

# Post Harvest Storage Design



Agriculture



Potatoes



Onions



Horticulture



Industrial



Dairy



Poultry



Apiary



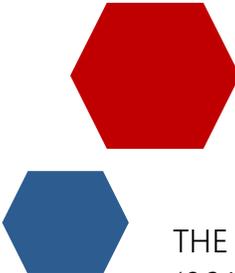
Food  
Processing



**GELLERT. POST HARVEST. SOLVED.**



**VENTILATION  
HUMIDIFICATION  
REFRIGERATION  
CONTROLS**



## **ABOUT US**

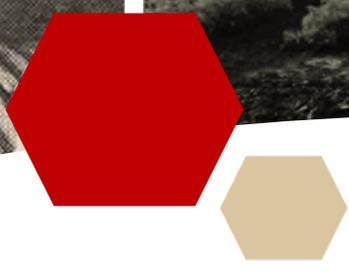
THE GELLERT COMPANY was founded in 1964. Nathan Gellert had a vision for creating a healthy storage environment for post-harvest products. His innovative concept for controlling the storage climate has been used for decades in the Agriculture Industry.

Gellert knew that if he could control the temperature, humidity, and air flow inside the storage facility, potatoes would be healthier and have a longer storage life.

His Climate Design is still the most widely used method today.

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Warren Shillington started what is now known as AGRI-STOR COMPANY in 1960. His vision was to help Growers maintain a healthy post-harvest crop with the use of quality products in custom applications for sprout control and disease prevention. He also provided sales and service of storage equipment and controls and was one of the first Dealers for Gellert Certified Systems. He and Nathan Gellert joined forces to provide a complete solution to Growers and Processors for a quality storage environment.



# TODAY.

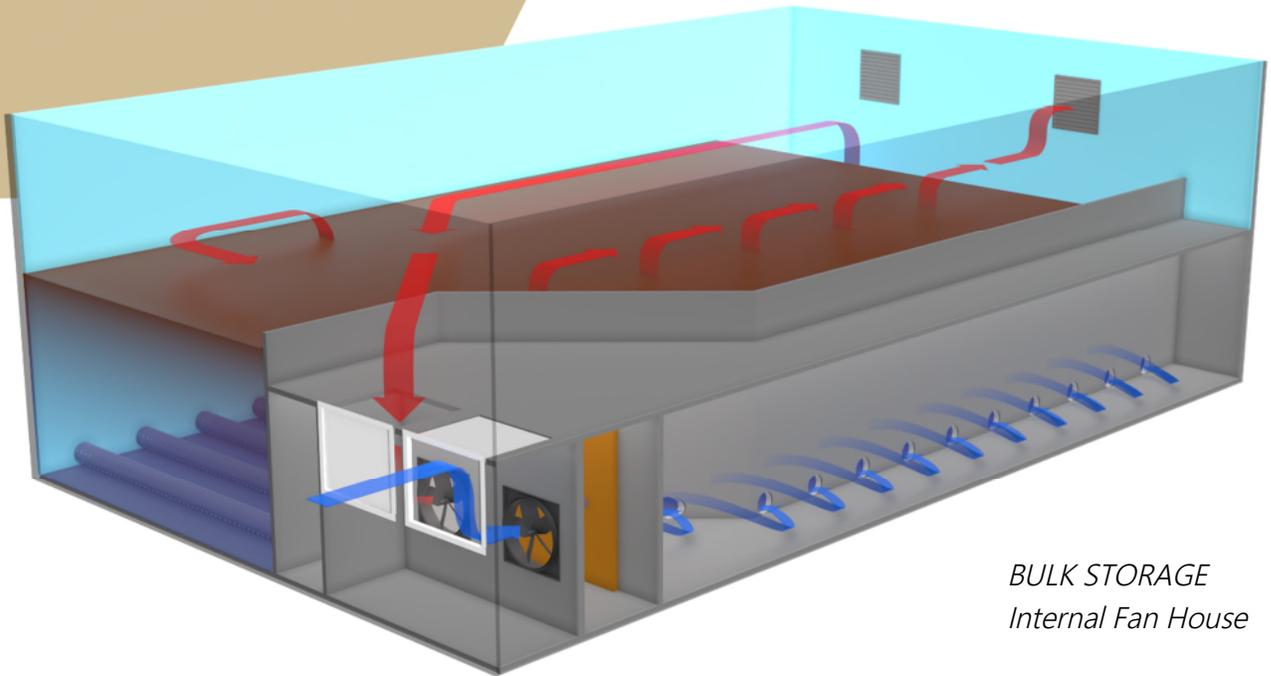
Gellert's growth initiative means innovation and improvement for our customers in Post Harvest Storage solutions. For potatoes, our dealers are in storages 365 days a year. Troubleshooting, maintaining, and managing millions of dollars of potatoes for our customers is all in a day's work.

