



- Over 70 Years Combined Refrigeration, Engineering, and Service Experience
- In-house Professional Engineer
- PLC Programming
- UL Listed Panel Shop
- Remote Operation, Monitoring & Troubleshooting of Installed Systems
- Complete Freezing Systems for Factory Trawlers, Longliners, Groundfisheries, Vessels & Shore Plants
- Ammonia Conversions with DNV, ABS, and any other Certification Agencies
- Energy Efficiency & Environmentally Conscious
- Complete RSW and Brine Freezing Systems
- Complete Blast, Tunnel & Plate Freezing Systems
- · Industrial Refrigeration and HVAC
- · 24/7 Full Service and Parts Support
- · Installation Services, Journeyman Service Engineers & Certified Welders
- PSM Certified
- · All Refrigerant Types Supported



## Always In The Lead

For over thirty years, Teknotherm Refrigeration has been synonymous with quality and durability. From our unique, automation controls that can be run from anywhere to custom engineering and ammonia refrigeration, we continue to push the boundaries of efficiency and economy, with an eye toward environmental responsibility.

We offer a complete line of marine and industrial refrigeration solutions, including RSW systems, chillers, condensers, plate freezers, ice machines, compressors, and more. We can custom design and fabricate a system that will help maximize your profits through increased efficiency, durability, and performance.













Teknotherm Refrigeration has been a world leader in the field of marine and industrial refrigeration for decades. We provide engineering, fabrication, installation, service, and parts for almost any kind of cooling, freezing, and ice making equipment. With our in-house engineers, UL listed panel shop, and complete fabrication facility, we can handle all your refrigeration, electrical, installation, and piping needs.

Our areas of focus are freezing and refrigeration for the commercial fishing and merchant marine sectors, seafood industry, shore plants, cold storage, and industrial HVAC. We have a complete design and fabrication facility and manufacture chillers, condensers, and other cooling products, as well as our own system controls and automation. Everything from design to construction happens under one roof, giving exceptional quality control.

With service throughout the world, we can install, repair, and service virtually any refrigeration and cooling system on any vessel or shore facility. Call us at 1-800-782-1997 or visit www.teknotherm-inc.com



# **Complete Refrigeration Solutions**

- RSW Systems (Portable and Built in)
- Chillers for RSW, RFW, and AC
- Freshwater and Seawater Condensers
- PLC Controls and Programming
- Ice Makers

Evaporators

- Plate Freezers, Tunnel Freezers, and Blast Freezers

- Compressors
- Marine Provisioning Systems
- Ammonia Conversions
- Industrial Refrigeration and AC
- Service, Maintenance, and Repair
- Spare and replacement parts



### What Makes Us So Different

When you are ready for your next system, make sure you're comparing apples to apples.

# Here's a few of the things that really set us apart:

All design and fabrication done in-house. Our engineers design each system and our talented fabricators build every system by hand in our facility in Seattle. This gives us outstanding quality control. It also makes for a faster installation at your boat or facility and fewer maintenance issues in coming years.

Fully tested. Our control systems are fully tested before they leave our shop. This minimizes potential issues and reduces the amount of time we need to be on site, letting you get back to making money faster.

**TeknoLogic controls.** With Programmable Logic Controllers, you can monitor and control virtually any part of your refrigeration system, from anywhere in the world, as long as you have an internet connection. We were one of the first refrigeration companies in the world to fully utilize automation. And we have a UL listed panel shop.

**Experts in ammonia refrigeration.** With virtually all the common refrigerants being phased out, ammonia has a unique place in the refrigeration world. An excellent refrigerant, it's environmentally friendly, efficient, and inexpensive. Ammonia is possibly the best refrigerant around.

We rate our systems at temperature. It's important to make sure you're using the same yardstick when comparing systems. We give honest capacities, meaning an 80 ton system actually produces 80 tons of capacity at the final design temperature. Not everyone does this.

All refrigerant types supported. Although we love ammonia, we can work with any refrigerant type.

24/7 tech support and parts supply. We have a technician on call day and night, every day of the year. And if you suddenly find yourself in need of a part, just call or email and we'll find it for you as fast as possible.

We've been doing this a long time, and have a great crew to take care of all your refrigeration needs. Here are some of our experienced crew:



Jan and Vladimir President & Vice President



Steve, Paul, Evan, and Chris Parts & Sales



Dustin, Bruce, Bill, and Phil Service Dept.



