

AIR FORCE PG 46 ISO VG 46

FULLY SYNTHETIC SUPER COOLANT

FOR ROTARY SCREW COMPRESSORS

Description

AIR FORCE PG 46 is a fully synthetic blend of polyalkylene glycol (PAG) and polyol esters. This combination takes advantage of the excellent performance characteristics of both classes of synthetic base fluid. Because of its inherently high viscosity index, AIR FORCE PG 46 remains shear stable without the addition of VI improvers. It is designed to provide superior protection against corrosion and wear.

- Outstanding thermal stability for long oil life
- Good air release properties
- High viscosity index gives good fluid flow at low temperatures and high film strength and wear resistance at high temperatures.
- Hydrolytically stable
- Outstanding resistance to oxidation
- Low volatility reduces the need for top-up
- Operating temperatures up to 200°C
- Resistant to sludge and varnish formation
- Excellent seal compatibility

Applications

AIR FORCE PG 46 has been specially designed for use in rotary screw compressors operating in arduous working environments under severe loading conditions.

When changing from a mineral oil to AIR FORCE PG 46 the attached flushing procedure should be followed.

Physical Characteristics

ISO Viscosity Grade	46
Density (g/cm ³)	0.989
Kinematic Viscosity at 100°C, cSt.	8.9
Kinematic Viscosity at 40°C, cSt.	47
Viscosity Index	>170
Flash Point (Closed) °C	>260
Pour Point, °C	<-50
4 ball wear scar (40 kg 1 hour)	0.38mm
Falex seizure load	2000 lbs
Steam turbine corrosion procedure A	Pass

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Certificate No. FM 21756
BS EN ISO9001 2000

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Appendix 1

Flush Procedure

When changing from a mineral oil to AIR FORCE PG46 the following procedure should be followed.

The system should run until the mineral oil is warm, then the system should be drained as fully as possible with particular attention being given to regions where oil may be trapped. The system should be cleaned of residual sludge.

Flush the system with a minimal quantity of AIR FORCE PG 46 by operating under no load, and again drain the system while warm. Repeat this procedure if necessary.

Seals etc. should be inspected and replaced if deterioration is evident. Seals previously exposed to mineral oil may shrink when exposed to AIR FORCE PG 46 and therefore it may be advantageous to replace them. The system should then be refilled with AIR FORCE PG 46. It is useful to inspect the lubricant after one or two days of use to ensure it is free of extraneous materials. Contamination with significant quantities of other lubricants may in some instances lead to sludging, foaming and other problems.

Material Compatibility

Common seal and gasket materials are unaffected by AIR FORCE PG 46. Seals manufactured from Nitrile rubber (NBR) Fluoro-silicone or Vinyl-Methyl Polysiloxane (Q) are recommended, especially in high temperatures applications.

Ordinary industrial paints soften in the presence of these products. Internal system surfaces should be unpainted or coated with resistant materials, e.g. a two part epoxy formulation.



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