



THERMA-HEXX



THERMA  
PANEL™  
INTERIOR

**Radiant Hydronic Heating and Cooling Systems**

## The new standard for interior heating and cooling



## NOW IS THE TIME

*To change the way we heat and cool interiors*

**Cities like New York are prohibiting the use of fossil fuels for heating and cooling in new structures.**

*Thanks to new high performance technologies like ThermaPANEL and new efficient air to water and water to water heat pumps, structures can meet new building codes for heating and cooling.*

**Moderate fluid temperatures for both heating and cooling reduce operating costs by as much as 30%.**

*For heating, 120° F (49° C ) is the max. temperature for efficiency.*

*For cooling, 3 - 5° above dew point is optimum to avoid condensation.*

*The large surface area provides for greater cooling capacity at higher fluid temperatures allowing for safe condensation free cooling.*

**ThermaPANEL modules have the highest fluid to surface area ratio on the market.**

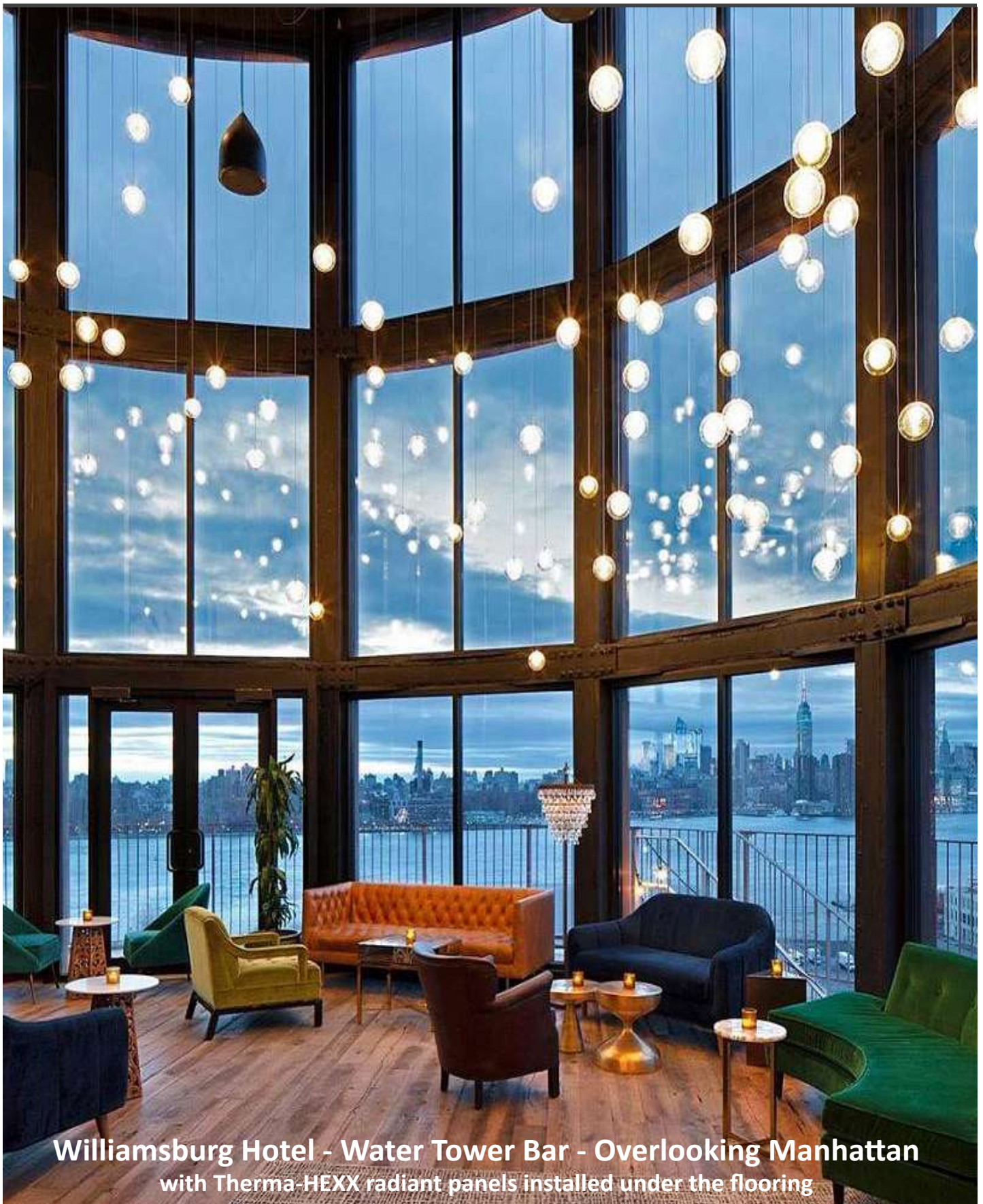
*.26 gallons of heat transfer fluid is evenly and turbulently distributed throughout thermoformed channels in each panel resulting in performance that is superior to all tubing based systems.*

