

# Industrial-Grade Synthetic Compressor Oils



## Performance Designed for Industry



# AMSOIL Synthetic Compressor Oils help increase productivity and profitability.

AMSOIL synthetic lubricants are superior to conventional lubricants
in the areas of thermal and oxidative stability, expanded high
and low operational temperature ranges, increased heat trans-
fer capabilities and extended drain capabilities.

*Scientifically Designed* Created by science rather than by geological accident, AMSOIL synthetic base oils are pure, synthesized fluids obtained by precise chemical reaction. Their chemical makeup and unique properties improve virtually every aspect in lubrication – particularly in severe operating conditions.

**Pure Construction** The carefully controlled and monitored processes used to manufacture AMSOIL synthetic base oils virtually eliminates impurities, contaminants and unsaturation – the primary causes of lubricant breakdown that commonly plague conventional lubricants. Uniform molecular geometry typically improves efficiency and can reduce heat and energy consumption.

**Bottom Line** AMSOIL synthetic compressor oils are designed to increase productivity and profitability. Customers can expect longer lasting compressors and less unscheduled maintenance. In addition, AMSOIL compressor lubricants are formulated to last up to two times longer than conventional lubricants, resulting in lower maintenance and waste oil disposal costs. Through better lubrication, AMSOIL helps improve the bottom line.



### Advantage AMSOIL: Protection



AMSOIL synthetic compressor oils form virtually no foam during ASTM D-892 testing.

AMSOIL synthetic compressor oils are designed for optimum compressor lubrication and protection. They help extend compressor life and reduce maintenance costs by fighting the degradative processes found in compressor applications.

### Heat Control

Due to their low coefficient of friction, low internal fluid friction and good thermal conductivity, AMSOIL synthetic compressor oils can contribute to temperature reductions in hot-running equipment using conventional lubricants.

### Sludge, Varnish, Lacquer and Carbon Control

AMSOIL compressor oils' unique synthetic base oil technology is inherently resistant to thermal and oxidative breakdown. Combined with premium antioxidants, AMSOIL compressor oils eliminate or greatly minimize the formation of sludge, varnish, lacquer and carbon. In addition, their good solvency characteristics clean systems and provide keep-clean performance.

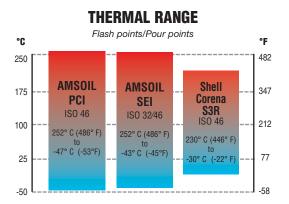


### Corrosion, Emulsion and Foam Control

AMSOIL synthetic compressor oils are stable in the presence of water, and they readily separate from water, helping prevent unwanted oil/water emulsions that inhibit an oil's ability to lubricate. This provides longer lubricant life, while allowing water to be easily drained from the sump. Top-quality rust preventatives offer complete and dependable protection to components in the presence of water or process contaminants, and anti-foam agents ensure an uninterrupted film of protection even in high-speed, high-pressure operations.

### Wear Protection

AMSOIL compressor oils' non-detergent additive system is the last line of defense against wear. It forms a strong barrier on parts, helping prevent metal-to-metal contact. As a result, wear and maintenance decrease, while component life increases.



### **All-Season Performance**

Low pour points and good thermal stability allow AMSOIL compressor oils to be used over a wide temperature range, reducing the need for seasonal fluid changes. In cold temperatures, AMSOIL compressor oils provide easier starts and fast post-startup lubricant circulation. In hot temperatures, AMSOIL compressor oils ensure superior protection by maintaining a thick lubricating film between moving parts.

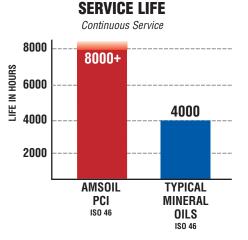
### **Greater Safety**

AMSOIL compressor oils' flash, fire and auto-ignition points; their resistance to carbon deposit formation and their ashless additive system minimize the incidence of ignition-promoting hot spots.

