







### **DON** WEBBER

ACCESS Air Handler Guru



### KIRK WHEELER

Custom Air Handler Aficionado





CLIMA COOL°

Modular Chiller/Heater Systems

CLIMATEMASTER®

Water-Source Heat Pump Solutions



Hydronic Fan Coil Solutions



**Custom Air Handlers** 

#### WHY CLIMATECRAFT CUSTOM AIR HANDLERS?

#### **Flexibility**

- Configurable to site conditions
- Construction materials
- Performance
- Footprint

#### Performance

- High static, low leakage applications
- Extreme duty

#### Reliability

- Designed for durability
- 40-year life expectation

## Quality Design and Construction

- Thorough testing
- Talented engineers on-site to support



#### **CLIMATECRAFT CUSTOM PRODUCTS**





**Indoor Air Handler** 

ClimateCraft can often meet third party standards including:

- AHRI
- IBC Seismic
- Miami Dade County
- ETL
- AMCA
- California OSHPD



**Energy Recovery Units** 



**Stand-alone Fan Array Towers Replace Existing AHU Fans** 



**ACCESS<sup>™</sup> Site Assembled AHU Replacement Solution** 



#### INTEGRATED MANUFACTURER

We are an Integrated manufacturer of the custom air handler and major components

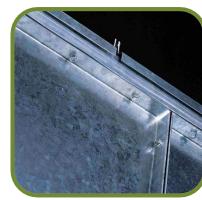
- HW & CW Coils
- Fan array towers
- Access doors
- Wall and roof panels
- Bases











Design

Build

Test

Warranty



### **TESTING**

- ✓ Pressure Testing (Factory and Field)
- ✓ Fan Vibration (Factory)
- ✓ Airflow Testing (Factory)
- **Sound Testing** (Factory)

## Representatives are invited to visit our factory with customers!

Project discussions and unit designs
Unit inspection
Witness testing
Training
Plant tours

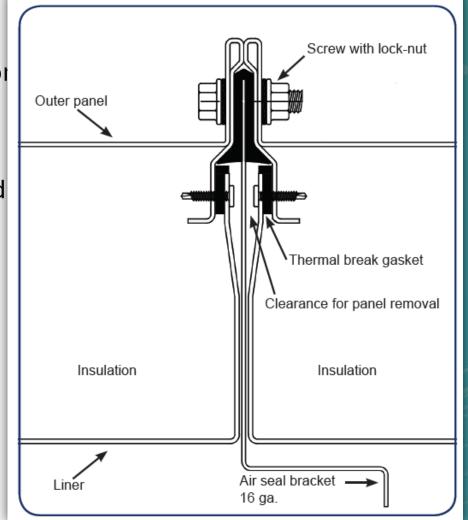






#### STRONG PANELS / FLEXIBLE CONSTRUCTION

- Frameless design & unique air seal / bulkhead design
- Industrial EPDM gaskets, <u>not</u> caulk to hold pressure
- Roll formed to be exceptionally strong with tight tolerances for precise fit to hold pressure
- 4-layers of 16-ga metal at the joint for strength
- ASHRAE/ANSI Standard 111 Leakage Class 5 rating measured accordance with AMCA Standard 210
- L/200 deflection at casing operating design pressures
- Thermal break construction throughout
- 2", 3", & 4" walls available (R-8.4 to R-26.4 choices)
- Galvanized steel, stainless steel, and aluminum panels
- Injected foam and fiberglass insulation available
- Mechanical fastened or continuously welded floors







## CUSTOM COLORS AVAILABLE

Owner specified colors to match the building, local environs or meet a municipal building code requirement





### ACCESS™ WHAT IS IT?

ACCESS™ is an unparalleled process for custom engineered and manufacturing air handling units that are factory-made and field-assembled to meet the unique requirements of the space and building ingress.