**ThermaPANEL modules can be mounted in framed ceilings, dropped ceilings, floors and walls.**

*ThermaPANEL-TRAK© systems provide easy installation to any surface, framing system or suspension system.*

*-TRAK© firmly holds the panels in place and provides an attachment face for drywall or other surfaces.*





**Williamsburg Hotel - Water Tower Bar - Overlooking Manhattan**  
with Therma-HEXX radiant panels installed under the flooring



## MAJOR BENEFITS

- **Eliminating fossil fuels and high efficiency**

***“Under ideal conditions, a heat pump can transfer 300 percent more energy than it consumes. In contrast, a high-efficiency gas furnace is about 95 percent efficient.***

*Heat pumps are powered by electricity, so you can save substantially on fuel consumption. It’s over 100 percent efficient in various temperate climates and can serve as both a heater and air conditioner.” (Trane Corp.)*

- **Space saving and ease of installation**

***Upwards of 20% space savings can result in additional levels being added to the structure, thus essentially paying for the first costs of the system and providing significant financial benefits for the owner or developer.***

*Ducted systems require enormous amounts of horizontal and vertical space. They also present significant challenges for the structural engineers.*

***A Therma-HEXX system only requires 1.4” (3.6 cm) of vertical space. Piping mains are typically under 3”. The average plenum required for a ducted system is 24”. Fresh air and humidity control ducts required for a hydronic radiant system are significantly smaller and easier to route.***

- **Health and comfort**

***No drafts, no noise, no hot or cold areas, just pure comfort.***

*Everyone that has ever experienced radiant heating or cooling knows how comfortable it is. Distribution of contaminants and airborne diseases are easily controlled or eliminated.*

## A PROVEN PRODUCT

*ThermaPANEL has been specified over the past 10 years in numerous extreme applications by the worlds most prominent architects, engineers and builders.*

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- **North American Missile Defence System - Fort Drum, NY**  
*Snowmelt for a radar system in extreme snow & ice conditions.*
- **The Edge at Hudson Yards - New York City**  
*Snowmelt and engineered surface support system for the highest observation platform in the western hemisphere.*
- **The Summit - Snowbird Ski Resort - Utah**  
*Snowmelt elevated decks at 11,000 ft elevation.*
- **Cliff Lodge - Snowbird Resort - Utah**  
*Snowmelt 10th floor pool deck and entrance portico roof.*
- **Marriot Edition Hotel - Times Square, NY**  
*Snowmelt and cool interior / exterior convertible spaces.*
- **One Vanderbilt - NYC**  
*Snowmelt 2nd highest observation deck in NYC.*
- **Gateway Canyon Resort and Spa - Gateway, CO**  
*Terrace cooling and solar pool heating 24/7 in an extreme southwest environment.*
- **Williamsburg Hotel - Water Tower Bar - Brooklyn, NY**  
*Interior underfloor radiant heating of tall cylindrical restaurant.*
- **Driveways and commercial entrances**  
*Snowmelt for paver, concrete and gravel drives and entrances.*