We stand ready to do a climate performance audit. We design new, troubleshoot challenges, and provide improvements for our customers.

Our equipment offers the only independently certified air performance in its class and our controls are new and robust. We've been here for sixty years and have learned some things along the way.

That's just part of what makes us Gellert. Post Harvest. Solved.

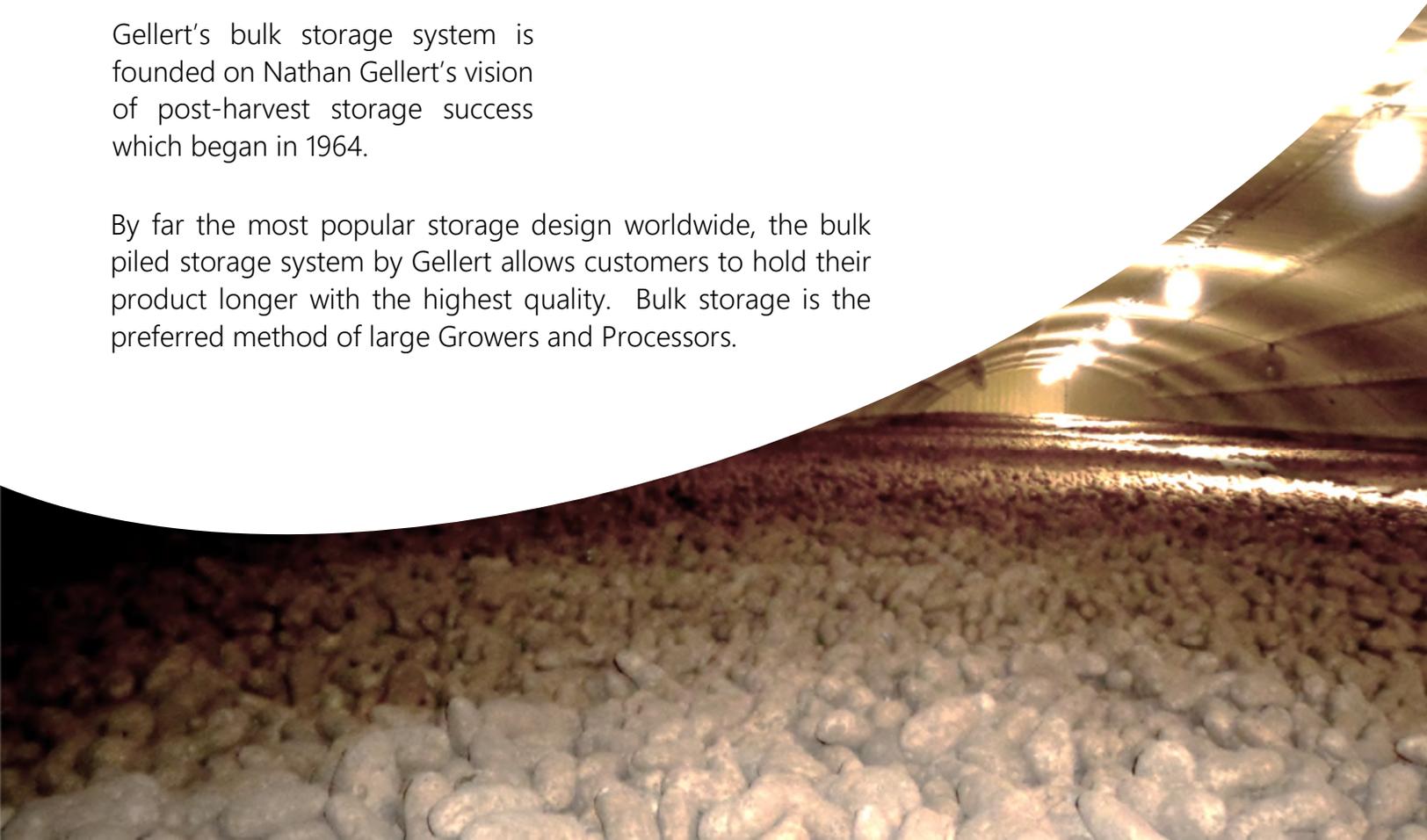
# BULK STORAGE

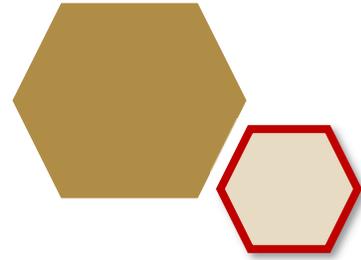


*BULK STORAGE  
Internal Fan House*

Gellert's bulk storage system is founded on Nathan Gellert's vision of post-harvest storage success which began in 1964.

By far the most popular storage design worldwide, the bulk piled storage system by Gellert allows customers to hold their product longer with the highest quality. Bulk storage is the preferred method of large Growers and Processors.





## BENEFITS & ADVANTAGES

- Use of "free air"
  - Gellert's climate design provides for highly-effective ventilation, maximizing the use of cool, outside air.
- Easier operation allowing for multiple bays in one cellar.
- Effective and efficient CO2 management.
