



The  
Whalen  
Company

Welcome!



# Agenda – October 22

Time		October 22, 2024		
Start	End	Topic	Duration	Presenter
8:00 AM	9:00 AM	<b>Breakfast</b>	<b>1:00</b>	<b>Group</b>
9:00 AM	9:05 AM	Welcome & agenda review	0:05	Tony Landers
9:05 AM	9:25 AM	Introduction to The Whalen Company	0:20	Tony Landers
9:25 AM	9:55 AM	Innoline® Riser Fan Coil and 50/50 Four-Pipe System, Valveless Units	0:30	Scott Gavin
9:55 AM	10:35 AM	Inteli-line® WR Series Valve Control Unit with competitive review	0:40	Scott Gavin
10:35 AM	10:55 AM	Riser spacing & processing	0:20	Tony Landers
<b>10:55 AM</b>	<b>11:10 AM</b>	<b>Break</b>	<b>0:15</b>	<b>Group</b>
11:10 AM	12:10 PM	Riser design and sizing	1:00	Tony Landers
<b>12:10 PM</b>	<b>12:55 PM</b>	<b>Lunch</b>	<b>0:45</b>	<b>Group</b>
12:55 PM	1:25 PM	Horizontal and Vertical Fan Coil Products with competitive review	0:30	Scott Gavin
1:25 PM	2:10 PM	Whalen customer service - Unit Quotes, Submittals, Order Entry, Release	0:45	Scott Gavin
2:10 PM	2:50 PM	Whisperline® and Whisperpack® Products with competitive review	0:40	Scott Gavin
2:50 PM	3:20 PM	Whisperline® 2-stage	0:30	Tony Landers
<b>3:20 PM</b>	<b>3:35 PM</b>	<b>Break</b>	<b>0:15</b>	<b>Group</b>
3:35 PM	4:05 PM	Aftermarket Sales - How to	0:30	Tony Landers
4:05 PM	4:35 PM	Aftermarket Online Parts Program	0:30	Tony Landers
4:35 PM	4:50 PM	Wrap Up - Q & A	0:15	Tony Landers
<b>6:00 PM</b>	<b>8:00 PM</b>	<b>Dinner - Park Tavern</b>	<b>2:00</b>	<b>Group</b>

# Introductions

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- Name
- Ref Firm
- Years in the industry





The  
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Company

About Us



## About The Whalen Company

- Located in Easton, Maryland
- Founded in 1962 by James Whalen
- 144,000+ square feet of manufacturing and office space
- Focused on fan coils and water-source heat pumps
- Unit design allows more labor to be performed in a controlled factory setting
- Private, closely held corporation
- Strategy decisions made on site and quickly
- Diverse management team with industry and non-industry perspectives
- Over 60 years of building and installing vertical stack equipment



# Our Business Philosophy

Change is the only thing that is consistent

We provide semi-custom units to precisely meet the needs of our customers. We embrace the unique challenges each project presents and build units that match the requirements of every project.



Open to new ideas and quick to respond to our customers needs of unique specifiable products.

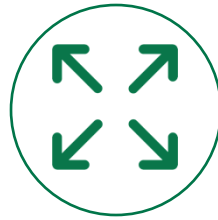


We view our reps as partners and work with them when difficulties arise. Have several long-term reps.



We focus on our customer and stand behind our product before and after the sale.

## Core Customer Focus



Flexibility – Able and willing to respond to changing market conditions



Quality – Focused on continuous improvement. Frequent site visit to ensure things are going smoothly

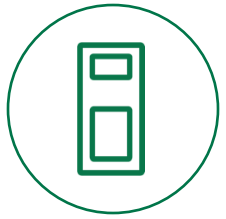


Service – We are available before, during, and after the sale

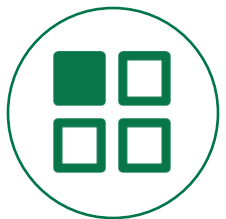
## Unique Market Focus



Partner with the right rep in each market to ensure maximum success



Develop the right products to meet the needs of the unique market



Long-term focus with aftermarket parts and products for repair and renovations.





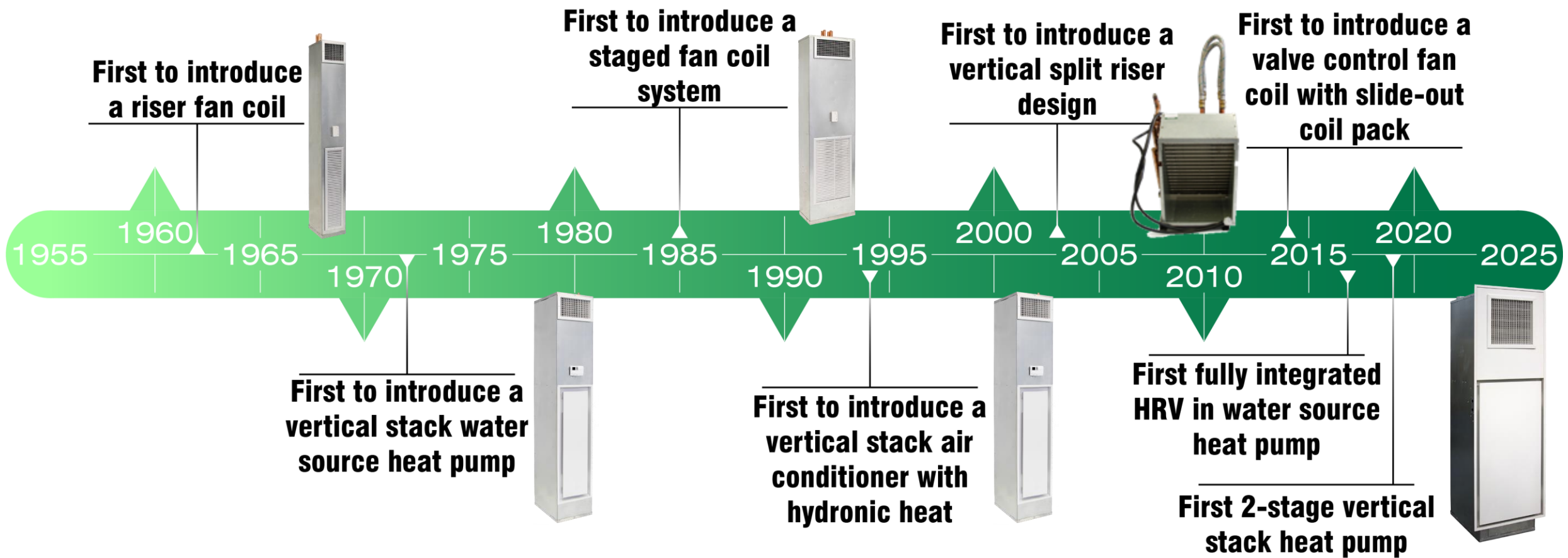
# Primary Markets

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- Products - Water source and Geothermal heat pumps for commercial and residential multi-family applications
- Office
- Lodging
- Residential Multi-family
- Assisted Living Facilities
- Education
- Dormitories – Barracks
- Government Facilities
- Whether heat pump or fan coil, we have most products to fit. If not, we will entertain developing if the market warrants.



# Celebrating 60-years of Product Innovation





- Easton, MD is the primary testing and research facility.
- 24-hour operation capability from 0 to 6-tons capacity.
- Testing product designs / quality audits / field corrective actions.
- All products tested in accordance with ASHRAE, ARI and ETL and certified for use in U.S. and Canada.
- All product performance certified and listed on [www.ahridirectory.org](http://www.ahridirectory.org).



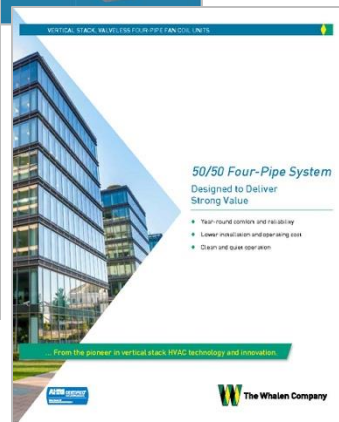
- We are continually looking to improve operational efficiency
- Automated punching machine with sheet metal loader / unloader
- Automated wire machine
- Automated tube bender
- End forming machine for riser transitions
- Riser roll grooving for Victualic type riser connections





# Sales & Marketing tools

- Design guides
- Sales brochures
- Project profiles
- Software
- Web site designed for mobile access
- Whalen training center
- Web training
- All available 24/7 on our website





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Innoline® Riser Fan Coil Units &  
Innoline® 50/50 4-Pipe System



What is an Innoline® Riser Fan Coil?

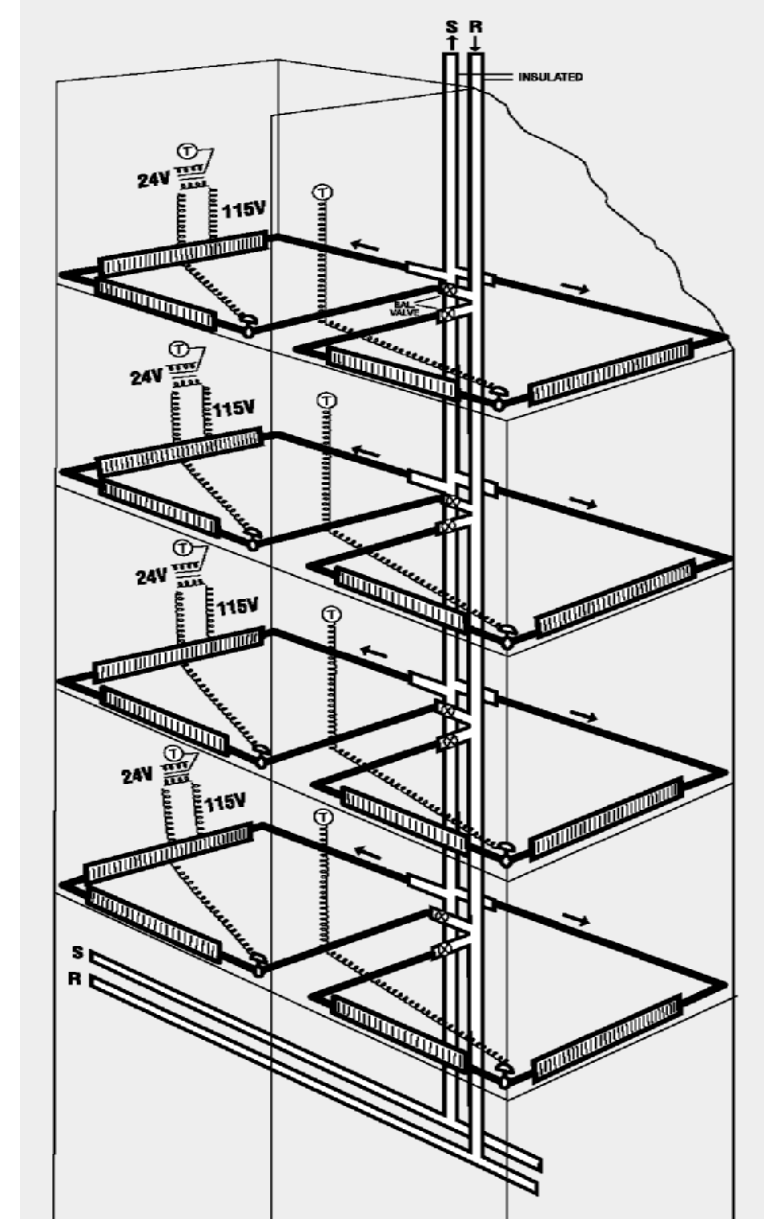
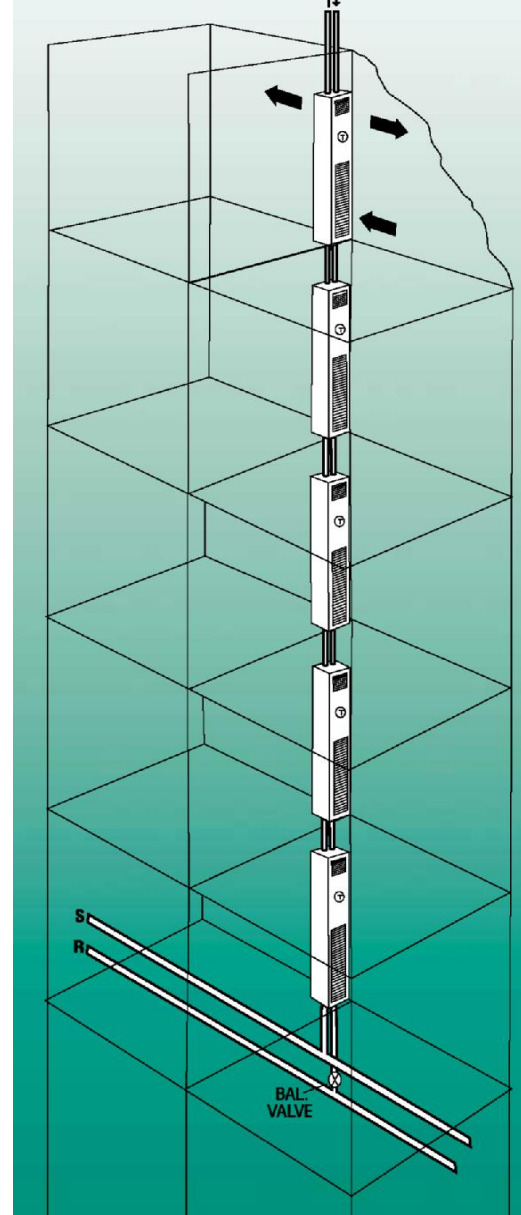
- The product that started The Whalen Company
- It's a valveless fan coil
- The risers are inside the cabinet with fins on them
- One of if not the smallest footprint unit on the market

What is an Innoline® Riser Fan Coil?

- A different type of fan coil than anyone else
- A tremendous opportunity for replacement for those markets with an installed base.
- A tremendous opportunity for those owners that are looking for operating savings.



- Whalen Innoline® 2-Pipe Heat Only vs. Baseboard heating
- Same finned tube type coil
- Enclosed in a cabinet with a forced air fan
- Very simple & Very reliable forced air, finned tube, radiator
- All solder joints are external to the cabinet



## Ideal Buyer

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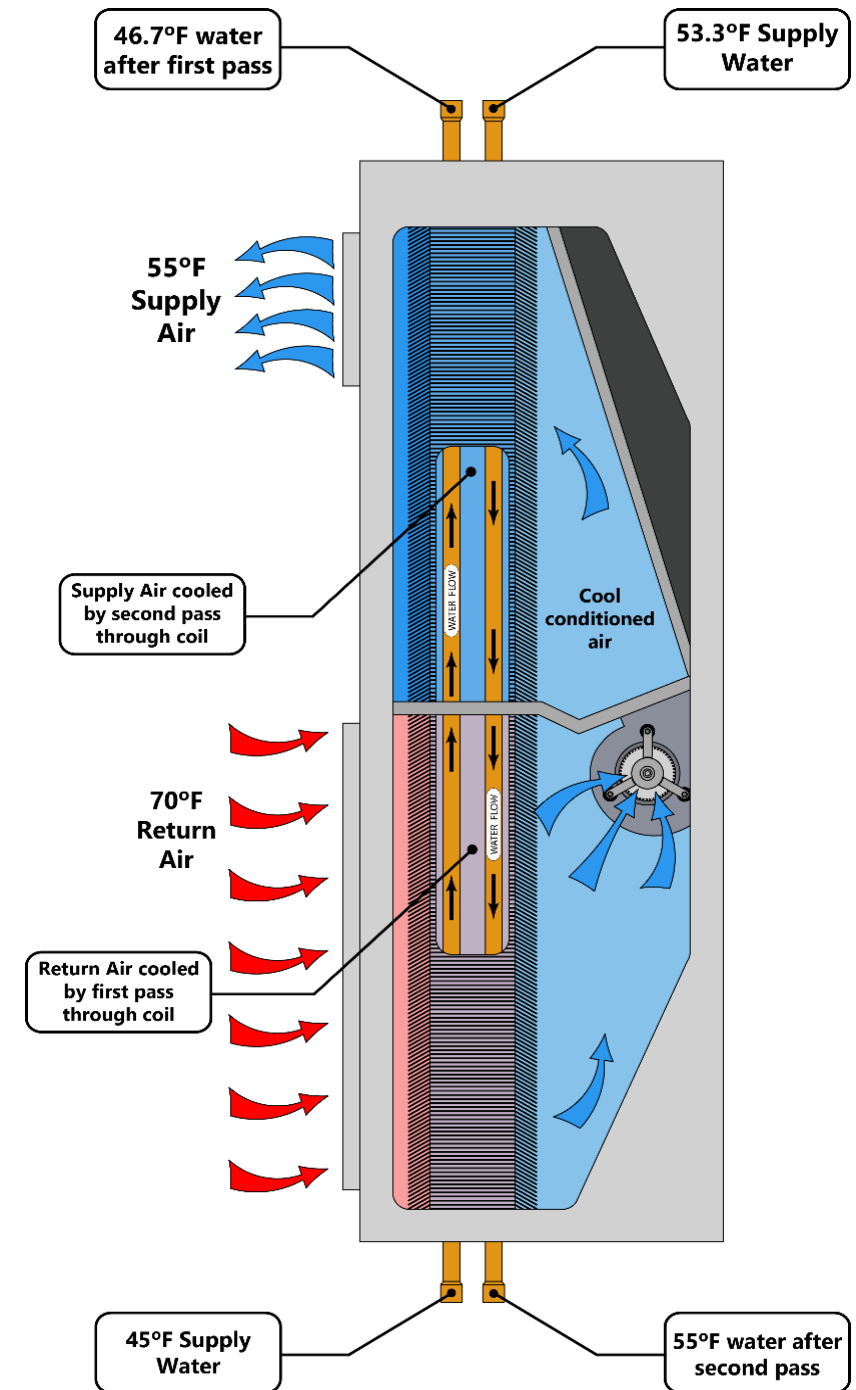
- More often than not, it will be the building owner that is planning to operate the building long term.
- Unit longevity, efficiency, and low maintenance are the drivers



- 200 to 800 CFM
- Footprint
  - 200 to 300 CFM: 12" x 14"
  - 400 to 500 CFM: 16" x 14"
  - 600 to 800 CFM: 18" x 16"
- Smallest footprint on the market
- Lower Pumping Costs: Elimination of system resistance caused by system valves, coils, and run-out piping
- Add the Innoflow<sup>™</sup> valve to take advantage
  - of a Variable Flow System
- Full time humidity control: Face and Bypass Dampers
- Unit types
  - 2-Pipe Riser Fan Coil
  - 4-Pipe Riser Fan Coil
  - Whalen Heater

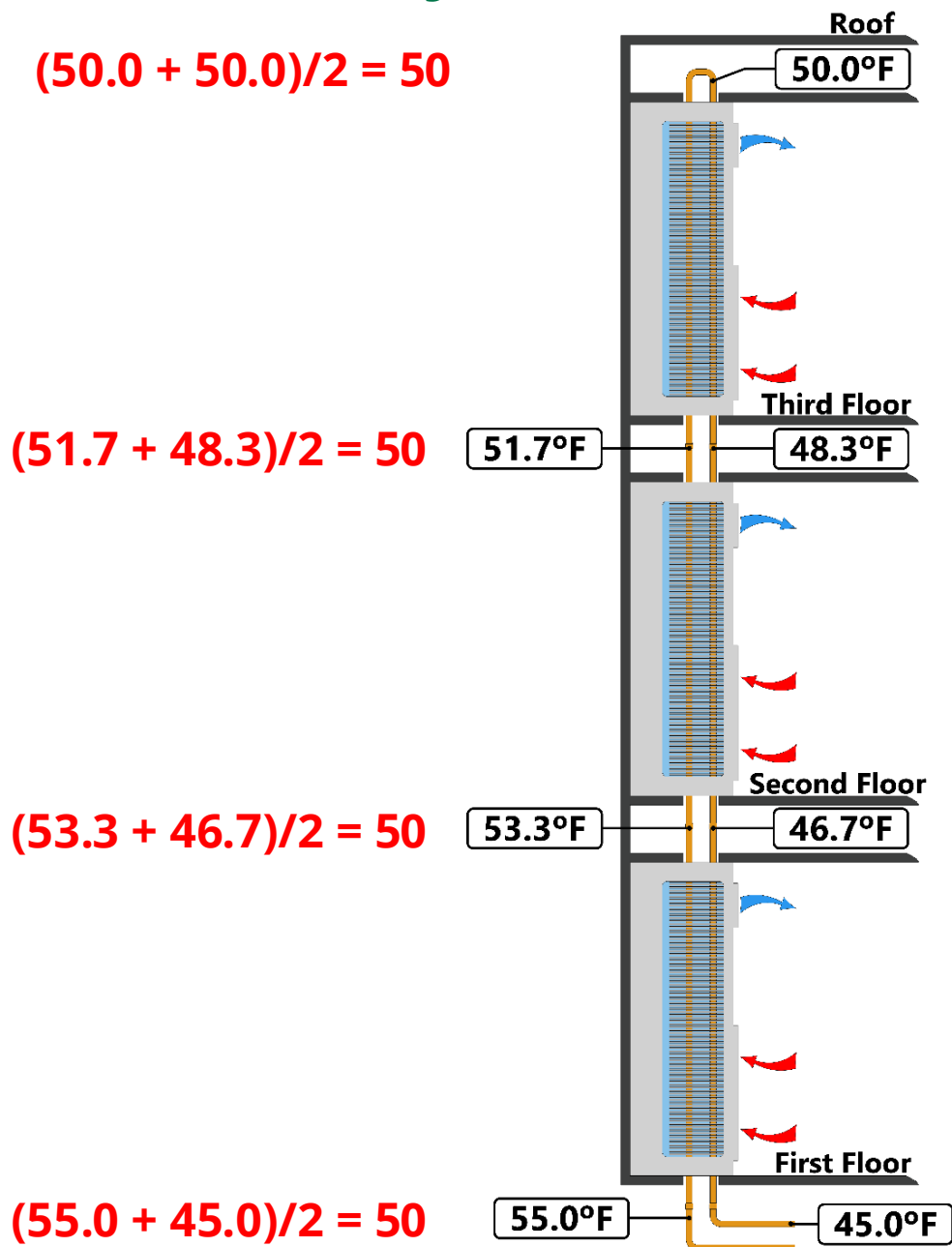


- It works by Thermodynamic Performance
- Average water temperature
  - Total riser GPM goes through each unit
  - Takes advantage of a large finned surface area
- Primary and secondary surface
- Four air passes
- Humidity control

