

Custom Solutions for your Process Needs



Dairy Chillers



Built by  **DRAKE**
REFRIGERATION, INC.

Industrial process cooling brought straight from the farm



Why Drake?

Drake brings over 30 years of experience to the table when designing a chiller for your dairy. Industrial grade chillers with precise and customizable temperature control ensures the chiller will work as hard to rapidly cool the milk as you do to produce it. Off-the-shelf chiller manufacturers take a one-size-fits-all approach, while Drake has a wealth of experience in working with customers and designing systems for each specific application. We understand that dairy farming is a way of life for you, so let Drake provide the reliable solution to your chilling needs.

What is Special about a Dairy Chiller?

On-Demand Chilling:

Large scale chillers designed to reach proper milk temperature in a single pass without the need of storage tanks. Single pass chilling reduces the cooling time and extends the shelf life of the milk. Cleanable, plate and frame heat exchangers combined with precision controlled glycol tanks make short work of even the biggest dairy job. Our experience in working with dairy farmers has given us the

understanding of the tough conditions on a farm and allows us to design a chiller that can take the heat.

Jacketed Milk Tank Cooling:

Glycol jacketed tanks eliminate the need for long runs of refrigerant piping, therefore reducing the risk and expense of losing refrigerant to the environment. Glycol chillers offer a variety of redundancy options to ensure that your milk is always chilled when you need it. From multiple refrigeration circuits with standard lead-lag control to auto-changeover pumps, our units are designed to ensure that your process is not halted.

Energy Conservations:

Drake understands that the operating cost of the chiller is just as important as the initial expense. Our chillers provide economical solutions for energy conservation through the use of variable frequency drives (VFDs), EC fan motors, and heat reclamation to minimize the cost of operation. By using multiple refrigerant circuits or digital compressors our chillers can work less to get the job done. In the end, the more energy you save, the more money you earn.



Our Product Lines:

- **Scroll:** Air & Water-Cooled 1 to 60hp
- **Tandem Scroll:** Air & Water-Cooled 28 to 120hp
- **Semi-Hermetic:** Air & Water-Cooled 15 to 100hp
- **Screw:** 80 to 200hp
- **Remote Condenser Systems**
- **Tank & Pump Packages** (30-1,000 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

Variable Capacity Control

- Up to 6 stages of capacity control per chiller to handle the varying load throughout the milking process
- Hot gas bypass available in addition to compressor unloading for capacity and pressure control
- Recirculation tank design to isolate and protect the chiller from process variation

- Proper pump control to ensure proper milk temperature during all load conditions
- Available rate of change control to optimize chiller performance and modulation

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
- EEV's (electronic expansion valves)
- 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 energy consumption

Other Drake Capabilities/Options

- Digital flow meters
- Circuit breakers for electrical components
- Low ambient protection
- Phase monitor
- Fused disconnect
- Corrosion resistance options
- Plate and frame dairy heat exchanger
- And more.....



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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!



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