

# Technical Data Sheet

## ROTARY SCREW COMPRESSOR OIL

**Smartoil 6000**, is designed to deliver the highest performance lubrication of rotary sliding vane and screw air compressors. It uses an advanced additive system to provide excellent protection and performance for compressors.

## APPLICATIONS

**Rotary sliding vane and screw air compressors :**

**Smartoil 6000** is suitable for oil-flooded/oil-injected, single or two-stage compressors, operating at pressures of in excess of 25 bar and with air discharge temperatures of over 100°C (including intermittent operation under these conditions).

**Severe service conditions:**

May also be used where exceptionally high ambient temperatures are found, when the oil temperature cannot be reduced to normal levels.

**ABB Turboşarjlarda:**

**Smartoil 6000** is recommended for use in ABB turbochargers fitted to low and medium speed diesel engines used in marine and power generation applications.

## PERFORMANCE BENEFITS

### Long oil life – Maintenance saving

**Smartoil 6000** is capable of providing oil maintenance intervals of up to 12,000 hours (where allowed by manufacturers) even when operating at maximum discharge temperatures in excess of 100°C.

The advanced formulation of **Smartoil 6000** helps deliver exceptional oil life through:

- Exceptional resistance to thermal and chemical breakdown.
- Resist formation of deposits on rotating components in screw compressors and in sliding vane slots for continuous efficient operation.
- Exceptionally low levels of deposit formation to help maintain excellent internal surface cleanliness particularly in oil/air separator and coalescer systems.

Exact oil maintenance interval will depend on intake air quality, duty cycle and ambient conditions. For

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hot and humid type climates as found in the Asian and Pacific regions, a reduced oil drain period is recommended (consult OEM recommendations).

## Outstanding wear protection

**Smartoil 6000** helps provide exceptional protection and protection of internal metal surfaces from corrosion and wear.

It contains an advanced ashless anti-wear system to help prolong the life of critical parts such as bearings and gears.

## Maintaining system efficiency

**Smartoil 6000** is designed to provide rapid air release without excessive foaming to give trouble-free operation even under cycling conditions helping to ensure reliable start-up and continuous compressed air availability.

**Smartoil 6000** has low volatility and oil carryover to provide reduced oil top-up requirements in combination with increased air quality.

In addition, **Smartoil 6000** has excellent water separation properties to help ensure continuous efficient operation of the compressor even in the presence of water.

## Specifications and Approvals

**Smartoil 6000** meet the requirements of: ISO 6743-3A-DAJ.

## Seal Compatibility

**Smartoil 6000** oils are compatible with seal materials specified for use with mineral oils.

## TYPICAL PHYSICAL CHARACTERISTICS

<b>Smartoil 6000</b>		<b>46</b>
ISO Viscosity Grade	ISO 3448	46
Kinematic viscosity @ 40°C mm <sup>2</sup> /s	ASTM D 445	46
100°C mm <sup>2</sup> /s		7.7
Density @ 15°C kg/l	ASTM D 1298	0.843
Flash point COC °C	ASTM D 92	230
Pour point °C	ASTM D 97	<-45
Viscosity Index (VI)	DIN ISO 2909	135
Rust prevention properties	ASTM D 665-B	Geçer
Water separability (min.)	ASTM D 1401	10
RPVOT (dakika)	ASTM D 2272	2200

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FZG load carrying test Failure Load Stage	CEC-L-07-A-85	>12
<i>These characteristics are typical of current production. Whilst future production will conform to Smartoil's specification, variations in these characteristics may occur.</i>		

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