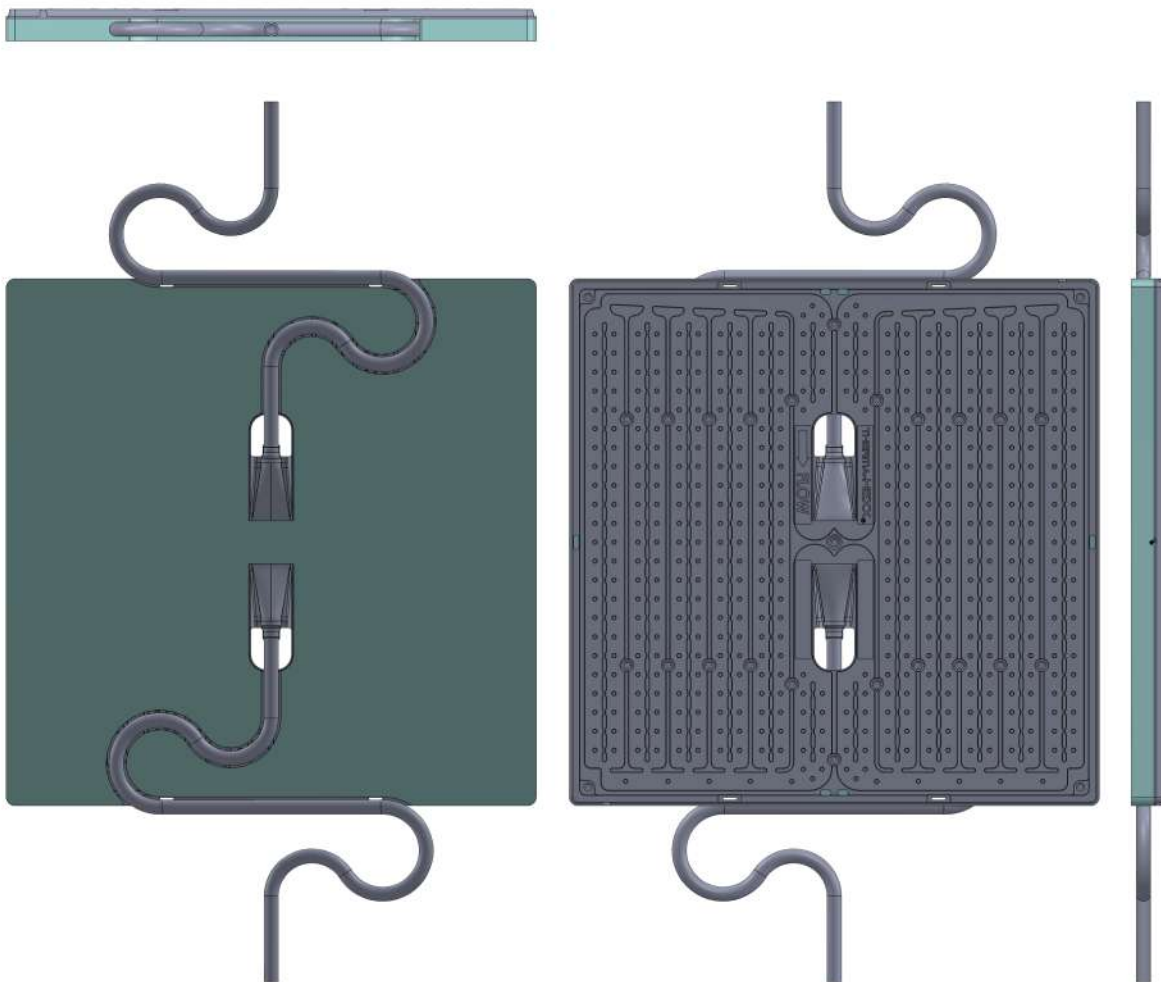


## UNLIMITED DESIGN POSSIBILITIES

*The thin profile and modularity of the ThermaPANEL system combined with new lighting technologies, can permit a ceiling depth of as little as 1.4".*

*The reduction of large ductwork and dirty diffusers makes for clean uncluttered surfaces.*

*The high performance and flexibility of panel distribution makes layout and installation easily accomplished with basic training.*



1.4" (35.6mm) Thick ThermaPANEL modules are available in 3 sizes:  
11.5" x 23.5" (292 x 597 mm)  
23.5" x 23.5" (597x597mm)  
23.5" Trimmable to 14" (597x356)

United States Patent No. 8,944,146  
German Patent No. 21 2012 000 104.2  
Australian Patent No. 2013101504  
Canada Patent No. 2,837,373  
Mexico Patent No. 365,404

## OUT WITH THE OLD

***Easily upgrade and replace existing HVAC systems with Therma-HEXX***

- *ThermaPANEL units can be integrated into existing ceiling grid systems or attached directly to the bottom of the grid and then covered with drywall or other type of updated ceiling surface.*
- *Removal of old systems will allow for higher ceiling heights.*
- *Humidity and ventilation can be controlled with much smaller ductwork.*
- *New construction will benefit from higher ceilings or additional levels due to the reduction of the plenum size.*
- *A 20% savings in usable space can be realized.*





