Airtop DI

Synthetic compressor fluid based on a di-ester

Description

Airtop DI series are di-ester based, oxidation resistant lubricant designed to provide high temperature and long-term lubrication with minimal deposits formation. Airtop DI is formulated according to the latest technology and are a combination of high grade synthetic base fluids and specially engineered additive systems. They are used successfully for the long term lubrication of screw, rotary vane and piston type compressors.
Airtop DI offers high performance protection of compressors in extreme conditions: high load and temperatures, compressing reactive and dirty gases, intermittent operation, in warm or cold climates and in mobile applications.

Benefits

- Reduced compressor maintenance with very long drain intervals. Up to 8 times the service life of mineral oils
- Reduced maintenance costs
- Low friction properties and resistance to viscosity increase from oxidation. This helps improve operating efficiency and saves money on electrical energy consumption
- Enhanced water separation
- Resists from acid formation and rust
- Eliminates lacquering and varnish, carbon and acid residues
- Low volatility
- Oxidation and chemical resistant
- Excellent cold temperature starting and pumpability
- Greatly reduces fire and explosion hazard thank to low carbon forming tendency
- Operating temperature reduction, Airtop DI cools and removes heat efficiently

Applications

- Oil flooded rotary screw compressors
- Oil flooded rotary vane compressors
- Airtop DI fluids might also be considered for other applications requiring an oxidation resistant lubricant
- Also recommended for process gas compressors and vacuum pumps

Material compatibility

Recommended	Not recommended
Viton	Neoprene
High nitrile buna N	SBR
PTFE	Low nitrile buna N
Expoxy paint	Acrylic paint
Oil resistant alkyd	Lacquer
Nylon	Polystrene
Delrin, celcon	PVC
PBT	ABS

Gas compatibility

Air	Carbon dioxide (dry)	Hydrogen sulphide (dry)	Propane
Butadiene	Ethylene	Natural gas	Synthesis gas
Carbon monoxide	Helium	Methane	Sulphur hexafluoride
Furnace (crack) gas	Hydrogen	Nitrogen	
NOx	O2	O3	Halogen compounds

Typical performance data

	DI 46	**DI 68**	**DI 100**	**DI 150**	**DI 220**
Density @ 15 °C, kg/l	0,91	0,95	0,96	0,95	0,95
Viscosity Index	73	70	87	70	73
Viscosity @ 40 °C, cSt	46	66	96	150	220
Viscosity @ 100 °C, cSt	6,2	7,6	10,3	12,9	16,5
Flash point, °C	250	250	250	255	255
Pour point, °C	-55	-37	-32	-34	-34
Auto ignition point, °C	406	406	411	426	426
4 ball wear test @ 75 °C, 40 kg, 1 hr, mm	0,4	0,4	0,4	0,4	0,4
Copper strip corrosion, 24 hrs @ 100 °C	1a	1a	1a	1a	1a
Vapour pressure @ 25 °C, torr	n/a	1x10^-5	1x10^-6	n/a	n/a
Evaporation 22h @ 99 °C (%)	<1	<1	<1	<1	<1
Demulsibility @ 54 °C, ml, min	40/39/1(5)	40/38/2(15)	39/39/1(60)	39/39/2(60)	38/39/3(60)