



## Radiant Panels & Chilled Sails Architectural Portfolio

Radiant panels & chilled sails improve thermal comfort, while providing energy-efficient building design, and contribute to LEED credits.

Visit [twapanel.com](http://twapanel.com) for more information.





# Radiant Panels & Chilled Sails

## Architectural Portfolio

Twa radiant panels are an excellent way to provide improved thermal comfort and energy efficiency, while contributing to the architectural design of a space.

The following pages showcase the various configurations that Twa offers, and provide images of past installations, to illustrate how Twa radiant systems can be installed: in a variety of shapes, sizes, and finishes that satisfy the unique demands of each application.

Twa offers to work closely with your design team to produce a solution that is ideal for your personal and unique design vision.



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# Custom Linear Radiant Panels

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Linear panels are at the heart of the Twa panels offering, and can be customized in a variety of ways to suit specific architectural requirements. Some of the more common methods of customization are described below.

## Curved

Linear panels may be curved to create a sleek, modern design.

## Mechanical & Electrical Integration

Cutouts for lights, sprinklers, grilles, and registers may be integrated into panel construction to save ceiling space and improve aesthetics, while managing on-site labour costs for plug-and-play solutions.

## Architectural Integration

Panels may be built around building structural supports, increasing design flexibility.

## Custom Sizes

The length and width of each panel can be customized to fit the specific requirements of your design.

## Security

Smooth-faced, 10Ga plate steel radiant panels are vandal resistant, making them ideal for high-security areas.



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### Pictured left to right:

Smooth arc (horizontal plane) with custom linear panel, 01 provides cooling/heating while following an architectural feature.

Smooth arc (horizontal & vertical plane) with custom linear panel 02

Aesthetically pleasing finishes and surfaces can be 03 applied to blend into or complement an architectural design.





01



02



03

# Modular Radiant Panels

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Modular panels can be easily installed in an exposed-grid acoustic-tile ceiling system including both T-Bar and tegular options, as well as in a modular torsion-spring ceiling system.

## T-Bar

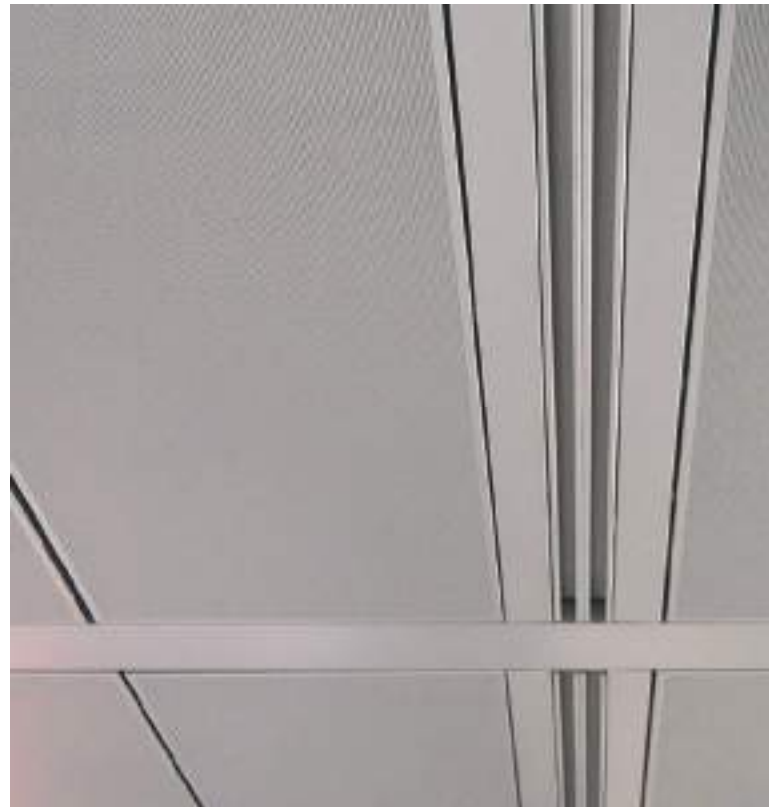
Modular panels may be laid into traditional T-Bar systems.

## Tegular

Tegular panels are available for a more streamlined appearance.

## Radiantly-Activated Torsion-Spring Ceiling

Torsion-spring and full-metal ceilings provide an aesthetically pleasing finish, and allow excellent interstitial access. Radiantly activating these ceiling systems provides a high-comfort, cost-effective mechanical solution.