#### **8-Step Process**

- 1. Analysis\*
- 2. Planning\*
- 3. Design\*
- 4. Estimating\*
- 5. Logistics\*
- 6. Shipping\*
- 7. Assembly\*
- 8. Testing?

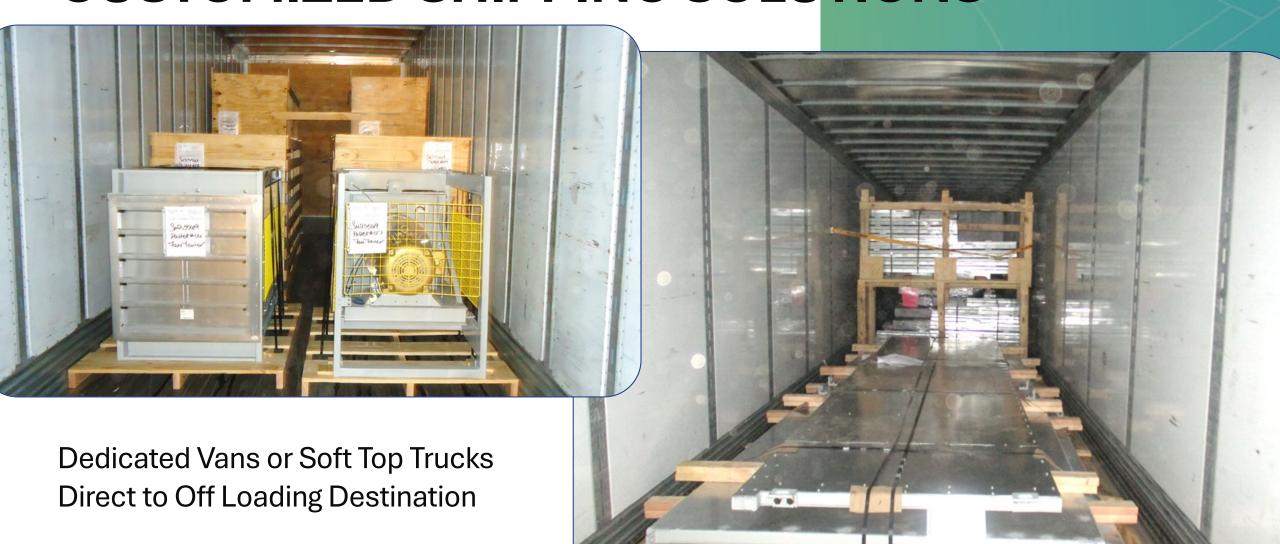
\*No Shortcuts!



