



# Industrial-Grade Synthetic Compressor Oils



PERFORMANCE DESIGNED FOR INDUSTRY



## *The FIRST in Synthetics ...the FIRST in Performance*

*AMSOIL Synthetic Compressor Oils increase the productivity and profitability of your operations.*

AMSOIL synthetic lubricants are superior to conventional lubricants in areas of thermal and oxidative stability, expanded high and low operational temperature ranges, increased heat transfer capabilities, reduced energy consumption and extended drain capabilities.

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### *Scientifically Designed*

Created by science rather than by geological accident, AMSOIL synthetic base fluids 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.

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### *Pure Construction*

The carefully controlled and monitored processes used to manufacture AMSOIL synthetic base fluids eliminates impurities, contaminants and unsaturation – the primary cause of lubricant breakdown which commonly plagues conventional lubricants. Uniform molecular geometry improves efficiency and has demonstrated reduced heat and energy consumption – a direct savings.

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### *Bottom Line*

AMSOIL synthetic compressor oils increase the productivity and profitability of your operations. By providing superior overall lubricating performance, you can expect longer lasting compressors, fewer unscheduled maintenance requirements, less oil consumption and improved operating efficiency. In addition, AMSOIL compressor lubricants last several times longer than conventional lubricants resulting in lower maintenance and waste oil disposal costs. Through better lubrication, AMSOIL improves your bottom line.



# The FIRST in Synthetics ...the FIRST in Quality

## 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 extend compressor life and reduce maintenance costs by fighting all of the degradative processes found in compressor applications.

### Heat Control

AMSOIL synthetic compressor oils have demonstrated temperature reductions of hot-running equipment using conventional lubricants by as much as 40°F. This is due to the oil's low coefficient of friction, low internal fluid friction and good thermal conductivity.

### Sludge, Varnish, Lacquer and Carbon Control

AMSOIL compressor oils' unique synthetic base oil technology is inherently resistant to thermal and oxidative breakdown. These oils, combined with premium antioxidants, result in oils that eliminate or greatly minimize the formation of sludge, varnish, lacquer and carbon. Also, the good solvency characteristics clean systems as well as provide keep-clean performance.



Before AMSOIL, discharge is an oil/water emulsion

After AMSOIL, emulsion is eliminated

### Corrosion, Emulsion and Foam Control

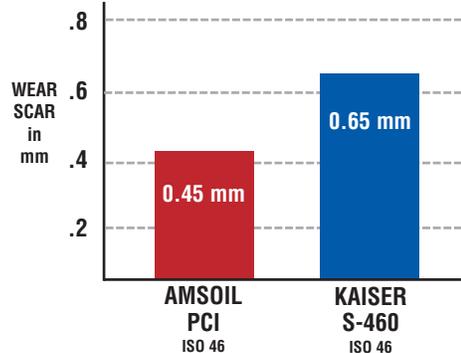
AMSOIL synthetic compressor oils are stable in the presence of water, and they readily separate from water. This prevents unwanted oil/water emulsions that inhibit an oil's ability to lubricate. It allows for longer lubricant life, and it means water can easily be drained from the sump. The top-quality rust preventatives offer complete and dependable protection to components in the presence of water or process contaminants. And an uninterrupted film of protection is ensured by anti-foam agents that keep the fluid foam-free even in high-speed, high-pressure operations.

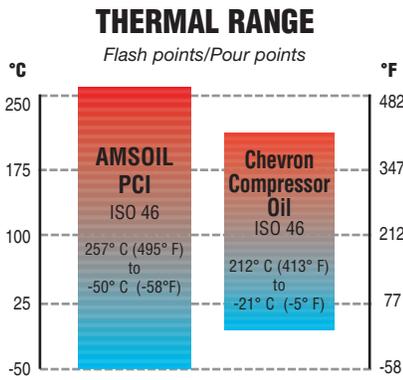
### Wear Protection

AMSOIL compressor oils' non-detergent additive system is the last line of defense against wear. The additive system forms a strong barrier on parts, preventing metal-to-metal contact, and as the industry standard Four-Ball Wear Test (ASTM D-4172) indicates, AMSOIL compressor oils outperform competitive compressor oils, even other synthetics. As a result, wear decreases, maintenance decreases, component life increases and you benefit financially.

#### FOUR-BALL WEAR TEST

1200 rpm, 75° C, 40 kg., 1 hr





## All-Season Performance

Low pour points and good thermal stability allow AMSOIL compressor oils to be used in a wide temperature range. In cold temperatures, AMSOIL Compressor Oils provide easier starts and fast post-start-up lubricant circulation to parts. In higher temperatures, AMSOIL compressor oils' film strength maintains a thick lubricating film between moving parts, ensuring complete protection all season long. These features reduce the need for seasonal fluid changes and mean an overall savings for you.