- Easy access to air system for treatment applications.
- Product holding duration of up to a year.
- Easily and quickly load and unload product.
- Store larger quantities of product – holding height up to 20 feet.
- Smoother and more efficient Humidity, Temperature, and CO2 control.
- Mixing chambers for better balanced humidity and temperature control.
- External Fan House option
- Internal Fan House option

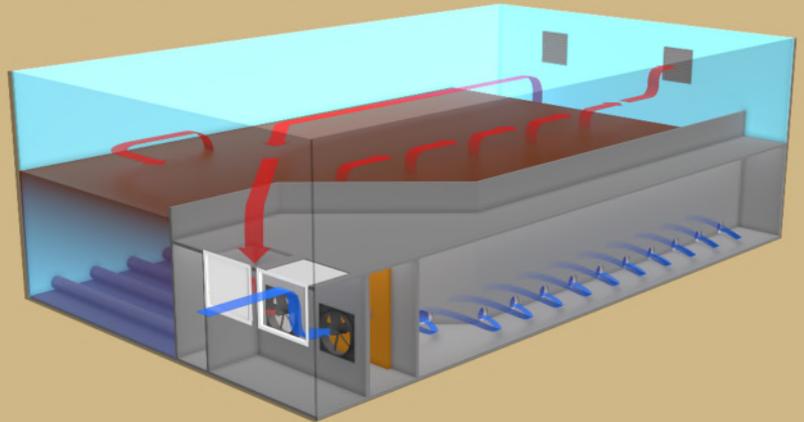


# BULK STORAGE FEATURES

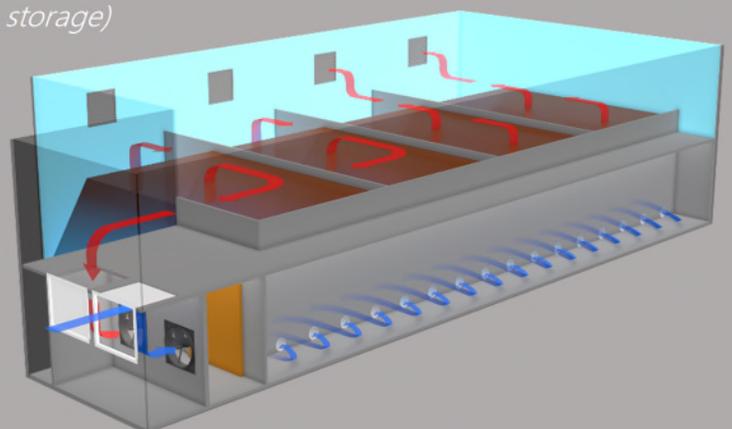
- Center or split plenum.
- High performance AMCA Certified Fans for ventilation.
- Quality Variable Frequency Drives for control.
- Internal Fan House:
  - System is integrated within the storage area.
  - Full pressurization of the building.
  - Three separate areas for control, humidity, and ventilation – including a mixing chamber.
  - Provides maximum transference of humidity, respiration, transpiration, CO2 and temperature.
- External Fan House:
  - Provides full use of storage area.
  - Full pressurization of building.
  - Three separate sections for control, humidity, and ventilation, including a mixing room.