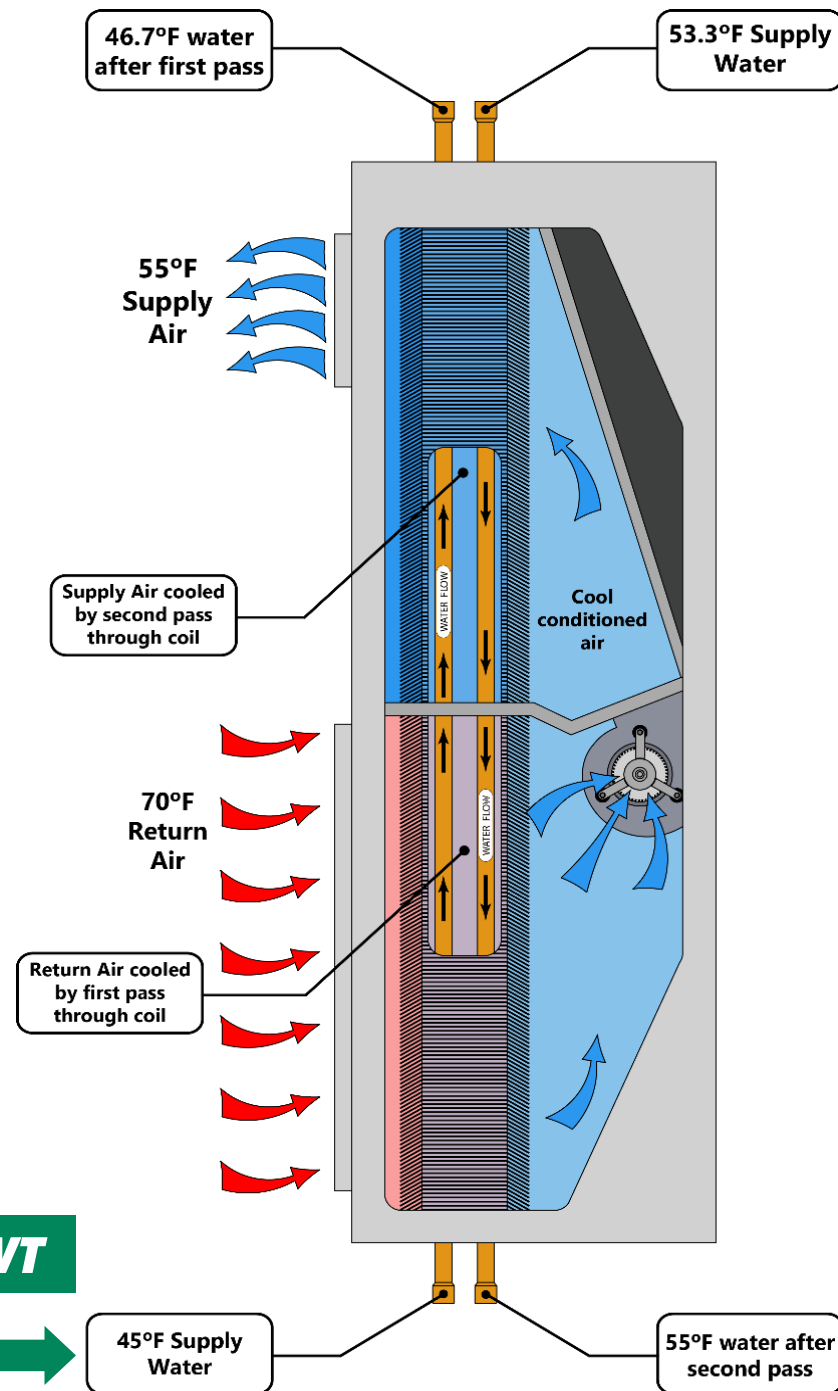


# The Whalen System

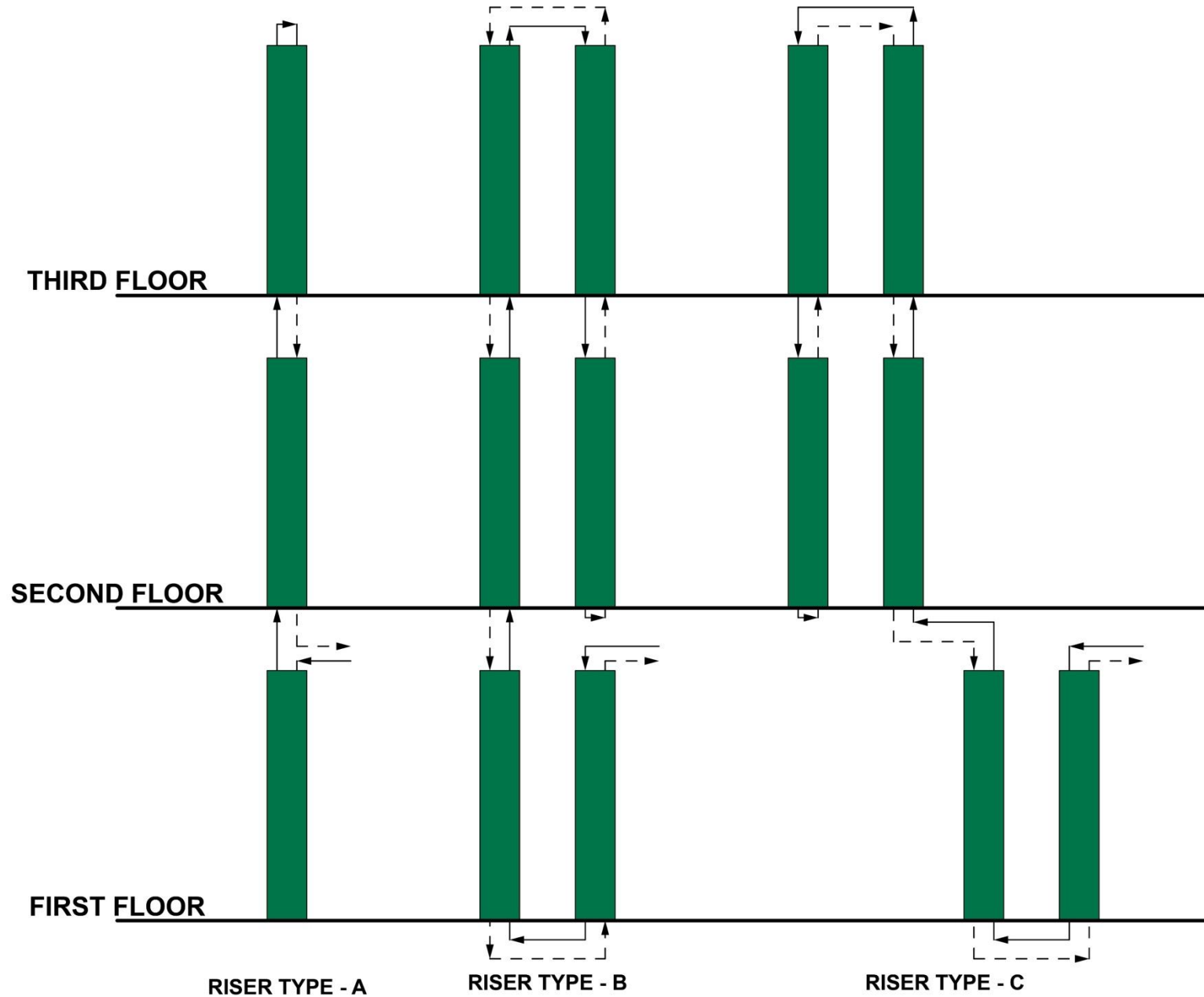
*Average water temp = 50°F*



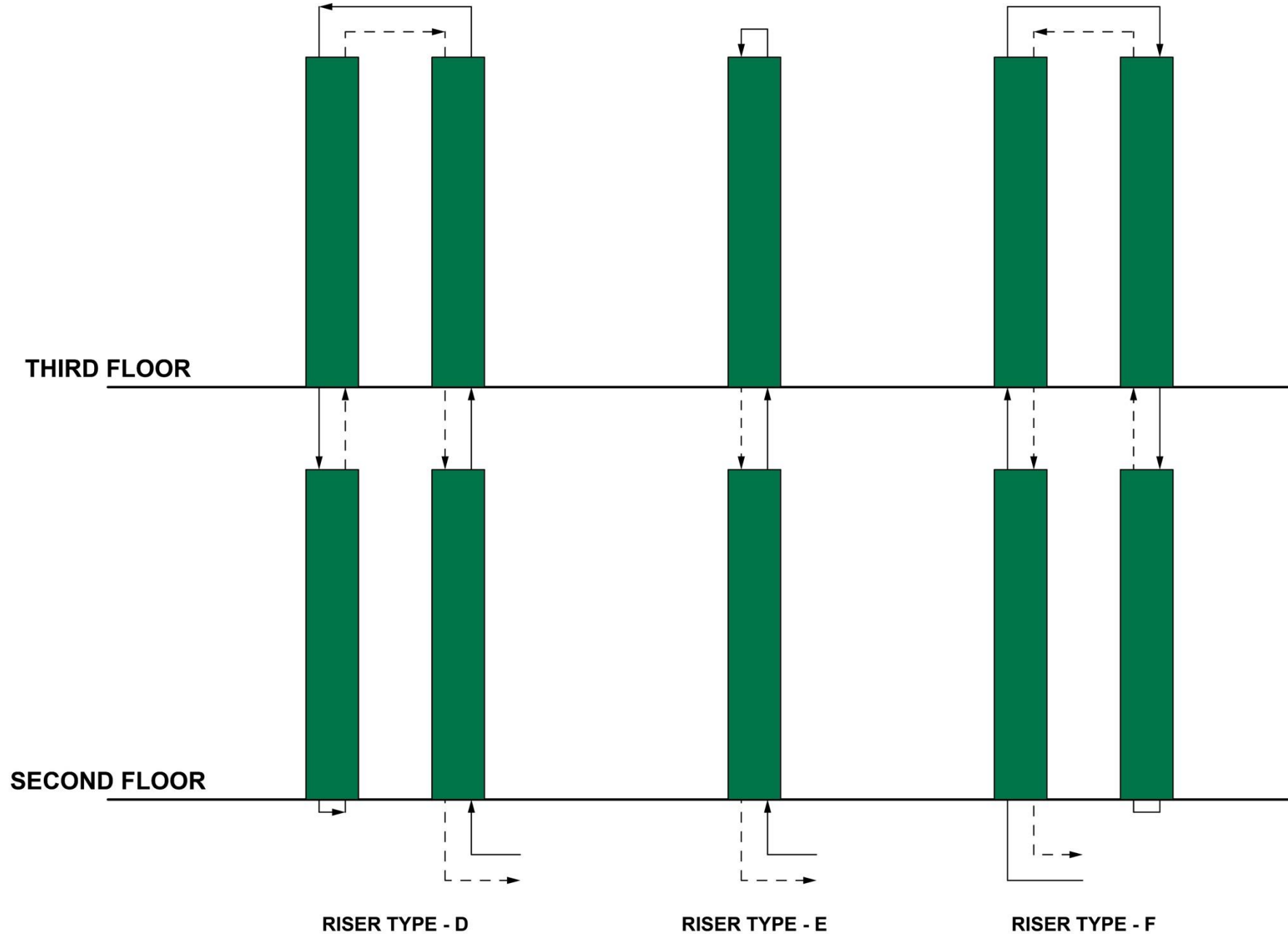
**45.0 EWT**



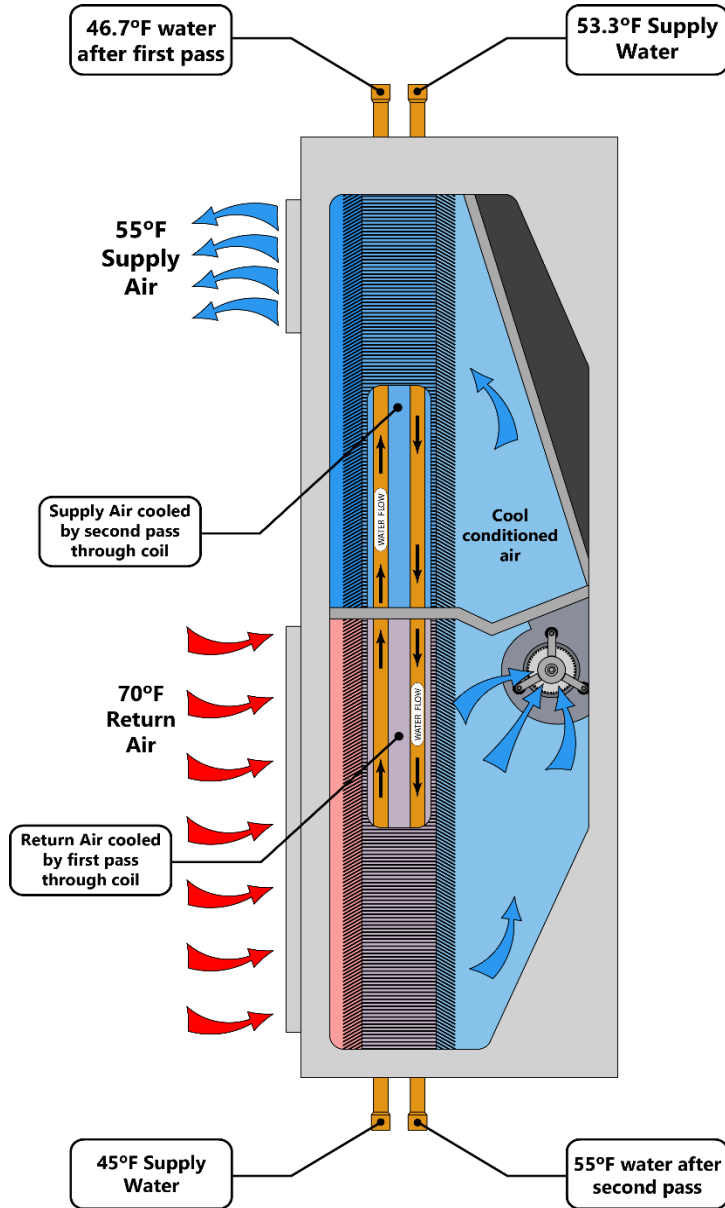
# Unit Looping – Series Piping



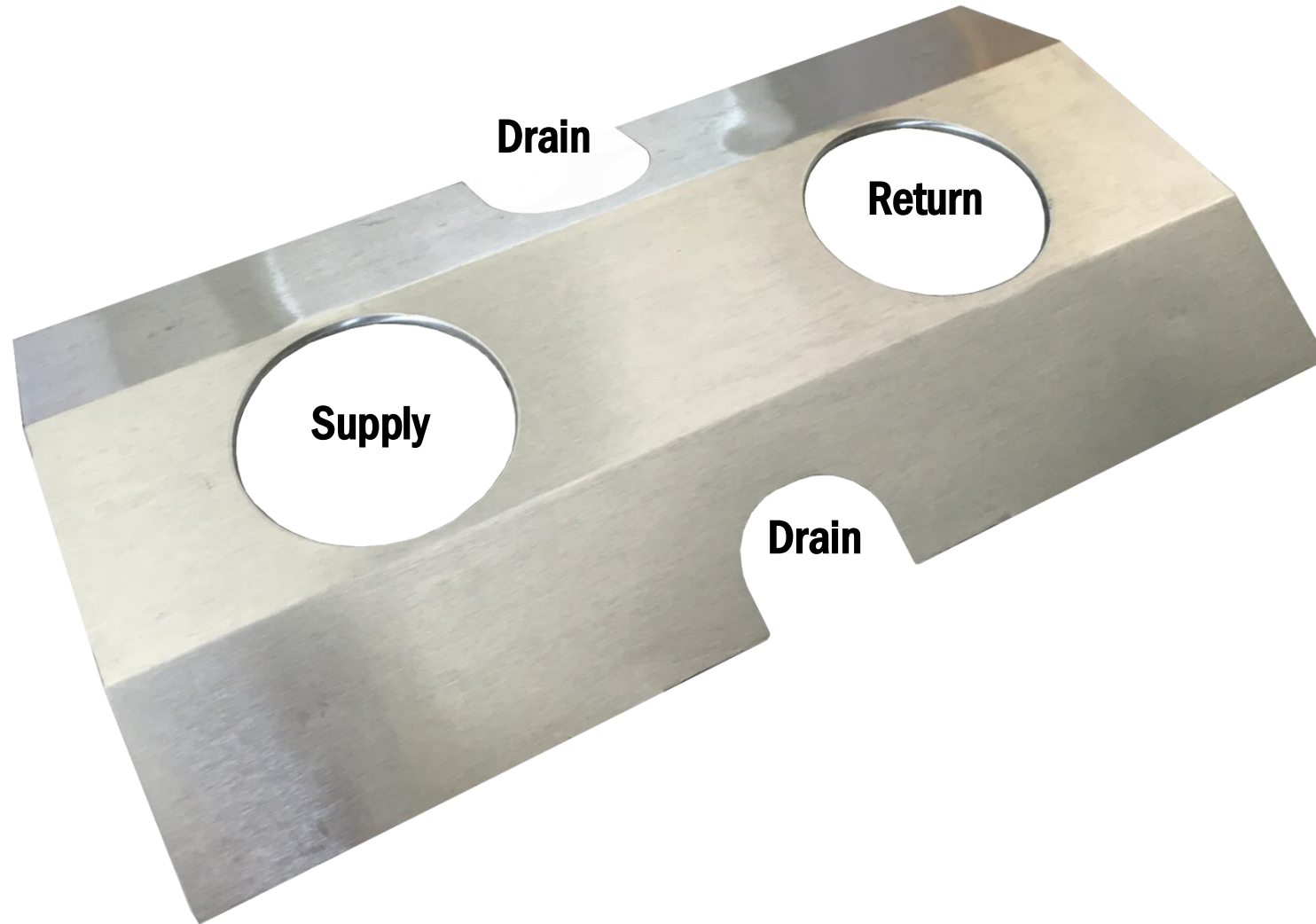
# Unit Looping – Series Piping



# Innoline<sup>®</sup> Riser Fan Coil – Air Path



# Compact Riser Grouping



**Bottom U-Bend with  
drain valve**



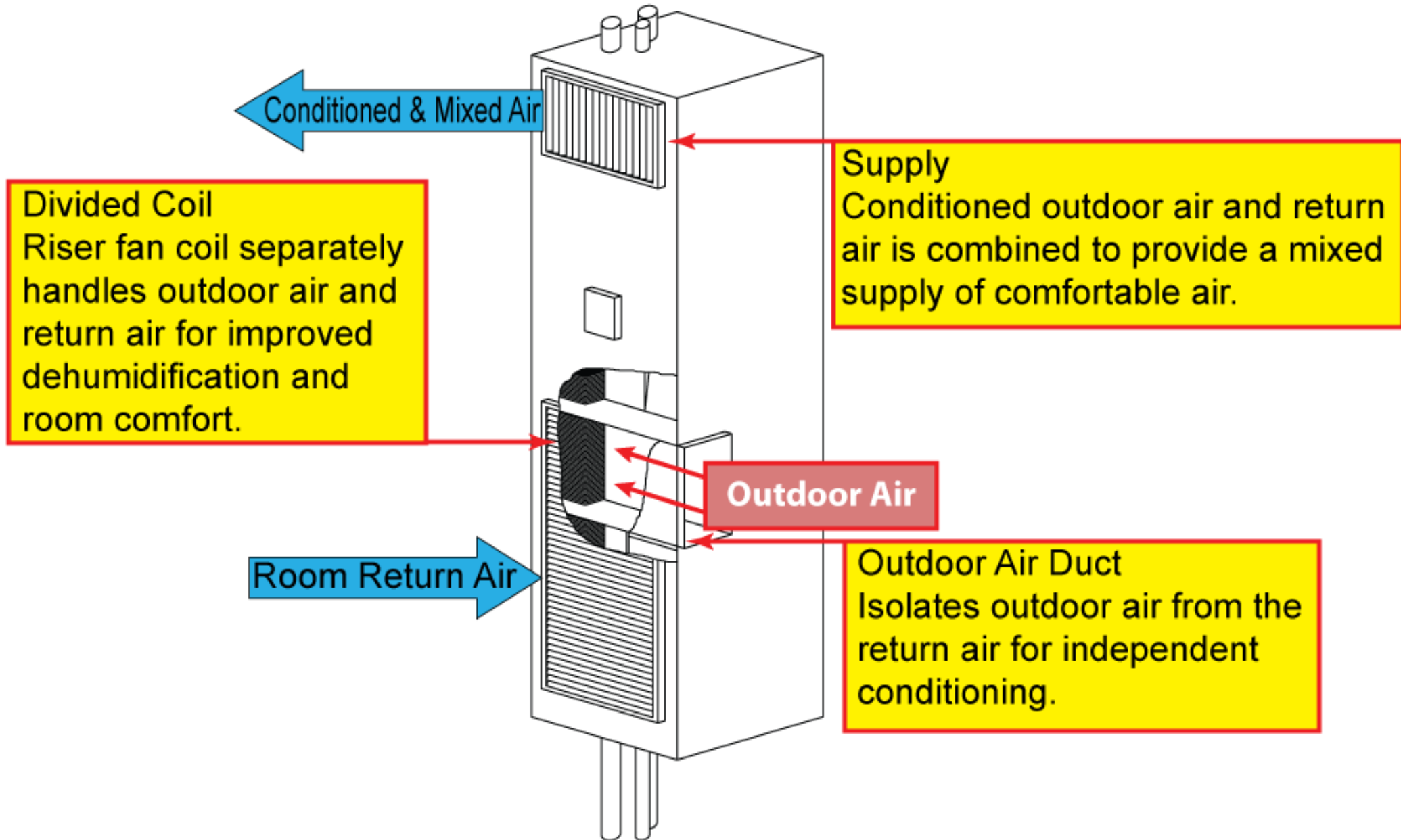
**Top U-Bend with manual  
vent**



**Bottom U-Bend**



# Conditioning Outdoor Air





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Innoline® 50/50 Four Pipe System



- 300 to 1600 CFM
- Footprint
  - 300 to 400 CFM: 24" x 14"
  - 600 CFM: 28" x 14"
  - 800 to 1000 CFM: 32" x 14"
  - 1200 to 1600 CFM: 36" x 16"
- 4-pipe compatibility
- Standard PSC motor
- Optional EC motor
- Naturally balanced
- No soldered connections within the unit
- Reduced installation and maintenance costs
- Fan and pump staging for energy efficiency

- Energy Savings
- Design Simplicity
- Servicing Ease
- Superior occupant comfort