### CONSIDERATIONS WHEN SELECTING ACCESST



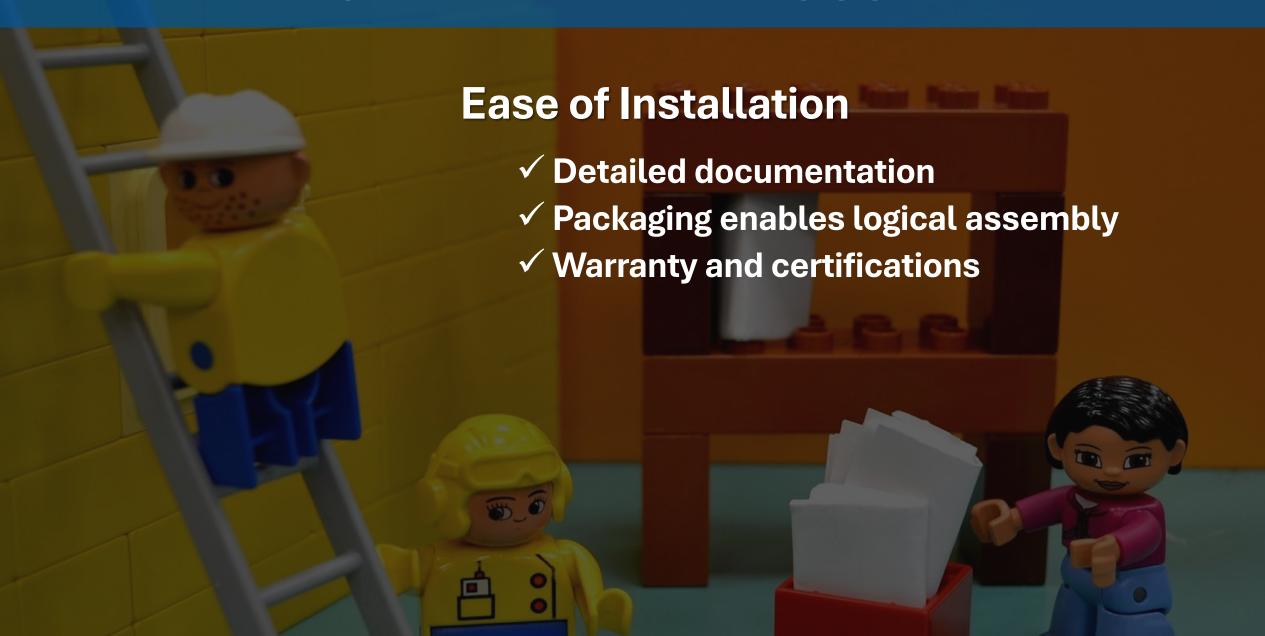
#### **CUSTOMIZED SHIPPING SOLUTIONS**







### HOW WE MAKE IT POSSIBLE



## OUR PACKAGING MAKES ASSEMBLY STRAIGHT-FORWARD

- Grouped by like-parts, panels, doors,
- Each piece is labeled and listed
- Brought in on skids or by piece part





### GRAPHIC DETAILED REFERENCE MANUAL

#### FOR THE INSTALLING CONTRACTOR



Wall Panel Installation Instructions

FIELD WORK INSTRUCTION

WALL PANEL INSTALLATION INSTRUCTIONS



Leave approximately 6 inches of

gasket hanging on the top of the

Place corner post according to drawings. Use 5/16" x 1" bolt

and washer combo to secure

post to base frame.

NOTE: Always start in a corne

and finish at a corner when installing wall panels. Never meet in the middle.

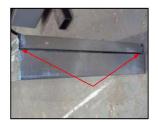






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Caulk in corners of panel on the bottom of the panel only!



Caulk in corner and along gaske the length of the panel that will be bolted to corner post.



Place panel with the caulk side down on the gasket and clamp i to adjacent panel or corner pos

