

# TURNO 32, 46, 68, 100

Mineral oil based turbine oil

## Description

**TURNO 32, 46, 68, 100** are high quality lubricants formulated to support the operation of both steam and gas turbines ensuring consistently high performance.

**TURNO 32, 46, 68, 100** are developed to provide a solution to problems frequently faced when turbines are operated discontinuously and in a high temperature operation environments. The lubricants are formulated using selected virgin base oils and high quality additives to provide maximum protection during long periods of operation.

The primary strengths of the product are high temperature oxidation resistance, rust inhibition, anti foaming properties, water separability ensuring protection for crucial components. The correct choice of optimum viscosity and high flow rate allow maximum heat transfer in bearings while maintaining.

## Applications

**TURNO 32, 46, 68, 100** are specially designed for the lubrication of steam or gas turbines. They can also be used in centrifugal compressors or turbochargers and hydraulic turbines.

## Specification Meets

**TURNO 32, 46, 68, 100** meet the Denison HF-1, HF-0, General Electric GEK-32568, Solar Turbines ES9-224, MIL-H-17672D, US Steel 126, Afnor E-48600HL, and Cincinnati Milacron P-38, P-45, P-54, P-55, P-57, P-62 standards.

## Advantages

- ▶ Good rust and corrosion protection
- ▶ Good filter ability characteristics
- ▶ Demulsibility strong performance and excellent water separation helps in draining excess moisture from the circulatory system
- ▶ Resistant to sludge formation
- ▶ Foam protection

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## Typical Data of TURNO 32, 46, 68, 100

Characteristics	Unit	TURNO				Test Method
		32	46	68	100	
Color		L 0.5	L 0.5	L 0.5	L 0.5	ASTM D 1500
Density @ 15 °C	kg/L	0.8520	0.8652	0.8735	0.8687	ASTM D 4052
Kinematic Viscosity @ 40 °C	cSt	31.4	46.25	70.15	103.15	ASTM D 445
Kinematic Viscosity @ 100 °C		5.52	7.10	8.98	12.05	
Viscosity Index		114	113	102	107	ASTM D 2270
Flash Point (COC)	°C	222	226	235	267	ASTM D 92
Pour Point	°C	-21	-15	-15	-27	ASTM D 97
Demulsibility @ 54.0 °C/82.0 °C	(min) mL/mL/mL	(10') 40/40/0	(5') 40/40/0	(10') 40/40/0	(10') 40/40/0	ASTM D 1401
Sequence I : 24 °C	mL	10/0	0/0	0/0	0/0	ASTM D 892
Sequence II : 93.5 °C		10/0	10/0	10/0	10/0	
Sequence III : 24 °C after 93.5 °C		0/0	0/0	0/0	0/0	
TOST (95 °C, H <sub>2</sub> O, O <sub>2</sub> , Fe and Cu catalyst) time to TAN 2 mg KOH/g	hours	>10000	>10000	>10000	>10000	ASTM D 943
RPVOT (150 °C, H <sub>2</sub> O, O <sub>2</sub> , and Cu catalyst) life time, minimal	hours	>2300	>2300	>2300	-	ASTM D 2272
Rust Prevention Stage A	Degree of Corrosion	Pass	Pass	Pass	Pass	ASTM D 665
Rust Prevention Stage B		Pass	Pass	Pass	Pass	

\* the typical characteristic mentioned represent mean values