Two 2-pipe 1-stage fan coils

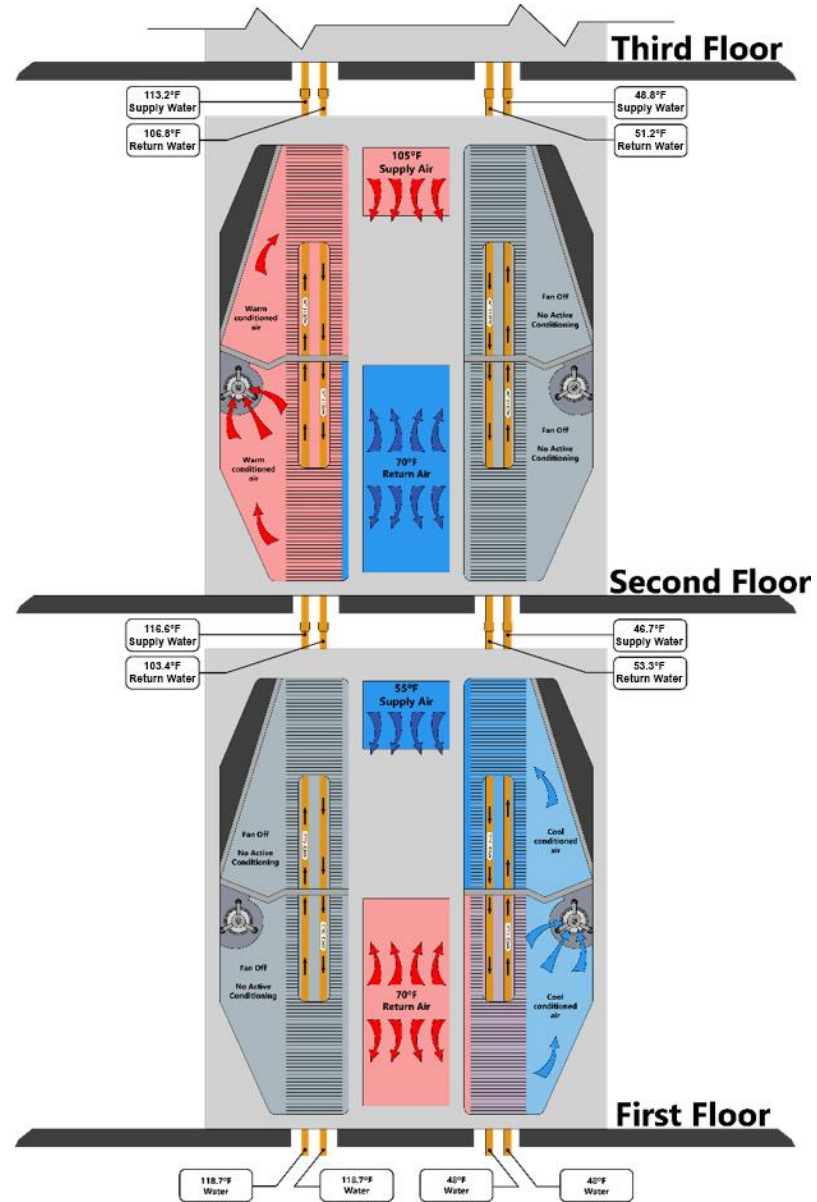


One 4-pipe 2-stage fan coil

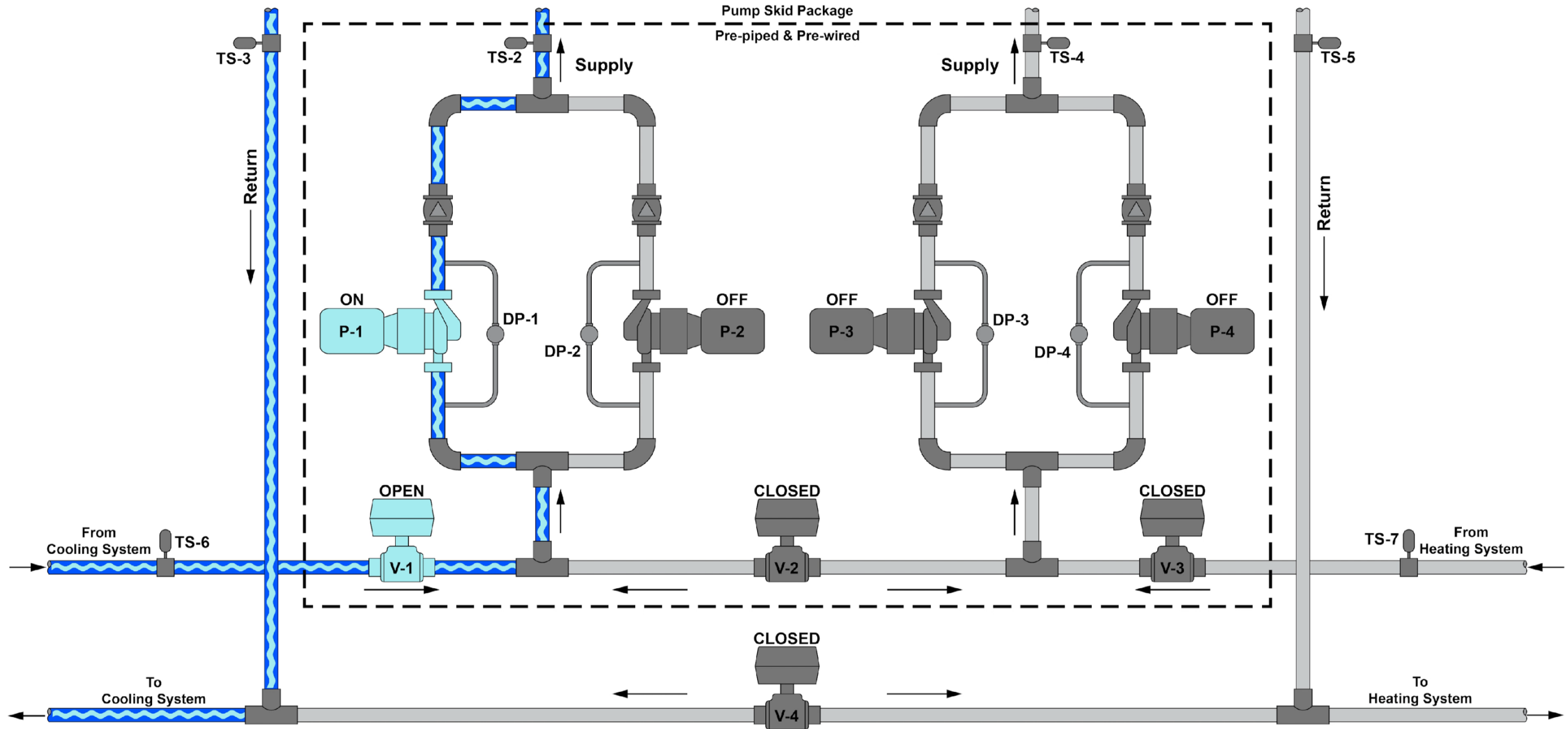
# Innoline® 50/50 Riser Fan Coil



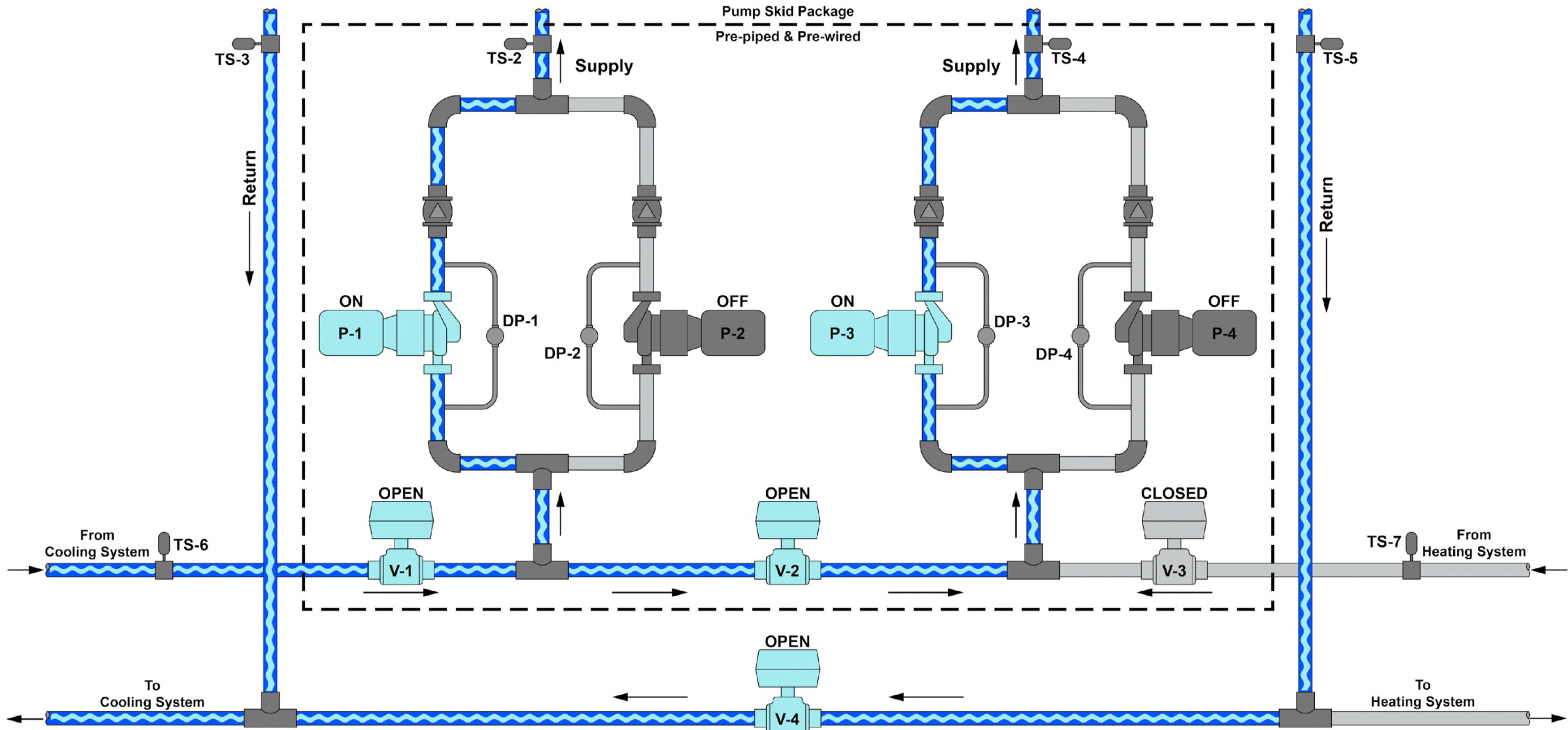
# 50% Cooling / 50% Heating



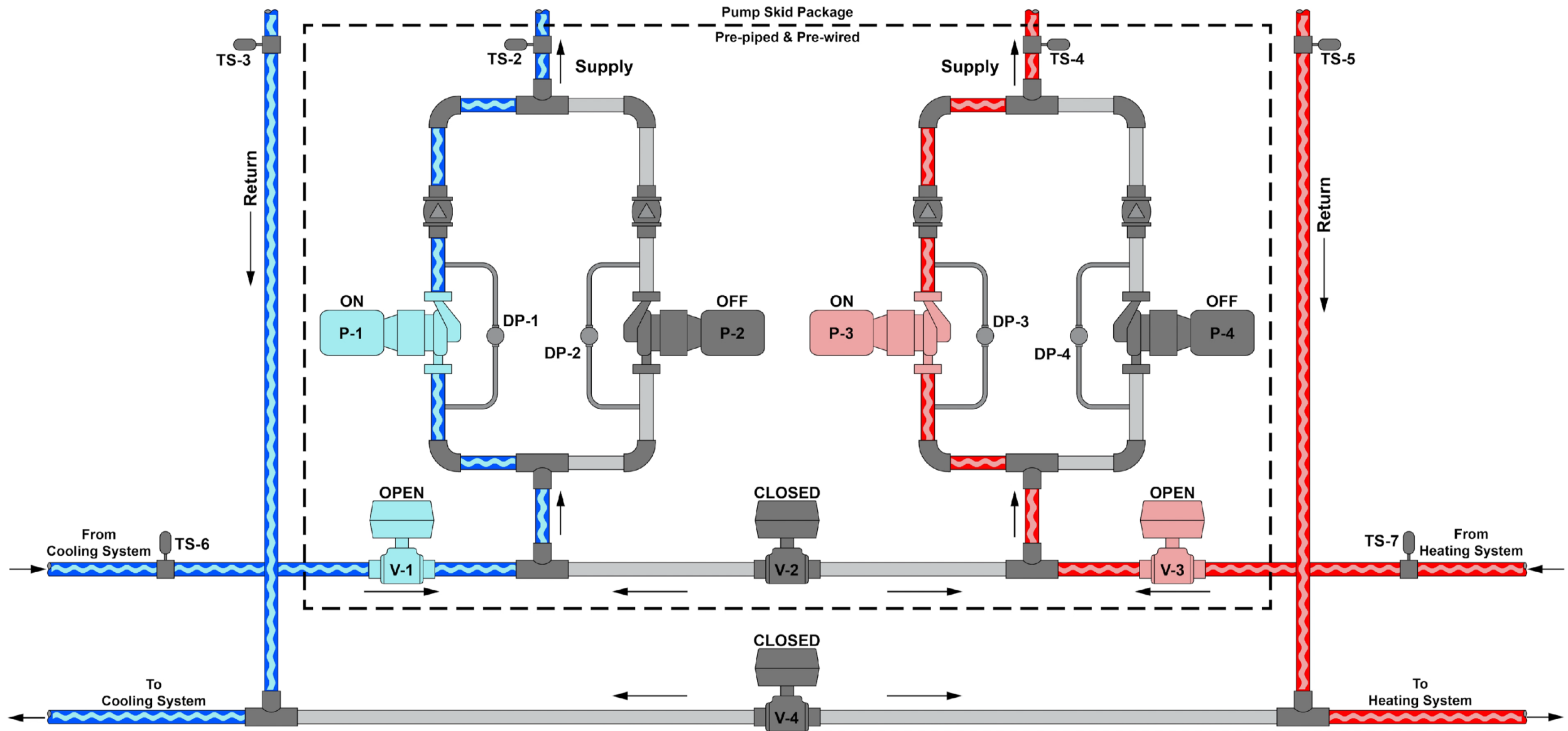
# No Heating / Partial Cooling



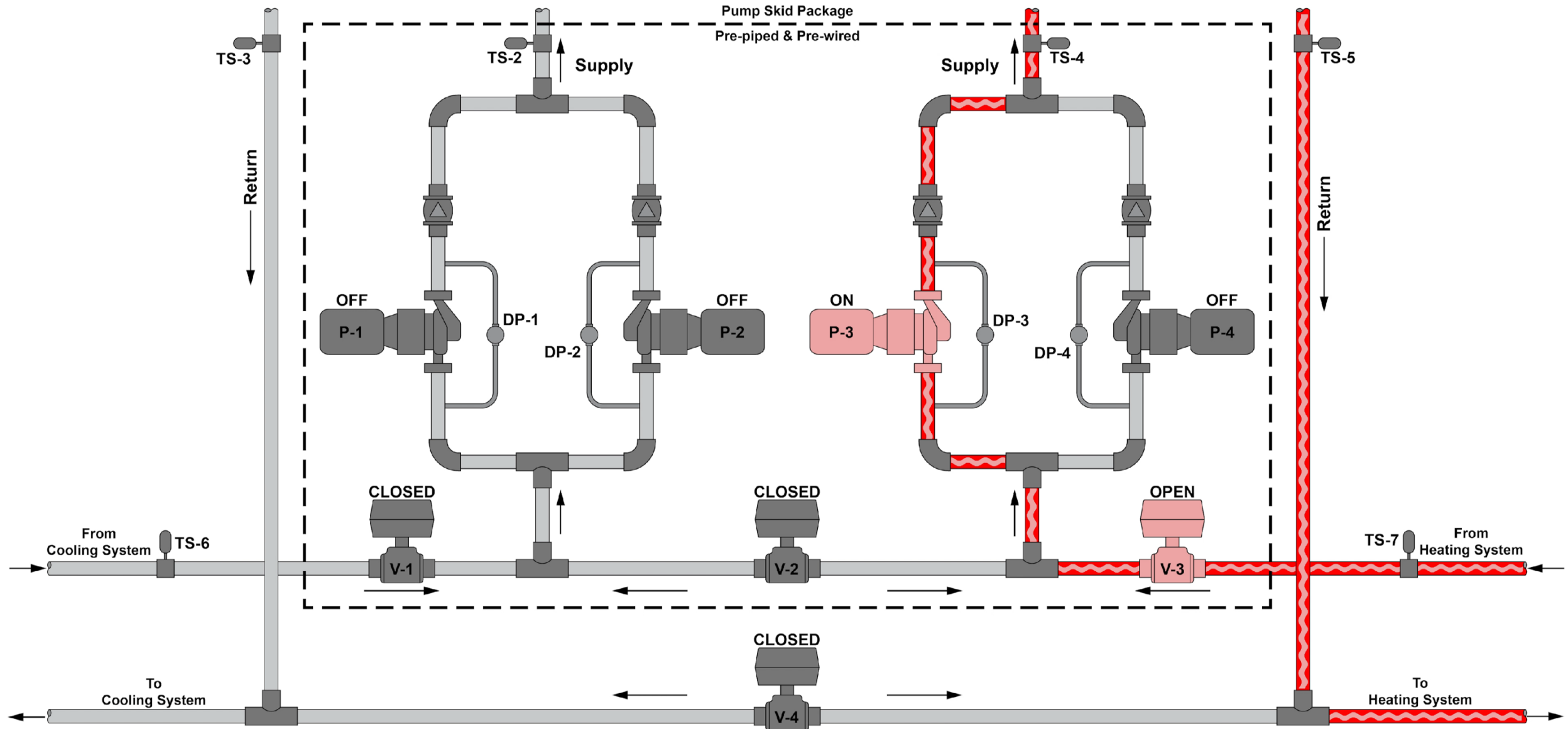
# No Heating / Full Cooling



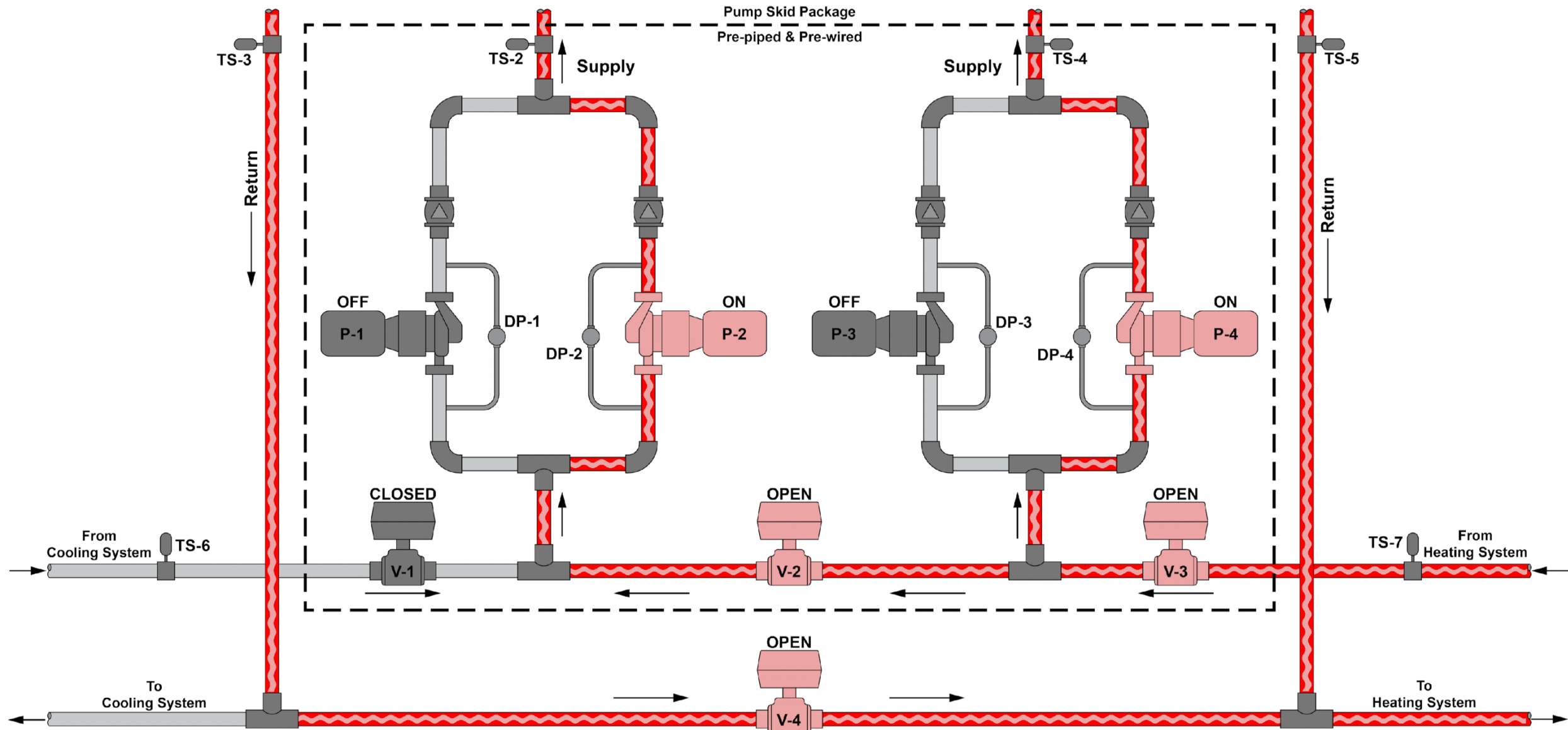
# Partial Heating / Partial Cooling



# Partial Heating / No Cooling



# Full Heating / No Cooling





## Innoline® 50/50 Selling Points

- Innoline® 50/50 Units provide better performance at part load since each fan and coil is sized for a lower load
- Innoline® 50/50 Units continually dehumidify the air by allowing the chilled water to be active 100% of the time
- Innoline® 50/50 Units deliver only the load required for each season; this saves energy and provides better comfort
- Up to 85% of the time, a Fan Coil Unit can operate at less than half capacity



## Piping & Maintenance

- Pipe cost savings for both material and labor
  - The decrease in chilled water pipe size more than offsets the increase in hot water pipe size
  - Smaller pipes for larger capacities also OPENS the door for cost effective two- and three-story applications
- Maintenance
  - The only moving part on Whalen 50/50 Units is the fan motor which can be changed in less than 10 minutes



## Design Consideration

- Operates at lower hot water temperatures
  - Separate hot water loops of Whalen and other heating equipment
    - Maximum of 140° F EWT
- Outdoor reset
  - Design should incorporate indoor/outdoor reset of hot water supply temperature



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Replacement Opportunities

When you get a replacement opportunity

- Will typically be due to the drain pan
  - No, the drain pan can't be replaced
- Yes, you can replace one (1) unit
- Ask for the old submittal
  - There will be some that we don't have, but these will show what the original order had included.
  - Whalen did a LOT of specials most of which can be duplicated.



# Innoline® & Innoline® 50/50 4-Pipe System



- When you get a replacement opportunity
- There was a cabinet size change in the early 70's that we will certainly want to look at and discuss with the owner / contractor.
  - Engage your primary Whalen Company contact early in these opportunities.
  - JC Correa is available to visit the site with you



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**Inteli-line® Vertical Stack Fan Coil  
Model WR**

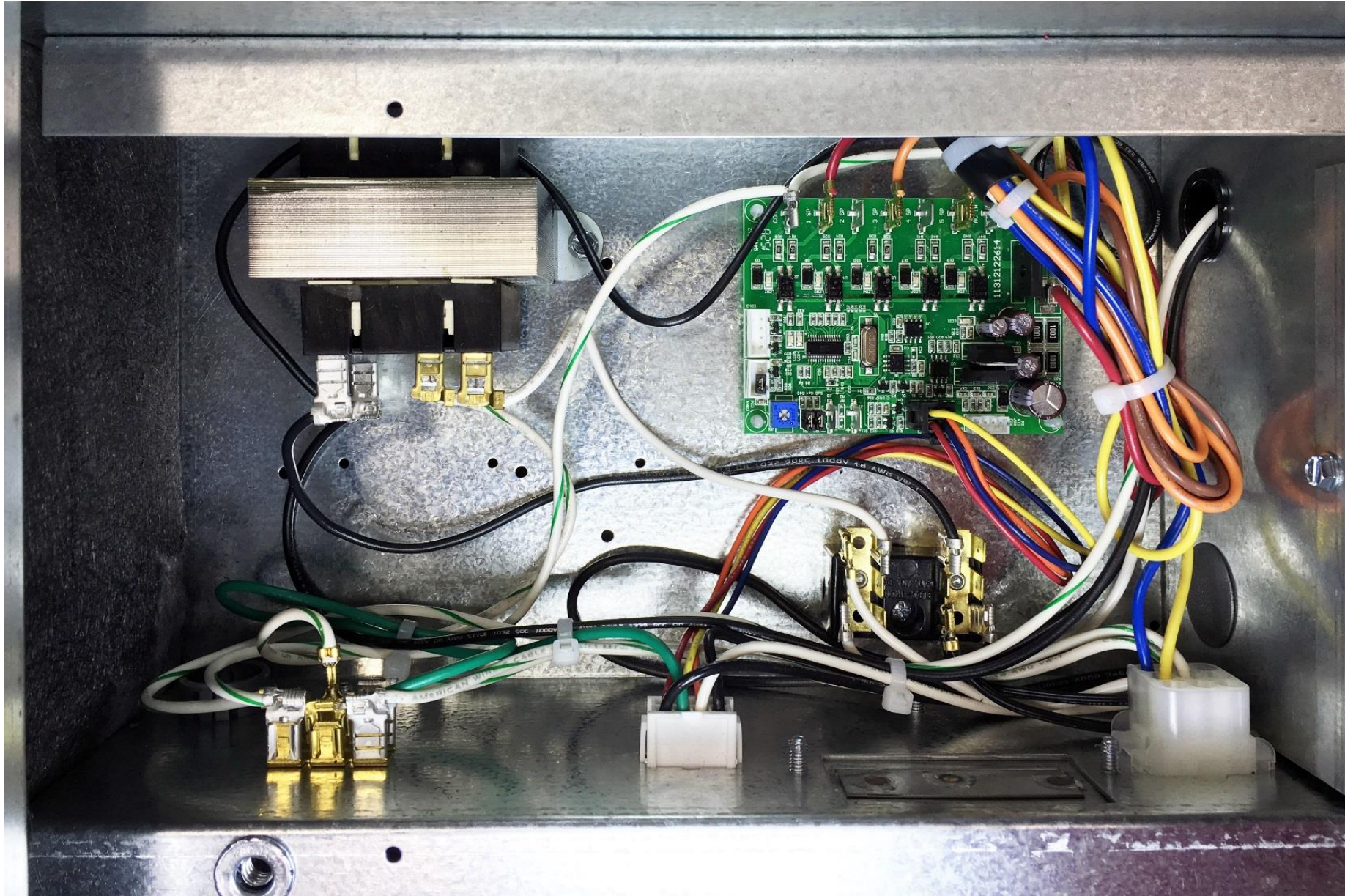


## WR Vertical Stack Fan Coil

- 300 to 1200 CFM
- Slide-out coil pack
- 2-Pipe, 2-Pipe Auxiliary Electric Heat, 2-Pipe Total Electric Heat
- 4-Pipe Heating / Cooling
- Optional Primary / Secondary Configuration
- Standard PSC Motor
- Optional High Static PSC Motor
- Optional EC Motor

- Small unit footprint
- Low sound levels
- Quick, slide-out coil pack for installation and removal
- Reduced commissioning times
- Individual room / space temperature control
- Individual on demand heat or cool (4-Pipe)
- Local ventilation to meet O/A requirement

- Cabinet
  - Heavy gauge galvanized sheet metal construction
  - Single-piece wrapper reduces leakage at joints
  - Front panel snap lock eliminates fasteners and air leakage
  - Consists of control box, blower compartment, air coil or opening for coil pack, and drain pan with factory installed P-trap
  - Furred in behind the dry wall for finished look
  - Dry wall flanges to finish off opening
  - Multiple Supply Air outlet options



- EC Motor Option
  - ECM Constant Torque: 0.00" – 0.50"
- The Fan Control is very dependent on the thermostat selection
  - Fan Cycle - Fan will turn off & water valve will close when the thermostat is satisfied
  - Continuous Fan - The thermostat call for cooling/heating will open the water valve.



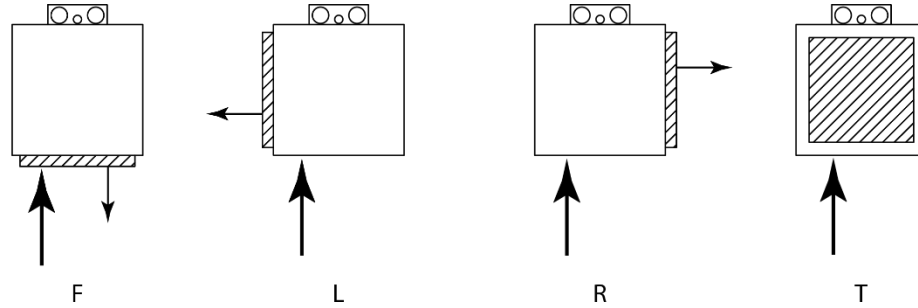
# Inteli-line® Fan Control Options

- Modulating - 3 speed - Floating Point
- Modulating - 3 speed - Proportional (0-10V)
- 24V - Non-programmable
- 24V - Digital Non-programmable
- 24V - Digital Programmable
- Line Voltage - Non-programmable
- Line Voltage - Digital Non-programmable
- Line Voltage - Digital Programmable - Manual Fan
- Line Voltage - Digital Programmable - Auto Fan
- IO Zone 583 DDC Control Option

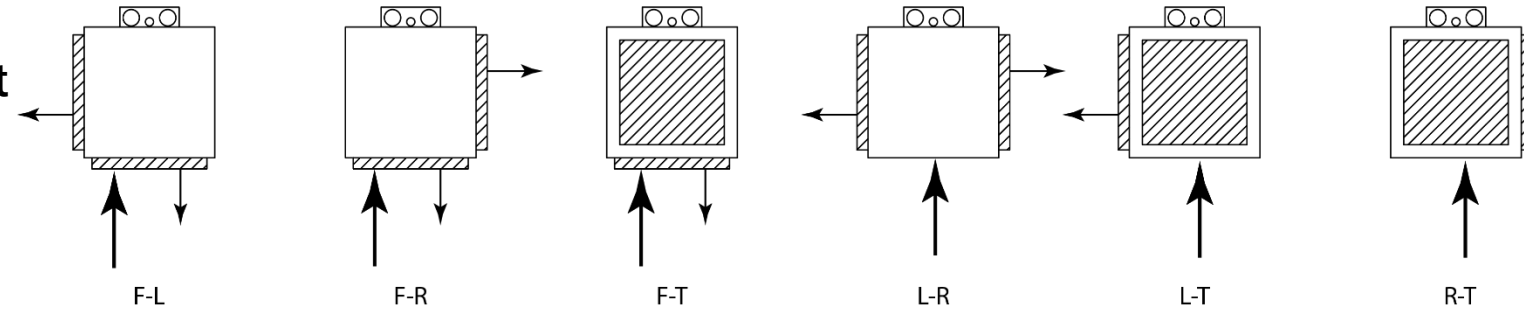


# Inteli-line® Supply Air Arrangements

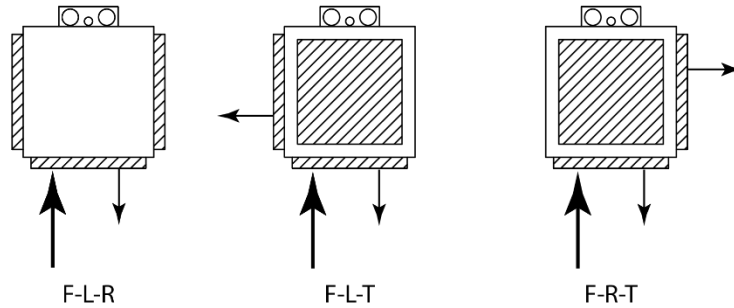
## Single Outlet



## Dual Outlet



## Triple Outlet

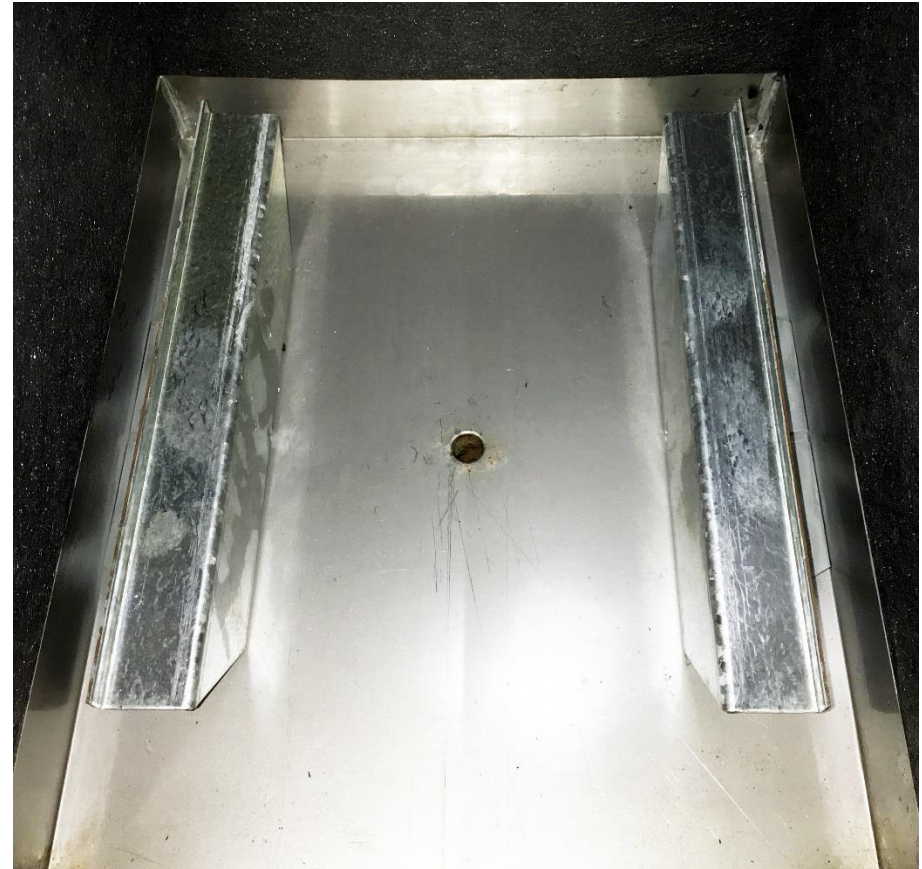


- Risers

- 3/4" to 4" diameter, type M or L copper
- Fully insulated supply and return risers with full port ball valves
- Drain riser fully insulated with factory installed P-trap
- Risers factory assembled improves quality
  - Option for field installed risers
- Shipping straps to maintain alignment & ease installation
  - Shipping straps are not to support riser after installation

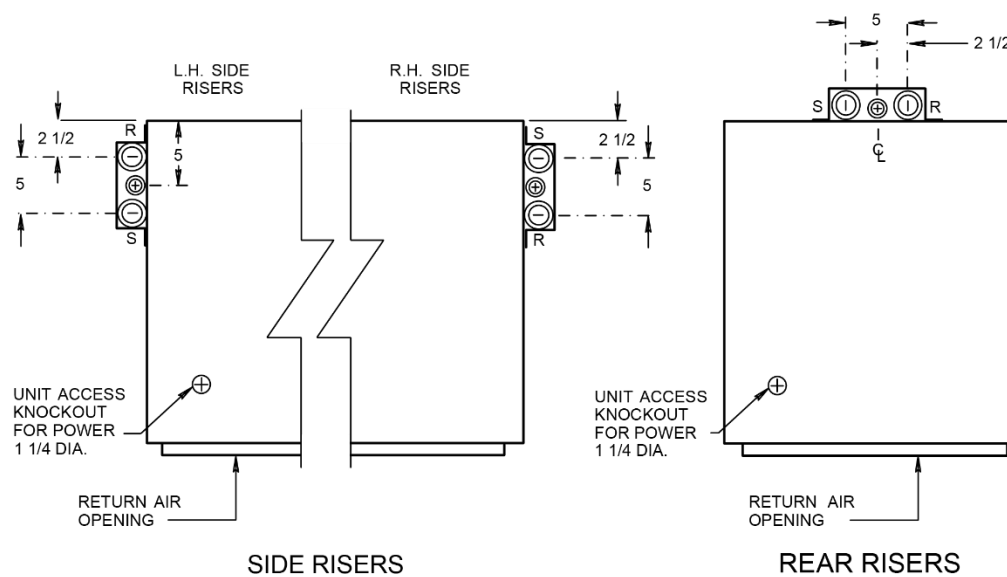


- Stainless steel drain pan standard
- Optional Condensate pump
- Optional MERV8, 11 or 13 Filters