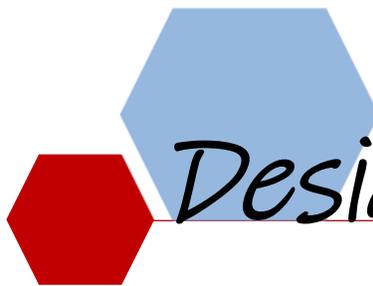


*INTERNAL FAN HOUSE  
(bulk storage)*



*EXTERNAL FAN HOUSE  
(bin storage)*





# Design

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## OPTIONS

When it comes to storage, Gellert has the expertise and equipment to minimize and even eliminate storage challenges – getting Growers headed in the right direction and improving produce to the Processors and Consumers.

Helping Growers hold their produce longer and at a better quality, the Gellert System gives them control to release their product into the marketplace when they're ready. For many root vegetables, this means relying on Gellert's expert method for temperature and humidity management. Gellert improves both shrink as well as pressure bruising issues with their Bulk System Design.

One design option includes fully-rounded duct to carry the air with minimum resistance.

Another option is the Gellert Air Floor - a strategically designed floor that provides precise air flow through vents in the floor.

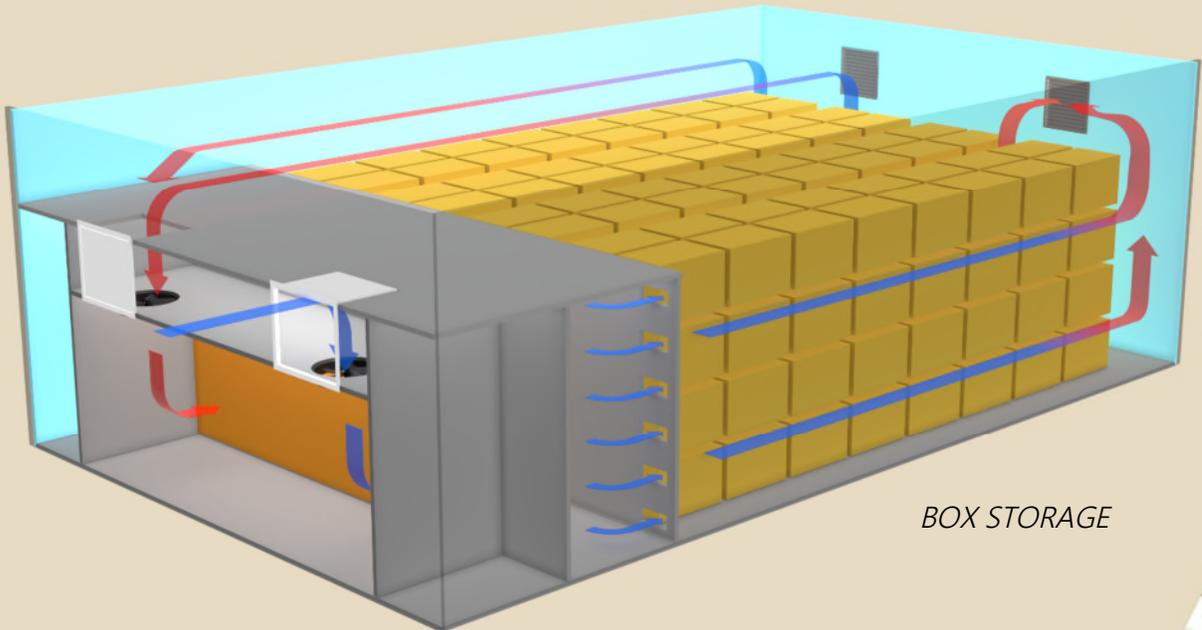
Gellert also provides a *Maximizer* which is similar to the Air Floor, but can drastically reduce the cost of the floor while still providing that type of air movement.

