

# VACUTOP DI SPECIAL 135

Product code: 261701901

## Synthetic di-ester based vacuum pump lubricants

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

It 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 Sulphide (dry), Natural Gas, Methane, Nitrogen, Propane, Oxygen, Synthesis Gas, Sulphur Hexafluoride etc.

The nominal operating range is  $-15^{\circ}\text{C}$  to  $230^{\circ}\text{C}$ . It 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 & Advantages

These products have 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 increase 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. It 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. It cools and removes heat more efficiently.

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

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## Gas type suitability

The products are suitable for successfully pumping the following gas types:

Air	CO <sub>2</sub> (dry)	H <sub>2</sub> S (dry)	Propane
Butadiene	Ethylene	Natural gas	Synthesis gas
Carbon monoxide	Helium	Methane	SF <sub>6</sub>
Furnace gas	Hydrogen	Nitrogen	Halogen compounds
	NO <sub>x</sub>	O <sub>2</sub> *)	

## Typical Performance Data

Typical	Test Method	Value
ISO Viscosity Grade		135
Viscosity Index	ASTM D-2270	73
Viscosity @ 40 °C, cSt	ASTM D-445	135
Viscosity @ 100 °C, cSt	ASTM D-445	12.1
Flash point, COC °C	ASTM D-92	250
Pour point, °C	ASTM D-97	-30
Copper strip corrosion, 24 hrs @ 100 °C	ASTM D-130	1a
Demulsibility @ 54 °C, ml oil/water/emulsion (min)	ASTM D-2711	excellent
Density @ 15 °C, kg/l	ASTM D-4052	0.95

All performance data on this Technical Data Sheet are indicative only and can vary during production.

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