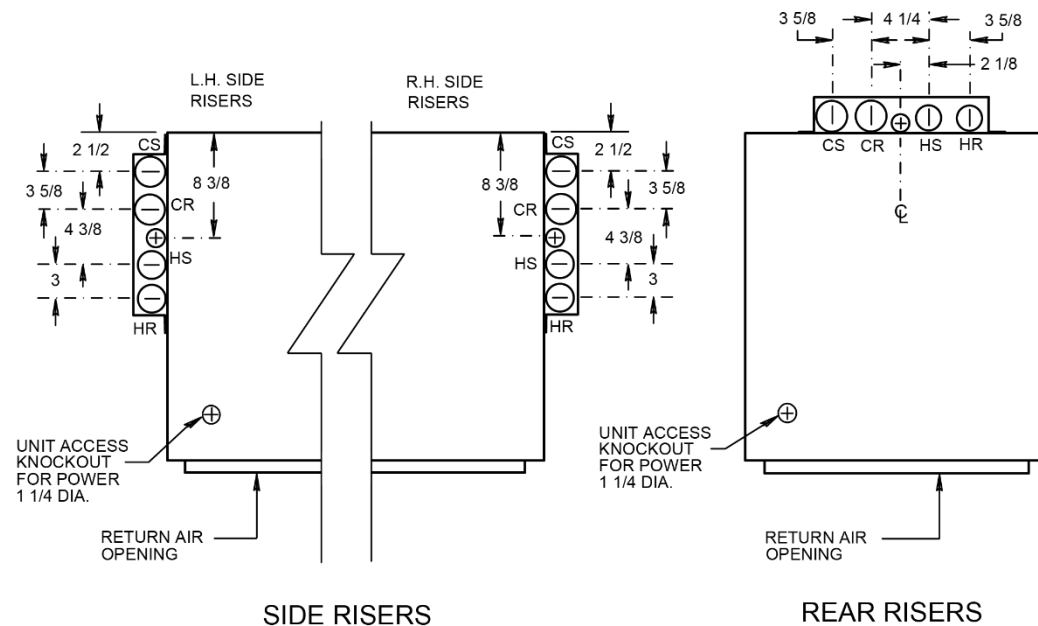


# Inteli-line® Cabinet – Riser Configurations

## 2-Pipe Risers



## 4-Pipe Risers



- Fixed Coil, Row Data

- 3-Row Coils (WEC old generation)
- 4-Row Coils (WED old generation)

- Slide Out Coil Pack, Row Data

- Up to 6-rows total

- Heating Performance

- 1-Row Coil
- 2-Row Coil

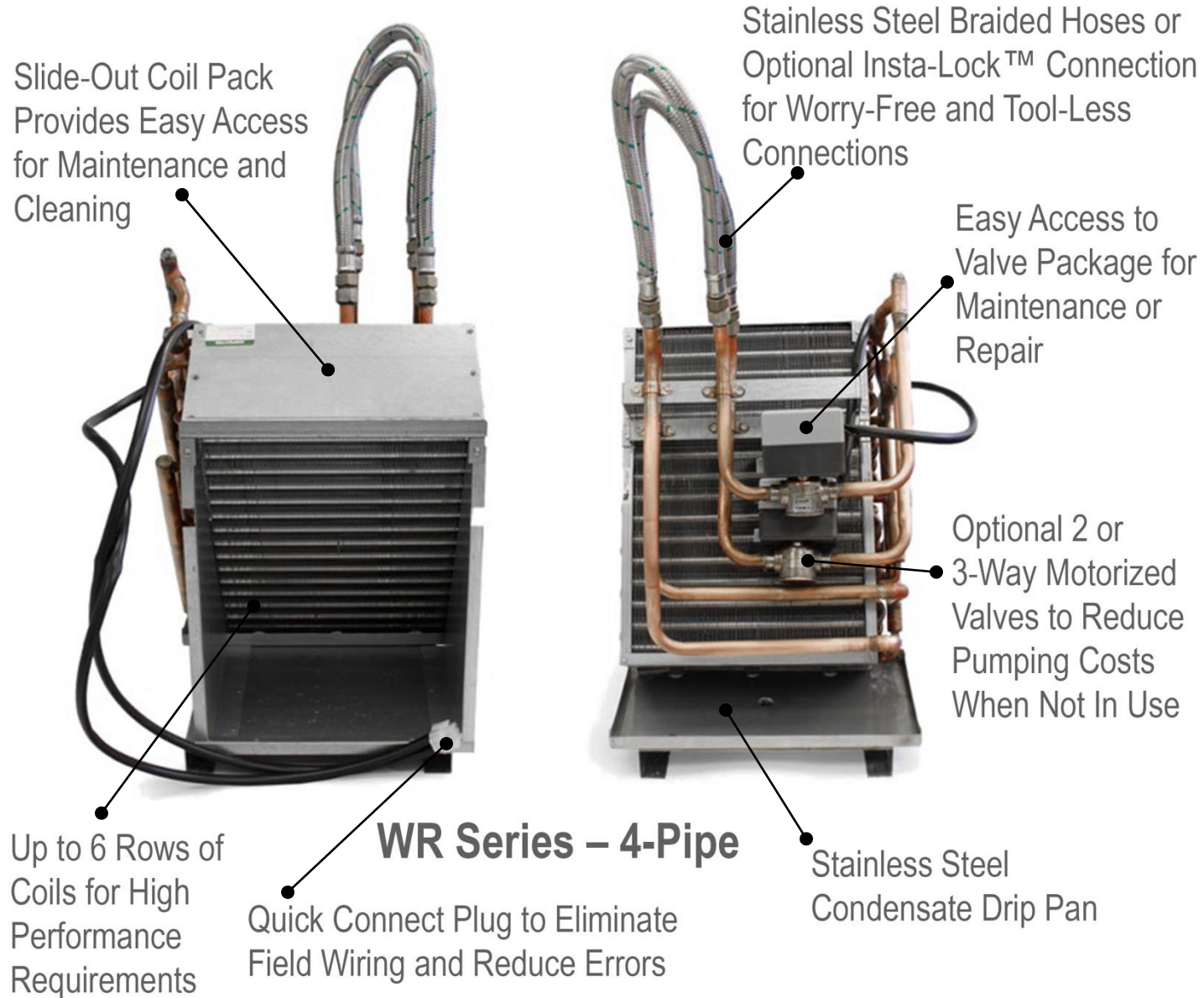
- Fan sizing based on CFM & E.S.P.

WRX Coil Identifier	Coil Description
---------------------	------------------

20	2 Row Cooling Only
21	2 Row Cooling & 1 Row Heating
22	2 Row Cooling & 2 Row Heating
30	3 Row Cooling Only
31	3 Row Cooling & 1 Row Heating
32	3 Row Cooling & 2 Row Heating
40	4 Row Cooling Only
41	4 Row Cooling & 1 Row Heating
42	4 Row Cooling & 2 Row Heating
50	5 Row Cooling Only
51	5 Row Cooling & 1 Row Heating
60	6 Row Cooling Only



# Slide-out Coil Pack





- The flex hoses and easy access to the valve components make equipment maintenance a snap.
- Coil Pack replacement can be accomplished in minutes.
- Can be shipped separately from the cabinet.
  - The coil is kept clean during construction
  - The coil pack is installed after all drywall, sanding and painting is finished
  - Optional return air covers are available for projects using factory-installed coil pack.
  - Risers can be flushed without the risk of damaging the coil

- Hose Connection
  - 24" Stainless steel braided by Nexus
    - 1/2" to 3/4" = 500psi max working pressure
  - Straight thread (NPSH) with mechanical swivel and gasket connection (both ends)
- Decouples fan vibration to reduce sound levels



# Fan Coil Chassis Water Circuit Options

- Pressure / Temperature ports
- Automatic or manual air vents
- Drain petcocks
- Manual flow regulator
  - Gerand
- Motorized water valve (2 or 3-way)
  - Caleffi, Honeywell
- Auto flow regulator
  - Griswold, Flow Design, or Hays
- Strainer
  - With or without blowdown valve
- Will factory mount customer preferred valves
  - This does require an SER in ISC and engineering will need cut sheets on the valves to ensure proper fit



- Outdoor air opening
  - Motorized damper
  - Located prior to filter & air coil
- Outdoor air internal duct
  - Top connection
  - 4" round duct
  - Compatible with constant airflow regulator
  - Max 90 CFM at .30 S.P.



- Whalen units are among the quietest in the industry both in sound power rating and actual installations.

Decibel Levels of Common Sounds					
Noise Level	Sound	Noise Level	Sound	Noise Level	Sound
10 dB	Normal Breathing	78 dB	Washing Machine	105 dB	Snowmobile
20 dB	Watch Ticking	80 dB	Garbage Disposal	110 dB	Chainsaw
20 dB	Rustling Leaves	80 dB	Telephone Dial Tone	110 dB	Symphony Orchestra
20-30 dB	Whisper	85-90 dB	Blender	110 dB	Car Horn
<b>40-50 dB</b>	<b>Whalen Fan Coil Units</b>	85-90 dB	Lawnmower	110 dB	Jackhammer
50 dB	Refrigerator	88 dB	Subway	115 dB	Loud Rock Concert
60 dB	Normal Conversation	90 dB	Train Whistle	120 dB	Thunder
70 dB	Vacuum Cleaner	98 dB	Hand Drill	130 dB	Shotgun Blast
70 dB	Hair Dryer	100 dB	Garbage Truck	140 dB	Jet Engine
75-80 dB	Dishwashers	103 dB	Jet Flyover at 1,000 ft.		



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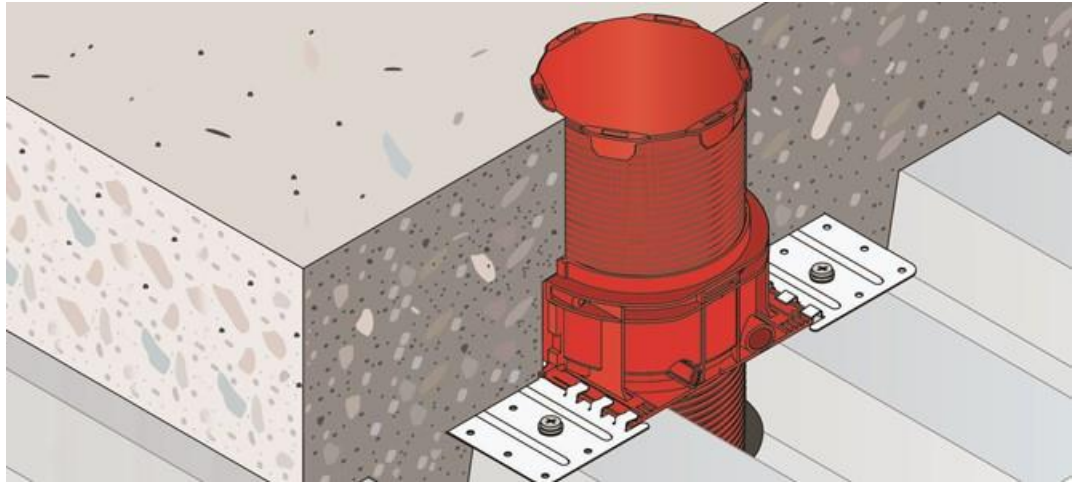
Riser Spacing & Processing

# Riser Spacing & Processing

- Riser Spacing needs
  - Types of slab openings
- When do you want / need special Riser Spacing
  - Advantages you can bring to the table
- Riser Processing
  - Types of Riser connections
  - Advantages you can bring to the table



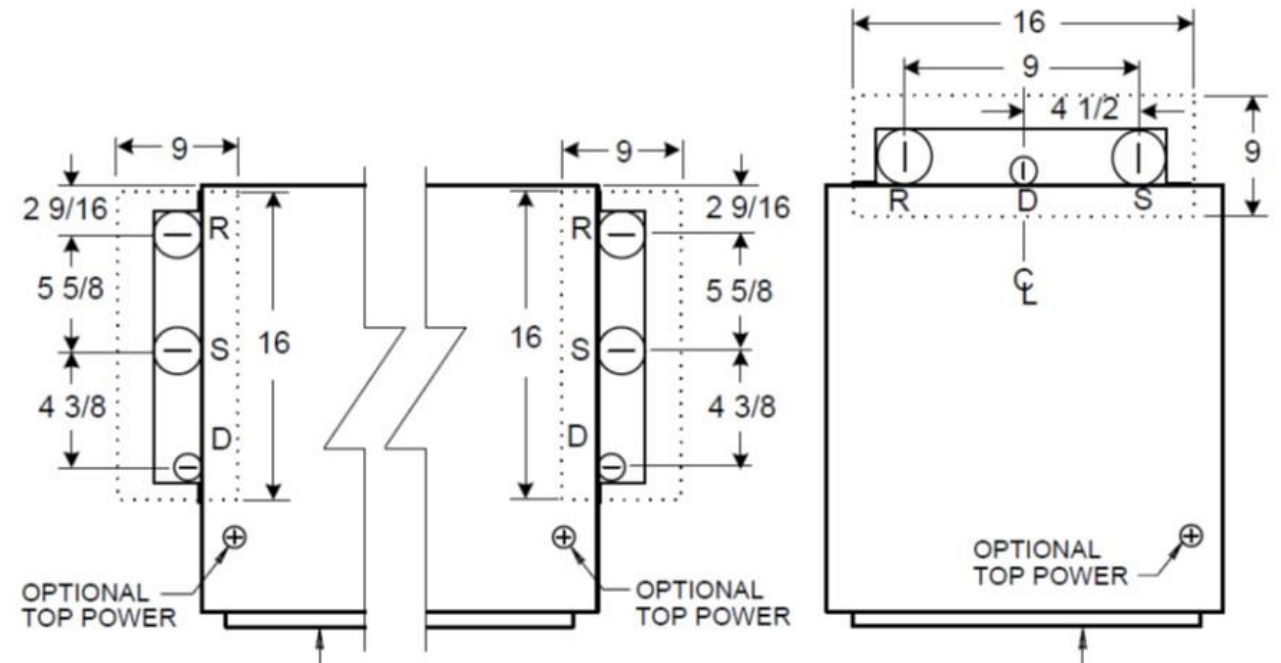
- Riser Spacing needs
  - Types of slab openings
    - Traditional Buckout
    - Core Drill
    - Cast-in-Place Firestop devices



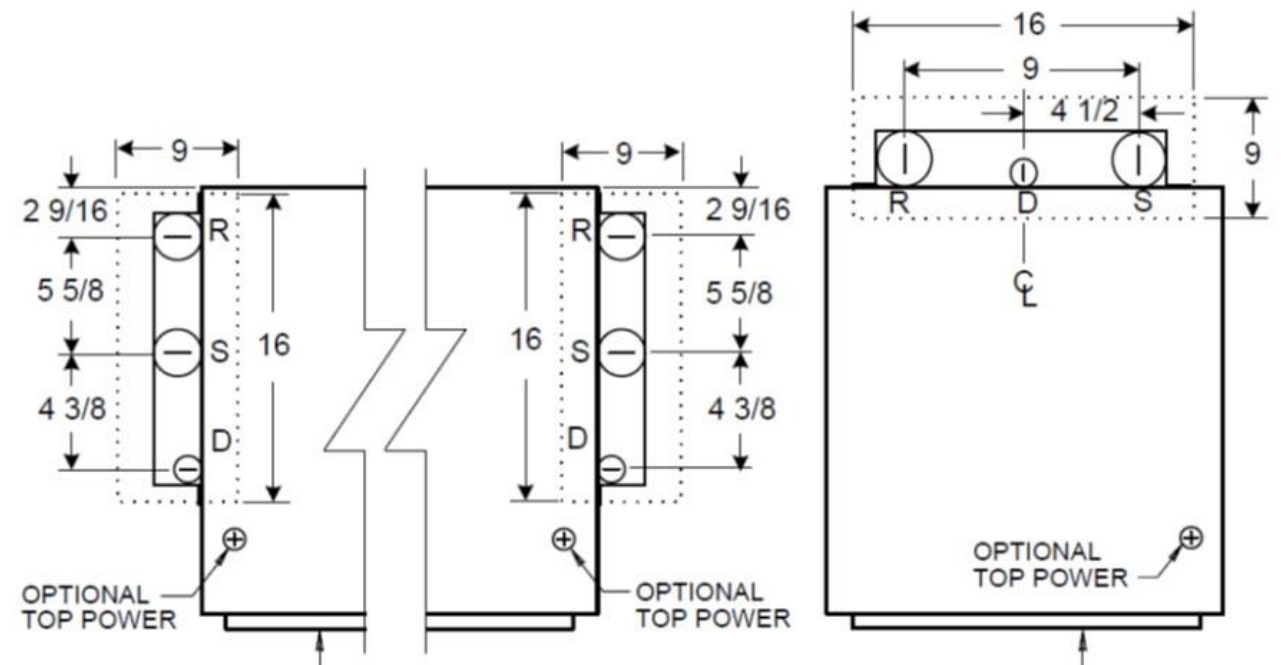
- Types of slab openings
  - Traditional Buckout
    - Best first cost
    - Highest Firestop cost (typically will have the largest opening)
    - Old method and still used
      - Allows for lots of slop in the system
  - Core Drill
    - Cost is dependent on application
    - May not be recommended on some renovation projects (type of existing slab will dictate)
    - Based on size of core and codes, may allow for Firestop caulk only to be used (this will reduce the total cost)

- Types of slab openings
  - Cast-in-Place Firestop devices
    - Seeing more of these with the increase in BIM (Revit) usage
    - Probably highest first cost
    - Should be the lowest total install cost
    - Allows for use of other install needs
      - Water Dams
      - Anchoring needs, etc.

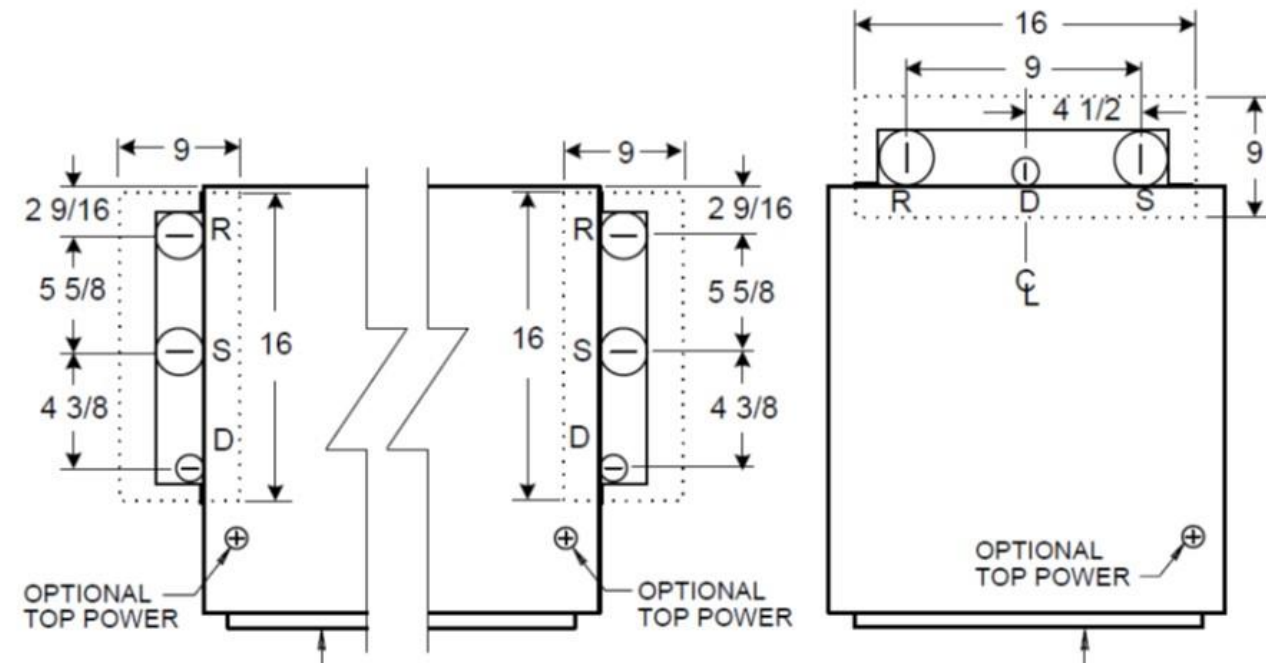
- Types of slab openings and actual Riser Spacing needs
  - Traditional Buckout
    - Can use the standard Riser Spacing
    - We offer three (3) standards depending on riser size and insulation thickness



- Types of slab openings and actual Riser Spacing needs
  - Core Drill
    - May be able to use the standard Riser Spacing
    - May require special spacing
      - Engineering dependent
      - Extra cost involved



- Types of slab openings and actual Riser Spacing needs
  - Cast-in-Place Firestop devices
    - We offer a special Riser spacing for this with the addition of the Bulls-Eye Option
    - May require special spacing
      - Engineering dependent
      - Extra cost involved



# Riser Spacing – Standard Spacing



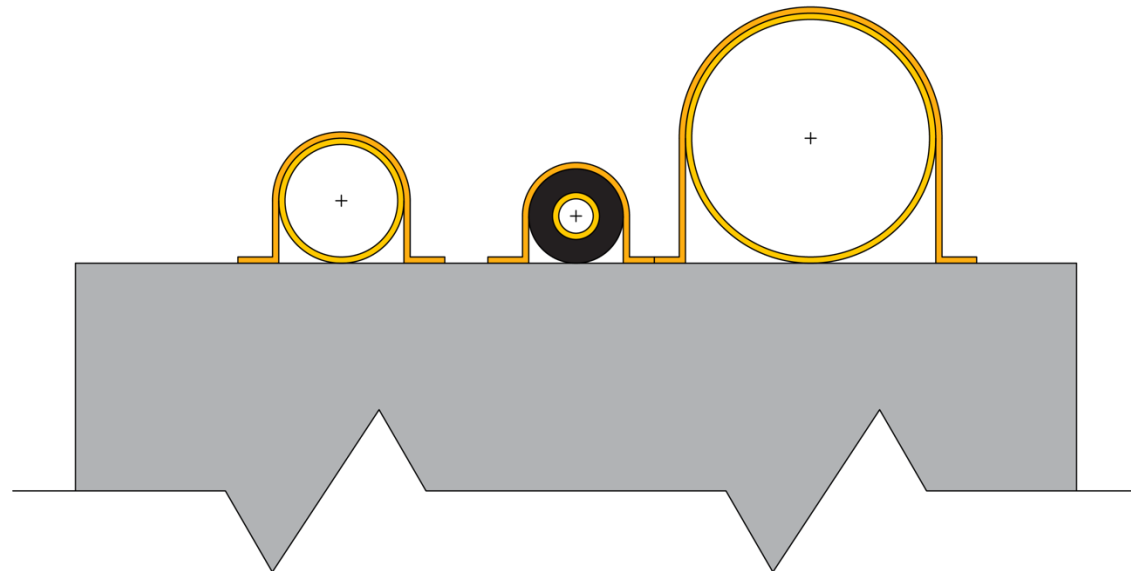
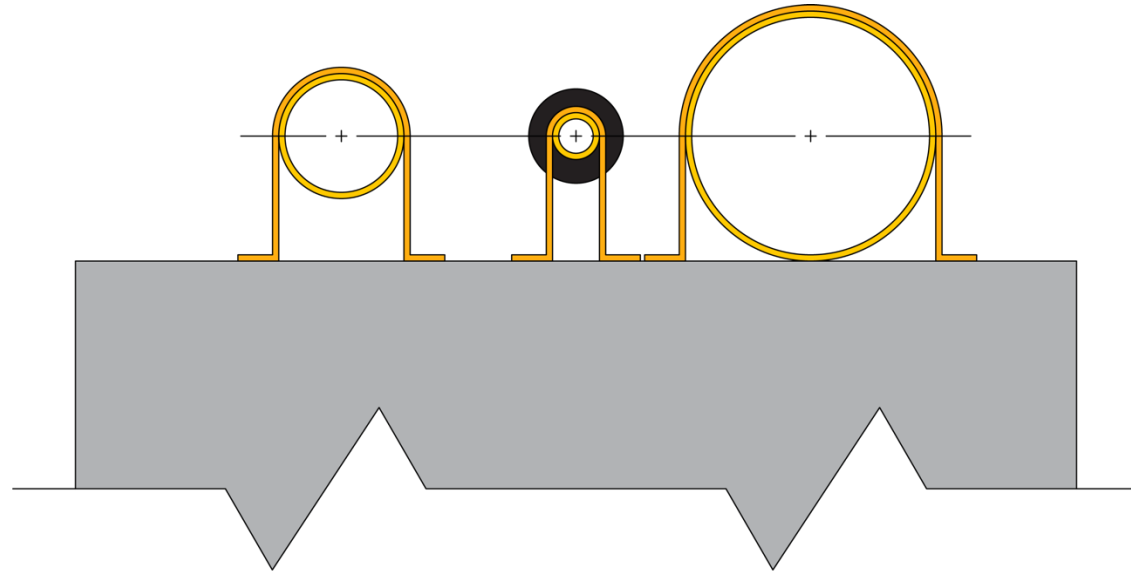
# Riser Spacing – Split Spacing



# Riser Spacing – Cast-in-Place Spacing



- Bulls-Eye
  - What is it really



- Riser Processing
  - Types of Riser connections
    - No Processing
    - Swage
    - Transition
    - ProPress
    - Roll Groove



- Riser Processing
  - Types of Riser connections
    - No Processing
      - The ends are straight cut and cleaned
      - With No Processing, all couplings will be field provided and installed.
    - ProPress
      - The ends are straight cut and cleaned
      - With ProPress, all couplings will be field provided and installed.
        - Eliminates soldering
      - Most competition offers this option



- Riser Processing
  - Types of Riser connections
    - Swage – connect same size risers
      - Swage on the top of the riser
        - Eliminates the need for a coupling
        - Eliminates one (1) solder joint
  - Transition
    - The ends have a Transition Swage spun into the top of the riser
      - The Transition Swage eliminates the need for a coupling on one size different risers
        - 1.00" to 1.25" or 3.00" to 2.50"
    - Eliminates one (1) solder joint



- Riser Processing
  - Types of Riser connections
    - Roll Groove
      - Roll Groove cut into the ends of the riser
      - Available on 2.50" and above risers
      - Not aware of any competition that offers this option
  - Comment - Based on size of the riser the connections may need to be offset.



# Riser Processing – Why Use them

- No Processing
  - Job has offsets
  - Riser size changes multiple sizes
- Swage
  - Eliminates one solder joint saving time and money as well as minimizing leak potential
- Transition
  - Eliminates couplings and one solder joint as well as minimizing leak potential
- ProPress
  - Mechanical connection that ensures a positive connection for 100% leak proof
    - Saves on testing time
  - Eliminates all soldering
    - May save on insurance cost and Fire Marshall
- Roll Groove
  - Same as ProPress



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# Riser Design & Considerations



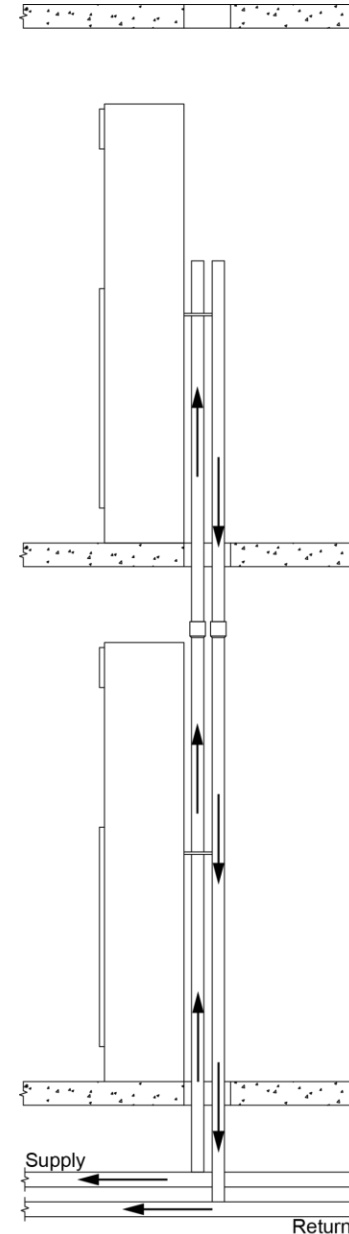
# Riser Design & Considerations

---

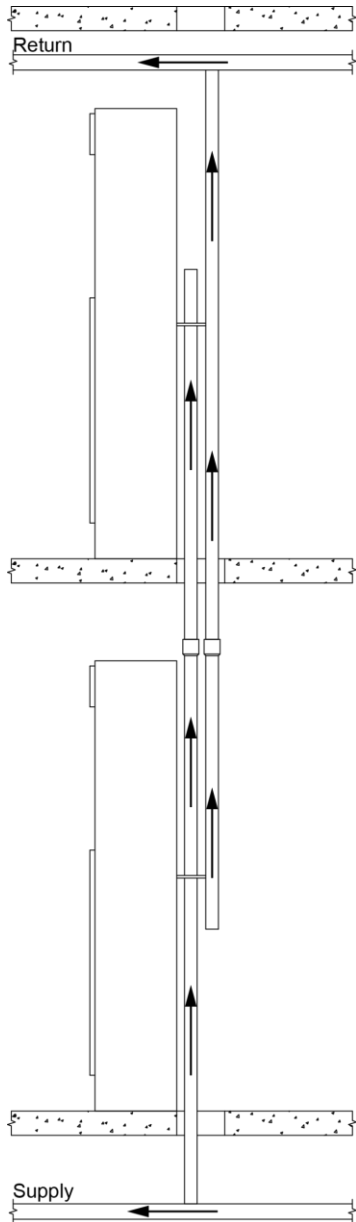
- System type
- Riser anchors
- Riser expansion
- Riser swage / transitions
- Top / Bottom terminated riser
- Riser spacing considerations
- Calculating riser length
- Riser extensions
- Riser diameter sizing
- Primary / secondary risers

## Direct Return

- *Advantages*
  - Cost-effective and simple
  - Straightforward installation
  - Less confusion about properly sizing the risers
- *Disadvantages*
  - The pressure drop is not equal at each unit on the stack.
  - A means of balancing the water flows at each floor must be provided.
  - Balancing options adds cost and maintenance



# Direct vs Reverse Return Systems



## Reverse Return

- *Advantages*

- The system can be designed so pressure drop through each unit is automatically equalized.
- The overall pressure drop is lower – offering the potential for energy savings.
- Fewer components in the piping package.
- Easier to accommodate larger riser pipe sizes and insulation thicknesses.
- Can eliminate the need for balancing valves.