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Pictured left to right:

Perforated block-pattern modular panels installed in a tegular ceiling grid 01

Radiantly-activated, torsion-spring ceiling system 02

Perforated block-pattern modular panels installed in a standard T-Bar ceiling grid 03



01



02



03

# Surface-Mount Radiant Panels

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Surface-mount radiant panels can be mounted on walls or on ceilings. This application is an excellent way to utilize radiant panels in a space where integration within the walls or ceiling is impractical, or when panels are chosen to be a design element.

### **Bullnose Edge**

The bullnose-edge profile provides a softer appearance by minimizing the geometric lines.

### **Square Edge**

The square-edge profile provides a more pronounced appearance with sharper geometric lines.

### **Gym Panel**

Gym Panels have been designed to withstand most impacts, and streamlined to prevent objects from getting lodged on top of the panels.

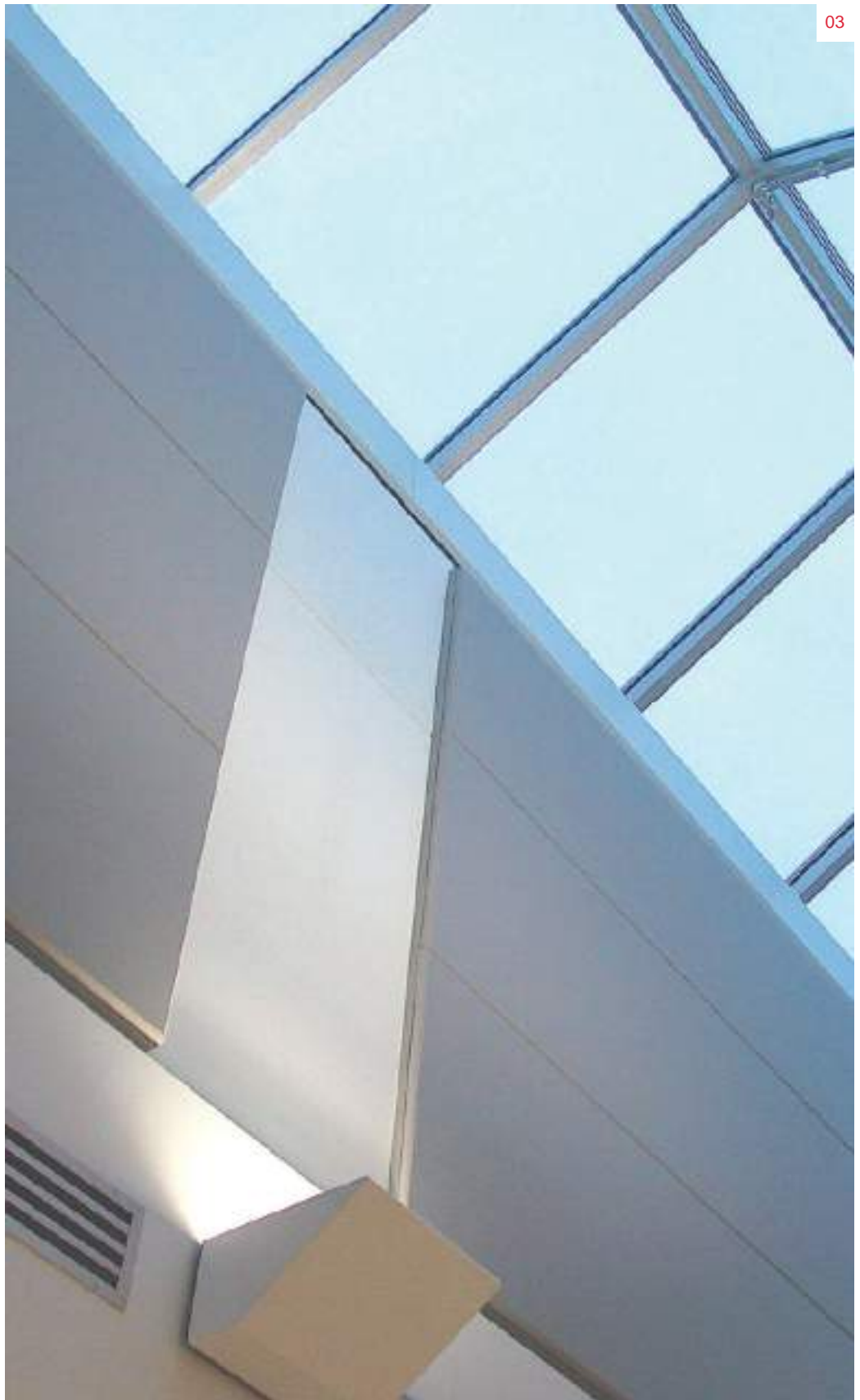


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### **Pictured left to right:**

