



CHILLER TOWER INNOVATIVE MODULAR STORAGE SOLUTIONS FOR CRITICAL TEMPERATURE APPLICATIONS



VERTICOLD

VERTICOLD CHILLER TOWER

— an industry breakthrough that can facilitate your cold chain

STORAGE FOR CRITICAL TEMPERATURE GOODS

An innovative, industry breakthrough in reefer and frozen storage units that provides a modular solution to safeguard goods at the critical temperature they need to maintain their integrity and effectiveness.

COLD CHAIN

Temperature controlled shipping and storage is part of cold chain logistics, a chain that must never be broken. Cold supply chain logistics depend on maintenance of a controlled temperature throughout the product's journey; from the manufacturer or producer to the end user. Often, the two are geographically very distant to one another. Diverse weather and geographic conditions can present tremendous challenges to the supply chain manager.

Verticold has studied the needs of the global cold chain industry and has designed their vertical Chiller Tower to provide an easy to ship and install storage solution.

PHARMA AND FOOD STORAGE

Seven out of 10 of the top pharmaceuticals used in North America require temperature controlled shipping. A slight change in temperature, even of just two degrees, can ruin pharma products. Many fresh and frozen foods and other products such as cut flowers require careful provision for the control of the atmosphere they are stored and moved in, including both temperature and humidity.



THE CHILLER TOWER FEATURES:

- ▶ Refrigerated or frozen zones; as needs evolve you can choose the correct temperature
- ▶ Built-in extra capacity to safeguard valuable perishable goods
- ▶ A modular solution that ships and installs easily
- ▶ A plug in and go design that allows it to be moved at a moment's notice

DOUBLE SIZE MODEL



STANDARD MODEL



EACH FULL SIZE UNIT ADDS 700 CUBIC FEET OF TEMPERATURE-CONTROLLED SPACE ADDED WITHOUT FUSS; A COMPLETELY MODULAR SOLUTION

Verticold brings cutting edge solutions to a long outstanding challenge—maintaining the integrity of cold chain logistics year in, year out. With our modular vertical tower solutions, perishable goods, or goods that may be damaged by temperature variations, can now be provided for in an efficient way. These towers are pre-assembled at the factory, shipped on a flatbed truck and may be installed without the need of a factory technician being present.

FRIDGE OR FREEZER

—the Chiller Tower adapts to changing needs

Your Chiller Tower can be configured to operate as a fridge or freezer... keeping your goods at a constant temperature that you have set. From 4° to -28°C.

Your needs have changed? The Chiller tower is designed to change from fridge to freezer or vice versa with a simple change to the cooling units configuration.

FUNCTIONAL DESIGN THAT IS VERSATILE

— adapts to many applications

Chiller Towers are designed to adapt to many different applications. Here are some of the most common:

- ▶ palletized storage
- ▶ pick and pack of unit and boxed goods
- ▶ fulfilment of ecommerce
- ▶ carton flow
- ▶ split pallets
- ▶ half pallets
- ▶ pharma applications; storage of delicate perishable vaccines and meds
- ▶ fresh fruits and vegetables
- ▶ challenging frozen applications such as ice cream

