Product Data

CASTROL TRIBOL® 890™

Synthetic compressor oils

DESCRIPTION

CASTROL TRIBOL® 890 compressor oils are fully synthetic lubricants formulated for long service life and clean deposit-free operation. They are manufactured in several viscosity grades to satisfy the lubrication needs of essentially all air compressors and compressors of many other process gases as well.
CASTROL TRIBOL® 890/32, 890/46 and 890/68 for rotary compressors and vacuum pumps
CASTROL TRIBOL® 890/100 for reciprocating compressors, vane compressors and vacuum pumps

- The base fluids in CASTROL TRIBOL® 890 are made form polyol and dibasic-acid ester, synthesized and blended specifically to optimize properties vital to good compressor operations. They have a natural stability against decomposition and oxidation at high operating temperatures and thus a low tendency to form lacquers or deposits. The synthetic base fluids also have very low volatility and high flash and self-ignition temperatures.
- CASTROL TRIBOL® 890 oils are designed for excellent natural oil film strength and lubricity and are additionally formulated with load carrying, antiwear additives. An advanced technology additive system also enhances oxidation stability, inhibits foaming and protects against corrosion. CASTROL TRIBOL® 890 oils re not corrosive to either ferrous or non-ferrous metals.

APPLICATIONS

- Rotary vane and rotary screw compressors: where circulation systems inject oil directly into the air stream to lubricate, cool and seal the compressor, CASTROL TRIBOL® 890/32, 890/46 and 890/68 perform better than petroleum oils in flooded rotary vane and screw compressors. By minimizing varnish and carbon deposits, it can extend drain intervals from 1,000 hours to more than 5,000 hours in most vane compressors and sometimes to well over 8,000 hours in flooded screw compressors.
- Reciprocating compressors: CASTROL TRIBOL® 890/100 is used for both crankcase and upper cylinder lubrication in reciprocating compressors. Crankcase drain intervals can be greatly extended and significant reduction ins valve inspections and cleaning are possible. Lower volatility permits lower feed rates to reduce carryover and deposit formation.
- Hydraulic and circulating systems, gears, bearings: wherever rust and oxidation inhibited (R&O) turbine type of circulating oils are specified. CASTROL TRIBOL® 890 is particularly well suited where operating temperatures and ranges are extreme or marginal for petroleum oils.

ADVANTAGES

- In rotary vane and rotary screw compressors: lower volatility means less oil contamination of plant air, greater demister efficiency, less maintenance of filters and separators and reduced oil consumption.
- Superior oxidation stability and natural cleansing action prevent the formation and buildup of varnish, sludge or deposits. This minimizes wear and maintains clearances for maximum compressor efficiency and for optimum cooling and sealing.
- In single or multiple-stage reciprocating compressors: formation and buildup of varnish and carbon deposits are all but eliminated to prevent valve wear or sticking which allows recompression and provides clean intercoolers. The resulting benefits are less heat generation and reduced fire potential as well as reduced energy input required for constant discharge capacity and overall improved compressor efficiency.
- General advantages in all operations:
- Greatly extended oil life in circulation systems and crankcases – 4 to 8 times longer than petroleum oils.
- Lower maintenance and labor costs incurred from less frequent oil change, filter and accessory service, inspection and removal of deposits and parts replacement.
- Improved profits from fewer production interruptions.
- Year-round service from a single product with extreme low and high temperature range.
- Compatibility with virtually all seals and construction materials used in modern compressor system.

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Notes for use

- Changeover from petroleum oils to CASTROL TRIBOL® 890 should always be preceded by a very thorough cleanout. Although 890 oils are compatible with petroleum, any residual mineral oil will soon oxidize and contaminate CASTROL TRIBOL® 890, shortening the anticipated service life.
- CASTROL TRIBOL® 890 oils soften polycarbonate and should not be used with this material.
- Under no circumstances should these fluids be used where neoprene seals and E.P.D.M. elastomers sealing materials are present anywhere in the air system
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Technical data

	Unit	Value				Test method
CASTROL TRIBOL® 890	**-**	**890/32**	**890/46**	**890/68**	**890/100**	**-**
ISO viscosity grade	-	32	46	68	100	DIN 51519
Density at + 15°C	kg/m³	1001	982	968	960	DIN 51757
Viscosity at + 40°C + 100°C	mm²/s	30.4 6.1	46 7.2	68 8.6	100 9.5	DIN 51366
Flash point	°C	243	250	254	260	DIN ISO 2592
Fire point	°C	280	280	282	290	DIN ISO 2592
Pour point	°C	- 51	- 39	- 33	- 33	DIN ISO 3016
Self-ignition temperatures	°C	410	410	410	427	-
Conradson carbon residue (finished oil)	wt. %	0.05	0.04	0.02	0.02	DIN 51551
Copper corrosion (100 A3)	-	1				DIN 51759
Four ball wear test (1 h, 40 kg, 1800 min^{-1}, 75°C) Wear scar diameter	mm	0.5				ASTM D 2266
Characteristics of distillation residue after distillation of 80 vol.% Conradson carbon residue Kinematic viscosity at 40°C	 w. % mm²/s	 - -	 - -	 - -	 0.18 170	DIN 51356
Ageing characteristics Increase of Conradson carbon residue after ageing by passing air	wt. %	-	-	-	0.21	DIN 51352 part 1
Conradson carbon residue after ageing by passing air through the oil in the presence of iron oxide	wt. %	-	-	-	0.55	DIN 51352 part 2
Demulsibility (43-37-0)	-	pass				DIN 51599

1 mm²/s ≙ 1cSt

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Die technischen Daten sind Durchschnittswerte, die jedoch innerhalb der festgelegten Spezifikation liegen.
Diese Angaben entsprechen umfangreichen Prüfungen und Praxiserfahrungen. Bei der Vielfalt der Anwendungen kann daraus keine Verbindlichkeit für die Bewährung in jedem Einzelfall hergeleitet werden. Praxiserprobungen empfohlen.
Änderungen der Zusammensetzung bleiben Vorbehalten, gegebenenfalls in Absprache mit dem Kunden.
Weitere Produkt-Informationen sind bei der Anwendungstechnik der Deutsche BP Aktiengesellschaft zu erfragen.

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