



TURBINE PLUS OIL

(Premium Gas Turbine Oil)

TURBINE PLUS OIL is a premium quality circulating oil made from highly refined paraffin base stocks (group II) and the finest additives available. It is specifically formulated to provide excellent chemical stability, rust protection and cleanliness. **TURBINE PLUS OIL** is highly recommended for use in gas turbines or other applications calling for superior oxidation resistance.

Circulating oils are often exposed to high temperatures that can cause sludge and varnish formation. **TURBINE PLUS OIL** is fortified with highly effective oxidation inhibitors to prevent deposit buildup.

It exhibits outstanding performance in the two ASTM tests utilized to measure oxidation resistance (ASTM D-943 Turbine Oil Oxidation Test and ASTM D-2272 Rotary Bomb Oxidation Test.) As a result, **TURBINE PLUS OIL** provides long, trouble-free service life, even in severe service applications such as gas turbines used in co-generation service (such as GE Frame 7 gas turbines).

TURBINE PLUS OIL has excellent foam resistance as well as superior water separation ability. **TURBINE PLUS OIL** rapidly separates from water so it can settle out in the reservoir and be drained off. **TURBINE PLUS OIL** separates from water completely within 15 minutes.

BENEFITS:

- PREVENTS SLUDGE AND VARNISH DEPOSITS
- EXCELLENT FILTERABILITY
- PROVIDES LONG SERVICE LIFE
- RAPIDLY SEPARATES FROM WATER
- RESISTS FOAMING
- CHEMICALLY STABLE
- LOWERS MAINTENANCE COST

APPLICATIONS:

TURBINE PLUS OIL is recommended for use in gas turbines circulating oil systems, pumps, compressors, and similar equipment. **TURBINE PLUS OIL** is fully qualified for use in heavy duty gas turbines made by all the major equipment manufacturers including Cooper, Dresser, Fiat Aviazione, GEC Alstom, Simens, Solar, Westinghouse and General Electric.

Meets or exceeds gas turbine oil requirements of:

GEK 107395 (2001), GEK 32568f,
GEK 101941 (1995), GEK 23143A (1992)
Solar ES 9-224 (revised1997)



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TYPICAL CHARACTERISTICS

ISO Viscosity Grade	32	68
Product Code	15146	15148
API Gravity (ASTM D-1298)	31.8	29.9
Viscosity (ASTM D-445):		
cSt @ 40°C	30.0	67.6
cSt @ 100°C	5.12	8.67
SUS @ 100°F	155	351
SUS @ 210°F	43.2	55.4
Viscosity Index (ASTM D-2270)	97	99
Pour Point (ASTM D-97) °F (°C)	0 (-18)	-22 (-30)
Flash Point (ASTM D-92) °F (°C)	405 (207)	460 (237)
Copper Corrosion (ASTM D-130)	1A	1A
Neutralization Number, mg KOH/g (ASTM D-664)	0.08	0.08
Turbine Oil Oxidation Test		
Hours to 2.0 TAN (ASTM D-943),	8,000+ ^{**}	8,000+ ^{**}
1000 hour sludge, mg (ASTM D 4310),	20	21
Rotary Bomb Oxidation Test , minutes (D 2272)		
Modified RBOT, % of original (GE)	1300+ 94%	1200+ 89%
Foam Resistance (ASTM D-892):		
Sequence I	5/0	5/0
Sequence II	10/0	40/0
Sequence III	0/0	0/0
FZG fail stage	8	9
Air Release, minutes	2	4
Demulsibility (ASTM D-1401)		
Oil/Water/Emulsion, ml	40/40/0	40/40/0
Time, minutes	10	15
Rust Resistance (ASTM D-665 A and B)	Pass	Pass
Color (ASTM D-1500)	L1.0	L1.0

^{**} Claims of D 943 life above 10,000 hours require a modified D 943 test. We report a standard D 943 test here.
 The above data is subject to usual manufacturing variation. For more information and availability, call 1-800-442-LUBE.
 11/7/2008