ADD COLD STORAGE CAPACITY WITH NO NEED TO CREATE A CONSTRUCTION SITE, MODIFY YOUR BUILDING, OR STOP PRODUCTION



THE CHILLER TOWER ADVANTAGE

Modular cooling unit
drops in on top

Super tough structural
aluminum frame

Pallet rail every 6" for
maximum versatility

Forklift slots for easy
transportation

Base plates anchor
solidly to the floor

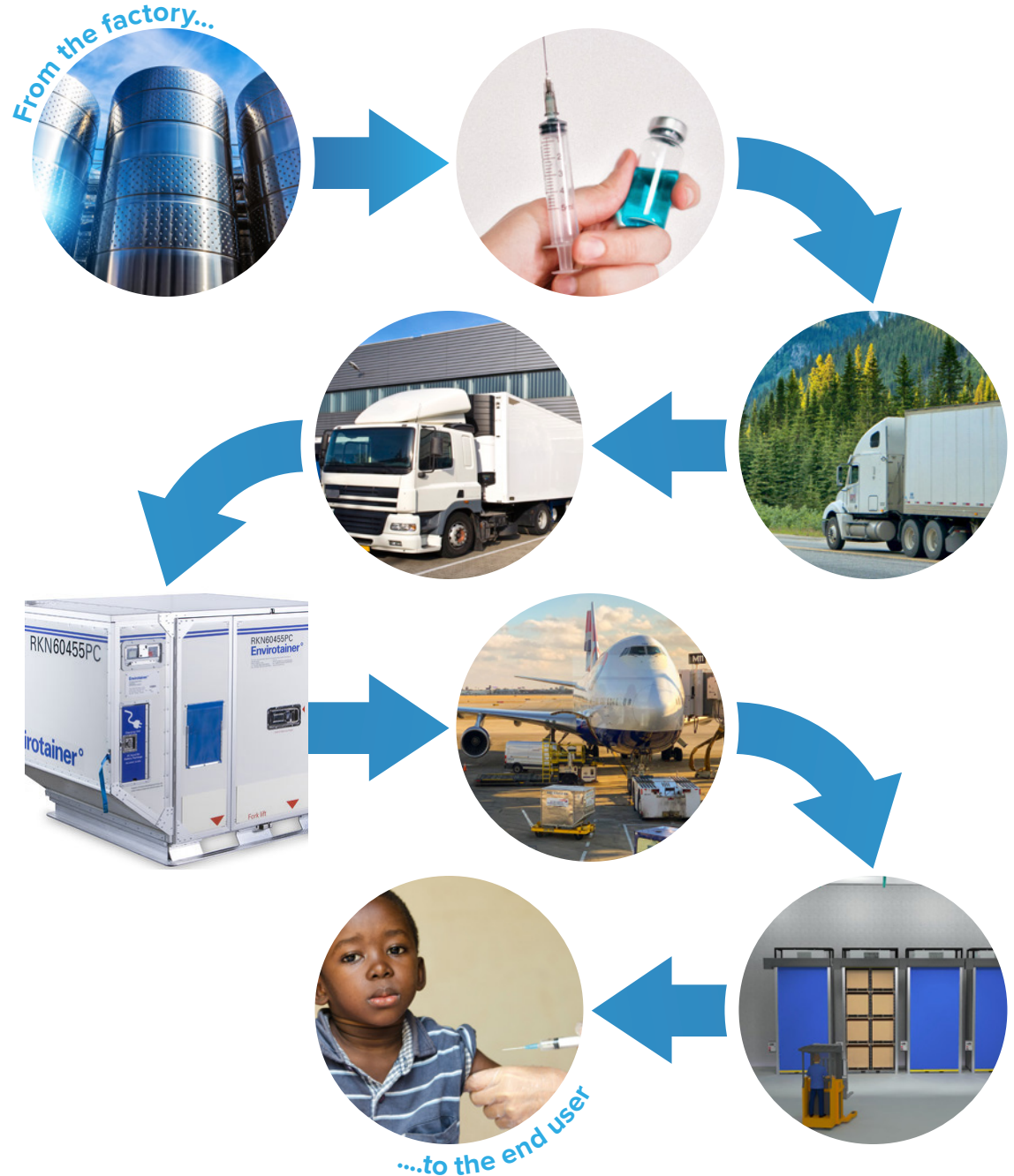


**CRITICAL GOODS TO MOVE
ACROSS YOUR NETWORK,
ACROSS THE COUNTRY OR
ACROSS THE WORLD?**

Getting a vaccine from the pharma manufacturing plant to the health care worker that will vaccinate the population in a distant country requires a huge commitment and careful planning to maintain the integrity of the drug so that its effectiveness is safeguarded.

Verticold's modular design, easy integration and efficient storage of temperature-controlled goods brings a welcome solution to the difficulties of protecting your valuable goods through the entire transportation and storage cycle, right to the point that it is shipped to the final destination.

Look to Verticold's expertise to help design a solution that will reduce losses and facilitate the easy movement of perishable goods. Our engineers are experienced in every aspect, and will provide you a turnkey answer with exactly the modular storage facility needed.



IMPROVE AND ENSURE YOUR COLD CHAIN LOGISTICS

NEED PALLETIZED STORAGE?