For new or renovation projects, Gellert will professionally consult with your builder to assess capabilities and provide more information to you in making your storage design decisions.



# BOX STORAGE

Gellert's system for box storage is the trusted design application for holding Seed, Varieties, Bulbs, and other produce.

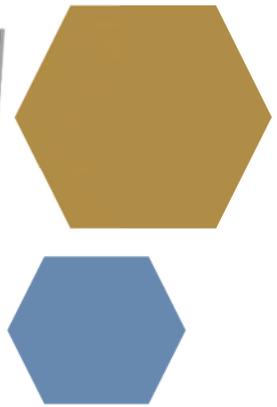
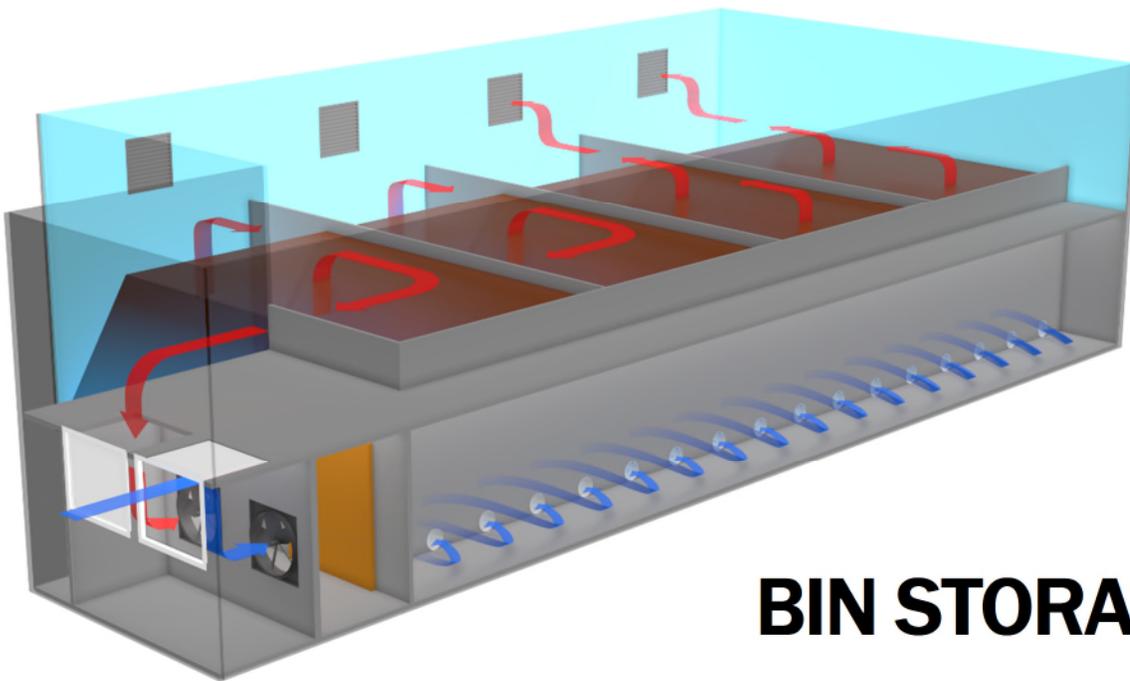


*BOX STORAGE*

## FEATURES & ADVANTAGES

- Use of "free air"
  - Gellert's climate design provides for highly-effective ventilation, maximizing the use of cool, outside air.
- Optional return air scoop for aggressive air return cycles.
- Segmented zones or bins for tighter control and customization.
- Gellert offers affordable retrofit options for converting a Bulk Storage to Box.

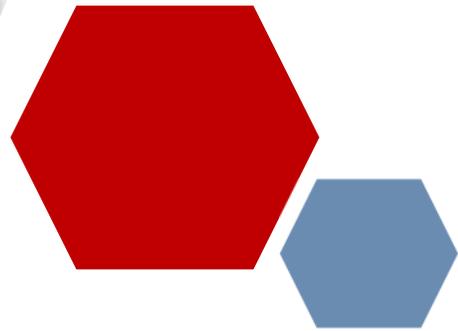




## BIN STORAGE

- Great for seed storage or produce that needs to be segmented for variable controls.
- Use of "free air"
  - Gellert's climate design provides for highly-effective ventilation, maximizing the use of cool, outside air.
- External or Internal fan house.
- Ability to respond to specific product areas and adjust air flow in each duct with booster fans, heat, or humidity.





