



Ultra Coolant

The Leading Air Compressor Coolant



 **Ingersoll Rand**



Ultra Coolant

**The Best
Performance.**

The Best Cost.

The Best Coolant.



Ultra Coolant is not an oil. Ultra Coolant is an engineered synthetic coolant specifically designed to help rotary screw compressors maintain peak performance at a full range of operating temperatures. Compelling benefits include cost savings and biodegradability.



When you are searching for the best possible coolant for your compressor, you want solid and tangible product advantages that will make a difference every day.



How Ultra Coolant Impacts Your Operation

Non-Varnishing

Ultra Coolant provides varnish free operation and dissolves varnish left by other lubricants. That means you save on energy, as well as extend the reliability and life of your system.

Non-Foaming

Foaming increases lubricant carryover. Ultra Coolant's carryover can be as little as one-fourth that of hydrocarbon oils and half that of other synthetic fluids, reducing contamination and costs.

High Thermal Conductivity

Because Ultra Coolant has such a high thermal conductivity value, your compressor will run cooler and more efficiently, even when the operating temperature is high.

Long Life

As much as 8 times the life of petroleum oils, longer life than most PAO's. This saves you money on product cost and lubricant disposal.

High Flash Point

Ultra Coolant has a high flash point (520°F/271°C), enhancing operational safety. This is higher than most PAO's, diesters and other synthetics.

Biodegradability

Ultra Coolant's biodegradability can eliminate the need for an oil-water separator and reduce the hassle of condensate disposal, subject to local or national approval.

Excellent Cooling

Ultra Coolant's unique formulation combines excellent cooling with lubrication properties for use in applications where superior performance is critical. The result is lower operating temperature in extreme conditions due to about 10% higher thermal conductivity than PAO's.





This is a simulation of what a compressor lubricant is subjected to in a severe application. Other synthetic fluids show varnish and deposit formation, leaving Ultra Coolant the clear winner.

The Varnish-Free Advantage.

Ultra Coolant's unique basestock blend prevents any formation of varnish. Other conventional hydrocarbon oils oxidate and form varnish inside the compressor package that can lead to:

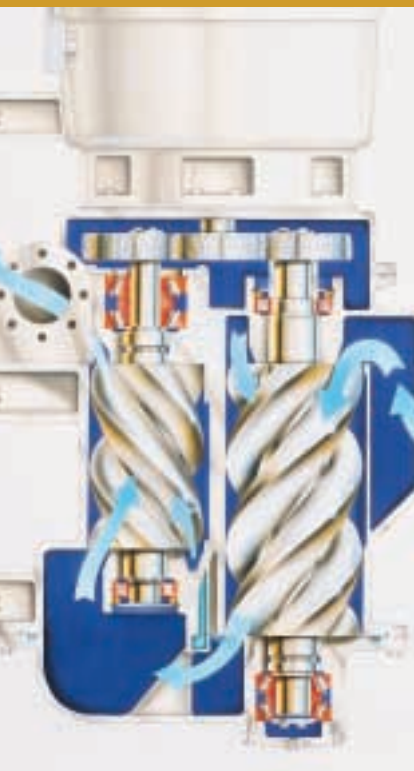
- Elevated temperatures
- Increased brake horsepower
- Plugged separators
- Accelerated compressor wear and reduced operational life.

Fluid Analysis

Fluid analysis is an important part of a predictive maintenance program, as it can increase a compressor's efficiency and reveal a number of equipment problems before they result in system failure.

Benefits include:

- Significantly extend the life of an air compressor and its parts
- Reduce machine and plant downtime
- Improve compressor reliability, productivity and effectiveness
- Provide extended drain intervals
- Decrease machine maintenance, repair and/or replacement costs
- Ingersoll-Rand's fluid analysis program can test any type of fluid from any type of compressor (even other brands).



For more information on our Fluid Analysis Program and how it can improve the performance of your installation, contact your local Ingersoll-Rand representative.