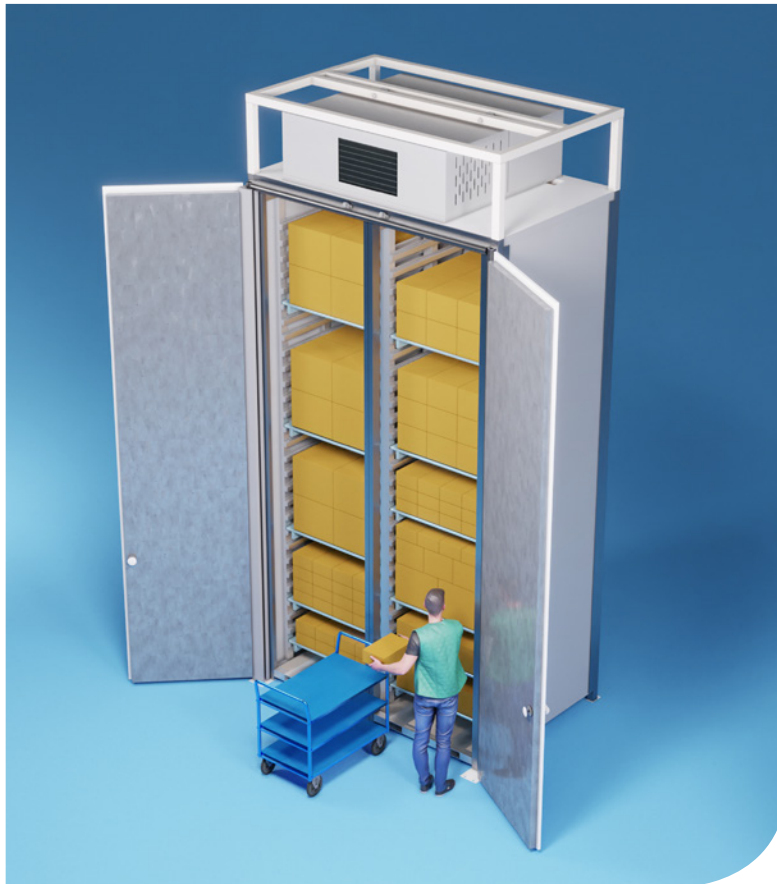
— *The Chiller Tower is ideal.*



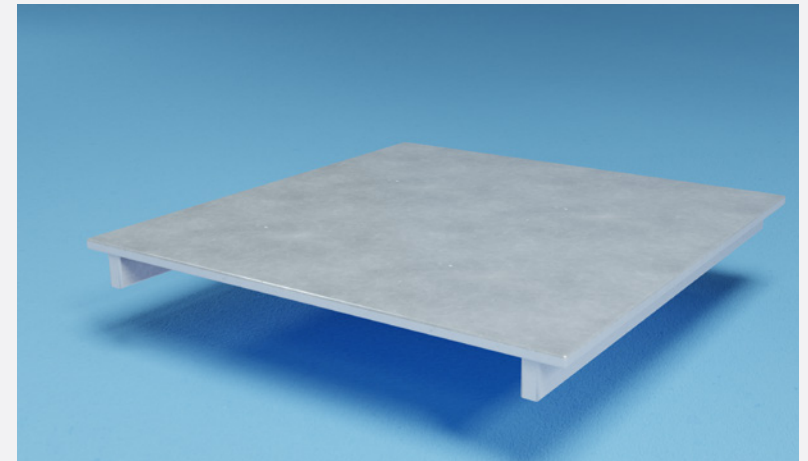
- ▶ Adjustable storage height for pallets, to maximize use of space.
- ▶ Easy access to hand pick from lower levels.
- ▶ Fast and easy loading/unloading of pallets by forklift, without manual labor.
- ▶ Accepts a wide variety of standard North American and Euro pallets in the same unit, at the same time.
- ▶ Easily configured and reconfigured for the maximum use of the temperature controlled space.



PICK AND PACK



- ▶ Store a wide variety of mixed or small quantities.
- ▶ Hand pick at the lower levels.
- ▶ Use a mechanized manlift forklift to pick the upper levels or use the upper levels for pallet storage.
- ▶ Highly suited to different types of high density storage such as carton flow.
- ▶ Side support guides allow the unit to be set up for your ideal storage configuration.



COMPOSITE SHELF

Use the slave pallet as a shelf or for supporting carton flow conveyors for easy access to goods at the rear.



CARTON FLOW FOR EASIER ACCESS

Access goods right to the rear of the unit with these handy carton flow conveyors.