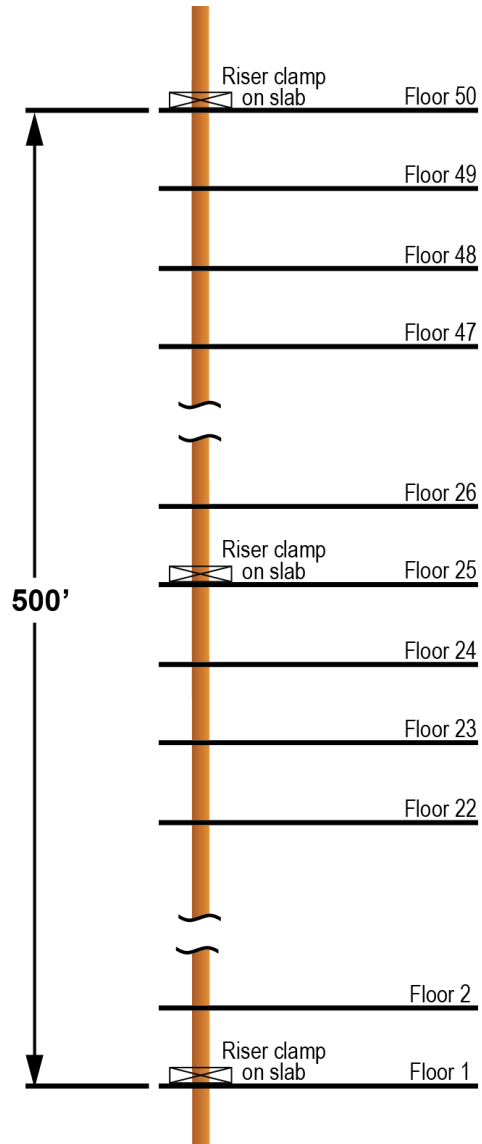
- *Disadvantages*

- At least one additional “express” return main/riser is required to collect the return water back to the boiler/chiller.
- The design of the system is more complex/less intuitive.
- All units on the riser stack must have the same pressure drop or balance valves are still required



## **WARNING**

The design, selection of components, and specifications for a building's riser system are typically the Responsibility of the mechanical engineering company retained on a given project. This information is to be used only as a guide. Any examples given are solely for the purposes of discussion and in no way assign responsibility or liability to The Whalen Company or any representative of The Whalen Company.

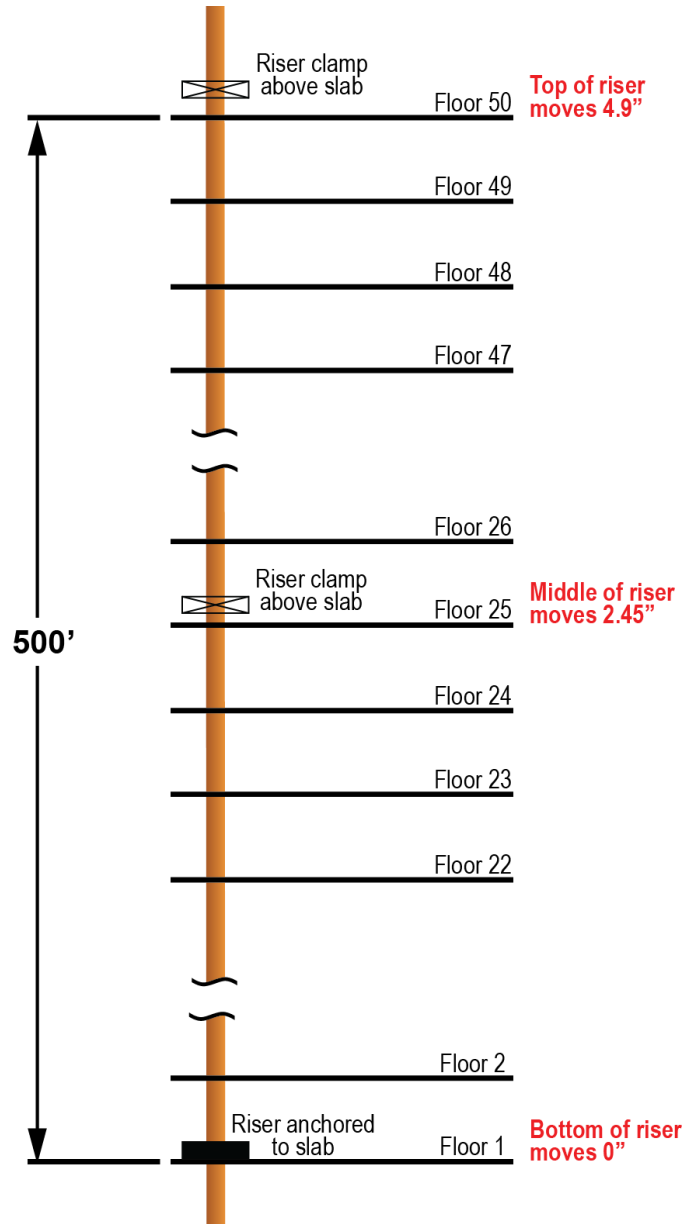


- Secure the riser to the building
- Must support the weight of the risers and the water
- Units are NOT holding the risers
- Should be isolated from the floor slab for maximum support



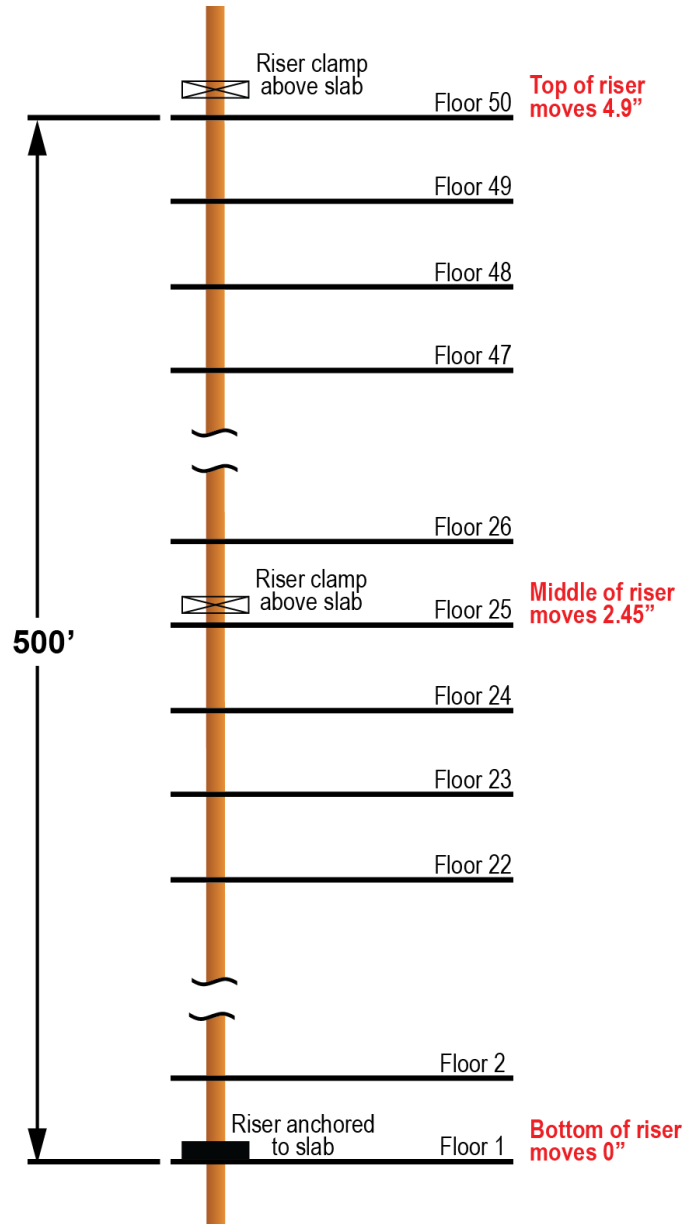


# Riser Expansion



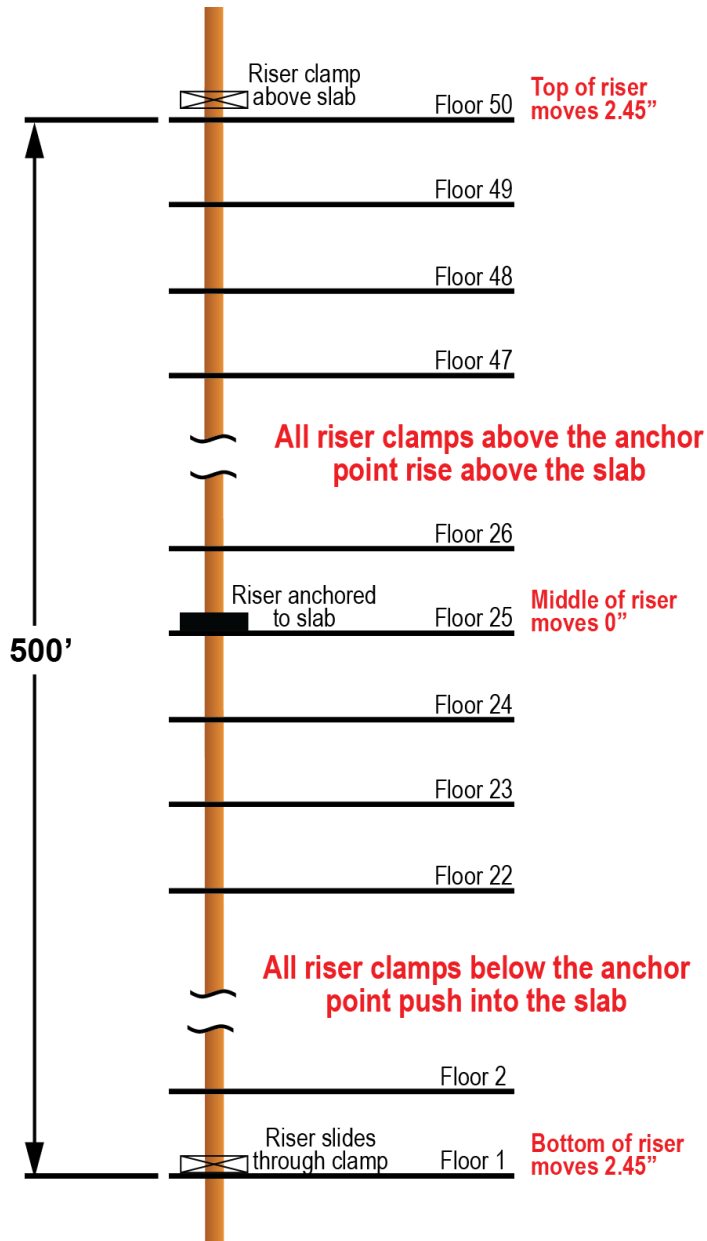
- All piping will expand / contract as the fluid temperature changes
- Location of pump room is critical in managing riser expansion
- **Fill the loop with 50°F water and heat it to 180°F**
- Change in length formula :  $\Delta L = \alpha * L_0 * \Delta T$ 
  - $\Delta L$  = Length change
  - $\alpha$  = Coefficient of thermal expansion
    - Sch 40 carbon steel =  $6.33 \times 10^{-6}$  inch/inch/°F
    - Copper =  $9.3 \times 10^{-6}$  inch/inch/°F
  - $L_0$  = Starting length (6000")
  - $\Delta T$  = Temperature change (180°F - 50°F = 130°F)
  - $\Delta L = 0.00000633 * 6000 * 130$
- **$\Delta L = 4.94"$  (steel)**
- **$\Delta L = 7.25"$  (copper)**

# Riser Expansion



- We must manage the expansion. Whalen unit include slot to accommodate riser expansion.
  - 3" on heat pumps
  - 6" on fan coils
- Unit allows 1.5" / 3" expansion up/down from center of slot.
- Factory mounted risers
  - Risers float inside shipping strap
  - Critical the ball valve is located in center of slot to allow full expansion / contraction
- Risers shipping separate
  - Contractor is responsible to install risers such that the "T" is in the middle of the slot/knockout for full expansion
- In our example, we have a problem due to excessive expansion

# Riser Expansion

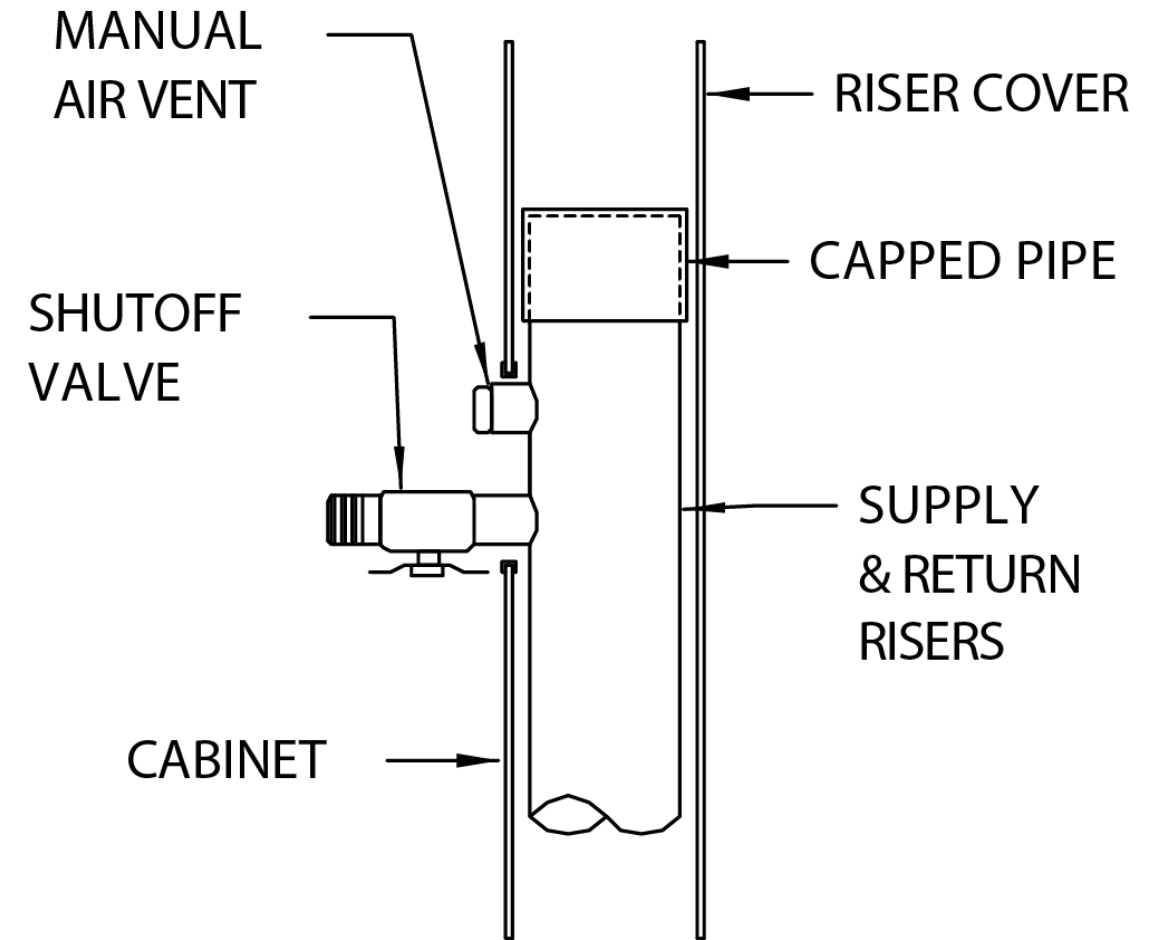


- Relocate the riser anchor to help but we still have a potential problem
- Must introduce a means to compensate for the expansion

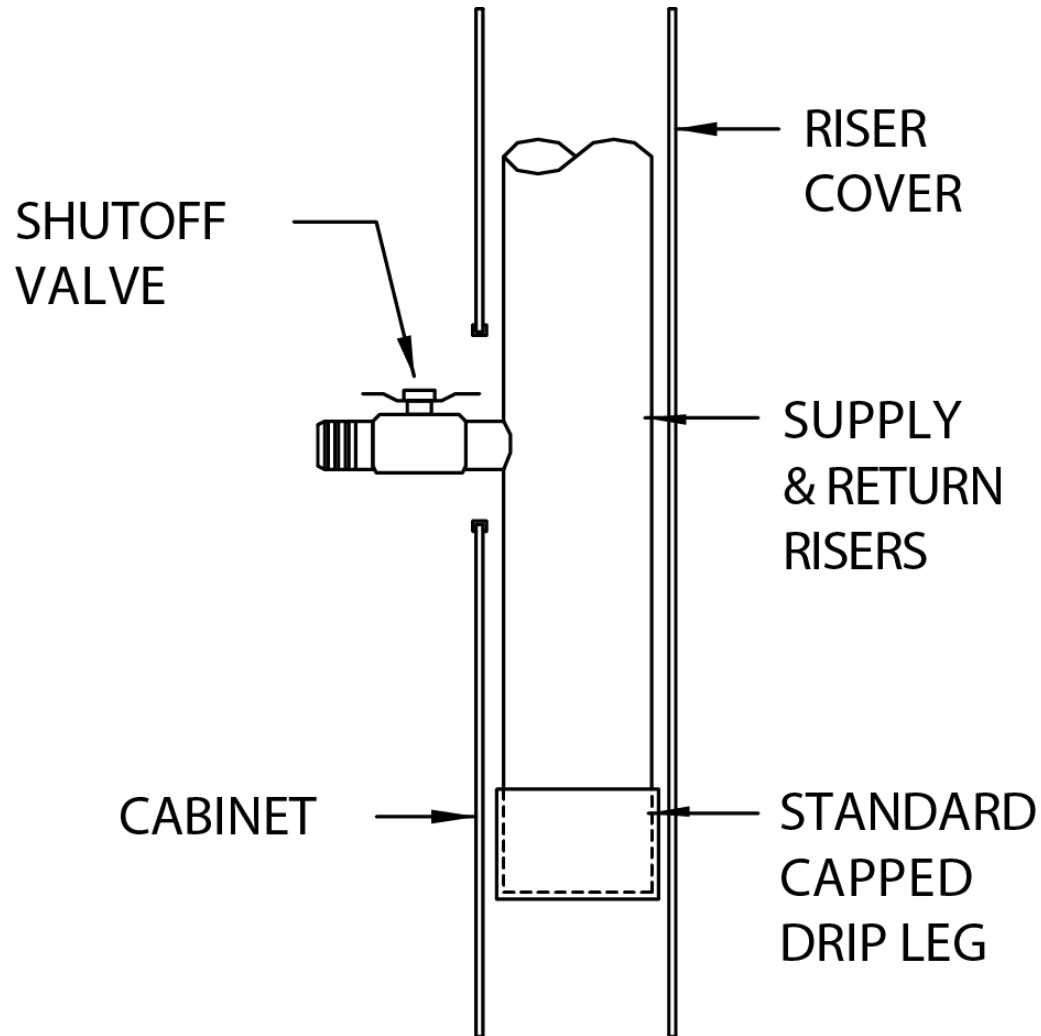


# Top Terminated Riser

- The air vent is factory assembled inside the top unit on each upfeed riser.
- The air vent is accessible through the cabinet return air opening.
- An air vent and cap will normally be furnished on both the supply and return risers when they are direct return. (Fan Coil vent on coil pack)
- On reverse return risers, only the supply riser will normally be vented and capped.
- Drain risers are extended to top of unit and not capped to eliminate a potential air lock within the drain riser stack
- Ball-type shutoff valves are standard.

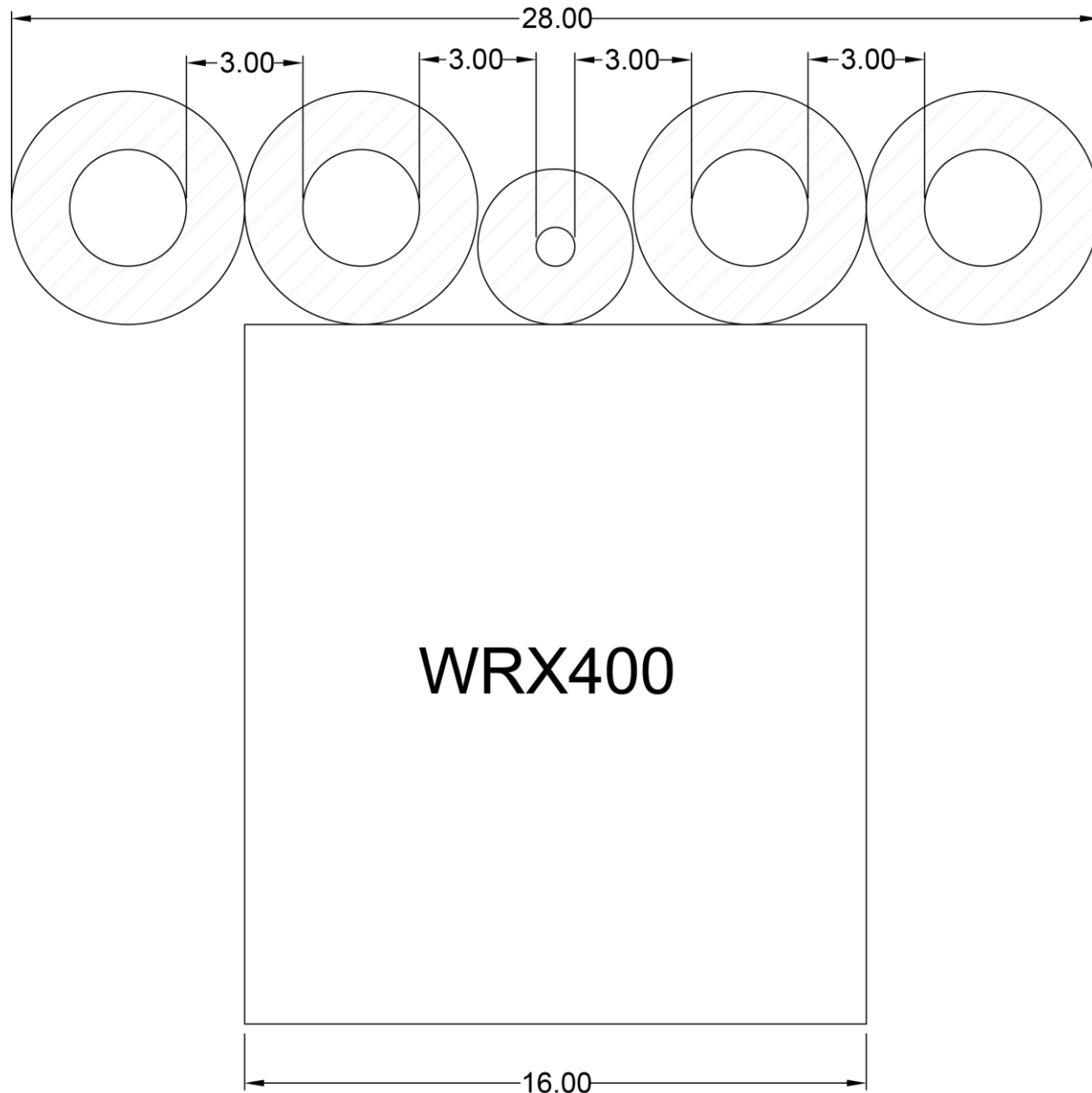


# Bottom Terminated Riser



- A capped drip leg is furnished inside the riser cover of the bottom unit on each downfeed riser.
- A capped drip leg can be furnished on either the supply or return riser or both, as required.
- Care must be exercised to prevent freezing of water trapped in the drip leg if the system is filled and then drained during construction.
- The shutoff valves are accessible through the return air opening.
- Ball-type shutoff valves are standard.