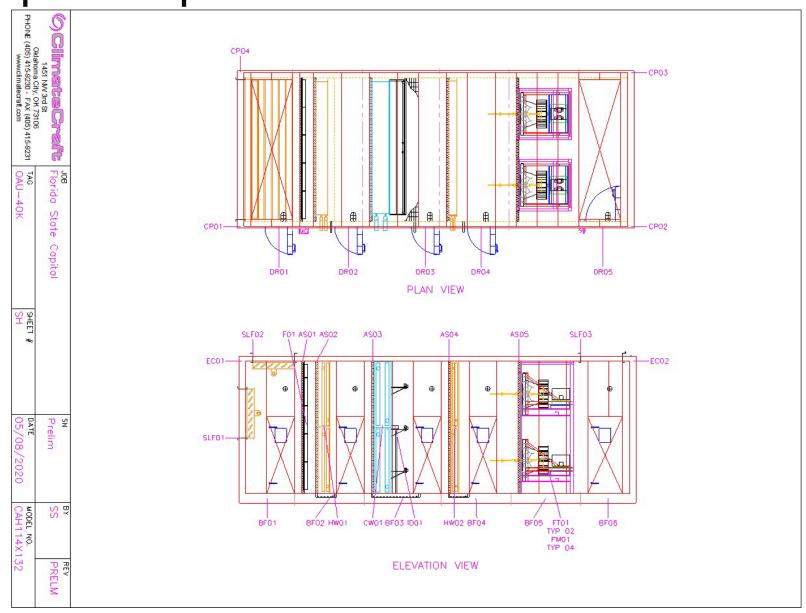
Use line-up bar to align holes in



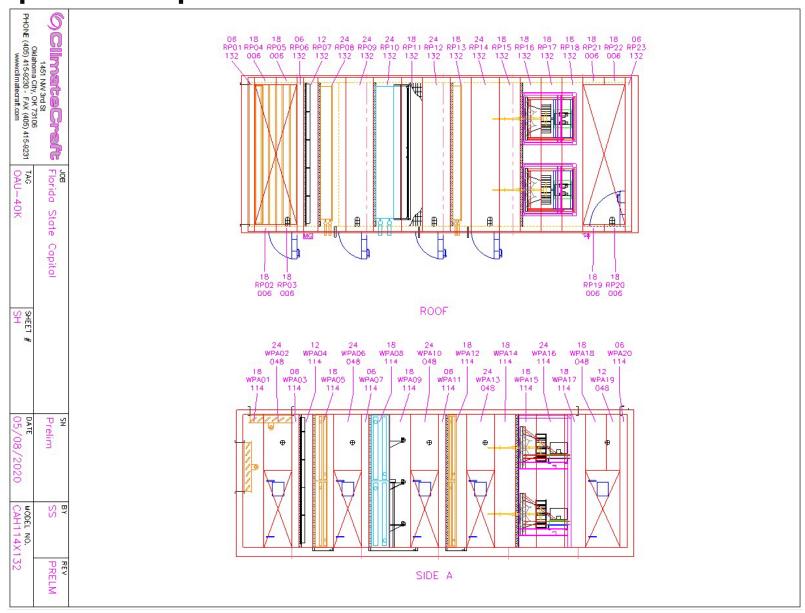
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### Panel Map Example



### Panel Map Example



#### LABELED COMPONENTS



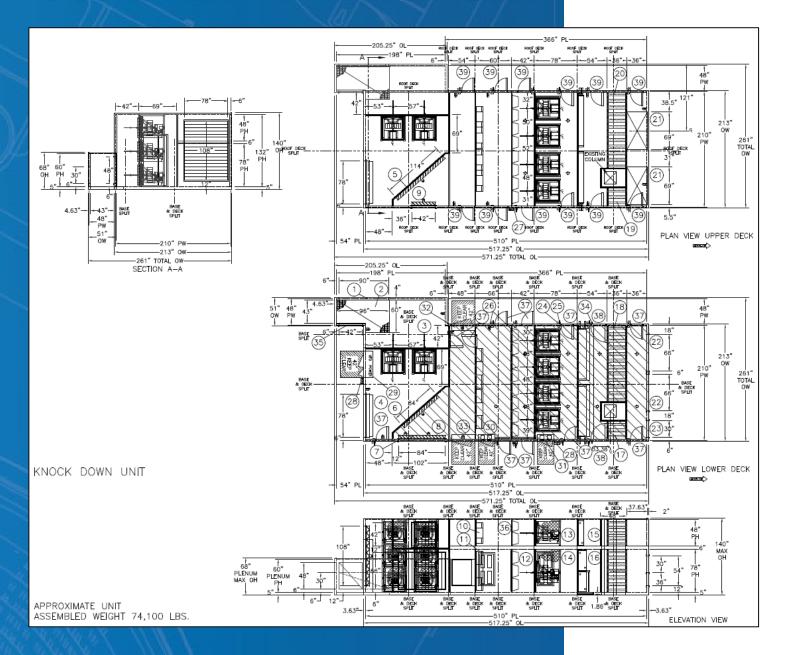




Individually Packaged Components for Ease of Assembly

#### COMPLEX REPLACEMENT

#### 151,000 TOTAL CFM



44 – Containers 5 – Trucks

650 Hours Est. Assembly Time







### **CLIMATECRAFT FAN ARRAY OPTIONS**

#### **ECM FAN ARRAY**

For lower airflow and lower static pressure applications, ECM fan arrays can reduce space and weight with integral VFDs within the ECM motors.