E-COMMERCE FULFILMENT



THE POLAR TOWER CART

- ▶ Stow and go convenience, with safety a priority all the way!
- ▶ With moveable shelves—add more or reduce the number for the exact configuration you need
- ▶ Easily cleaned, designed to be pressure washed
- ▶ Made from aircraft grade aluminum
- ▶ Locking device is designed to allow the cart to be rolled right into the van or truck and lock to the locking rail for safety during transport.

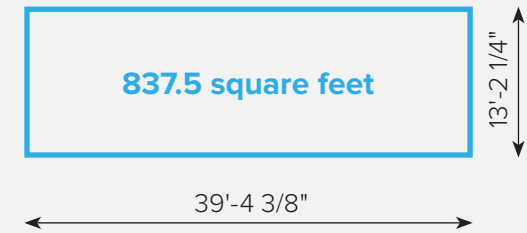


- ▶ This unique cart-based system allows you to pick once, store the cart and load it direct into the truck.
- ▶ Designed to minimize handling of the goods.
- ▶ Pick on the floor, then use a walkie stacker or forklift to load the carts into the fridge or freezer until you're ready to deliver them to the customer.
- ▶ Carts are designed to clip into a fastening system in the van or truck that securely holds them during transport.
- ▶ Each Chiller Tower holds 16 specially designed carts.

FROM THIS



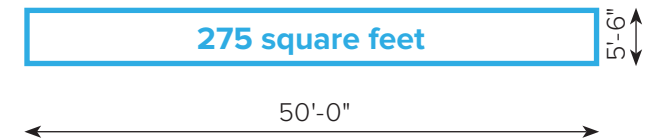
Refrigerated space required to store 48 pallets in conventional cold storage:



TO THIS



Refrigerated space required to store 48 pallets with Chiller towers:



The Chiller Tower requires 1/3 the amount of refrigerated space!

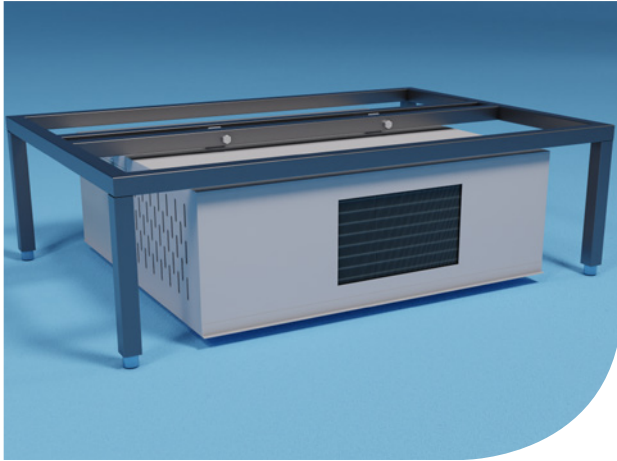
Chiller towers can be lined up in the warehouse to give a large volume of pallet storage, while using the minimum possible warehouse space.

USE LESS SPACE WITH OUR INNOVATIVE TOWERS!



HIGHER CAPACITY FOR GREATER PROTECTION

With Verticold you have built-in extra capacity that greatly reduces your risk of total system failure and the associated costs of spoilage.



MINIMAL RECOVERY TIME

- ▶ The set temperature is recovered within a few minutes due to the massive cooling capacity of the unit we specify for our Chiller Towers.
- ▶ With total 60,000 BTU, recovery to temperature is quick and efficient as the Chiller Tower is in use during day to day operations.



FRIDGE OR FREEZER

Choose a temperature setting as low as -30C. The Verticold Chiller Tower can operate as a cooler or a freezer.



OPTIONAL RAPID ROLLUP DOOR



Available for faster moving operations, the rapid rollup door is an ideal option for when time is critical.

- ▶ **Perfect for when you need to access your fridge or freezer many times during the day.**
- ▶ **Available with remote control to open or close the door from the forklift.**





SHIPS ON A STANDARD FLATBED TRUCK

POLARTOWER ships 95% pre-assembled using standard transport. Modular construction allows the unit to be shipped on a standard flatbed truck

SETS UP IN JUST HOURS

With the Chiller Tower, you no longer need to stop production or modify your building when you want to add fridge or freezer space. Simply call the factory and describe your requirement. We'll build the fridge or freezer unit to suit your exact needs.

Installation takes approximately 2 hours! The Chiller Tower is equipped with a plug and go 240 volt connection. All you need is an electrical shutoff box on the wall and a connecting cord with a plug to match the one on the Chiller Tower.

