Techno Mechanical Solutions

FRIGI-TECH ™

Polarized Refrigeration Oil Supplement

Benefits Quick Look
Quiets Compressor Noise by Mitigating Friction, Extending Life of Parts, Bearings and Seals
Eliminates Oil Fouling from Refrigerant Lines, Restoring Heat Exchanging Properties
Increases Cooling Capacity, Saving Energy by Reducing Compressor Run Time
Prevents Oil Oxidation, Reducing Corrosion
Simple Installation, Only One Treatment Necessary for Eliminating Oil Fouling
Does Not Voids Manufacturer's Warranty
Highly Recommended for Ammonia Systems

Frigi-Tech ™ is designed for use in refrigeration, air conditioning, chillers, heat pumps and any hermetic or non-hermetically sealed lubrication systems. Frigi-Tech ™ will give new life to bearings, seals, and all compressor parts, increase cooling capacity, quiet compressor noise, and save electricity. It is compatible with new and old refrigerants as we custom blend to meet manufacturer's specifications. Very effective in Ammonia systems. **Frigi-Tech ™** will not void Manufacturer's Warranty.

Food Grade Quality Available (Code of Federal Regulations 21CFR178.3570)

"Oil fouling of heat transfer surfaces of air conditioning and refrigeration systems, will cause a loss of about 7% efficiency the first year, 5% the second year and 2% per year the following years." **(Per 1998 ASHRAE Handbook, Refrigeration, Chap.2.9)**

Frigi-Tech ™ restores the heat exchange and any losses of efficiency by remedying the oil fouling that has occurred. For restoring heat exchanging properties only one treatment is necessary for the life of the system.

Frigi-Tech will cause the insulating layer of oil to return to the compressor sump and no longer build up on heat transfer surfaces

TECHNO MECHANICAL SOLUTIONS, LLC • WWW.TECHNO-MS.COM •
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... containing two anti-oxidation, anti-wear systems that...

REDUCE FRICTION

REDUCE ENERGY COSTS

EXTEND EQUIPMENT LIFE

... a special blend of agents, both contact and friction activated

Reduces friction of moving compressor parts

Provides stabilized boundary lubrication protection during operation as well as startup conditions

Improves heat exchange by displacement of refrigeration oil build-up

Provides oxidation and corrosion protection

START SAVING TODAY!

And get compressor protection too

TMS

Frigi-Tech

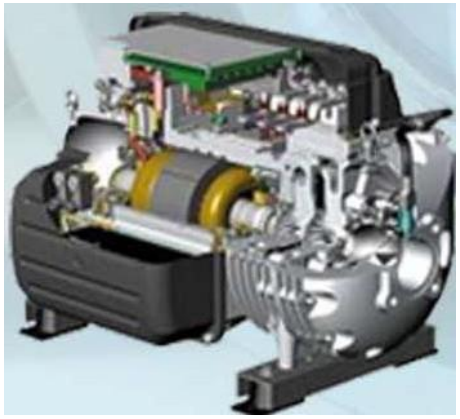
FRIGI-TECH TM

• Reciprocating Compressor

Reciprocating compressors are treated with Frigi-Tech in the amount of 10% of the total oil capacity. When treating a HERMETIC compressor, just add 10% Frigi-Tech to the total oil capacity the compressor manufacture originally installed in the compressor. A charging cylinder can be used without having to change the refrigerant charge in the system.

When treating a SEMI-HERMETIC serviceable type compressor, Frigi-Tech recommends valving off the compressor and removing 10% of the refrigeration oil and replacing same with 10% Frigi-Tech.

A good quality refrigeration oil pump is a quick way to install Frigi-Tech. Care should be taken to insure good evacuation of the compressor before placed back in service.



• Rotary and scroll Compressors

Rotary and scroll compressors should be treated as a hermetic compressor and no more than 10% should be added.

• Screw compressors

Screw compressors should be treated same as a semi-hermetic compressor.

• Centrifugal Compressors

It is recommended that Frigi-Tech be added at the same time of the oil change to take advantage of treatment benefits. 10% oil is replaced with an equal amount of Frigi-Tech.

After initial treatment, only 5% Frigi-Tech needs to be added during subsequent oil changes.

• How FRIGI-TECH Works

Frigi-Tech contains two anti-wear, anti-oxidation systems. The primary system stays in solution and is triggered by temperature, on an as needed basis only. The secondary system is metal seeking and latches onto all internal metal surfaces.

Frigi-Tech will therefore produce maximum reduction under the most extreme load conditions (at start up, and under maximum heat load operation). That is the reason our field tests generally show greater reduction in peak power than steady state power reduction.

The steady state improvement in power consumption is mostly due to the secondary system. To quote the ASHRAE handbook 1985 Fundamentals, page 4.11 "the vapor entering the condenser often contains a small percentage of impurities such as oil. Oil forms a film on the condensing surfaces, creating additional resistance to heat transfer."

The second systems will penetrate this oil film and dislodge it from the tube surfaces, where the system's refrigerant will then absorb the displaced oil and return it to the compressor sump, returning the heat exchange ability to like new condition.

Frigi-Tech is compatible with all popular refrigerants, including the new reformulated refrigerants and Ammonia!