#### **SMALL DIAMETER FAN ARRAYS**

When space is an issue, smaller diameter fans can deliver a compact solution.

#### LARGE DIAMETER FAN ARRAYS

Fan arrays are built for efficiency, redundancy and longevity.



#### THREE-POINT VIBRATION ISOLATION

Two Support Springs



Thrust Restraint Spring



Seismic Restraint and Shipping Tie Down



NO ADJUSTMENT REQUIRED



#### **FanMatrix Options**

CAN FURTHER OPTIMIZE PERFORMANCE

#### **BalanceStream® Technology**

Allows unloading down to 10%

- Without surge
- Without cycling fans



#### Fan Removal Winch

For easy servicing and maintenance







### **BALANCESTREAM™ TECHNOLOGY**

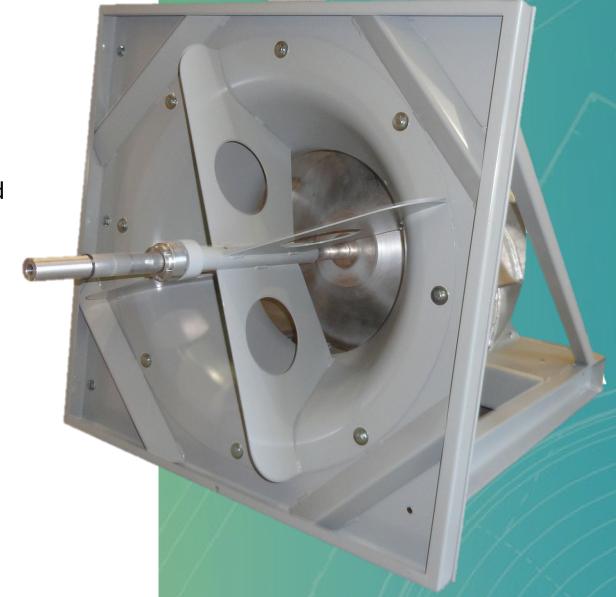
An innovative technology for plenum fans that automatically adjusts the effective fan wheel width.

Allows fans to run stably and efficiently at part load at elevated static pressure

Allows unloading to 10%:

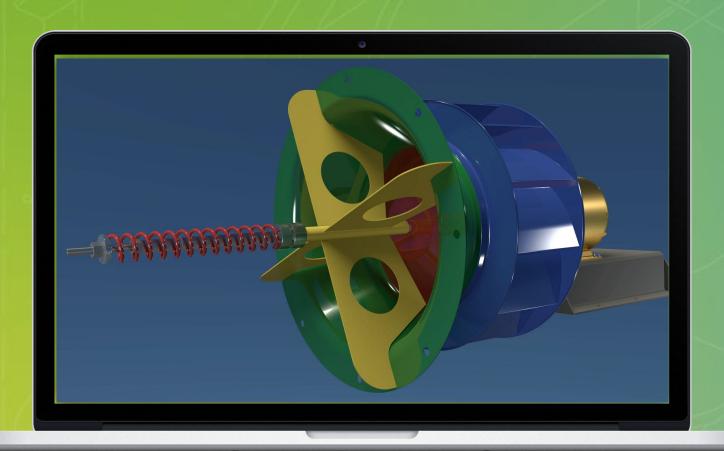
Without surge
Without cycling fans

Provides full shut-off with no back-draft damper





# FANMATRIX™ WITH BALANCESTREAM™ VARIABLE PARTIAL WIDTH WHEEL



Spring actuated inlet cone controlled by the inlet velocity of the fan maintaining suitable outlet velocity to prevent surge and provide the static pressure required by the system