## **& POWER CONTROLS**



Gellert's AGRI-STAR Control Panels work seamlessly with all your Gellert Climate Control equipment.

Our panel controls such things as plenum temperature, humidifiers and climacell, fan speed, CO2 levels, and condensation.

Gellert's power and control solutions can give you the ability to monitor, run, and use equipment efficiently.

Monitoring for power issues like dirty power, as well as running proven performance rated equipment that start and run the system efficiently is what our customers ask for.



Besides state-of-the-art performance, Gellert's electrical equipment typically qualifies for local utility rebate programs in your area. Contact your local Gellert Dealer or call us directly.



## Power in your hands - with our GELLERT APP!

- Access and Control at your fingertips.
- Visibility of your entire climate.

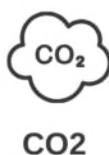
Save yourself TIME and MONEY by having the ability to view all the aspects of your climate-controlled environment on your mobile device.

You will even be able to make controls adjustments to some of the equipment remotely - with the App!



## Gellert Wireless

Part of our services include Professional Troubleshooting and Remote Servicing for your connections. We can help provide the full installation of your internet, including bridging buildings and locations securely, setting up routers and testing for successful implementation. You can then receive remote management of your wireless services from one of Gellert's *Wireless* experts.





# VENTILATION

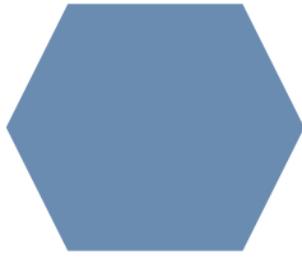
AMCA Certified equipment means our air moving and handling equipment is independently certified. When Gellert tells our customers that the air movement in their design performs at specifications with an AMCA rating, they know they've got a system they can trust.

A balanced system that's been sized correctly means no vacuums, no excessive pressure, air that goes where it's designed to go carrying humidity, temperature, and CO2 to and from the product.

As the system mixes the air, you get the perfect climate for successful storage.

## FEATURES & ADVANTAGES

- AMCA Certified Equipment - you know your design works.
- Torque rated frames that exceed competitors - you know it will last.
- Hot dipped galvanized for long lasting performance.
- Aluminum AMCA Certified Macheta Air Foil or Adjustable pitched propellers for improved air movement.



