



Product Bulletin

BRAD PENN® LONG LIFE TURBINE / HYDRAULIC OIL

BRAD PENN® LONG LIFE TURBINE Oil is a premium R&O turbine oil formulated with high quality base oils and an additive system specifically designed for use in turbines where both resistance to oxidation and long life of the product are essential.

BRAD PENN® LONG LIFE TURBINE Oil provides excellent resistance to foaming and good air-releasing characteristics. The superior oxidation resistance of this product is shown on the ASTM D-943 test with typical results of over 10,000 hours. Additionally, it offers the following benefits:

- Excellent rust and corrosion protection
- Minimization of sludge and varnish formations
- High VI with excellent lubricating performance
- Superb water separating characteristics to minimize emulsions
- Outstanding protection in the most severe operating conditions

BRAD PENN® LONG LIFE TURBINE OIL is the right choice for lubricating steam, gas, and hydroelectric turbines. It is ideal for hydraulic systems requiring a rust and oxidation inhibited lubricant with long-life performance. Specifically, this product is designed for central station turbo-generators, which are precision machined and require close tolerances for intricately balanced mechanisms. It meets the requirements of Dennison HF-1, DIN 51524 Part 1, ASTM D 4304 Type I, Cincinnati Machine P-38, MIL-L-17672D, AFNOR E48-600HL, and US Steel 126. Additionally, it is recommended for the following uses:

- Turbo-generators
- Air line lubricant for air tools
- Rotary air compressors and gas compressors
- Vacuum pumps* (low to moderate vacuum), machine tools and textile spindles
- High-speed gearing at normal temperatures and gear reducers at low temperatures where an extreme pressure gear lubricant is not required

*Always consult vacuum pump Original Equipment Manufacturer (OEM) for selection of proper fluid.



BRAD PENN[®] LONG LIFE TURBINE OIL
Premium Turbine / Hydraulic Oil
Typical Properties

ISO Viscosity Grade		32
Product Code	Test Method	7325
Viscosity, cSt @ 40°C	ASTM D-445	32.00
Viscosity, cSt @ 100°C	ASTM D-445	5.6
Viscosity, SUS @ 100°F	ASTM D-2161	165
Viscosity, SUS @ 210°F	ASTM D-2161	44.2
Viscosity Index	ASTM D-2270	122
Color	ASTM D-1500	0.5
Pour Point, °F (°C) (Max.)	ASTM D-5949	-35 (-36)
Flash Point, COC, °F (°C)	ASTM D-92	400 (204)
TAN	ASTM D-664	0.10
Rust Test	ASTM D-665 A&B	Pass
Ramsbottom Carbon Residue, %	ASTM D-524	0.01
Foam Stability (Max.) SEQ I, mL SEQ II, mL SEQ III, mL	ASTM D-892	50/0 50/0 50/0
Air Rise, minutes	ASTM D-3427	3
Emulsion, 20 min. @ 130°F	ASTM D-1401	40-37-3
Oxidation Stability, hours	ASTM D-943	10,000
KF Moisture, ppm (Max.)	ASTM D-6304	200
Gravity, API	ASTM D-4052	34.4
Density, lbs/gal (g/L)	Calculated	7.102 (851)
Cincinnati Machine		P-38