How often do you change your coolant?

Competitors' lubricants require changing up to eight times as often as Ultra Coolant.

How Lower-Priced Coolants can Cost You a Fortune.

Under normal conditions, Ultra Coolant lasts a full two years or 8,000 hours. The most obvious way other lubricants cost you money is that many must be changed up to eight times more often than Ultra Coolant. Although the unit price of competitors' lubricant may seem attractive, try multiplying the price by eight and see if it still looks good. Then take into consideration the other ways Ultra Coolant saves you money, such as reduced carryover, maintenance and energy costs, and Ultra Coolant clearly stands out as the highly cost efficient lubricant that it really is.

Approved for Non-IR Compressors.

To prove Ultra Coolant's superiority, it has been certified by Ingersoll-Rand for approval in several OEM compressors* including:

- Atlas Copco
- CompAir
- Gardner-Denver
- Kaeser
- Quincy
- Sullair

This allows you the opportunity to service all of your rotary compressor needs with one lubricant – Ultra Coolant.

**Machines built in 1994 or after.*



OR

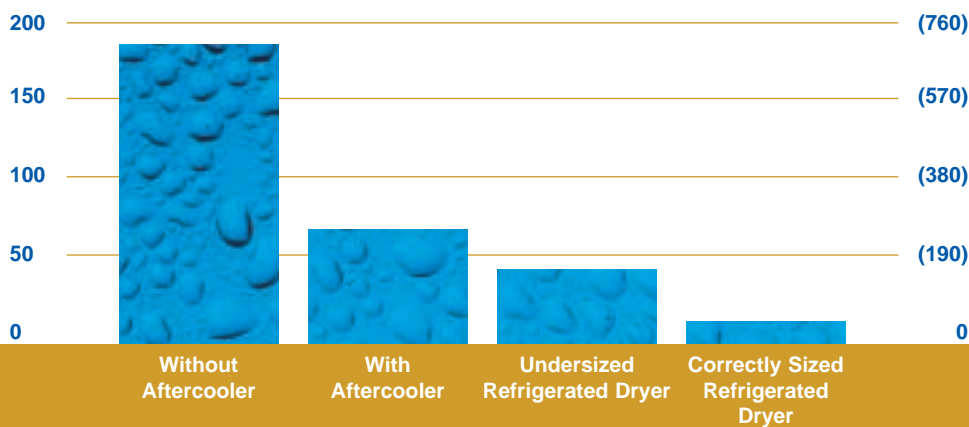


PLUS



Level of Condensate Generation:

Gallons (Litres) of water / 24 hr. / 1000 SCFM (28,300 litres/min)



A 100 HP (75 kW) compressor operating with an aftercooler for 8,000 hours a year will produce over 10,000 gallons (38,000 litres) of condensate, enough to fill a swimming pool. The good news is most waste water regulators accept direct discharge of condensate from compressors running with Ultra Coolant.



The Biodegradability of Ultra Coolant Saves Time and Money.

Your rotary screw air compressor produces significant amounts of condensate every day. All of the condensate contains traces of coolant which must be disposed of in accordance with local and/or national waste water regulations.

In most Ultra Coolant applications you will be able to obtain approval to dispose of the condensate directly into the waste water treatment system, eliminating the need to purchase and maintain separation devices. With other coolants the lubricant must be separated prior to its disposal.



Recycling Makes Good Sense

Of course, Ultra Coolant itself cannot be discarded into the water or onto the ground. However, it can be recycled. Nationally approved oil recyclers can refer you to a local collector in your area. For more information on condensate disposal requirements in your area, contact your local sewage treatment authority to let them know that you are using Ultra Coolant.

Any way you look at it, Ultra Coolant is easier on your budget, your busy schedule and the environment.

Beware of Competitive Coolants.