# HUMIDIFICATION



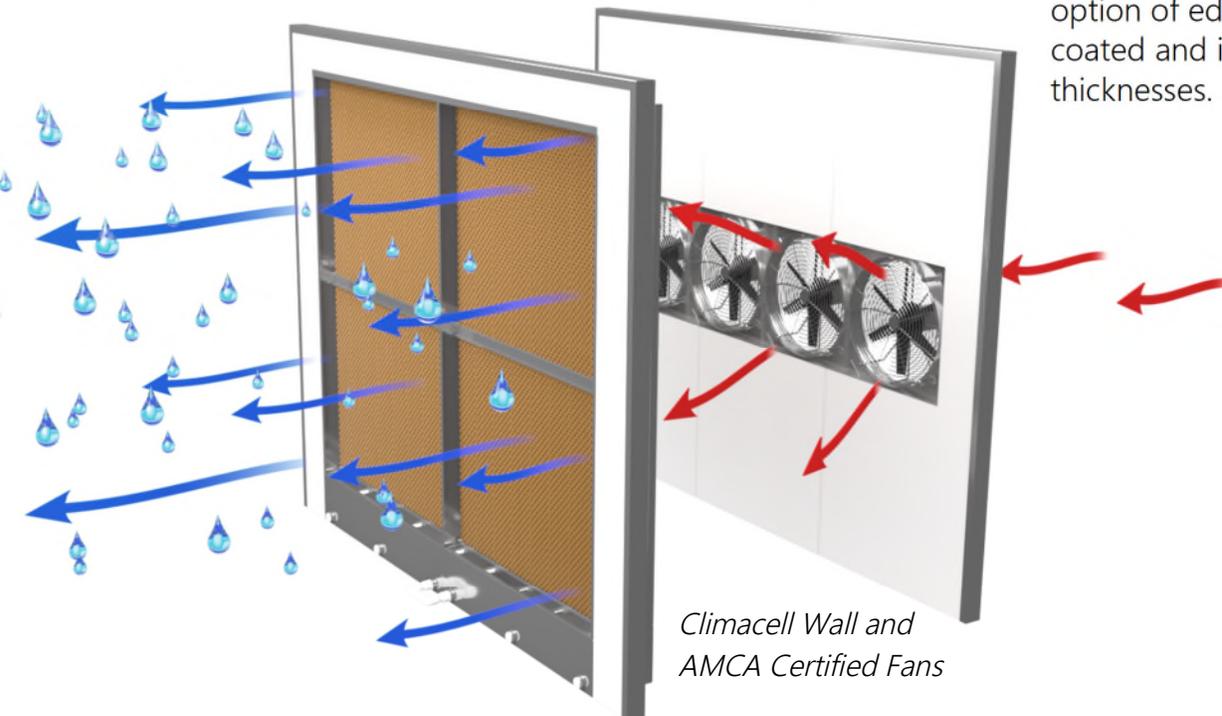
Gellert's Humidity Solutions include a fixed Climacell Wall that provides even distribution of humidity through a wide area.

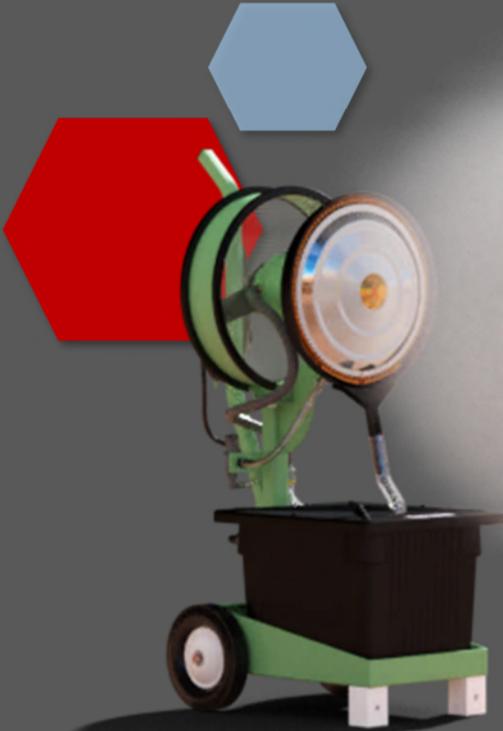
The Climacell can be scaled based on Humidity demand for those areas where the absence of free moisture is needed.

It includes a stainless steel tank, galvanized frame, and top cap.

Gellert's Climacell includes a recirculating system and the water trickles to the media where it drops into a tank ready for recirculation.

Expensive high-pressure humidity is not needed to wet the media. Gellert's media comes with the option of edge and non-edge coated and in many different thicknesses.





## CENTRIFUGAL HUMIDIFIER

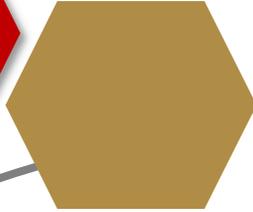
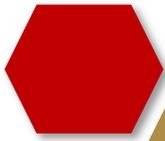
Gellert also offers a portable, fixed, and stationary centrifugal humidifier.

Atomization performance exceeds competitor's solutions as well as the ability to carry humidity farther distances.

Depending on our customers applications, Gellert can size humidity to your needs.



# REFRIGERATION



Refrigeration from Gellert is available as a new install, retrofit, temporary skid, or pad mounted and includes a number of different install configurations based on your application.

## *New Controls -*

The Gellert Refrigeration Controller can be installed in new equipment or as a retrofit. The refrigeration controller brings innovative two-way communication. This communication intelligently manages compressors, condenser fan motors, and defrost cycle and monitors for a variety of failures. It also includes remote monitoring and fast troubleshooting using historical data and trends.





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