Note: AMSOIL compressor oils are not fire-resistant compressor oils.

## Advantage AMSOIL: Savings





Compressor oil affects not only compressor life, but profitability. AMSOIL compressor oils can increase profitability by enhancing efficiency and reducing maintenance costs.

### **Enhanced Efficiency**

High heat leads to deposit formation. When enough deposits accumulate on exhaust valves, they cannot close completely, allowing some of the exhausted, heated air back into the compression chamber. This air becomes even hotter upon compression, and hotter still each time the exhaust valve fails to close and allows more exhausted hot air back into the chamber. The problem is compounded further as deposits continue to build due to the increasing heat levels in the compression chamber. This recompression leads to diminished efficiency and can eventually result in catastrophic damage. AMSOIL compressor oils' low frictional characteristics minimize drag, reducing heat and maximizing energy for gas compression. AMSOIL compressor oils inhibit or prevent the formation of carbon deposits on valves, limiting the detrimental effects of recompression.

### Lower Maintenance Costs

AMSOIL synthetic compressor oils may be used up to 8000+ hours when used with a conscientiously-applied oil sampling and preventative maintenance program. Extended drain intervals effectively cut downtime, labor and disposal costs.

## AMSOIL SIROCCO<sup>®</sup> Synthetic Compressor Oil



AMSOIL SIROCCO<sup>®</sup> Synthetic Compressor Oil (SEI) is a superior-quality lubricant formulated with premium synthetic ester technology. It is designed as a direct replacement for Polyglycol (PAG) fluids such as Sullair Sullube 32 and Ingersoll-Rand Ultra-Coolant.

### Cost Savings

AMSOIL SIROCCO Synthetic Compressor Oil provides significant savings over PAG-type fluids. In fact, SIROCCO is priced an average of \$1,600 to \$2,000 less per drum than Ingersoll-Rand Ultra-Coolant or Sullair Sullube 32.

### **Application Recommendations**

AMSOIL SIROCCO Synthetic Compressor Oil is a multi-viscosity oil that eliminates the need for multiple compressor oils, and may be used in applications calling for either an ISO-32 or ISO-46 viscosity compressor oil or coolant. It is recommended for use in single and multi-stage rotary screw compressors and vacuum pumps calling for these viscosities.



AMSOIL SIROCCO quickly separates from water, allow-

ing the water to be removed.

### Demulsibility

When air is compressed, moisture forms inside compression chambers, building up contamination levels and saturating the compressor oil. In order to prevent rusting, increased wear and breakdown in lubricant film, compressor oils must readily separate from water. Test results demonstrate that AMSOIL SIROCCO provides superior demulsibility, increasing compressor protection, allowing extended lubricant life and easing water removal from the sump.

### Compatibility

AMSOIL SIROCCO is compatible with the vast majority of compressor oils on the market and many materials commonly used in compressors. It eliminates contamination due to incompatibility and requires no flushing when changing over from mineral (petroleum) and synthetic oils, including glycolbased compressor oils. SIROCCO is <u>not compatible</u> with silicone compressor oils such as Sullair 24KT.

Consult your AMSOIL Industrial Distributor or AMSOIL INC. for additional information on compatibility.

### Applications

AMSOIL SIROCCO can be used in rotary screw compressors and is a direct replacement for ISO-32 and ISO-46 mineral oil, polyalphaolefin, polyolester, polyglycol and diester-type compressor oils.

# AMSOIL PC Series Synthetic Compressor Oil



#### **Benefits:**

- Excellent anti-wear protection
- Anti-foam fortified
- Resistant to carbon formation
- Thermally stable
- Extends oil drain intervals, up to 8,000 hours
- Resists water contamination
- Low frictional properties
- Promotes reduced energy consumption

#### **Applications**

AMSOIL PC Series Synthetic Compressor Oil can be used in rotary screw, vane and reciprocating compressors and vacuum pumps.