## Greater Safety

AMSOIL synthetic compressor oils make your plant a safer place to work by minimizing fire and explosion hazard. AMSOIL compressor oils' flash, fire and auto-ignition points are higher than those of competitive petroleum fluids. Plus, their resistance to carbon deposit formation combined with the ashless additive system minimizes the incidence of ignition-promoting hot spots.

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

# Advantage AMSOIL: Savings



Your choice of compressor oil affects more than compressor life. It affects profitability. With AMSOIL compressor oils, you will increase your profitability through lower energy consumption, lower lubricant consumption and lower maintenance costs.

## Enhanced Efficiency

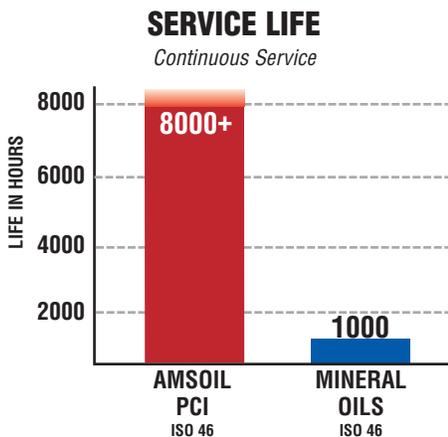
High heat leads to the formation of deposits. When enough deposits accumulate on exhaust valves, the valves cannot close completely, allowing some of the exhausted, heated air back into the compression chamber. This air is made even hotter upon compression, and hotter still each time the exhaust valve 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 is known as recompression. Recompression leads to diminished efficiency and can eventually result in a violent explosion. 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.

## Reduced Lubricant Consumption

AMSOIL synthetic compressor oils reduce fluid loss by readily separating oil from air in the separator, increasing the separator's efficiency and reducing the likelihood of oil ending up downstream. Also, their low volatility and excellent stability in the face of shearing forces and high temperatures leave more lube in the system, less lost to operations.

## 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 cut the downtime, labor and disposal costs associated with lube changes to an eighth of that required by conventional fluids.



# AMSOIL SIROCCO® Synthetic Compressor Oil



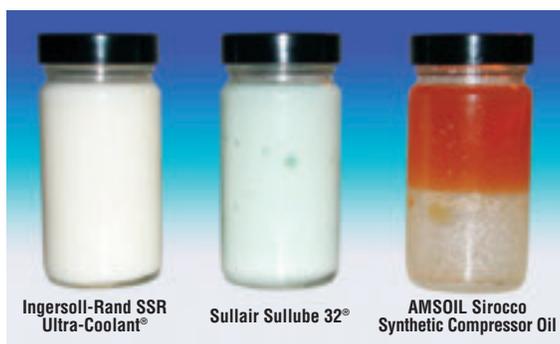
AMSOIL SIROCCO® Synthetic Compressor Oil (SEI) is a superior-quality lubricant formulated with premium synthetic ester technology. It was designed as a direct replacement for Polyglycol (PAG) fluids such as Sullair Sullube 32 and Ingersoll-Rand Ultra-Coolant.

## 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 meeting the requirements of 5W-20. It 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.



## Demulsibility

When air is compressed, moisture forms inside compression chambers, building up to 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 over competing glycol-based compressor oils, increasing compressor protection, allowing for extended lubricant life and easing water removal from the sump.

*The first two oils are glycol-based and have difficulty separating from water, causing them to form damaging emulsions. AMSOIL SIROCCO quickly separates from water, increasing compressor protection.*

## 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 glycol-based compressor oils. SIROCCO is not compatible with silicone compressor oils such as Sullair 24KT.

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

## Application and Cross-Reference

AMSOIL SIROCCO can be used in rotary screw compressors and is a direct replacement for oils such as:

- Ingersoll-Rand Ultra-Coolant
- Sullair Sullube 32
- Anderol PG Supreme
- Dow Corning Molycote L-3246
- Exxon Glycolube
- Gardner-Denver AEON Bio
- Kaeser Sigma S-320 and 460
- Leroi SSL-46 Plus
- Palatek Pallube 32
- PSI PG 3200
- Quincy Quin-syn PG
- Summit Supra 32 and Supra Coolant
- Texaco Cetus PGE 32
- Ultrachem Coolant 32 PE

It can also be used in place of ISO-32 and ISO-46 mineral oil, polyalphaolefin, polyolester and diester-type compressor oils.