## HIGHEST PERFORMING

### *Edge to Edge Radiant*

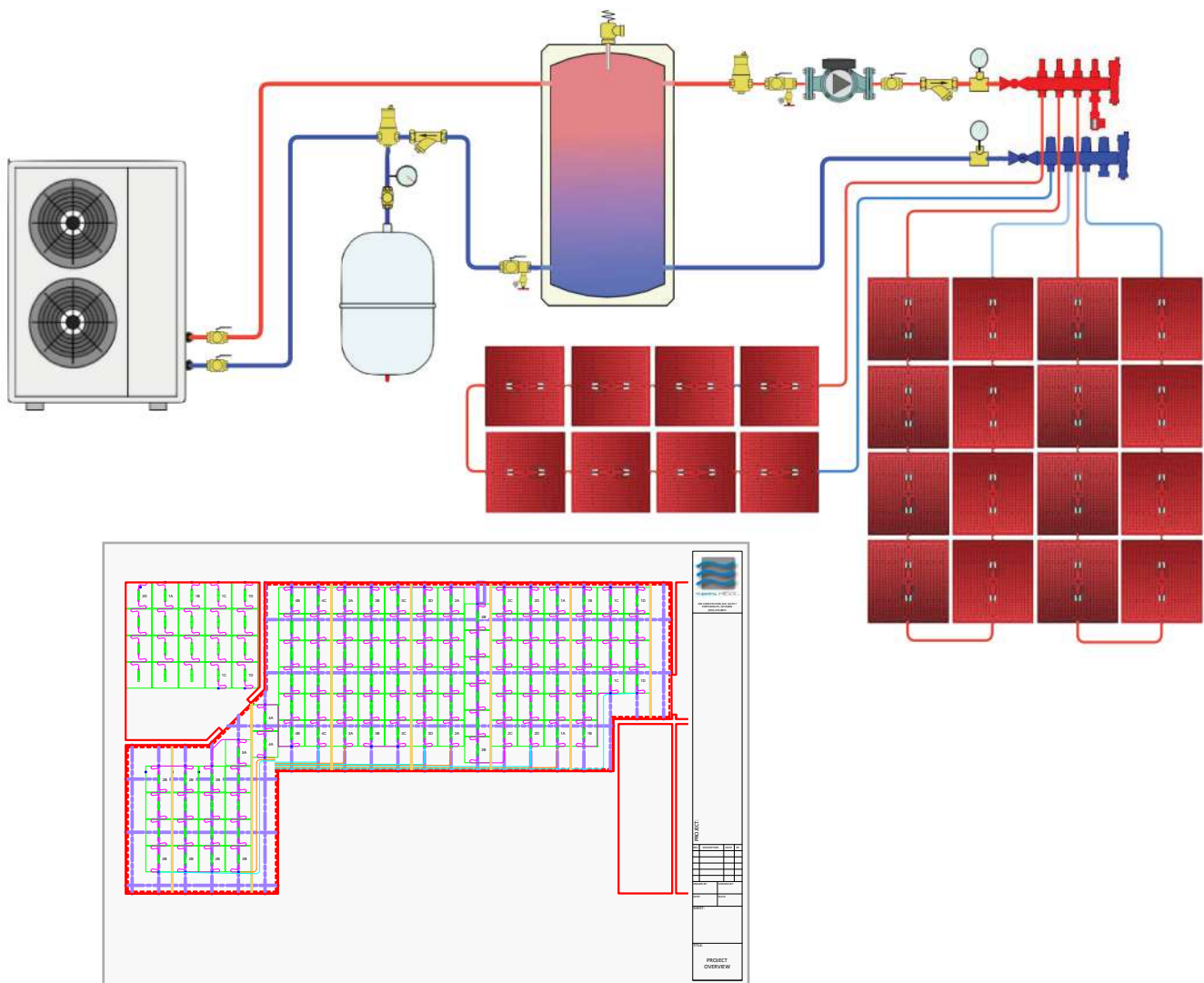
- *ThermaPANEL units have integrated fluid channels that have 125% surface area within their footprint.*
- *The fluid is mechanically turbulated = maximum heat transfer.*
- *Each panel holds .26 gal. of fluid = fast response.*
- *Integrated EPS insulation = fast clean installation.*
- *The highest performing passive radiant panel on the market.*
- *Easy to transport, easy to install, zero maintenance.*
- *All factory connections are fusion welded. Fewer potential failure points than other radiant panel systems that rely on push to connect fittings. Field connections can be any 1/2" CTS fitting suitable for PEX or PE-RT tubing.*
- *ThermaPANEL provides edge to edge even heat transfer. Bottom left image shows PEX w/Joist Track with uneven low energy transfer. Retrofit ceiling with 5/8" drywall and surface mounted LED light is mounted directly to an existing grid ceiling system*



## SYSTEM DESIGN

*Designed for your application*

- *Therma-HEXX custom designs and engineers each system.*
- *Works with many types of heating and or cooling systems.*
- *High efficiency can be enjoyed with air to water and water to water heat pump systems.*
- *Systems can be engineered for small offices and homes or multi level high rises, commercial and industrial applications.*





## PRODUCTION & DELIVERY

### *Custom or Standard*

- *Therma-HEXX can provide custom built to fit or standard production lengths of 3 or 6 panel rows.*
- *All custom rows are permanently labeled for easy placement.*
- *Panels can be added or removed from rows onsite.*
- *Panels are delivered in 7' x 2' x 2' (approx.) boxes.*
- *Systems are sold with all necessary plans, interconnect tubes, fittings, and manifolds or ala cart. Onsite training is an option.*



Visit [www.therma-hexx.com](http://www.therma-hexx.com)  
for CAD details, videos, testimonials  
specifications and application information.  
Or call us to discuss your project.  
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