Many competitors claim that their lower priced lubricants are actually the same as, or comparable to, Ultra Coolant. Many of our customers after using those fluids however, have reported problems such as shorter fluid life, reduced component life, higher operating temperatures, and reduced operating efficiency.

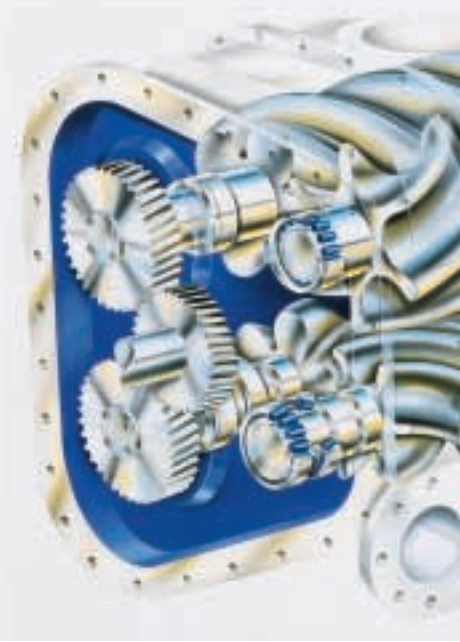
Unfortunately, this is the way some customers discover that they have been sold something other than genuine Ultra Coolant. Some competitors actually label their products illegally with the Ultra Coolant name.

Never accept anything but our authentic Ultra Coolant container. You will get the most cost efficient, high performance coolant available for Ingersoll-Rand rotary screw air compressors.

Typical Properties of Ultra Coolant Synthetic Rotary Screw Air Compressor Lubricant:

Property	Test Method	Performance
SAE Viscosity Classification	SAE J300	10W-20
ISO Viscosity Classification	ASTM D2422	46
Viscosity Index	ASTM D2270	172
Viscosity, cSt(SUS),		
@ 0°F/-17.8°C	ASTM D445	2400 (11120)
@ 100°F/37.8°C	ASTM D445	52 (242)
@ 104°F/40°C	ASTM D445	48 (223)
@ 210°F/98.9°C	ASTM D445	9.1 (56)
@ 212°F/100°C	ASTM D445	9.0 (55.8)
Pour Point, °F (°C)	ASTM D97	-58 (-50)
Flash Point, °F (°C)	ASTM D92	520 (271)
Auto-ignition Temperature, °F (°C)	ASTM E659	731 (388)
Copper Strip Corrosion, 3 hrs. @ 212°F/100°C	ASTM D130	1A
4-Ball Wear, 40kg, 1 hr., 1800 RPM, (mm)	ASTM D2783	0.77
Weld Point, kg	ASTM D2783	130
Evaporation Loss, %, 300°F/149°C, 73 hrs.	ASTM D2878	0.53
Specific Gravity	ASTM D941	0.9901
Ferrous Metal Corrosion (Rust Test)		
Distilled Water	ASTM D665A	Pass
Synthetic Sea Water	ASTM D665B	Pass
Foam Tendency (Sequence I, II, III)	ASTM D892	Nil
Density (Grams per CC @ 25°C)	ASTM D941	0.9872
Total Acid Number	ASTM D664	0.05
pH	ASTM D664	9
High Pressure Oxidation Test (Hr.)	ASTM D2272	18
Specific Heat, cal/gm/°C, @190°F/88°C		0.497
Thermal Conductivity, cal/(cm) (sec.) (°C)		
@ 77°F/25°C		3.62
@ 149°F/65°C		3.51
@ 203°F/95°C		3.43
Coefficient of Expansion, %/°F (%/°C)		0.04 (0.073)

For consultation and to purchase Ultra Coolant for your rotary screw compressor, please contact your local Ingersoll-Rand representative.



Ingersoll-Rand air compressors are not designed, intended or approved for breathing applications. Ingersoll-Rand does not approve specialised equipment for breathing air applications and assumes no responsibility or liability for compressors used for breathing air service.

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