SYNTHETIC OIL S100X

Synthetic di-ester based vacuum pump lubricants

Description

SYNTHETIC OIL S is a combination of high-grade synthetic ester base fluids and specially engineered additive systems. It is used successfully for the long-term lubrication of all kinds of mechanical vacuum pumps, such as screw, rotary vane or reciprocating (piston type), roots (lobe), claw etc. vacuum pumps.

SYNTHETIC OIL S can be used successfully in presence of the following gases, such as: Air, Butadiene, Carbon Dioxide (dry), Carbon Monoxide, Ethylene, Furnace (crack) Gas, Helium, Hydrogen, Hydrogen Sylphide (dry), Natural Gas, Methane, Nitrogen, Propane, Oxygen, Synthesis Gas, Sulphur Hexafluoride etc.

The nominal operating range is –15°C to 230°C. SYNTHETIC OIL S offers high performance protection of vacuum pumps operating under extreme conditions: high load and temperatures, compressing reactive and dirty gases, intermittent operation, in warm or cold climates and in mobile applications.

Benefits

SYNTHETIC OIL S has a multitude of advantages over mineral oils and other synthetic oils:

- Reduced compressor maintenance with very long drain intervals. Up to 8 times the service life of mineral oils.
- Low friction properties and resistance to viscosity increases from oxidation. This helps to improve operating efficiency and saves money on electrical energy consumption.
- Excellent foam control, reducing heat, oxidation and wear. High contact regions are protected against wear for increased equipment life and efficiency.
- Enhanced water separation. Water from condensation can cause unwanted oil/water emulsions, environmental discharge hazards and rust. SYNTHETIC OIL S resists acid formation, readily separates from water and is anti-rust fortified. Water can be easily drained off for simplified environmental discharge and increased oil life.
- Increased resistance to varnish, carbon and acid formation. Providing better protection and longer service life than petroleum oils, especially during hot operating conditions.
- Low volatility, resulting in lower evaporation losses and fewer problems with the oil getting into air tools, instruments or even the production process. It also means there is less oil to remove in the air/oil separators and fewer air filter changes.
- Fire and explosion possibilities are greatly reduced due to the low carbon forming tendencies and due to the relatively high flash, fire and auto ignition points.
- Operating temperature reduction. SYNTHETIC OIL S series cools and removes heat more efficiently.

These benefits mean for the user of SYNTHETIC OIL S series: higher reliability and lower operational costs. The reliability is also supported by our own oil analysis program.

Gas type suitability

SYNTHETIC OIL S is suitable for successfully pumping the following gas types:

Air	CO_2 (dry)	H_2S (dry)	Propane
Butadiene	Ethylene	Natural gas	Synthesis gas
Carbon monoxide	Helium	Methane	SF_6
Furnace gas	Hydrogen	Nitrogen	Halogen compounds
	NO_x*)	O_2	

*) SYNTHETIC OIL S100X

Typical performance data

Property	**Test method**	**S100X**
ISO Viscosity Grade	-	100
Viscosity Index	ASTM D-2270	72
Viscosity @ 40 °C, cSt	ASTM D-445	95
Viscosity @ 100 °C, cSt	ASTM D-445	9.6
Flash point, COC °C	ASTM D-92	260
Pour point, °C	ASTM D-97	-33
Copper strip corrosion, 24 hrs @ 100 °C	ASTM D-130	1a
Demulsibility @ 54 °C, ml oil/water/emulsion (min)	ASTM D-2711	39/39/1 (60)
Density @ 15 °C, kg/l	ASTM D-4052	0.95