# Riser spacing considerations



- Riser size and insulation thickness must be considered when choosing riser layout
- Make certain what is requested will physically fit on the unit
- Factory mounted risers are considered part of the “unit” and are exempt from code requirements governing field installed insulation requirements
- Risers shipping separate and extensions
  - Make customer aware these do not fall under the “Exception” for the insulation and may mean that the customer must add insulation with the thickness to meet the code requirements
  - The insulation thickness may drive a wider spacing

# Riser processing - swage / transition

- All riser connections are made at the top of the unit



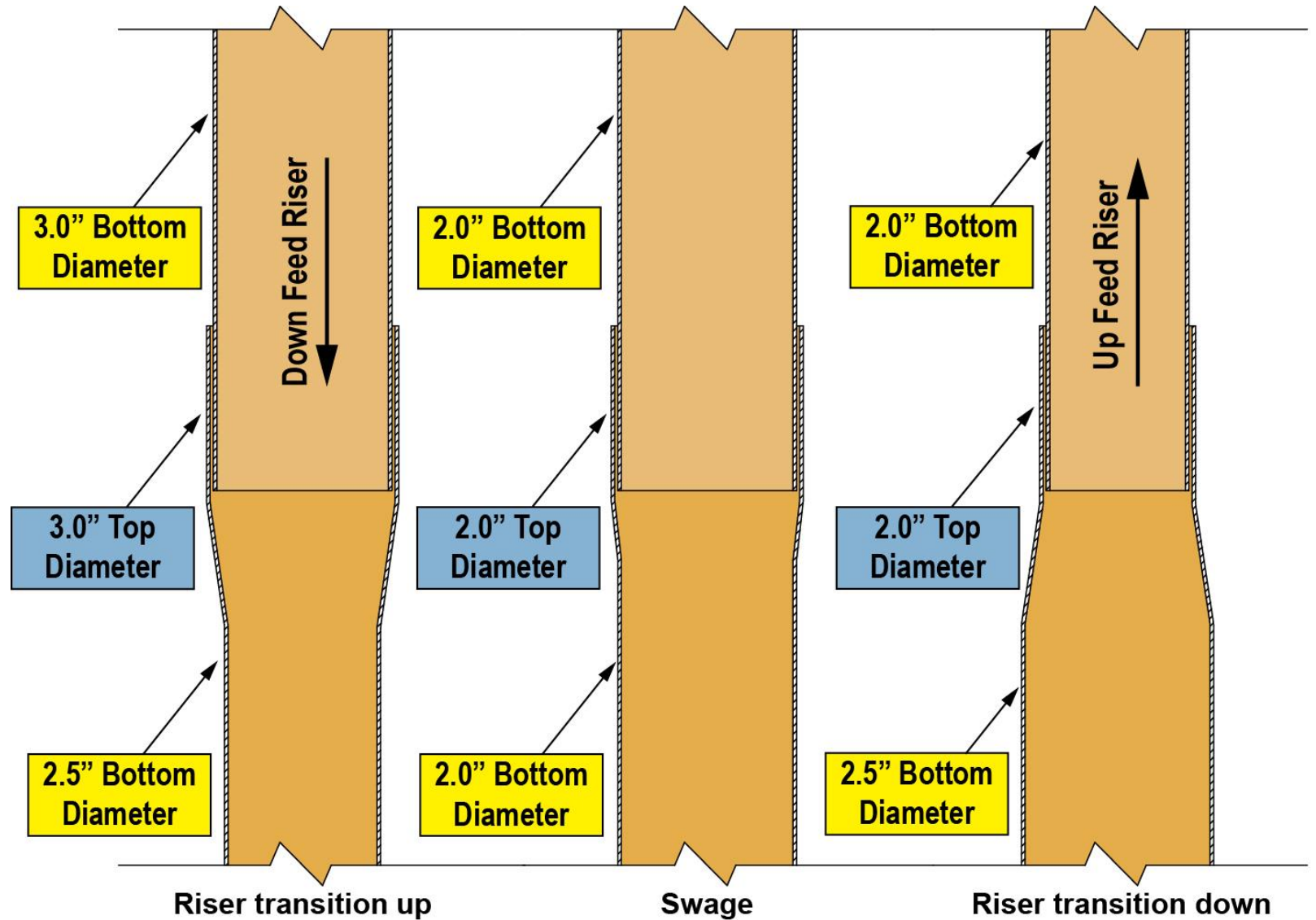
3" Riser

2.5" Riser



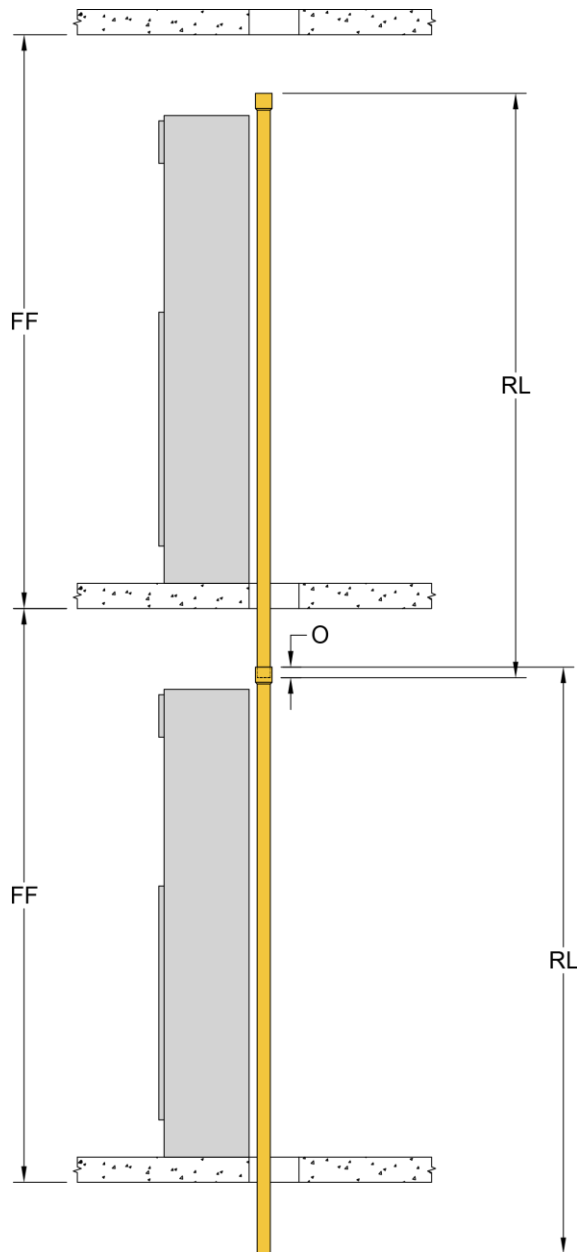
2" Riser

2.5" Riser



Transition is always at the top of the riser

# Calculating riser length



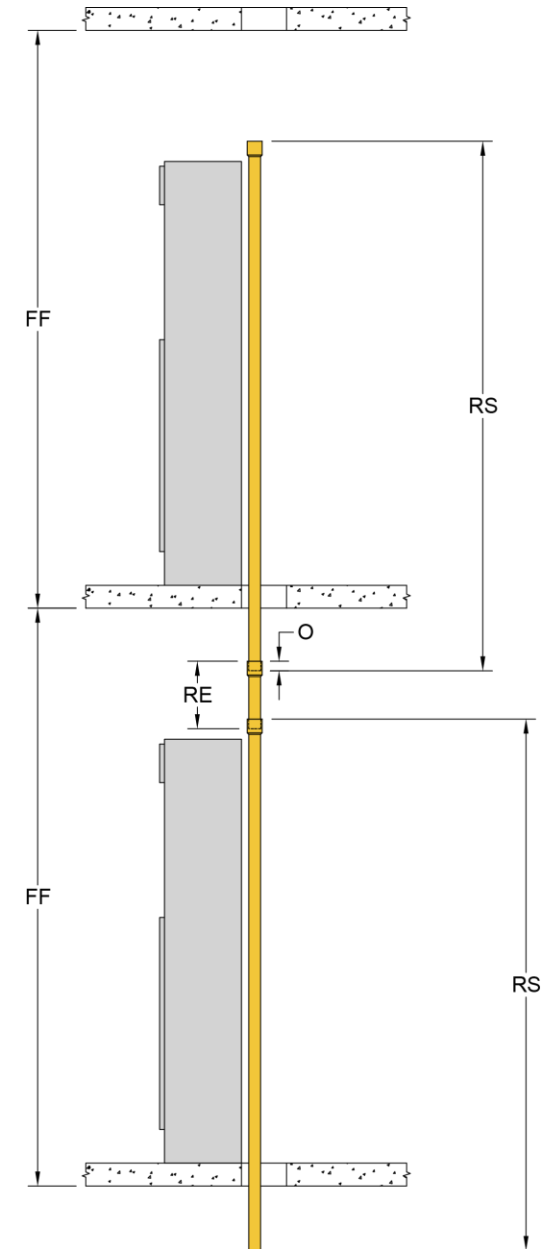
- $RL = FF + O + L_p$ 
  - RL = Riser Length
  - FF = Finish floor to finish floor distance
  - O = Riser overlap / swage insertion
    - 3/4" to 1.5" dia max = 1.5"
    - 2" to 3" dia max = 2.5"
  - $L_p$  = Riser processing loss
- $RL = 108 + 2.5 + 1.125$
- $RL = 111.625$  inches
- Order 120" riser and trim to fit in the field.

Riser Process	Riser Diameter / Riser Processing Loss ( $L_p$ )							
	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00
No Swage	0	0	0	0	0	0	0	0
Swage	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125
Transition - Increase	1.5	1.5	1.6	1.6	1.75	1.75	1.88	N/A
Transition - Decrease	N/A	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Propress	0	0	0	0	0	0	0	0
Roll Grove	0	0	0	0	0	0	0	0

# Calculating riser extension length

- $RE = (FF - R_S) + (2 * O) + (2 * L_P)$ 
  - RE = Riser Extension
  - FF = Finish floor to finish floor distance
  - $R_S$  = Standard riser length
  - O = Riser overlap / swage insertion
    - 3/4" to 1.5" dia max = 1.5"
    - 2" to 3" dia max = 2.5"
  - $L_P$  = Riser processing loss
- $RE = (120 - 108) + (2 * 2.5) + (2 * 1.125)$
- RE = 19.25 inches

Riser Process	Riser Diameter / Riser Processing Loss ( $L_P$ )							
	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00
No Swage	0	0	0	0	0	0	0	0
Swage	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125
Transition - Increase	1.5	1.5	1.6	1.6	1.75	1.75	1.88	N/A
Transition - Decrease	N/A	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Propress	0	0	0	0	0	0	0	0
Roll Grove	0	0	0	0	0	0	0	0

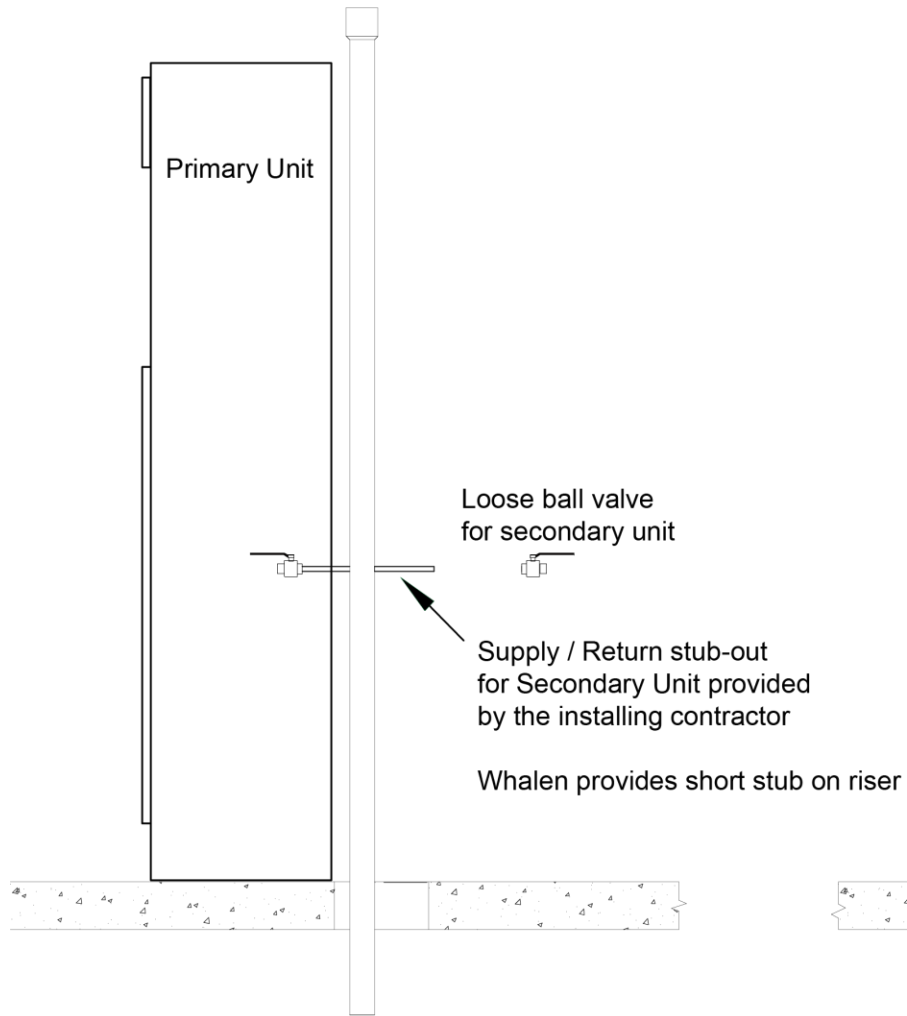


# Riser diameter sizing

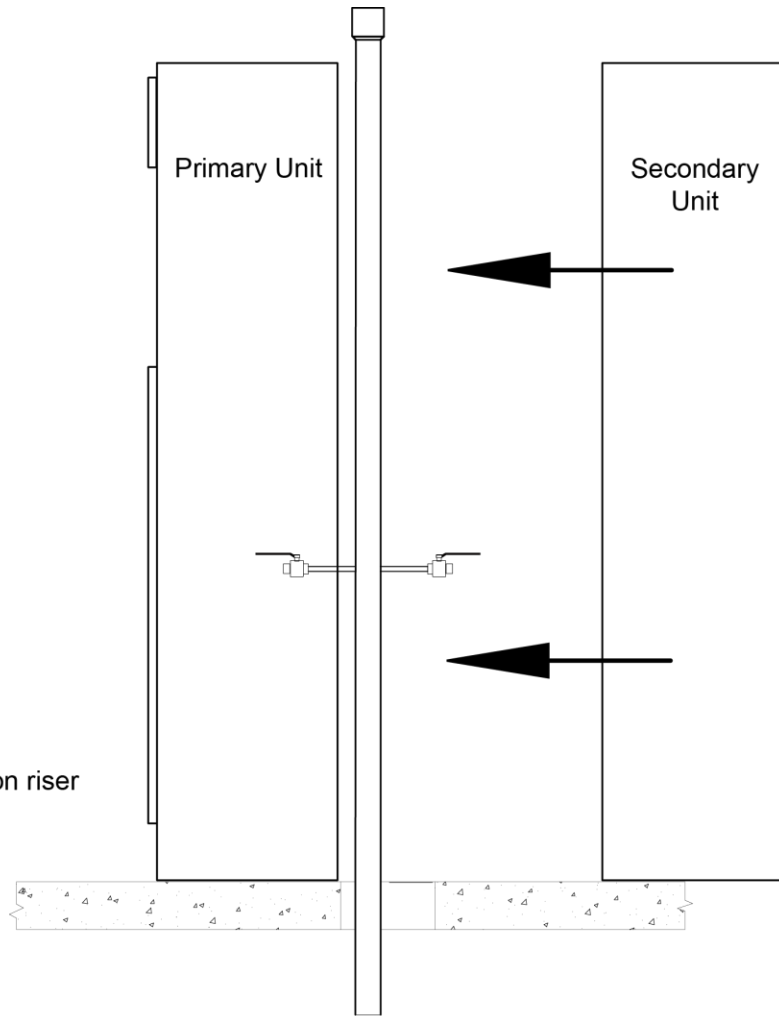
- Riser sizing should be calculated by the project engineer to ensure the total system works properly.
- Use ASHRAE guidelines to select riser size based on velocity through the riser
- The Whalen riser sizing tool can help make selections based on the units in each riser stack.

PROJECT:		Sample Project																			
*** For Use with Direct Return with Automatic Flow Control Valve or Reverse Return ***								SUPPLY					RETURN								
RISER #	Primary Unit	Secondary Unit	Supply Pipe	Return Pipe	Supply Pipe	Return Pipe		Riser Flow	Riser FPS	Riser FPS	* Riser FT/FT Pd	* Riser FT/FT Pd	Riser Flow	Riser FPS	Riser FPS	* Riser FT/FT Pd	* Riser FT/FT Pd	Unit Flow			
1	Size	Size	Code	Code	Size	Size	Riser Pd	GPM	ENT	LVG	ENT	LVG	GPM	ENT	LVG	ENT	LVG	GPM	TTR/BTR	Drain Size	
-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
18	VP-1204		f	f	2 1/2M	2 1/2M	24.81	88.4	5.80	5.21	0.046	0.038	88.4	5.21	5.80	0.038	0.046	9.0	Start of Riser	3/4"	
17	VP-1204		f	f	2 1/2M	2 1/2M	24.81	79.4	5.21	4.62	0.038	0.031	79.4	4.62	5.21	0.031	0.038	9.0		3/4"	
16	VP-1004		f	f	2 1/2M	2 1/2M	24.81	70.4	4.62	4.13	0.031	0.025	70.4	4.13	4.62	0.025	0.031	7.5		3/4"	
15	VP-1004		f	f	2 1/2M	2 1/2M	24.81	62.9	4.13	3.64	0.025	0.020	62.9	3.64	4.13	0.020	0.025	7.5		3/4"	
14	VP-0814		f	f	2 1/2M	2 1/2M	24.81	55.4	3.64	3.24	0.020	0.016	55.4	3.24	3.64	0.016	0.020	6.0		3/4"	
13	VP-0814		e	e	2 M	2 M	24.81	49.4	5.00	4.39	0.046	0.037	49.4	4.39	5.00	0.037	0.046	6.0		3/4"	
12	VP-0804		e	e	2 M	2 M	24.81	43.4	4.39	3.79	0.037	0.028	43.4	3.79	4.39	0.028	0.037	6.0		3/4"	
11	VP-0804		e	e	2 M	2 M	24.81	37.4	3.79	3.18	0.028	0.021	37.4	3.18	3.79	0.021	0.028	6.0		3/4"	
10	VP-0604		e	e	2 M	2 M	24.81	31.4	3.18	2.72	0.021	0.016	31.4	2.72	3.18	0.016	0.021	4.5		1"	
9	VP-0604		e	e	2 M	2 M	24.81	26.9	2.72	2.27	0.016	0.012	26.9	2.27	2.72	0.012	0.016	4.5		1"	
8	VP-0504		d	d	1 1/2M	1 1/2M	24.81	22.4	3.92	3.24	0.042	0.030	22.4	3.24	3.92	0.030	0.042	3.9		1"	
7	VP-0504		d	d	1 1/2M	1 1/2M	24.81	18.5	3.24	2.56	0.030	0.020	18.5	2.56	3.24	0.020	0.030	3.9		1"	
6	VP-0404		c	c	1 1/4M	1 1/4M	24.81	14.6	3.58	2.77	0.045	0.028	14.6	2.77	3.58	0.028	0.045	3.3		1"	
5	VP-0404		c	c	1 1/4M	1 1/4M	24.81	11.3	2.77	1.96	0.028	0.016	11.3	1.96	2.77	0.016	0.028	3.3		1"	
4	VP-0304		b	b	1 M	1 M	24.81	8.0	2.94	2.02	0.041	0.021	8.0	2.02	2.94	0.021	0.041	2.5		1"	
3	VP-0304		a	a	3/4 M	3/4 M	24.81	5.5	3.42	1.86	0.073	0.025	5.5	1.86	3.42	0.025	0.073	2.5		1"	
2	VP-0204		a	a	3/4 M	3/4 M	24.81	3.0	1.86	0.93	0.025	0.008	3.0	0.93	1.86	0.008	0.025	1.5		1"	
1	VP-0204		a	a	3/4 M	3/4 M	24.81	1.5	0.93	0.00	0.008	0.000	1.5	0.00	0.93	0.000	0.008	1.5	X	1"	

# Primary / Secondary risers

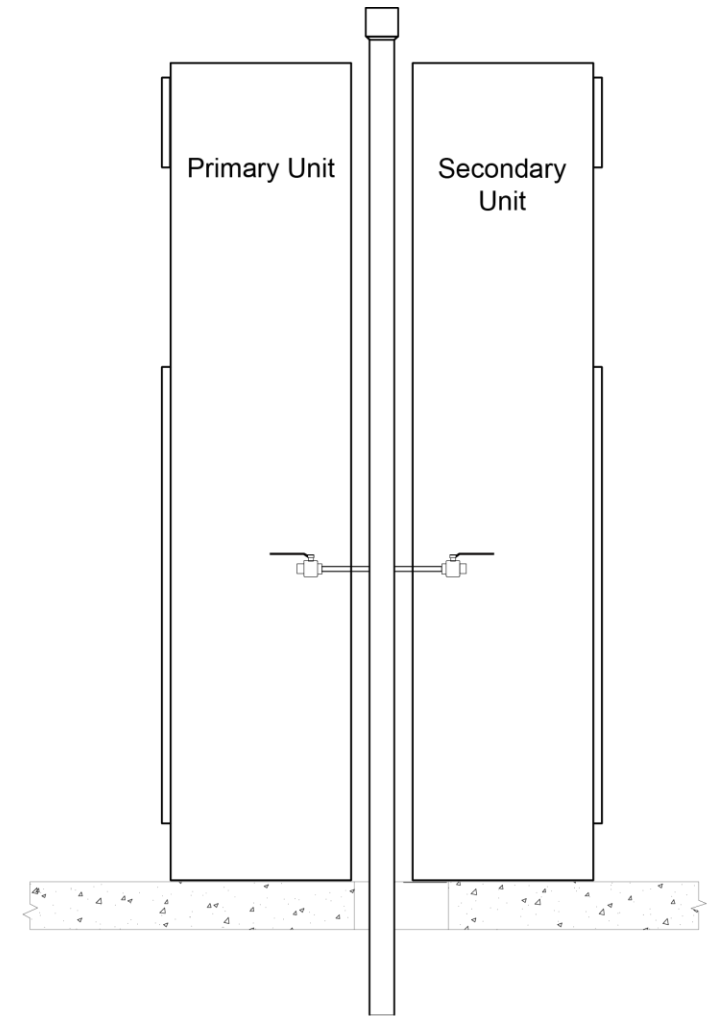


1) Install Primary Unit with risers.



2) Solder ball valve from secondary unit onto stub-out from primary unit.

3) Slide secondary unit into place over ball valve.



4) Attach hose from valve package to ball valve



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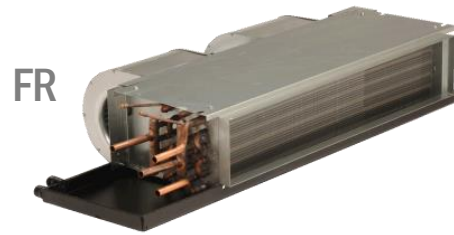
Questions?



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Fan Coil Products

# HC Series - Horizontal Fan Coils



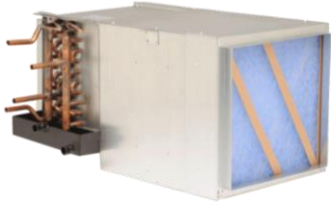
- Horizontal Ceiling
- 200 – 1,200 CFM
- 2 pipe or 4 pipe
- Electric Heat - 0.5 to 7kW
- PSC or EC motor options
  - EC, Constant Torque, Constant Airflow, Modulating 2-10 VDC
- Up to 0.25 ESP
- 1 to 6-row coil options
- Coils can be DX, Hydronic, or Steam (heating)
- Uncased, plenum, telescoping recessed, and painted exposed cabinet options

# HP Series - Horizontal Fan Coils

FR



PR



RF



EF



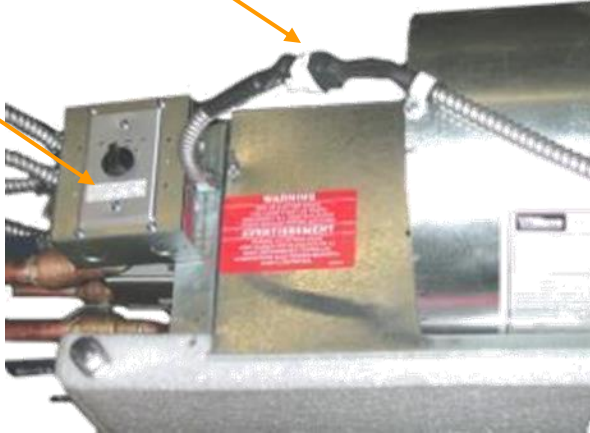
- High Performance
- 600 – 2,200 CFM
- 2 pipe or 4 pipe
- Electric Heat - 0.5 to 9kW
- PSC or EC motor options
  - EC, Constant Airflow, Modulating 2-10 VDC
- Up to 0.50 ESP
- 1 to 6-row coil options
- Uncased, plenum, telescoping recessed, and painted exposed cabinet options

- Valve package selection will automatically extend the drain pan a minimum of 6 inches.
- Standard cabinet is 18ga.
- Standard Molex plug on motor for quick removal.
- Optional fused or unfused disconnect.
- Default is right hand configuration for piping and left hand for electrical (configured at time of order). Looking at SA, handing is determined with air hitting in face.
- Can do custom color on exposed and painted panels with minimum of 10 units.

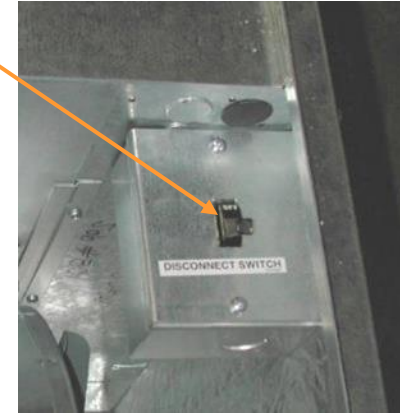
# HC/HP Series – Feature & Benefits

Molex Connection

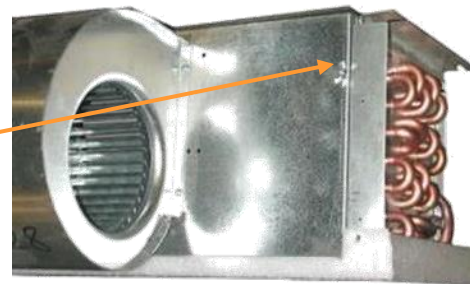
Unit mounted 3-speed switch w/ off



Disconnect switch



Wings Nuts for Easy Removal of Blower Assembly



Model Identification Label



# VW Series –Vertical Console Fan Coils

- Vertical Wall Mount
- 200 to 1200 CFM
- 2 pipe or 4 pipe
- Electric Heat – 1 to 6kW
- PSC or EC motor options
  - EC, Constant Torque, Constant Airflow, Modulating 2-10 VDC
- Up to 0.15 ESP
- 1 to 5-row coil options
- Concealed, wall recessed, flat top, and sloped top



# VW Series – Vertical Lowboy Fan Coils

- Vertical Lowboy Wall Mount
- 400 to 600 CFM
- 2 pipe or 4 pipe
- Electric Heat – 0.5 to 6kW
- PSC Motors
- Up to 0.15 ESP
- 1 to 4-row coil options
- Exposed, wall recessed, front discharge, and top discharge
- Can do custom cabinet extensions to accommodate retrofit applications.