David, Farrell, and Jon Design & Fabrication

### **Parts**

Teknotherm Refrigeration stocks a large inventory of refrigeration parts and components. Our parts department is standing by to supply you with anything you might need, whether it's a compressor, relay, valve, or that hard-to-find part from your old chiller that just broke. We are your first stop for replacement compressors of all brands, and we stock open-drive BOCK F series compressors at our facility in Seattle. Our decades of experience means we can get you the right parts fast. We have sources all over the world and can ship virtually anywhere.

## Contact us today for a quote on your replacement refrigeration parts.

24 hour Parts and Service 1-800-782-1997 parts@teknotherm-inc.com service@teknotherm-inc.com

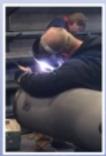


# Repair and Maintenance

When your cooling, condenser, or chiller breaks down, you need it fixed FAST. Our service department is a world leader and we can get you working again quickly. We go where you need us to go to troubleshoot, repair or upgrade your system. Whether it's Dutch Harbor, the Gulf of Mexico, Africa, South America or anywhere else in the world, we are your complete service department for all your refrigeration, marine HVAC, and chiller automation & controls.













We offer 24/7 emergency service for repair of your marine refrigeration system. We can fly to virtually anywhere in the world to replace damaged parts, rebuild your compressor, or troubleshoot your system.

Chillers, freezers, automation, compressors, condensers, marine provisioning systems:

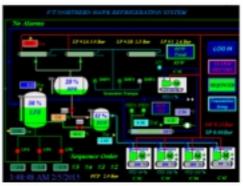
We can diagnose and repair pretty much anything in the refrigeration world.





TeknoLogic is the specialized automation and controls division of Teknotherm Refrigeration. We are a UL certified panel shop and we design and manufacture all of our own automation and control solutions inhouse using Programmable Logic Controllers (PLCs). We have designed, programmed and manufactured PLC based control solutions for multiple freezing facilities and vessels. We also have developed proprietary screw compressor control systems for use in any application.

Our complete system controls cover everything from RSW and RFW systems, plate freezers and boilers, to condensers, tank level controls, water makers, ice makers, diesel engines, and more.







- We were one of the first refrigeration companies in the world to utilize automation. With PLCs, you can monitor and adjust virtually any part of your refrigeration system, from anywhere in the world, from your computer or portable device.
- Monitor and control everything remotely. You don't have to be on board or on site to see how your system is performing.
- If a problem does come up you will know about it right away. Automated controls will keep your system running smoothly. If a component is not functioning properly, it will identify that part so you can send a technician directly to the right place.





- Remote troubleshooting. Need help chasing down a problem? The same remote monitoring available to you is also available to our technicians. We can see how each component is performing, and either correct them remotely or work with your onsite techs by phone or email to get it fixed fast.
- Robust design. In your tough work environment you need only the best, toughest components.
- Customized software. Each component's working parameters are programmed in to make sure the system is providing accurate data to the operator.



A computer, smart phone, or tablet is all you need to stay in the know.

> Whatever your automation and control needs, call: 1-800-782-1997 or visit: www.teknotherm-inc.com to find out what we can do for you.

## Amazing Ammonia



Between worldwide environmental concern and the potential for punishing fines, it's important to be aware of the ever-increasing restrictions on many popular refrigerants. In 1987 an international environmental agreement called the Montreal Protocol, phased out chlorofluorocarbons (CFCs), such as R12. In 1992 it was expanded to include hydrochlorofluorocarbons (HCFCs). A third category of refrigerant, hydroflourocarbons (HFCs) are not addressed by the Montreal Protocol but soon will be. The popular refrigerants R410A and R507A are in this category.

The most common approved, environmentally safe refrigerant is ammonia. Since it is a naturally occurring substance, it does not harm the ozone layer or contribute to global warming if accidentally released. The chance of it being banned in the future is virtually zero. If you use an ammonia-based refrigeration system you won't have to deal with this again years from now.

Ammonia is an excellent refrigerant. It is much less expensive than other refrigerants, and the oil used is also less expensive than for systems using HFCs. All other things being equal, ammonia is more efficient too. That means it will drop the temperature of your product faster. Its pungent smell makes it immediately obvious if a leak has occurred. It is lighter than air, easily detected, and easily disbursed with ventilation. Ammonia systems are in use all over the world, and above it too: the International Space Station uses ammonial



## We Can Help You Convert to Ammonia



Most HFCs are very expensive and getting more so every year. Every dollar you spend on refrigerant or maintaining your HFC-based system is a dollar that could go to converting it or buying a new one.