- Ceiling- and wall-mount panels in a lab environment, for precise temperature control **01**
- Perimeter corner-mount panel with bullnose-edge profile **02**
- Surface-mounted interior panels are an excellent way to transform radiant panels into an architectural element and provide glazing temperature control. **03**





## Radiant-Cloud Panels

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Free-hung radiant clouds are an excellent way to integrate panels into the building architecture; particularly, in open ceiling spaces (converted warehouses, schools, etc.) or in spaces where the ceilings are otherwise too high for radiation to be an effective method of heating and/or cooling.

Additionally, this strategy translates into a low-cost finish option, as only the active elements are provided to the space, and no other ceiling costs are incurred.

### Square Edge

This style is the most common free-hung panel.

### Bullnose Edge

Bullnose free-hung panels give a softer appearance than square-edged panels.



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### Pictured left to right:

Free-hung bullnose panels located well below the structural ceiling 01

Free-hung panels are showcased as an architectural feature. 02

Free-hung panels integrated into the space with high ceilings, and custom panels following an architectural wall feature 03





## Light-Shelf Radiant Panels

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Light-shelf radiant panels have been designed to reflect light deeper into the room during winter when the sun is low on the horizon, while offering shading and limiting solar loads during summer months when the sun is high. These “activated” control surfaces provide the added benefit of managing asymmetric radiation within the occupied zone.

### Custom Profiles

Custom profiles are available and designed according to specific job requirements.

### Square Edge

The most common profile for light-shelf panels, the 4” square-edge profile, fits seamlessly into many building designs.

### Bullnose Edge

4” bullnose-edge profiles provide an alternative appearance to the square edge.

### Surface or Window-Mullion Mount

Panels may be mounted directly against interior or exterior walls, or against window mullions, in a cantilevered configuration.

### Activated Top

The activated-top option adds capacity to the system, and would be specified to manage the glazing surface above the light shelf.



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Pictured left to right:

Square-edge profile, window-mullion mount 01

Custom profile, window-mullion mount 02

Tapered profile, window-mullion mount 03





## Chilled Sails

Chilled sails are suitable for a variety of applications, including: offices, boardrooms, retail spaces, auditoriums, or any space requiring higher cooling capacity than that which is available with conventional panels.

Chilled sails may be used as an architectural element, and integrated into a variety of ceiling designs.



Pictured left to right:

Chilled sails provide a striking architectural element to this modern boardroom. 01

Custom-curved chilled sail 02

Mitred chilled sails 03

Chilled sail adds architectural appeal to this office. 04



02



03



04



## Chilled Sails (cont'd)

Chilled sails may be installed above other ceiling systems, to be partially/completely hidden from view; or, painted to match the ceiling.



Pictured left to right:

Chilled sails, painted to match the ceiling, are used in this TV studio, to provide supplemental cooling. 01

Theatre application 02

Partially hidden chilled sails, mounted behind an expanded metal ceiling 03





## Finish Options

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Twa provides many finish options, including: castellated, smooth, silk-screened surfaces; as well as, continuous- or block-pattern perforations, and custom colours.

### Castellated

This surface offers added dimension and architectural appeal.

### Smooth

A smooth finish allows the panel to blend into a gypsum-board ceiling.

### Silk Screen

Silk screening can be used to closely emulate a variety of acoustic ceiling-tile patterns.

### Block- or Continuous-Pattern Perforations

Perforated finishes offer the added benefit of allowing sound to pass through the ceiling surface and receive acoustic treatment (using acoustic insulation), for added room attenuation.

### Custom Colours

Twa offers custom paint-matching services when specified.

### Integrated Access Door(s)

Integrated access panels allow for convenient service and maintenance of plumbing accessories, without requiring additional drywall access doors.



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Pictured left to right:

Custom painted, tegular “mod- pans”, with block-pattern perforations 01

Integrated access door in castellated linear panel 02

Linear panels with smooth finish and integrated lights 03

Radiant cloud, with integrated sprinklers and continuous-pattern perforated finish 04



01



03



02



04





1201 – 4<sup>th</sup> Street  
Nisku, AB, T9E 7L3  
Canada

Ph: 780.955.8757  
Fax: 780.955.8696

- 
- Head Office
  - Manufacturing Facility

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