LR



LF



LT



# VC Series - Vertical Fan Coils

- Vertical Closet
- 600 to 2,200 CFM
- 2 pipe or 4 pipe
- Electric Heat - 0.5 to 9kW
- Slide-out motor / blower assembly
  - PSC or EC motor options
    - EC, Constant Airflow, Modulating 2-10 VDC
- Up to 0.50 ESP
- 1 to 6-row coil options
- Front, Bottom, or Rear return / Bottom supply

BS



FS



RS



# AH Series – Belt Drive Fan Coils

HP



VS

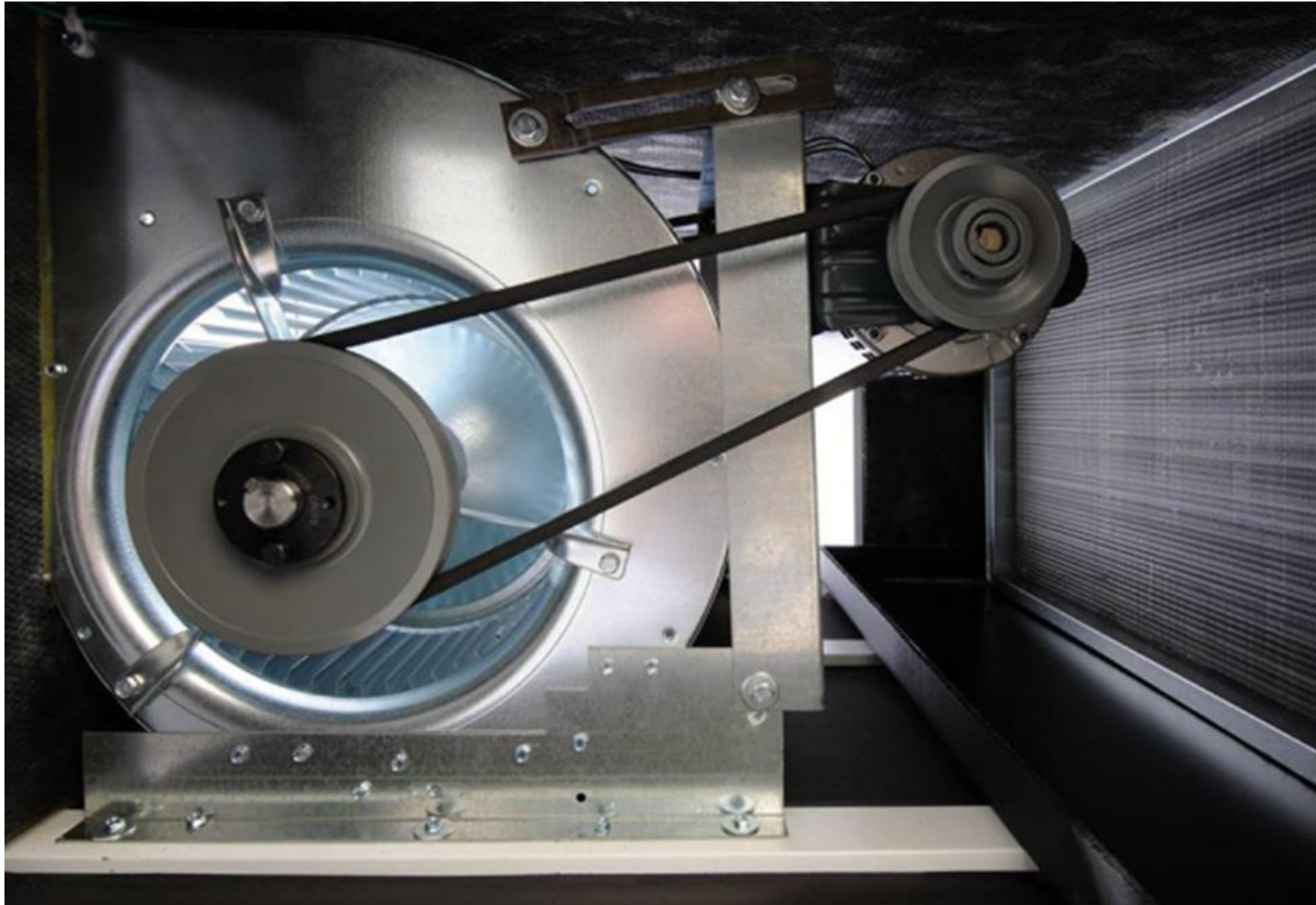


- Air Handler
- 800 to 12,000 CFM
- 2 pipe or 4 pipe
- Electric Duct Heat – up to 45kW (Shipped Loose)
- EPA Act Compliant, VFD ready motors
- Up to 10HP motor options with adjustable pitch sheave (factory set)
- Up to 3.75 ESP
- 1 to 10-row coil options
- Single or optional double wall cabinet design
  - Solid or perforated liner

- Quarter-turn door latches
- Mixing box
- 24V motorized controls
- 2-position or Modulating dampers
- V-Bank filter rack
- 2" Filters and 4" filter brackets
- Valve package enclosures
- Water resistant cabinets
- Rainhoods



# AH Series-Cast Iron Pulley w/ Sheave



- Valve Package
  - 2-Way & 3-Way Valves (Brand: 599-01 10 Siemens)
    - Motorized (on/off)
    - Modulating
      - Proportional 0-10VDC, 2-10 mA
      - Floating Point
    - Standard Sweat Connections, Option. Threaded Connections
  - Auto Flow Control
  - Pressure Temperature / Test Ports / Petco Plugs



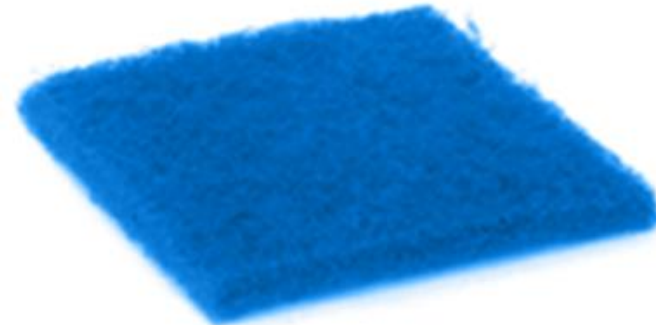
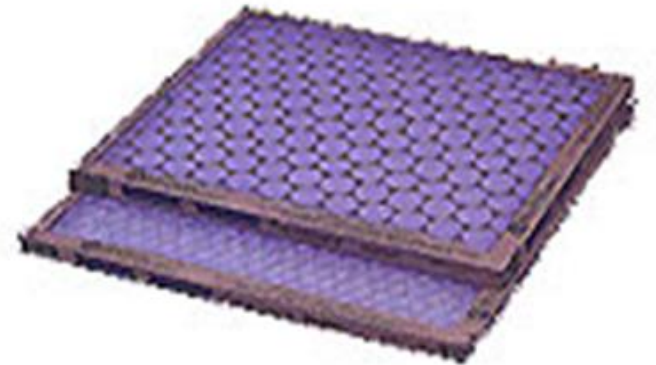
- Valve Package
  - Ball Valves
    - Optional Memory Stop
  - Stainless Steel Hose Kits
    - 12", 24" and 36"
  - Unions
  - Y-Strainer with Cleanout
  - Factory installed valves and components on direct drive. Belt drive ship loose for field install.



- Drain Pans
  - Galvanized (Standard)
  - Optional Stainless Steel
  - Extended
  - Removable
  - Insulation (3/8" thickness)
    - Closed cell



- Air Filters
  - 1" Standard throwaway MERV 4
  - 2" throwaway MERV 4
  - 1" and 2" Pleated MERV 8
  - Washable
  - 1" and 2" Pleated MERV13 available for Belt Drive units only





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General Sales Information

## Tony Landers

Vice President of Sales & Marketing



## Krystal Wanner

Customer Service Manager



## Scott Gavin

Regional Sales Manager



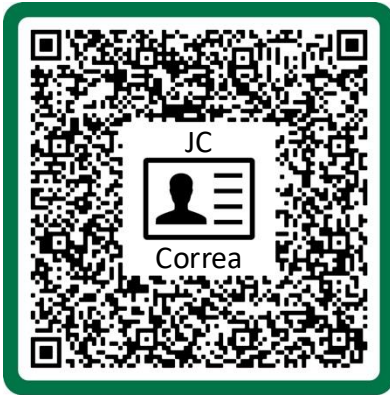
## Erwin Pino

Application Engineer



## JC Correa

Vice President of Manufacturing



## Michael Colletti

Vice President of Engineering



● OPEN  
● Scott - Regional Sales Manager  
● Tony - VP of Sales & Marketing

# Key Factory Contacts

- Sales & Marketing / Policies / Complaints
  - Tony Landers – VP Sales & Marketing
  - Scott Gavin – Regional Sales Manager
  - JC Correa – VP Manufacturing
- Specials Multiplier Requests
  - Tony Landers – VP Sales & Marketing
  - Scott Gavin – Regional Sales Manager
  - Erwin Pino – Application Engineer
- Specials Engineering Requests
  - Engineering - Submitted through ISC
  - Erwin Pino – Application Engineer
- Unit Selections / Performance Assistance
  - Erwin Pino – Application Engineer
- Order Management / Releases / Delivery
  - Krystal Wanner – Customer Service

*Contact the Correct  
Person to Save Time!!*

# | Key Factory Contacts

- Aftermarket Parts - [www.whalenparts.com](http://www.whalenparts.com)
  - Shanna Howard – Aftermarket Customer Service
- Warranty Issues
  - Wade Strickland – Service / Warranty / Technical Support Manager
- Credit / Collections / Commissions
  - Chris Murphy – VP & CFO
- Marketing / Literature/ Website
  - Tony Landers – VP Sales & Marketing

# Whalen Order Process - Responsibilities

## Regional Manager / Application Engineer

- Unit Configuration in ISC
- Price Quote creation
- SER / SMR approval
- Submittal Creation / Approval
- Excel schedule completion
- PO attached to ISC project
- Order creation

**Technical details worked  
out prior to order release**

**Lead-time starts  
after order review &  
acceptance**

**Order  
Release**

## Inside Sales / Application Engineer

- Order review
- Assign Whalen job number
- Order acknowledgment
- Order changes
- Internal coordination with purchasing & manufacturing
- Order status communication

**Order entered & managed  
through internal processes,  
manufacturing & shipping**




# Order Entry Requirements

- All units fully configured in ISC.
- Special pricing (if needed) approved through ISC (no verbal approvals).
- Special engineering requests approved through ISC.
- Signed Whalen submittal attached to order in ISC.
- Original signed customer purchase order cleanly scanned and attached to order in ISC.
- Complete Whalen unit schedules attached to order in ISC.
  - This allows for review the riser layout to minimize chance of incorrect riser transitions
  - Located on ISC homepage
- Any changes after order entry are subject to factory review and may incur additional charges.
  - Cost of material already in production
  - Cost of options / unit configuration



Do not submit order in ISC until it is reviewed by your RM and Inside Sales.

- Your RM is here to help (key word is HELP)
- What we need for proper pricing help
  - Create a project in ISC
  - Product specification (what features & options are required)
  - Unit take-offs (unit size & qty)
  - Riser sizing (supply, return, drain size & qty)
  - Competition also quoting the project
  - Access to your project in ISC
    - When adding Whalen person please make project admin
- Select which units are to be quoted and create quote

 **Sales Quote**

**Quote Information**

Quote Number:	1309	Status:	Open
Quote Date:	11/30/2018	Project Name:	Heat Pump Project
Quote Expiration:	1/29/2019	Job Name:	Heat Pump Project

**Quoted To Information**

<b>Quoted To</b>	<b>Ship To</b>
Name:	Name:
Company:	Company:
Address 1:	Address 1:
Address 2:	Address 2:
City:	City:
State:	State:
Zip:	Zip:
Country:	United States
Email:	
Phone:	
Fax:	

**Shipping Information**

Lead Time:	Standard
Shipping Via:	Best Way

**Equipment Summary**

Qty	Nomenclature	List Price	Total
68	CASV/G024ABX1ADCDAAAXAC0600XAAB Tag(s): HP-2.5	\$4,156.00	\$282,608.00
35	CASV/G030ABX1ADCDAAAXAC0600XAAB Tag(s): HP-3.0	\$4,443.00	\$155,505.00
475	CASV/G015ABX1ADCGAAXAC0300KAAB Tag(s): HP-1.25	\$3,828.00	\$1,818,300.00
135	CASV/G018ABX1ADCGAAXAC0300KAAB Tag(s): HP-1.5	\$3,936.00	\$531,360.00

**Accessories Summary**

Qty	Description	List Price	Total
713	Hose Kit Assembly	\$260.00	\$185,380.00
713	1H/1C - CCO - 24-volt - plugged - Programmable - ICM SC5011	\$121.00	\$86,273.00
713	Special Handling - Load cabinets in truck by Floor or Riser - Before release	\$15.00	\$10,695.00
678	Replacement Air Filter	\$9.00	\$6,102.00
35	Replacement Air Filter	\$10.00	\$350.00

**Net Adds**

Reference	Description	Qty	Price Each	Set-Up Fee	Total
	Less than 10 fee	1	\$500.00	\$0.00	\$500.00
	Expedited Order Fee	1	\$500.00	\$0.00	\$500.00

**Pricing Summary**

All Pricing in USD \$

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me.

Page 1 of 8



# Price Quote Details

Sales Quote

Quote Information

Quote Number: 1309

Quote Date: 11/30/2018

Quote Expiration: 1/29/2019

Status: Open

Project Name: Heat Pump Project

Job Name: Heat Pump Project

Quoted To Information

Quoted To

Ship To

Sales Quote

Equipment Net Price

Net Adds

Special Engineering Requests

Estimated Freight

Total Net Price

Prepared by:

\$984,503.31

\$1,000.00

\$0.00

*Freight cost has been estimated based on 8 required trailers (unless quoted)*

\$21,560.00

\$1,007,063.31

Sales Quote

Equipment Net Price

Net Adds

Special Engineering Requests

Estimated Freight

Total Net Price

\$984,503.31

\$1,000.00

\$0.00

*Freight cost has been estimated based on 8 required trailers (unless quoted)*

\$21,560.00

\$1,007,063.31

Prepared by:

Tony Landers

The Whalen Company

Phone: 410-924-2856

Fax: 410-822-8926

[tlanders@whalencompany.com](mailto:tlanders@whalencompany.com)

All freight out of Easton is full truck loads.  
LTL is quoted by the factory.



## Sales Quote

### Equipment Detail

CASVG015ABX1ADCGAAXXAC0300XAAB

Tag(s): HP-1.25

Brand	C - Closetline Series
Product Family	A - Small Cabinet
Operating Stages	S - Single-stage operation
Unit Configuration	V - Vertical unit configuration
System Configuration	G - Heat Pump (Heating default)
Unit Capacity	015 - 1.25 ton
Revision (Major)	A - 1st Generation
Voltage	B - Single Point Power: 208/230-60-1
Power Termination	X - Single Point Power: Without unit disconnect
Refrigerant Circuit Options	1 - Standard Coax for WSHP application
Revision (Minor)	A - 1st Minor Revision
Sound Attenuation	D - Compressor Sound Blanket and Vibration Isolation Pad
Coil Protection	C - Copper tube / Aluminum fin
Fan	G - ECM - Constant Torque Motor
Control Type	A - Solid State Control for Thermostat Input
Water Temperature Sensors	A - 32°F Freeze Protection with 36°F Low/High Liquid Temp setting
Electric Heat	X - None - No electric heat
Electric Heat Voltage	X - None - No electric heat
Control Valve	A - 2-way valve, on/off, 30 psi differential
Flow Control	C - Automatic Flow Valve - Griswold K with PT Ports
Water Flow	0300 - 3.0 GPM
Strainer / Pressure Ports	X - No Strainer or Pressure Ports Installed
Airflow Configuration	A - Vertical - Left Return / Top Supply
Insulation Option	A - Fiberglass
Filtration	B - 1" MERV 8 Pleated

CASVG018ABX1ADCGAAXXAC0300XAAB

Tag(s): HP-1.5

Brand	C - Closetline Series
Product Family	A - Small Cabinet

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me



## Sales Quote

Operating Stages	S - Single-stage operation
Unit Configuration	V - Vertical unit configuration
System Configuration	G - Heat Pump (Heating default)
Unit Capacity	018 - 1.50 ton
Revision (Major)	A - 1st Generation
Voltage	B - Single Point Power: 208/230-60-1
Power Termination	X - Single Point Power: Without unit disconnect
Refrigerant Circuit Options	1 - Standard Coax for WSHP application
Revision (Minor)	A - 1st Minor Revision
Sound Attenuation	D - Compressor Sound Blanket and Vibration Isolation Pad
Coil Protection	C - Copper tube / Aluminum fin
Fan	G - ECM - Constant Torque Motor
Control Type	A - Solid State Control for Thermostat Input
Water Temperature Sensors	A - 32°F Freeze Protection with 36°F Low/High Liquid Temp setting
Electric Heat	X - None - No electric heat
Electric Heat Voltage	X - None - No electric heat
Control Valve	A - 2-way valve, on/off, 30 psi differential
Flow Control	C - Automatic Flow Valve - Griswold K with PT Ports
Water Flow	0300 - 3.0 GPM
Strainer / Pressure Ports	X - No Strainer or Pressure Ports Installed
Airflow Configuration	A - Vertical - Left Return / Top Supply
Insulation Option	A - Fiberglass
Filtration	B - 1" MERV 8 Pleated

CASVG024ABX1ADCDAAXXA0600XAAB

Tag(s): HP-2.5

Brand	C - Closetline Series
Product Family	A - Small Cabinet
Operating Stages	S - Single-stage operation
Unit Configuration	V - Vertical unit configuration
System Configuration	G - Heat Pump (Heating default)
Unit Capacity	024 - 2.00 ton
Revision	A - 1st Generation

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me



# Price Quote Details



The Whalen Company

## Sales Quote

(Major)  
Voltage **B - Single Point Power: 208/230-60-1**  
Power Termination **X - Single Point Power: Without unit disconnect**  
Refrigerant Circuit Options **1 - Standard Coax for WSHP application**  
Revision (Minor) **A - 1st Minor Revision**  
Sound Attenuation **D - Compressor Sound Blanket and Vibration Isolation Pad**  
Coil Protection **C - Copper tube / Aluminum fin**  
Fan **D - ECM - Constant Torque Motor**  
Control Type **A - Solid State Control for Thermostat Input**  
Water Temperature Sensors **A - 32°F Freeze Protection with 36°F Low/High Liquid Temp setting**  
Electric Heat **X - None - No electric heat**  
Electric Heat Voltage **X - None - No electric heat**  
Control Valve **A - 2-way valve, on/off, 30 psi differential**  
Flow Control **C - Automatic Flow Valve - Griswold K with PT Ports**  
Water Flow **0600 - 6.0 GPM**  
Strainer / Pressure Ports **X - No Strainer or Pressure Ports Installed**  
Airflow Configuration **A - Vertical - Left Return / Top Supply**  
Insulation Option **A - Fiberglass**  
Filtration **B - 1" MERV 8 Pleated**

CASVG030ABX1ADCDAAXXAC0600XAAB

Tag(s): HP-3.0

Brand **C - Closetline Series**  
Product Family **A - Small Cabinet**  
Operating Stages **S - Single-stage operation**  
Unit Configuration **V - Vertical unit configuration**  
System Configuration **G - Heat Pump (Heating default)**  
Unit Capacity **030 - 2.50 ton**  
Revision (Major) **A - 1st Generation**  
Voltage **B - Single Point Power: 208/230-60-1**  
Power Termination **X - Single Point Power: Without unit disconnect**  
Refrigerant Circuit Options **1 - Standard Coax for WSHP application**  
Revision **A - 1st Minor Revision**

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me



The Whalen Company

## Sales Quote

(Minor)  
Sound Attenuation **D - Compressor Sound Blanket and Vibration Isolation Pad**  
Coil Protection **C - Copper tube / Aluminum fin**  
Fan **D - ECM - Constant Torque Motor**  
Control Type **A - Solid State Control for Thermostat Input**  
Water Temperature Sensors **A - 32°F Freeze Protection with 36°F Low/High Liquid Temp setting**  
Electric Heat **X - None - No electric heat**  
Electric Heat Voltage **X - None - No electric heat**  
Control Valve **A - 2-way valve, on/off, 30 psi differential**  
Flow Control **C - Automatic Flow Valve - Griswold K with PT Ports**  
Water Flow **0600 - 6.0 GPM**  
Strainer / Pressure Ports **X - No Strainer or Pressure Ports Installed**  
Airflow Configuration **A - Vertical - Left Return / Top Supply**  
Insulation Option **A - Fiberglass**  
Filtration **B - 1" MERV 8 Pleated**

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me



8900 Glebe Park Drive, Easton, MD 21601  
Ph: 410-822-9200 Fax: 410-822-8926

## Sales Quote

### STANDARD CONDITIONS OF SALE

#### Installation Sales Contract

- 1. TERMS:** F.O.B. Seller's factory, Easton, Maryland, with freight allowed to the first destination in the continental United States. This is an installment contract for the entire quantity of the order or quotation. Two or more invoices will be rendered. Payment of each invoice is due in full 30 days after invoice date, without discount or retention. Interest at the rate of the lesser of 1 1/2 percent per month (18 percent per year) or the highest permissible rate under applicable law will be charged on all overdue accounts.
- 2. QUOTATIONS AND ACCEPTANCE OF ORDERS:** Stenographic and clerical errors are subject to correction. Quoted prices are firm for 30 days from quotation date. All orders are subject to acceptance at Seller's home office, and the date of this contract shall be the date of such acceptance. In the event any term of Buyer's purchase order conflicts with these Standard Conditions of Sale (including, without limitation, any Buyer's "precedence" or "conflicts" clause or like term), the terms of these Standard Conditions of Sale shall prevail over any such conflicting term.
- 3. ESCALATION:** Contract prices are firm for all Equipment ordered for shipment within 9 months after date of contract. Prices on Equipment (a) ordered for shipment more than 9 months after date of contract, or (b) shipment of which is delayed by Buyer beyond such 9-month period, are subject thereafter to escalation at the rate of one percent (1%) per month.
- 4. LIMITATION OF SELLER'S OBLIGATIONS:** Seller will furnish only the Equipment described in Seller's quotation or other submission data. Drawings are submitted by Seller for Buyer's approval unless such approval is waived in writing by the designated architect/engineer on the project. Seller shall not be bound by the provisions of any contract between Buyer and any third party, and shall not be bound by project plans and specifications unless Buyer furnishes Seller a complete set of such plans and specifications, including all addenda thereto, and Seller agrees to be bound by them.
- 5. FINANCIAL RESPONSIBILITY:** Seller reserves the right to decline shipments except for cash whenever, due to change in Buyer's creditworthiness occurring after acceptance, Seller cannot satisfy itself as to Buyer's financial responsibility.
- 6. TITLE AND RISK OF LOSS:** Title and risk of loss will pass to Buyer upon delivery by the Seller to the carrier, subject to Seller's retention of a security interest in the Equipment for any unpaid portion of the contract price, and further subject to applicable statutory mechanics' and materialmen's liens.
- 7. SHIPMENT:** In the absence of explicit shipping instructions from Buyer, Seller will forward by most convenient means.
- 8. DELIVERIES:** Unless otherwise agreed in writing, quotations are given and orders are accepted for delivery by partial shipment as the equipment is manufactured. Seller will not be liable for any damages, direct or consequential, caused by or arising out of any delays beyond Seller's control, including, without limitation, strikes, lockouts, fires, floods, acts of God, acts of war, governmental acts or regulations, and delays of subcontractors, suppliers, or carriers. Delay in delivery of any shipment, regardless of cause, will not relieve Buyer of its obligation to accept that or subsequent deliveries.
- 9. WARRANTIES AND DISCLAIMER:** The Equipment delivered hereunder is warranted to be free of defects in materials and workmanship under normal use in accordance with Seller's installation and operating instructions for fifteen months following date of shipment. Equipment found to be defective will be repaired or replaced by Seller, at Seller's option. Buyer shall furnish all field labor. THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SELLER WILL NOT BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF THE USE OR PERFORMANCE OF THE EQUIPMENT. FAILURE OF BUYER TO MAKE PAYMENT IN ACCORDANCE WITH THIS CONTRACT Voids THE WARRANTY. Any unauthorized modification or repair of the Equipment, or installation of any unapproved parts or assemblies, will void this warranty. Buyer must give Seller written notice of any claim for breach of warranty within ten days after any asserted defect appears, and the failure to give such notice will constitute waiver of Buyer's right to any claim for breach of warranty.
- 10. PATENT INDEMNITY:** Seller will indemnify Buyer against any and all claims, damages, judgments, and losses arising out of the infringement of any United States letters patent by the Equipment delivered hereunder, provided that in the event of suit or threat of suit for such infringement, Buyer shall promptly notify Seller and afford Seller the opportunity to settle or defend, as Seller may decide. This indemnity provision does not extend to claims or infringement based on Buyer's design or use of the Equipment in combination with other equipment or in the operation of any system.
- 11. CANCELLATION:** Cancellation of all or any part of this contract by the Buyer after formal release for production obligates the Buyer to pay immediately and in full all outstanding invoices, and in addition to pay Seller for unshipped Equipment and work in process on a percentage-of-completion basis at Seller's cost plus overhead.
- 12. TAXES:** All sales, use, excise, consumption and similar taxes imposed by any taxing authority on or as a result of this transaction shall be paid by Buyer. It is Buyer's responsibility to notify Seller of any exemption Buyer may have from sales or use taxes by furnishing to Seller a true copy of Buyer's exemption certificate.
- 13. APPLICABLE LAW:** These Standard Conditions of Sale and the obligations of the parties hereunder will be governed by and interpreted in accordance with Maryland law.



8900 Glebe Park Drive, Easton, MD 21601  
Ph: 410-822-9200 Fax: 410-822-8926

## Sales Quote

### SHIPMENT OF UNITS AND ACCESSORIES

- Heating and air conditioning units (fan-coil units, heat pump cabinets and refrigeration chassis modules) are shipped directly from our factory to the JOB SITE following manufacture, subject to current lead-time after release to production.
- Supply and return grilles (where applicable) are drop shipped from our supplier to the customer's SHOP ADDRESS\*, normally four to five weeks after shipment of the units.
- Acoustical return air panels (in lieu of R.A. grilles on heat pumps) are normally shipped together with chassis modules to the JOB SITE.
- Refrigeration chassis modules (and acoustical return air panels, where applicable) ship separate and follow heat pump cabinets based on construction schedule and availability.
- Return air filters are drop shipped from our supplier to the customer's SHOP ADDRESS\*, two to three weeks after shipment of the units.
- Thermostats (where applicable) are shipped to the customer's SHOP ADDRESS\*, and are normally available for shipment from our factory 30 days following shipment of units.
- \*Shipment of grilles, filters, and thermostats to customer's shop in lieu of job site is strongly favored due to the possibility of theft, loss, or damage at construction sites.
- Caution: Lead-time on replacement grilles may exceed FOUR WEEKS.  
Lead-time on replacement thermostats may exceed SIX WEEKS.*
- IF SHIPMENT OF GRILLES, FILTERS, AND THERMOSTATS (where applicable) IS TO BE MADE TO AN ADDRESS OTHER THAN CUSTOMER'S SHOP, WRITTEN NOTIFICATION IS TO BE MADE TO THE WHALEN COMPANY AT THE TIME ORDER IS RELEASED TO PRODUCTION.


## Small Order Quantity

- For orders with less than 10 units
  - Less than 10 fee automatically added to quote and can not be removed
  - Buy for resale multiplier is 0.48
- Freight calculated for 1 truck load. Upon request, we will provide a freight estimate at the time you are quoting. If no freight quote requested, we will invoice you the actual freight cost.



- Submittals are generated via Integrated Sales Center (ISC)
  - Terms & Conditions
  - Shipping procedure
  - Product model breakdown
  - Unit Drawings
  - Electrical diagrams
  - Generic performance sheets
  - Unit mechanical specification
- Special pricing is requested and approved through ISC.
- Special engineering requests are entered and approved through ISC.
- Unit selections are run separately and can be added manually.

**Make certain your  
submittal has all the  
necessary drawings.**



8900 Glebe Park Drive, Easton, MD 21601  
Ph: 410-822-8200 Fax: 410-822-8526

**Submittal**

Project number: 20182422  
Project name: 400 Biscayne  
Job Location:  
Representative:

Monday, January 21, 2019

**Approval**

Approved By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

Note: This submittal is based on equipment and options listed on the attachment(s) and represents our interpretation of your requirements. It is the representative's responsibility to review this submittal and verify that it meets the job specifications.

