

# Trane Cold Generator™

Scroll Chillers

**Comfort and Process Cooling Solutions** 







## **Advanced Cooling Solutions**

The Trane Cold Generator™ family of scroll chillers is a broad line of comfort and process cooling solutions. Featuring traditional and compact models, all include advanced controls with Building Management System compatibility interfaces as standard. Every unit in this newly expanded offering is scaled for delivery through a standard doorway, and it has become an industry leader for innovative design, sensible serviceability and efficient performance.

#### **Trane Cold Generator Scroll Compact Chillers**

The Trane Cold Generator series of scroll compact chillers include a 30 ton unit with dual refrigeration circuits with nominal 15 HP, and models available are 20, 30, and 50 tons with common refrigeration circuits for improved part load operation. Advanced controls allow each unit to function as a standalone chiller, or in an expandable array similar to a single high capacity multi-stage package chiller. Each model's capacity can be multiplied in arrays of up to 10 units, and revolutionary design advances make them an industry standout for efficiency, flexibility and serviceability.

#### **Trane Cold Generator Scroll Chillers**

The Trane Cold Generator series of scroll chillers includes two models, each with 5 unit sizes 20, 30, 40, 50, and 65 tons with single or dual refrigeration circuits depending on capacity. Featuring highly reliable scroll compressors with sophisticated digital control technology, these chillers offer efficiencies unmatched by traditional reciprocating compressors at both full and part load conditions.

#### **Building Life**

Trane understands the critical role that cooling systems play in the fundamental operation of any building. Whether your need is comfort cooling to enhance the lives of building occupants or process cooling to support the life of your business, Trane is dedicated to delivering precisely tailored performance when and where you need it.

#### Fit and Flexibility

Scaled to fit through standard doorways for ease of installation, Cold Generator™ scroll chillers are ideal for new, retrofit and renovation applications in commercial and industrial applications, including:

- Education
- Healthcare
- · Hospitality
- Government
- · Historic buildings
- · High rise
- · Process Cooling

The Cold Generator CICB Compact Series scroll chiller is the newest Trane offering in this market segment. Packed with innovative, space-conscious design elements, it is the only compact, expandable model of its kind that meets stringent metropolitan building code requirements while featuring a mechanically cleanable shell and tube condenser and meeting all ASHRAE® 90.1 standards through 2016.

#### **Open Source Solution**

Conventional chiller units with brazed plate condensers are problematic for open systems, as their intricate geometry is susceptible to clogging by suspended contaminants, and at risk of fouling from the plating of dissolved solids. To address this issue, the Trane Cold Generator family of scroll chillers offers two models featuring mechanically cleanable and serviceable shell and tube condensers.

The readily accessible and physically cleanable shell and tube condenser design makes these scroll chillers ideal options for open water loop and cooling tower applications.

#### **Custom Configurations**

Small or unusually shaped mechanical room configurations pose a unique challenge for retrofit and renovation projects. The flexibility of the Cold Generator compact series is ideally suited for these applications. They can be installed in a variety of configurations, with custom designed pipe sizes tailored to suit the specifications of your atypical space.

#### **Factory Commissioned**

All units are factory assembled, charged and run tested to ensure a smooth, trouble free installation.



Education



Healthcare



Hospitality



Government



Historic Buildings



High Rise



**Process Cooling** 

#### **Beyond Cooling**

All Cold Generator Scroll Chillers offer an ice making option.

## Innovative By Design

## Trane Cold Generator™ CICB Compact Series

The newest offering in the Cold Generator line of compact scroll chillers raised the industry bar for innovative design, performance benchmarks and cleverly efficient use of space.

- 30 ton capacity at standard AHRI® conditions
- Expandable to 10 unit array with 300 ton capacity
- · Nominal 15 HP per refrigeration circuit
- · Mechanically cleanable shell and tube condenser
- · Dual independent refrigeration circuits
- Advanced controls provide standalone and multi-stage array operation
- Meets all ASHRAE® 90.1 standards through 2016
- · AHRI Certified®

# Trane Cold Generator CICA Compact Series

Three CICA compact series sizes provide substantial coverage for a range of comfort cooling and industrial process cooling applications. Advanced controls and redundancy features ensure downtime is minimized. User friendly design enhances serviceability, which promotes optimal performance and long service life.

- · 20, 30, and 50 ton capacities
- Expandable to 10 units per array controller
- · Compact brazed plate heat exchangers
- Common refrigeration circuits for exceptional part load efficiency
- Advanced controls provide standalone and multi-stage array operation
- Meets all ASHRAE 90.1 standards through 2016
- AHRI Certified





#### **Reliable Redundancy**

The Cold Generator compact scroll chiller series features controls with N+1 logic, which allows for automatic engagement of a redundant chiller unit in the event of an active chiller failure. This eliminates A/C downtime and ensures the system continues running while repairs are completed.