# AMSOIL Synthetic PC Compressor Oils

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## **Benefits:**

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

## **Application and Cross-Reference**

AMSOIL Synthetic PC Compressor Oils can be used in rotary screw, vane and reciprocating compressors and vacuum pumps and are a direct replacement for oils such as, but not limited to:

- Summit SH-46
- Anderol 3046
- Royal Purple Synfilm 46
- Atlas Copco HD-Rotofluid Plus
- Kaeser S-460
- Gardner-Denver AEON 9000 SP
- Quincy Quin-syn Plus
- Atlas Copco GA OK Compressor Cleaner
- Ingersoll-Rand Ultra Coolant Plus
- Mobil Rarus SHC 1025 and Sullair SRF II/8000

# AMSOIL Synthetic DC Compressor Oils

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## **Benefits:**

- Excellent anti-wear protection
- Anti-foam fortified
- Virtually eliminate carbon deposits on valves
- Promote reduced energy consumption
- Resist water contamination
- Extend oil drain intervals up to 8,000 hours
- Minimize or eliminate recompression
- Reduce downtime and maintenance costs
- Effectively lubricate at high temperatures

## **Application and Cross Reference**

AMSOIL DC Compressor Oils can be used in reciprocating and vane compressors and vacuum pumps. They are a direct replacement for oils such as, but not limited to:

- Castrol Syncom 100
- Chevron Syntholube 100
- Compare CS 300 and CS 400
- CPI 4100-100 and 4100-150
- Exxon Synestic 100 and 150
- Gardner Denver AEON GD 5000
- Hydrotex 852 Syn-Diester
- Ingersoll-Rand XL-700 and T30 Select
- Kaeser Sigma 8000S-100
- Mattei Rotoroil 8000F2
- Mobil Rarus 827 and 829
- Pennzoil Pennzcom S100
- PSI SX100 and SX150
- Quincy Quincip 100
- Royal Purple Synfilm Recip 100 and 150
- Shell Corena DE 100 and 150
- Summit DSL 100 and 125
- Texaco Cetus DE 100
- TRC Syn-Comp 100

## AMSOIL Compressor Oils Typical Technical Properties

<b>Compressor Oil</b>	<b>SEI</b>	<b>PCH</b>	<b>PCI</b>	<b>PCJ</b>	<b>PCK</b>	<b>PCL</b>	<b>DCK</b>	<b>DCL</b>
ISO Viscosity Grade ASTM D-2422	ISO32/46	ISO 32	ISO 46	ISO 68	ISO 100	ISO 150	ISO 100	ISO 150
SAE Grade	SAE 5/20	SAE 10W	SAE 20	SAE 30	SAE 40	SAE 50	SAE 30	SAE 40
Kinematic Viscosity @ 100°C ASTM D-445	6.6	6.2	7.6	10.3	13.6	17.9	11.3	13.7
Kinematic Viscosity @ 40°C ASTM D-445	40.2	33.1	43.7	67.8	100.5	148.4	99.1	148.5
Viscosity Index ASTM D-2270	117	137	142	138	136	134	100	86
Flash Point °C (°F)	256 (522)	264 (507)	257 (495)	258 (496)	264 (507)	254 (489)	250 (482)	258 (496)
Fire Point °C (°F)	282 (583)	278 (532)	272 (522)	274 (525)	276 (529)	274 (525)	282 (540)	282 (540)
Pour Point °C (°F)	-44 (-47)	-53 (-63)	-50 (-58)	-48 (-54)	-45 (-49)	-42 (-44)	-40 (-40)	-31 (-24)
NOACK % Volatility DIN 51581	2.9%	3.8%	4.2%	3.0%	2.8%	2.4%	4.6%	3.9%
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	0.45
Copper Strip Corrosion Test ASTM D-130	1A	1A	1A	1A	1A	1A	1A	1A
Rust Tests ASTM D-665	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Foam, ml ASTM D-892 Sequence I, II, and III at end of test	0/0/0	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 (5)	40/40/0 (5)	40/40/0 (5)	40/40/0 (5)	40/40/0 (5)	40/40/0 (15)	40/40/0 (15)
Most common compressor application	Rotary Screw	Rotary Screw	Rotary Screw	Piston or Screw	Piston	Piston	Piston (Use when air discharge temperatures are high)	Piston (use when air discharge temperatures are high)

**NOT RECOMMENDED FOR BREATHING AIR OR REFRIGERATION COMPRESSORS**



*"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.

**AMSOIL**  
*The First in Synthetics®*