"Conversion" can be misleading. You can't just recover your R22 and put in an HFC such as R404A. The oil has to be changed, along with valves, fittings, and other components. Other negatives of a conversion is that the cooling capacity and efficiency might be reduced, you can't do this with all systems, and there may be reliability issues.

Ammonia cannot be used in an R22 system at all because ammonia corrodes brass and copper. However, plate freezers can be retro-fit to use ammonia economically. All the coils and freezer components are typically aluminum. The compressors, chillers, condensers, and some of the pipes would need replacing but the freezers themselves could stay.



Installing a new, ammonia-based system gives you a new warranty, higher efficiency, more modern controls and keeps you from running afoul of environmental regulations.

While R22 equipment cannot run on ammonia, ammonia-based equipment CAN run R22. So you can replace your components one at a time over a few years. This way you break up the expense and you end up with a new, ammonia-based system.

Each refrigeration system has different objectives, equipment, and working conditions. To know exactly what you need we will come to your site, speak with you, and do a thorough evaluation. Whether converting or replacing, you will end up with a refrigeration system that will keep your catch cold and make sure you get the best price for your fish at the market. Isn't that what it's all about?

## Always In The Lead

For over thirty years, Teknotherm Refrigeration has been synonymous with quality and durability.

Contact us to see how we can help you handle the ongoing refrigerant phase-out and make more money doing it!

# Complete Refrigeration Solutions

We offer a complete line of marine and industrial refrigeration solutions, including RSW systems, chillers, condensers, plate freezers, ice machines, compressors, and more. We can custom design and fabricate a system that will help maximize your profits through increased efficiency, durability, and performance. Here are a few of the jobs we have done over the years:













For nearly 30 years, Teknotherm has been a trusted worldwide supplier for HVAC and refrigeration parts and components. We are a leading parts supplier to cruise ships, offshore drilling rings, support vessels and the fishing industry.

#### Compressors and Parts

- Bitzer (OEM)
- Bock
- Bristol
- Carrier/Carlyle
- Copeland
- Danfoss
- Frascold
- Howden
- J&E Hall
- L'Unite
- Maneurop
- Mayekawa (Mycom)
- Refcomp
- Sabroe
- Tecumseh
- York

#### AC Units

- Aeron
- Arcogire
- Carrier
- Coleman
- Marvair
- Shield Air / Marc
- Trane

### Electrical Components

- Dixell
- Eliwell
- EBM Papst
- Figaro
- Honeywell
- LAF Mitsubishi
- Moeller Schnieder
- Square D
- Telemecanique
- White Rogers

#### Valves & Rebuild Kits

- COES
- Danfoss
- Hansen
- Henry / AC&R
- Johnson Controls
- Masoneilan
- Parker
- Refrigeration Specialties
- Sauer Danfoss
- Sporlan
- Superior

# Refrigeration Supplies

- Brass Fittings
- Copper Pipe & Fittings
- Dessicant
- Filter Driers (Sporlan, Carly, Henry
- Gauges
- Insulation
- Leak Detectors
- Manifolds
- Oil Test Kits
- Refrigerant
- Refrigeration Oils
- Refrigerant Scales
- Thermostats
- Vacuum Pump Oil

### Ice Machines

- Continental
- Buus
- Everpure
- Geneglace
- Hoshisaki
- Kason
- Manitowoc North Star
- Oasis
- Oref
- Scotsman

### Tools and Instruments

- Carly
- Cold-Flex (flex tubing)
- CPS
- Fluke
- Imperial
- Inficon
- Just Better (JB)
- Ritchie
- Robinair
- Supco
- Testo
- Yellow Jacket

#### Evaporators and Condensers

- Bitzer
- Bohn
- Fincoil
- Gunter Henry
- Larkin
- Standard Refrigeration
- Teknotherm
- Walter Roller

### AC Electric Motors

- ABB
- Baldor
- Cemp
- Dayton
- Fasco General Electric
- KMMP
- Leeson

### Plate Freezers

- Dole
- DSI (Dybvad Stal Industri)
- Freezer Tech
- Jackstone
- Tucal

#### Air Handlers and Fans

- EBM Papts (fans)
- Aeron
- Trox
- Weger Marathon
- Siemens
- Teco Toshiba
- US Motors































brand products





HANSEN TECHNOLOGIES





