MOVEABLE INVESTMENT

Chiller Towers can easily be moved to a new location, compared to a conventional cooler or freezer that is usually a permanent installation



CASE STUDY

– Air Inuit Operations Centre, Montreal

Verticold recently completed a 7 bay Chiller Tower customized installation in a new operations facility at Pierre Elliot Trudeau International Airport.

Designed for aircraft pallets, three 12' wide bays offer frozen storage at -18C, and four 12' wide bays offer refrigerated storage at 4C. High speed doors operated by remotes give fast and easy access to forklift drivers handling goods shipping by air freight, revolutionizing the handling of the air freight that is critical to the distant communities they serve.

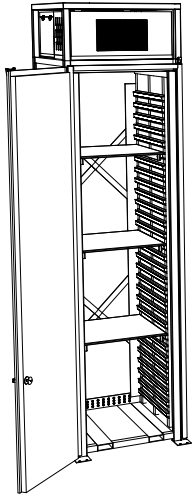


STORAGE OF AIRCRAFT PALLETS

Air Inuit sends daily air shipments of critically need goods for the northern Inuit communities. They include a large percentage of perishable goods including food and medicine.

Through implementing the new storage system from Optimal Chiller Space, they save up to 7 hours per day in preparing the shipment for loading into the aircraft. In addition, they now have complete control on the process vs. their previous arrangement of using a third party logistics company to provide storage.

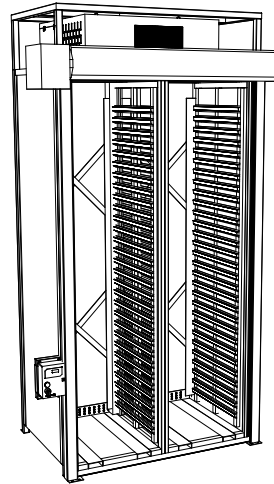
SPECIFICATIONS FOR STANDARD CHILLER TOWERS



CHILLER TOWER MODEL CTB-1A

217" h x 72" d x 59" w nominal

- ▶ Frame in structural aluminum
- ▶ 4" insulation panels
- ▶ Swing door with lock mechanism or rapid rollup type door
- ▶ Comes with 4 slave pallets/shelves included
- ▶ Installation with 8 x 1/2" screw-type concrete anchors
- ▶ Built-in fork receivers for easy repositioning and moving
- ▶ Pallet rail every 6" for maximum adjustability
- ▶ Temperature range from -30 to 15° C
- ▶ Engineered for to operate in maximum ambient temperature of 38 degrees Celsius
- ▶ Comes with integrated digital thermostat



CHILLER TOWER MODEL CT-2A

217" h x 72" d x 109.75" W overall

- ▶ Frame in structural aluminum
- ▶ 4" insulation panels
- ▶ Double doors with lock mechanism or rapid rollup type door
- ▶ 8 x Custom aluminum pallets
- ▶ Installation with 6 x 1/2" screw-type concrete anchors
- ▶ Fork receivers for easy repositioning
- ▶ Pallet rail every 6" for maximum adjustability
- ▶ Temperature range from -30 to 15° C
- ▶ Engineered to operate in maximum ambient temperature of 38 degrees Celsius
- ▶ Comes with integrated digital thermostat