#### **Expandable Arrays**

Cooling capacity for the Cold Generator compact scroll chiller series can be amplified with up to 10 units per array controller.

#### **Double Duty**

The swing out control panel design separating high and low voltage areas illustrate one of the many clever design elements that optimize use of space and minimize the unit's footprint while improving safety and serviceability.



### Trane Cold Generator™ Scroll Chiller CGWR Series

The Trane Cold Generator Scroll Chiller CGWR series is a water cooled solution designed for quiet, reliable, high efficiency operation.

- · 20, 30, 40, 50 and 65 ton capacities
- · Scroll compressors
- · Brazed plate evaporators
- Mechanically cleanable shell and tube condenser
- · Factory charged with refrigerant
- · Factory run tested
- · AHRI Certified®
- Meets all ASHRAE® 90.1 standards through 2016

Building Management System compatibility and remote unit operation are standard features of the advanced chiller controls.

# Trane Cold Generator Scroll Compressor Chiller CCAR Series

The Trane Cold Generator Scroll Compressor Chiller CCAR series is a remote condensing solution designed for split system applications.

- 20, 30, 40, 50, and 65 ton capacities
- · Scroll compressors
- Brazed plate evaporators
- · Factory run tested
- · Factory charged with dry nitrogen

The powerful unit controller provides complete chiller control, is capable of controlling CAUJ fans and damper section for peak performance, and comes with BACnet® IP and Modbus® BMS interfaces as standard. Several other BMS interface options are also available.





#### **Savvy Separation**

The Cold Generator CGWR Series and CCAR Series feature dual independent refrigerant circuits on the 40, 50, and 65 ton capacity models. This reduces capacity loss in the event of a compressor failure.

#### **Service Centric**

Cold Generator scroll chillers have a service friendly design that allows replacement of all major components without a complete unit tear down.

#### **Split System Solution**

The Cold Generator CCAR Series Scroll Compressor chiller is designed to pair to Trane condenser model CAUJ, available in 20 to 120 ton capacities.



## Big Things Come In Small Packages

### Trane Cold Generator™ CICB Compact Series

The revolutionary new Cold Generator CICB compact scroll chiller packs innovative, space-conscious design elements focused on convenience and serviceability into the smallest footprint available, making it an incomparable water cooled chiller solution.

#### **Smart Separation**

When installed with the recommended service clearance, the unique detachable header feature allows water flow to be isolated from the problem unit, which can then be removed from the intact, still functional piping for repair. This means water continues to flow, and the rest of the chillers in the array continue to function uninterrupted. Once the header is removed, the footprint is reduced to 48", allowing for easier installation or removal.

72" Height





#### **Preserving Pressure**

Lower pressure drops across water circuits means lower, more cost efficient pumping energy requirements.

#### **Compliance Conquered**

This is the only expandable capacity compact scroll chiller with piping header system available and with shell and tube condenser in the industry that meets strict metropolitan building code requirements for nominal 15 HP per refrigeration circuit without an operating engineer on site and meets all ASHRAE® 90.1 standards up to 2016.

#### **Simpler Service**

Service centric design facilitates unit maintenance and component replacement and repair when configured in a compact chiller array.

#### **Lower Cost**

Service centric design means it does not take as long for your mechanical team to perform routine maintenance tasks, which translates to a lower cost per service and a lower cost of ownership over the life of the equipment.

# Mechanically Cleanable Condensers

The unit's condenser head is readily accessible and removes easily to facilitate cleaning.



### **Digital Age Solution**

Because traditionally sized chillers are very large and typically installed prior to completion of a structure, replacing them at the end of their service life is a considerable challenge. The Trane Cold Generator™ series of compact scroll chillers was designed specifically to eliminate the costly and confounding concerns associated with replacing aging chiller equipment in a limited space.



#### **Deliberate Dimensions**

All models in the Cold Generator family of scroll chillers have a concise footprint that was carefully scaled to allow delivery through standard doorways. Compact models can also fit on standard passenger elevators.



#### Ready to Roll

Cold Generator compact series scroll chillers offer a caster option to facilitate fast and easy installation. One technician can simply roll the unit through the building and into place in the mechanical room. Once removed, the caster attachment points become the unit's installation bolt-down points.

#### **Performance Promise**

Trane strives to maintain our commitment to providing innovative solutions that fit various spaces without compromising the high performance standards our customers expect.

Learn more at trane.com/coldgenerator



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.com* or *tranetechnologies.com*.