# AMSOIL DC Series Synthetic Compressor Oil



#### **Benefits:**

- Excellent anti-wear protection
- Anti-foam fortified
- · Virtually eliminates carbon deposits on valves
- Promotes reduced energy consumption
- Resists water contamination
- Extends oil drain intervals, up to 8,000 hours
- Minimizes or eliminates recompression
- Reduces downtime and maintenance costs
- Effectively lubricates at high temperatures

#### Applications

AMSOIL DC Series Synthetic Compressor Oil can be used in reciprocating and vane compressors and vacuum pumps. AMSOIL Compressor Oils Typical Technical Properties

Compressor Oil	SEI	РСН	PCI	PCJ	PCK	DCK	DCL
ISO Viscosity Grade ASTM D-2422	IS032/46	ISO 32	ISO 46	ISO 68	ISO 100	ISO 100	ISO 150
SAE Grade		SAE 10W	SAE 20	SAE 30	SAE 40	SAE 30	SAE 40
Kinematic Viscosity @ 100°C ASTM D-445	6.3	6.1	7.3	10.5	13.4	11.3	13.7
Kinematic Viscosity @ 40°C ASTM D-445	40.1	32.8	43.0	68.1	100.2	99.1	148.5
Viscosity Index ASTM D-2270	103	135	132	145	133	100	86
Flash Point °C (°F) ASTM D-92	252 (486)	260 (500)	252 (486)	250 (482)	262 (504)	250 (482)	258 (496)
Fire Point °C (°F) ASTM D-92	280 (536)	274 (525)	276 (529)	276 (529)	274 (525)	282 (540)	282 (540)
Pour Point °C (°F) ASTM D-97	-43 (-45)	-53 (-63)	-47 (-53)	-40 (-40)	-44 (-47)	-40 (-40)	-31 (-24)
Four-Ball Wear Test ASTM D-4172 40kg, 1200 rpm, 75°C, 60 min.	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Copper Strip Corrosion Test ASTM D-130	1A	1A	1A	1A	1A	1A	1A
Rust Tests ASTM D-665A	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Foam, mI ASTM D-892 Sequence I, II, and II	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0
Demulsibility ASTM D-1401 Oil/Water/Cuff Minutes to 0 Cuff	40/40/0 (10)	40/40/0 (10)	40/40/0 (10)	40/40/0 (5)	40/40/0 (10)	40/40/0 (15)	40/40/0 (15)
Most common compressor application	Rotary Screw	Rotary Screw	Rotary Screw	Piston or Screw	Piston	Piston (Use when air discharge temperatures are high)	Piston (use when air discharge temperatures are high)
		NOT RE	NOT RECOMMENDED FOR BREATHING AIR OR REFRIGERATION COMPRESSORS	ED FOR BI	REATHING	AIR OR S	

"I was initially attracted to AMSOIL for its price. Now, I'm switching all the plant's air compressors to AMSOIL because I'm impressed with the product. AMSOIL Compressor Oil was found 'fit for ongoing service' after 8400 hours of use. Performance like that takes a top-quality product.

"AMSOIL gives me the best of both worlds: the top-quality performance of a synthetic and manufacturer-direct savings. That's an unbeatable combination."

- Don Ussery, World Color Printing

"I credit AMSOIL Compressor Oil with savings in five areas. By helping our compressors run 20 to 40° F cooler, we no longer need fans and special ventilation systems for heat reduction. With those cooler operating temperatures and the fluid's superior stability, our valves don't carbon up, so we don't have to replace them as often. Our compressors draw 10 percent less amperage with AMSOIL. Our oil consumption is way down. And we've gone from three-month to 8000-hour compressor oil drain intervals. Multiply those savings times thousands of compressors and you can see why we're installing AMSOIL nationwide."

- John Small, Sears

For applications and recommendations, contact your local AMSOIL industrial sales representative or AMSOIL INC.



The First in Synthetics 🛚