



ECOCHILL™ CHILLERS

FOR CONSISTENT, EFFICIENT, VERSATILE
ENVIRONMENTAL CLIMATE CONTROL

June 2021

SIMPLE SOLUTIONS FOR COMPLEX ENVIRONMENTS

Why Choose a Surna chiller?

Chilled Water System Advantages

There are many added benefits when using a chilled water system and decoupling the cooling source from the room distribution equipment.. Because this system more precisely controls capacity, it negates the need to size every room for the last stage of plant growth. This design approach creates a cooling and dehumidification "central plant" with multiple chiller units, offering redundancy and eliminating overall compressor tonnage needed. For facility operators, this can result in benefits like reducing electrical infrastructure and maximizing redundancy through system diversity.



Economic

Surna's small tonnage chillers are ideal for cultivators on a budget and the heat recovery chillers reduce costs by producing both chilled and hot water simultaneously, eliminating the need for separate boilers.

Modular Design

Installation requires minimal distances between units, conserving space and allowing for convenient maintenance access.



Comes with one-year factory warranty with extended options available.

Every unit is factory tested and ETL certified before leaving the factory.

EXPERT ENGINEERING AND DESIGN

Why Choose Surna?

No two cultivation facilities are the same. That's why Surna provides a variety of customizable services to help cultivators succeed from project inception to post-production maintenance.

- Providing an overview of best practices and various approaches for achieving facility goals
- Obtaining operational information from the cultivation manager necessary for proper mechanical design
- Providing background of industry standards for unknown variables
- Identifying the general approach for the mechanical design and assigning action items to relevant parties
- Reviewing floor plans and overall system sizing

Surna's consultative development process includes in-depth conversations about your business goals to arrive at the perfect climate control solution that meets your facility's specific needs.

- Air and chilled water systems – in all capacities
- Process and comfort systems
- Ductless and forced air (ducted) systems
- Propane and/or natural gas powered HVAC units to reduce connected electrical load
- Split or packaged systems
- Energy recovery options
- Low cost redundancy
- Economizing/free cooling (water or air side)
- Sealed greenhouse mechanical cooling/heating/dehumidification/energy recovery



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Surna was a major reason we were able to succeed getting our products to market. They were the only folks we worked with that fulfilled on time and at the costs they quoted during our entire licensing and build out process...the only one. The end result is perfect climate control and incredible service from great people. Great people make great companies. Surna is great. If someone uses anyone other than Surna for HVAC right now, it's a mistake.

- Fitz Couhig, PPP LLC.

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Surna provided the best option for efficient cooling. The installation process was great and went smoothly. For anyone looking for a cooling system, Surna is the way to go.

- Joe Mahoney, Mahoney Greens

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If we didn't have Surna and the support behind that, we would have made a lot more mistakes along the way, probably lost a lot more crops, and we wouldn't have been able to deliver as high a quality of crops as we've been able, as soon, to the market. That was really big for us.

- Nic Borst, Durango Cannabis Company

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ECOCHILL™ SMALL TONNAGE CHILLERS

1-42-01, 1-96-01, 1-96-02

✓ **Small Footprint**

These small tonnage chillers have a small footprint, ideal for facilities with space limitations.

✓ **Modular**

This unit's modular design offers redundancy, making the system more reliable and offering peace of mind.

✓ **Specialized Cooling**

Surna's chillers are designed specifically for an indoor cultivation facility, delivering benefits that other cooling systems cannot. Using a Surna chilled water system with dustless fan coils eliminates ductwork (a preferred home of mold and bacteria), and helps cultivators seal their environment, offering cooling system diversity and preventing odor from escaping through ductwork.

✓ **Quality**

Surna understands the importance of reliable cultivation equipment. All EcoChill™ small tonnage chillers pass rigorous quality control tests prior to shipping to ensure they meet or exceed their capacity rating.

✓ **Inexpensive**

Compared to other chillers on the market, Surna's small tonnage chillers offer a scalable specialized cooling solution for controlled environment cultivation at a minimal startup cost, making this an ideal unit for cultivators with a tight budget or facilities with low square footage.



Product Features:

- Up to 96,000 BTU/Hr
- Can be integrated into both 2-pipe and 4-pipe systems
- ETL certification
- Designed to run reliably in conditions down to 0°F
- Modular design
- Can easily integrate N+1 redundancy
- Compact and space-saving

Surna chillers are built to last and feature top of the line evaporators, scroll compressors and advanced safety features like flow switches and anti-freeze protection. Unlike other economical options, Surna chillers can be shared between rooms without sharing air, eliminating the risk of cross-contamination and lowering electrical requirements. Sharing between rooms also offers built-in redundancy, making them an obvious choice for any cultivator operating on a flip schedule. They are also designed to be modular, combining chillers into a bank to provide any size system below 10,000 ft². These chillers can be used for any chilled water application, but when paired with an appropriately sized fan coil, the result is a simple, energy efficient climate control system.

ECOCHILL™ HEAT RECOVERY CHILLER

SHRC

✓ **Modular**

Surna units are truly modular. They can be installed an inch apart from each other. Each unit can be removed from the bank without service disruption to the other units.

✓ **Easy Installation**

SHRC units can be brought in through a standard door or elevator and assembled in banks on site. An optional factory-made header assembly can be provided.

✓ **Front Serviceable**

The controls and refrigeration components including compressors can be serviced from the front of the unit. The heat exchangers can be serviced by sliding out one unit without disruption of service to the other units.

✓ **Energy Efficient**

When properly designed into a 4-pipe system, by virtue of capturing rather than rejecting waste heat from the chiller process, facility central plant COP (coefficient of performance) can achieve much higher levels than even the most efficient stand alone chillers and boilers.

✓ **Economic**

Because they produce both chilled and hot water simultaneously, these units can reduce the capacity requirements and energy consumption versus traditional 4-pipe chilled water systems.



Product Features:

- Up to 720,000 BRTU/Hr
- Ideal for 4-pipe systems
- Heat recovery
- Front-serviceable
- ETL certification
- Modular design
- Wide range of cooling capacities available
- Minimal space requirements

With 4-pipe systems with a heavy latent load such as in a controlled environment agriculture climate, there is a constant requirement for the production of both chilled and hot water simultaneously for dehumidification control at the terminal units. Not only does this method reduce energy, but also reduces space requirements, condensing the system's footprint from multiple heating and cooling units to one.



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All dates subject to change without notice

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