0	17.8
Viscosity Index	D2270	105	103	96	100	99	94
Flash Point, °C (°F)	D93	200 (392)	210 (410)	214 (417)	220 (428)	230 (446)	245 (473)
Pour Point, °C (°F)	D97	-46 (-50)	-37 (-34)	-33 (-27)	-32 (-25)	-31 (-23)	-30 (-22)
Pounds per Gallon	D1250	7.167	7.228	7.278	7.314	7.332	7.360

Minor variations in typical physical properties may occur from normal manufacturing processes

DISTRIBUTED BY:

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