Low temp chillers don’t have to be rocket science... but sometimes they are!

Why Drake?
From outer space to deep ground freezing, Drake has done it all. We have vast experience with low-temp chillers for every process need. Whether you need Calcium Chloride chilled to -29°F or Rocket Fuel (RP-1) chilled to -22°F, we are here to help you complete that task. Many chiller companies do not want to work with the complexity of low-temp chillers. However, we understand the many challenges of low temp chilling, including the impact of fluid viscosity, pump selection, oil flow parameters, etc. We take the time to understand your process and operating conditions before making an equipment selection. Let Drake provide the right solution for your process needs.

What is Special about a Low Temp Chiller?

**Rapid Pull-Down:**
Drake understands that many low temp applications have large pull-downs. Our systems are designed to be efficient through the entire temperature range to allow for quick and efficient pull-downs. Our EEVs maintain a constant superheat without the need for human interaction. Many competitors only design for the final temperature, causing highly inefficient chiller operation.

**Oil Management:**
Anyone with experience in low-temp refrigeration operation knows that lack of oil return plagues the operation of even the simplest system. We take all the necessary measures to ensure full oil return back to the compressor without the interaction of a service tech. Oil is the lifeblood of a chiller, this is why our chillers have incredible longevity.

**Vast Array of Fluid Types:**
At lower temperatures, many standard anti-freeze fluids become too viscous to pump economically. We design our chillers to meet your specific fluid. You never have to derate chiller performance with a Drake because we factor in fluid properties to ensure that our evaporators are sized to do the job.
Low Temp Chillers

Our Product Lines:
- **Scroll**: Air & Water-Cooled 2 to 34hp
- **Semi-Hermetic**: Air & Water-Cooled 25 to 100hp
- **Screw**: 38 to 214hp
- **Remote Condenser Systems**
- **Tank & Pump Packages**: (30-1,500 gallons, polyethylene or stainless steel tanks)

Partial or Full Redundancy
- Full capacity redundancy
- Full electrical isolation
- Dual or multi-circuit units
- Auto-changeover redundant pumps

Heat Exchanger and Tank
- On-board or remote tank & pump packages
- Fluid level sight glass
- Tank low-level indicator with alarm
- VFD (Variable Frequency Drive) available for pumps
- Custom tank fittings

Low-Temp Design
- Evaporators and heat exchangers sized for specific fluid for each application
- Compressor cooling - liquid injection and compressor fans
- Oil management for compressor protection
- Electronic expansion valves (EEVs) for tight superheat control
- 1" insulation for heat gain resistance
- Designs for fluid temperature pull down from higher temperatures
- Pump selection specific to fluid type

Controls
- Custom programming available for particular application control
- MCS microcontroller upgrade available for tighter process control and remote login access
- Central control for multiple units
- On-board or remote touchscreen options
- Email and text alerts available in case of alarm

Energy Efficiency Options
- EC condenser fan motors for energy savings and more stable refrigerant temperatures
- Floating Head Pressure for extremely efficient chillers in anything below 95°F ambient
- Heat reclaim options for hot water loop
- VFD (Variable Frequency Drive) on pumps for minimal required energy consumption

Other Drake Capabilities/Options
- Digital flow meters
- Circuit breakers for electrical components
- Low ambient protection
- Phase monitor
- Fused disconnect
- Corrosion resistance options
- And more.....

www.drakechillers.com
About Drake Refrigeration

At Drake Refrigeration, we strive to provide high quality, engineered cooling solutions to a variety of end markets. Our many years of experience gives us a large library of tools and configurations designed to solve even the most complex cooling needs. So whether you are crafting a private label brew or launching a payload into space, Drake has the solution.

Drake offers a complete line of compressor power ranging from ¼ hp to 200 hp in single circuit, dual circuit and dual circuit tandem arrangements. Our condensers are available in air cooled and water cooled and can be configured in a split arrangement. We use brazed plate or barrel style evaporators and offer stainless steel pumps, stainless steel tanks and brazed copper plumbing. Our electronic controls are available from simple, low cost, and durable to fully programmable, high end with touch screens and remote access.

Our systems can be built to handle varying loads, multiple pieces of equipment, narrow temperature bands, near freezing water, low exiting temperatures, low ambient conditions, high ambient, high return temperatures, and corrosive environments.

Where To Find Drake

Drake is sold through most refrigeration wholesalers, so you are working with suppliers and contractors you know and trust. With representatives throughout the United States, you can get the support you need for all stages of the process. Our engineers are available to discuss your cooling needs directly. Our team will support the process from quoting to start-up and we also offer technical support.

Bring us your cooling needs and let us engineer a solution for you!