PERFORMANCE AND ELECTRIC SPECIFICATIONS

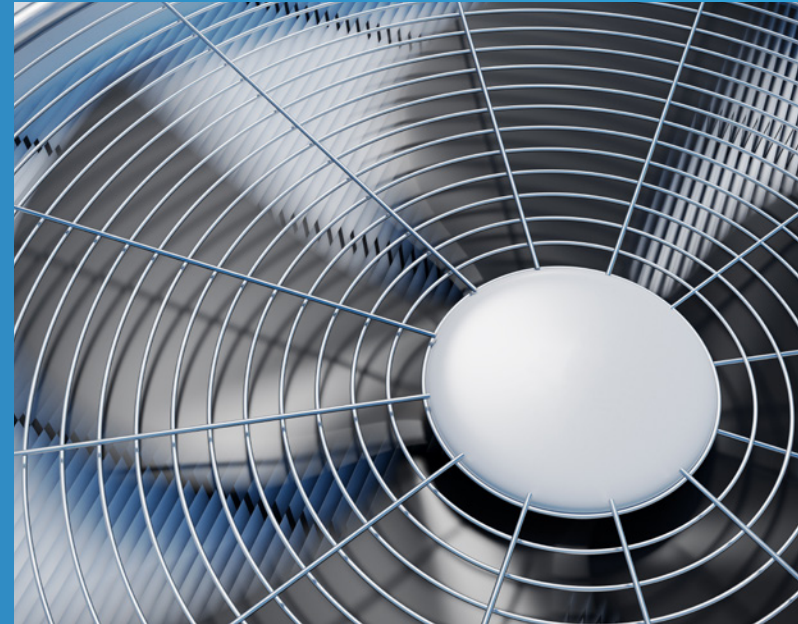
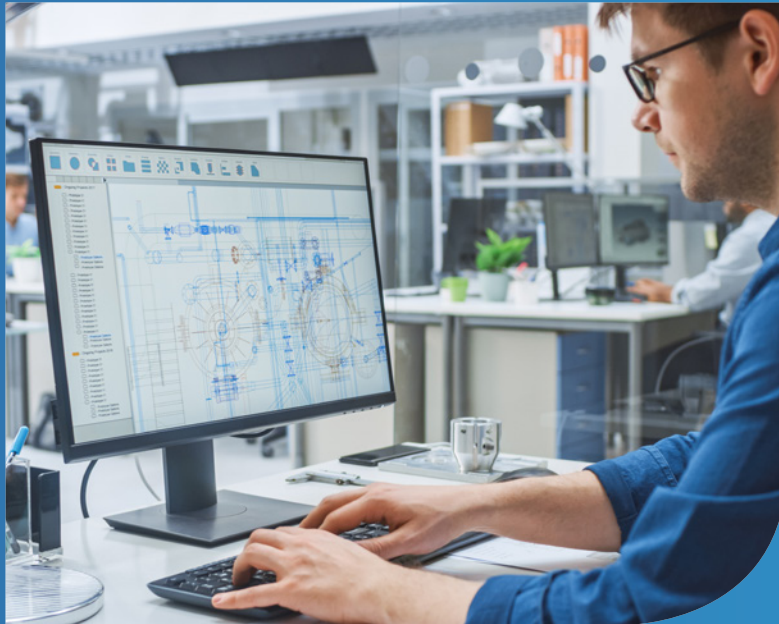
Medium Temp with Air Defrost

Voltage/Phase/Hz	RLA/LRA	MCA	MOPD	Unit Amps	Evap Fan Qty/CFM	NEMA Recept.	Power Cord Supplied	Refrigerant Charge R404A (Oz)	Fig.	Approx Net Weight
208-230/60/1	10.9/49.3	15.9	20	11.4	3/1200	6-20R	YES	45.9	3	406/812 LB

HP	Compressor	Capacity (BTUH) @ Ambient Temp 90 °F – 110 °F								Total Heat of Rejection (BTUH)
		90 °F		95 °F		100 °F		110 °F		
		Holding / Room Temperature °F								
		35 °F	38 °F	35 °F	38 °F	35 °F	38 °F	35 °F	38 °F	
2	MTZ022-1VM	16400	17760	15430	16740	14460	15730	13980	15220	30700

For more detailed specs on the various models visit our website <http://verticold.com/products/> to download the spec sheet

ENGINEERING AND DESIGN



Many applications require attention to special needs and varying environmental and product differences. Our engineers will study your particular application and recommend Chiller Tower specifications that are specific to your type of product and operation. We take into account the needs related to your product, energy efficiency, and ensuring that your installation is compliant with existing standards and regulations.

Is your product temperature-critical? Does your client's health or supply chain rely on the provision of an ultra-reliable refrigeration system? Our engineers are experienced in applications such as tissues, drugs and vaccines as well as food products of all types. Rely on our expertise to spec, build and install your reliable solution.

WARRANTY

Verticold Chiller Towers are guaranteed against manufacturing defects for a period of one year from the date of install. Consequential damages are specifically not included in the product warranty. Please read our detailed warranty for more details

SERVICE

Verticold's fast, efficient service is the key to maintaining your cold chain integrity. Verticold has a network of service specialists that respond quickly and cover most cities in North America. These specialists are familiar with the Verticold design and are trained and equipped to rectify problems that may occur. Should a unit need to be replaced, a new chiller can be shipped out within 24 hours in most cases.



DISTRIBUTOR



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