**Product Data**

Qty Desc  
475 Pack

Tag(s): HP-

Selected Option


C	Brn
A	Prod
S	Oper
V	Unit
G	Syst
015	Unit
A	Revi
B	Volts
X	Pow
1	Refri
A	Revi
D	Sour
C	Coil
G	Fan
A	Cont
A	Wat
X	Elec
X	Elec
A	Cont
C	Flow
0300	Wate
X	Strai
A	Airfk
A	Insul
B	Filtra

**Project Summary**

Qty	Model Description	Model Number
475	Packaged Heat Pump	CASVG015ABX1ADCGAAXXAC0300XAAB
135	Packaged Heat Pump	CASVG018ABX1ADCGAAXXAC0300XAAB
68	Packaged Heat Pump	CASVG024ABX1ADCGAAXXAC0600XAAB
35	Packaged Heat Pump	CASVG030ABX1ADCGAAXXAC0600XAAB

400 Biscayne

Vertical P  
Qty: 610




Whalen Equipment Submittal

Page 4 of 21

Whalen Equipment Submittal

Page 8 of 21

- Excel schedules attached to order with job information
  - Downloaded from ISC homepage
  - Attach to project in ISC
- Separate line for each unit
- Schedules to be filled out by riser or floor
  - By riser is preferred
  - Allows more visual method to ensure riser stack is correct
- Unit tag consists of four parts
  - Primary, secondary, floor, and riser
    - Primary is required
- Handing designation, LH or RH
- Discharge arrangements



**The Whalen Company**  
Always the perfect fit.™

**VALVE CONTROLLED FAN-COIL UNIT SCHEDULE**

Project: \_\_\_\_\_  
 Mechanical Contractor: \_\_\_\_\_  
 Customer Order Number: \_\_\_\_\_  
 Whalen Job Number: \_\_\_\_\_  
 Date: \_\_\_\_\_

RISER NO.	FLOOR	TYPE	UNIT SIZE	PIPING LOCATION		DISCHARGE	SIZE				BTR	FILTER	DISCONNECT SWITCH	STANDS	6 inch STAND	EXPL. RISER	SA (B) Meter (sq) Size	Release Number	Release Date	Remarks
				LN	RN		SA	SB	SC	SD										
1																				
2																				
3																				
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File: "ISC SCHEDULES" (Excel)

Print: "100"

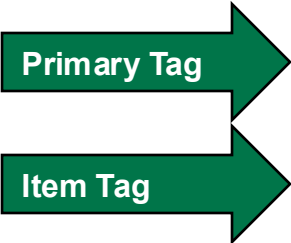
SA = 2.0 sq ft per 100 sq ft of floor area  
 EXPL. = EXPL. RISER  
 DISCH. = DISCHARGE

# Unit Tagging

- Unit tagging limited to two fields (i.e. riser & floor number, floor & room number, etc.)
- Each unit configuration in ISC must have a primary tag
  - Missing tag will generate an error in the submittal
- Primary and Item tagging are needed for configurations with multiple quantities

Tagging				
Primary tag	Item tagging	Floor	Riser No	
#1: FCU	01	1	2	✗
#2: FCU	01	2	2	✗
#3: FCU	01	3	2	✗
#4: FCU	01	4	2	✗
#5: FCU	01	5	2	✗

Cancel
Save



**JOB #** 2015004  
**MODEL** WFD-600-AE

**HAND:** RH  
**FLOOR:** 2  
**ROOM#:** 206  
**SUP:** 3/4V  
**RET:** 3/4V

**DISCH:** 14X8F 14X8B  
 4195 1 OF 1

- Product releases
- Factory notices
- Quarterly newsletter
- Make sure you are registered to receive notifications



## Whalen Introduces the Intelli-therm™ Series

The Intelli-therm™ Vertical Stack Fan Coil unit with a slide-out coil pack, has an integrated thermal recovery unit that will be advantageous when trying to meet modern building codes and the increasing outside air requirements. Moreover, since the Intelli-therm™ unit ships completely assembled, there is less field work required. With customization capabilities including riser locations, hanging and discharge arrangements and sizes, it means that your new Whalen units will be installed and operating in significantly less time.

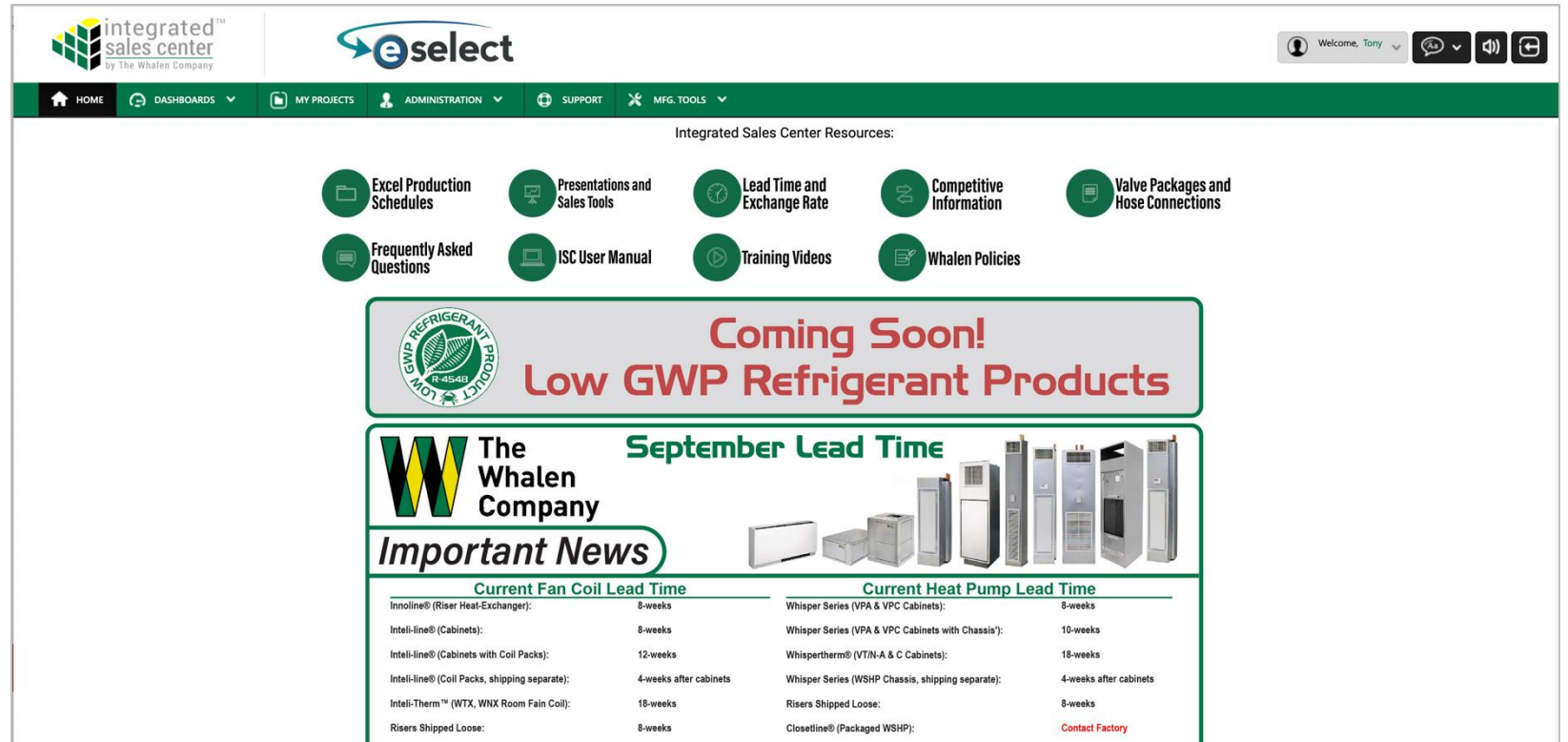
**Unit Features:**

- **Integrated Energy Recovery Module:** Our integrated energy recovery module is fully removable for easy maintenance and capable of providing fresh air to the occupied space as well as exhausting multiple bathrooms.
- **Constant Fresh Air Flow:** Each unit is programmed for a minimum constant air flow to provide the required outside air. Optional decorative wall controls provide intermittent high speed exhaust flow from one or two remote locations.
- **Multiple Ventilation Rates:** Each energy recovery module is shipped with a factory-set ventilation rate to balance the supply and exhaust air required.
- **Additional Benefits During Installation:** Because the coil pack is designed to slide out, it can be shipped separately from the cabinet. This provides additional user benefits and reduces the risk of damage during the installation phase.



[Click here to learn more about the](#)

- Lead times are posted to the ISC Homepage
- Updated every month or more frequently if necessary
- No need to wait for a reply from your RM. This is always current information.



The screenshot shows the ISC homepage with the following elements:

- Header:** Integrated sales center by The Whalen Company, eselect logo, and user welcome (Welcome, Tony).
- Navigation:** HOME, DASHBOARDS, MY PROJECTS, ADMINISTRATION, SUPPORT, MFG. TOOLS.
- Resources:**
  - Excel Production Schedules
  - Presentations and Sales Tools
  - Lead Time and Exchange Rate
  - Competitive Information
  - Valve Packages and Hose Connections
  - Frequently Asked Questions
  - ISC User Manual
  - Training Videos
  - Whalen Policies
- Coming Soon!** Low GWP Refrigerant Products (with GWP REFRIGERANT PRODUCT 454B logo).
- September Lead Time** section featuring The Whalen Company logo and images of HVAC units.
- Important News** section with two tables:

Current Fan Coil Lead Time		Current Heat Pump Lead Time	
Innoline® (Riser Heat-Exchanger):	8-weeks	Whisper Series (VPA & VPC Cabinets):	8-weeks
Intelli-line® (Cabinets):	8-weeks	Whisper Series (VPA & VPC Cabinets with Chassis):	10-weeks
Intelli-line® (Cabinets with Coil Packs):	12-weeks	Whispertherm® (VT/N-A & C Cabinets):	18-weeks
Intelli-line® (Coil Packs, shipping separate):	4-weeks after cabinets	Whisper Series (WSHP Chassis, shipping separate):	4-weeks after cabinets
Intelli-Therm™ (WTX, WNX Room Fain Coil):	18-weeks	Risers Shipped Loose:	8-weeks
Risers Shipped Loose:	8-weeks	Closetline® (Packaged WSHP):	Contact Factory

# Standard Shipping Practices - Cabinets

- Cabinets ship first followed by chassis
- Cabinets are shipped palletized
  - the palletized cabinet price varies based on quantity.
- Cabinets can be shipped sorted & loaded by floor or riser
- Boxes available if needed



# Standard Shipping Practices - Chassis

- Chassis will be shipped individually boxed on pallets.
- Chassis are not tagged by riser, floor or room #
- Each HP chassis leak checked before shipment



# Special Shipping Services

- Special Handling - Load cabinets in truck by Floor or Riser
- Palletized Cabinets - Loaded on Truck
- Floor (Total No. Units) - Price varies based on quantity
- Palletized Chassis - per chassis (ship & sort by floor or riser)
- Chassis Shipped in Cabinet (Risers must ship separate)



- Riser Shipped Separate - per unit (ship & sort)
- Single Riser Shipped Separate - per unit (ship & sort)



# Standard Shipping Practices

Cabinets will ship per quoted lead time



Chassis will ship per the quoted lead time, after the cabinet shipment



Grilles, return air panels, & filters drop shipped & timed within 1-2 weeks of chassis

- Thermostats held until invoices for units are paid - terms are Net-30 days
- Can partial ship thermostats / chassis for occupied buildings if requested & freight is negotiated upfront
- If you know a job site can not take 50' trailers you must quote smaller loads or be prepared to pay the freight difference.

# Standard Shipping Practices – Large orders

1st truck load of cabinets will ship per the quoted lead time (80 per truck)

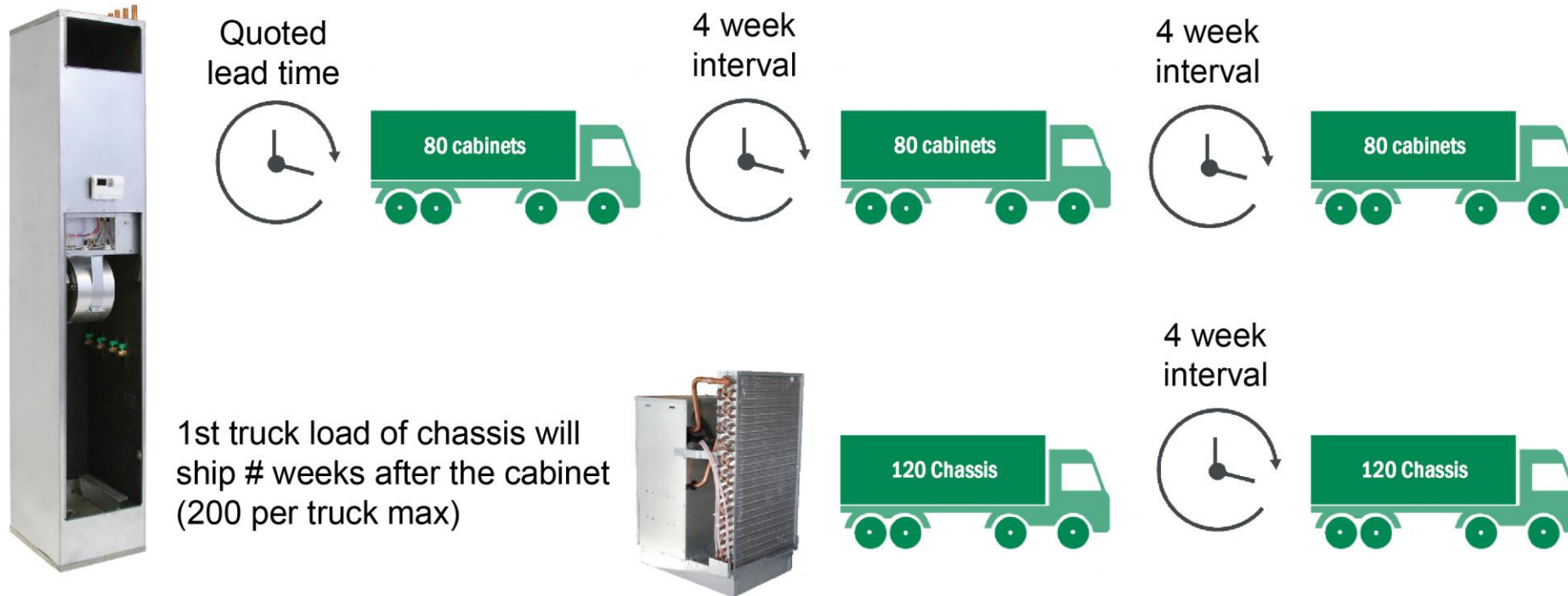


1st truck load of chassis will ship # weeks after the cabinet (200 per truck)

- All orders are shipped in phases
- **The published lead time is for the first shipment of cabinets – not the entire order**
- Unless we are told otherwise, we schedule 4-week intervals between truck loads
- If the 4-week deliveries do not fit job schedule, we must know up front.
- If you want less than full truck load shipments, it must be quoted when price quote is generated.
- If you know a job site can not take 50' trailers you must quote smaller loads or be prepared to pay the freight difference.

# | Shipping Example – 240 Unit Order

1st truck load of cabinets will ship per the quoted lead time (80 per truck)

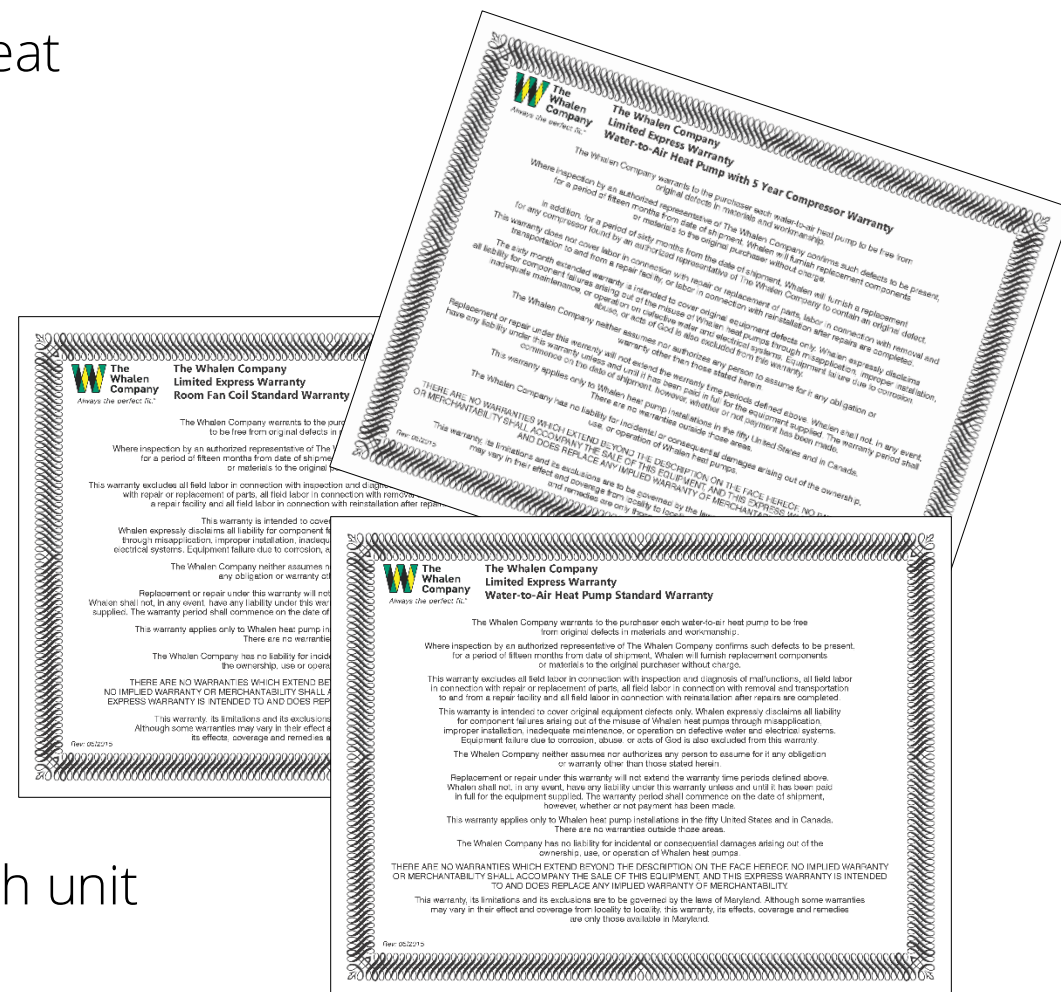


- If the 4-week delivery intervals do not fit job schedule, we must know up front.
- It is best to get a copy of the construction schedule so we can ensure units arrive when needed.
- If you want less than full truck load shipments, it must be quoted when price quote is generated.

- Closetline® Packaged units & Whisperline® Console units
  - Units will be palletized to optimize truck space
  - Accessory items (hoses, filters, t-stats, etc.) are drop shipped to job site.
  - Smaller quantity orders will ship LTL freight.
  - Larger quantity orders will ship full dedicated truck.
  - Lift gate must be specified at the time of quote.
- Horizontal / Vertical Closet Fan Coil Shipping
  - All units and loose accessories (thermostats, hoses, etc..) are crated and palletized. **Orders ship complete with all options and accessories.**
  - Units can be loaded by Building, Floor, Section, etc.. if it is specified prior to shipment.
  - Smaller quantity orders will ship LTL, typically through FedEx Freight.
  - Larger quantity orders will ship full dedicated truck.
  - Once the order ships we will provide tracking information.
  - Lift gate must be specified at the time of quote.

- Whalen freight forwarder will call the contact listed on the ISC order to confirm delivery instructions before load is delivered.
- This is to ensure the jobsite is ready to take the units. This will happen for every delivery sent directly to a jobsite. It is not optional.
- The only exception is if the shipment is being sent to your office and in that case the freight forwarder will contact you.

- Standard 1-year limited warranty on fan coil units & heat pumps (18-months from date of shipment)
- Parts warranty only, labor not covered
- Disclaim any liability until equipment paid in full
- Optional 2-year warranty on fan coil units & heat pumps
- Optional 5-year heat pump extended warranty: Whisper & Closetline® Series
- Various other warranty options listed in ISC within each unit accessory section.



- Communication is key to success with Whalen product line
  - Quoting, submitting, order entry, release to manufacturing
- Lead-time clock doesn't start until order is released
  - Not just receipt of PO or signed submittal
- ***ISC quotes full truck loads***





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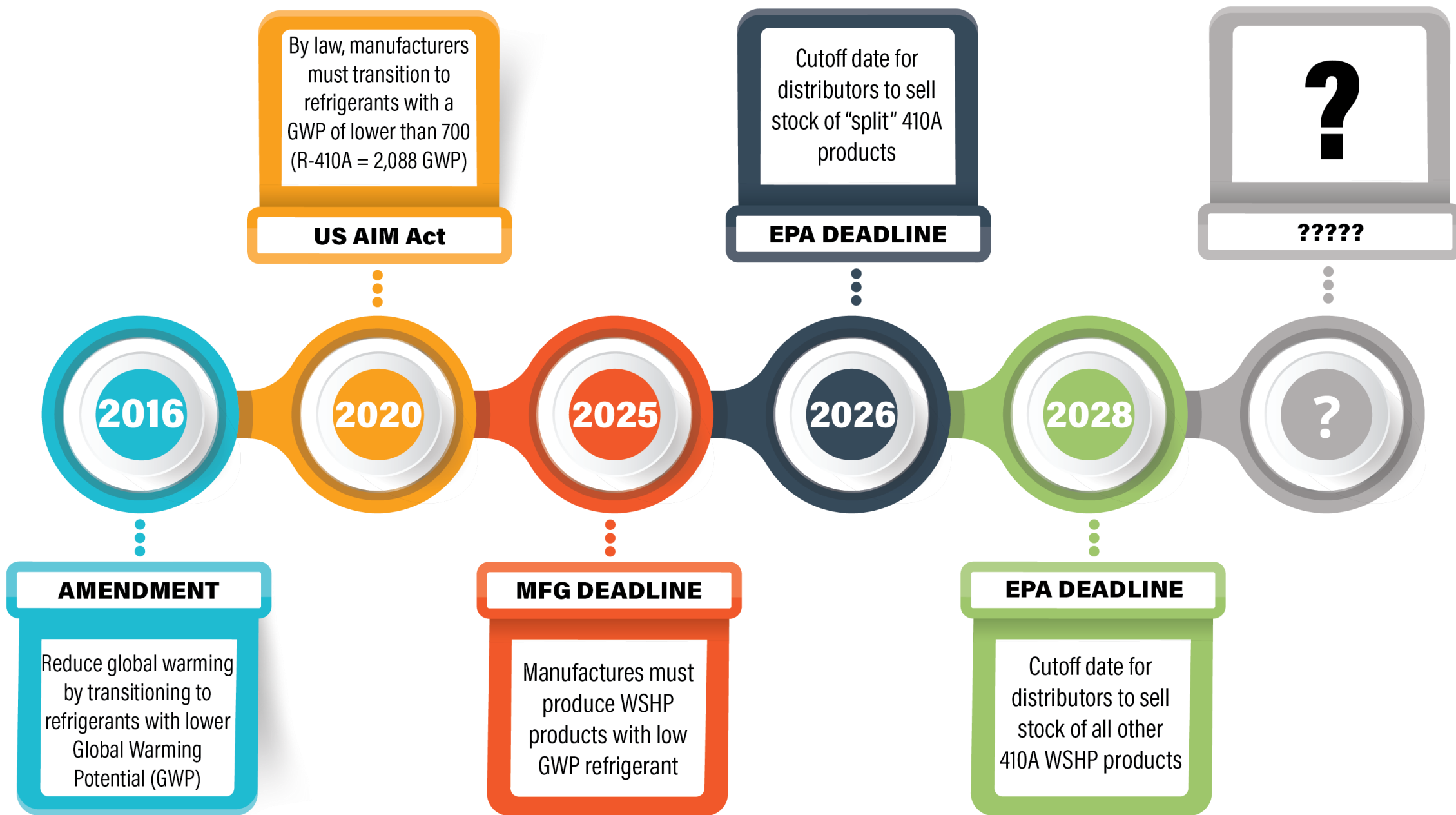


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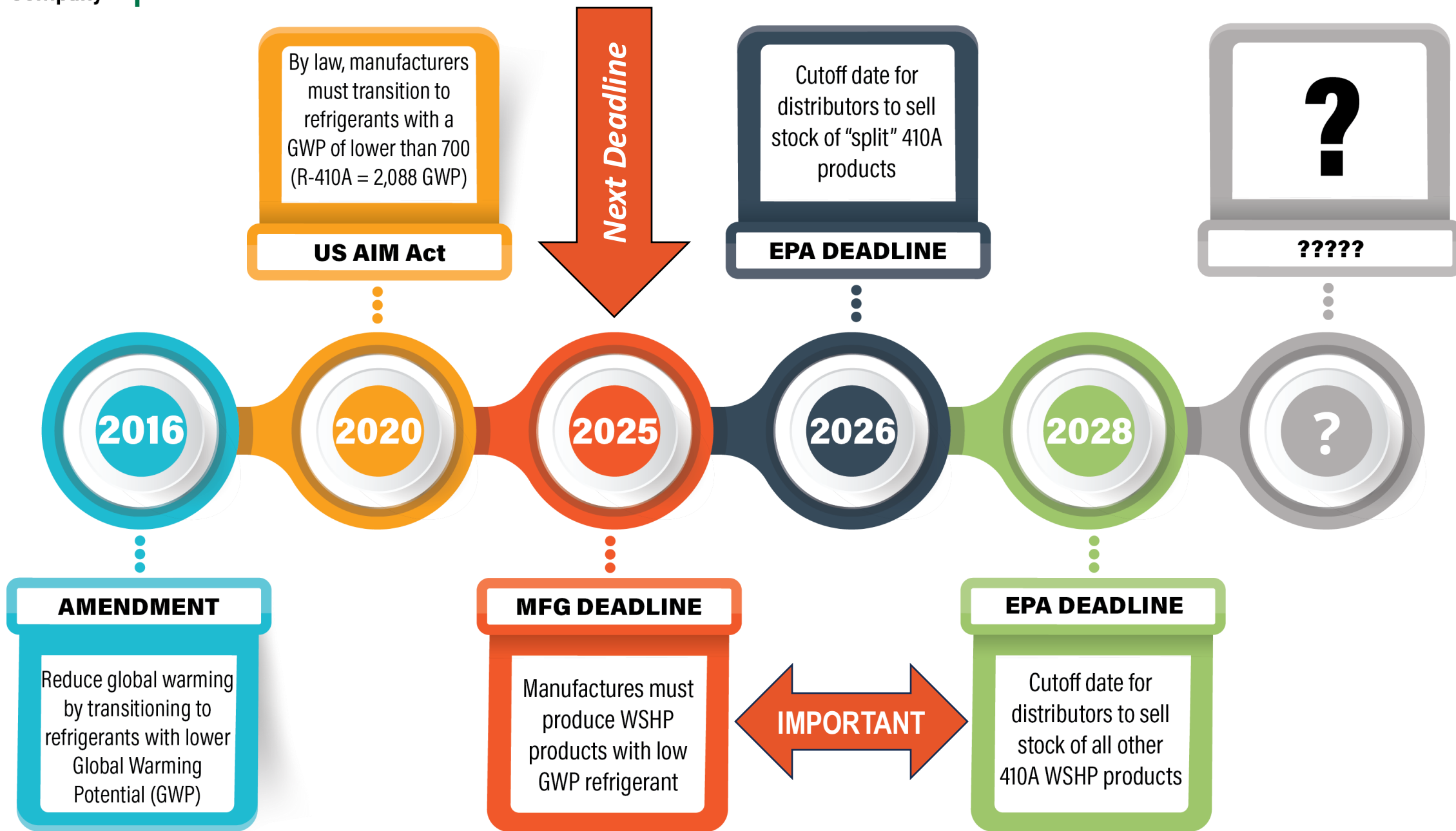
Refrigerant Transition



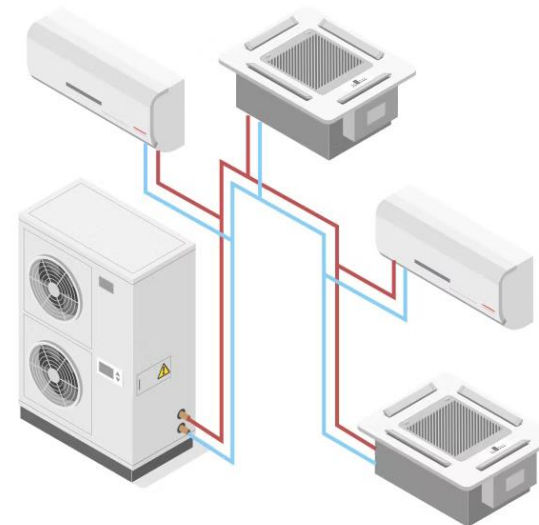
# Refrigeration Transition Timeline



# Refrigeration Transition Timeline



# AC / Heat Pump Transition Timeline



## Commercial & Residential Packaged (AC/HP) PRODUCT (sealed system) SYSTEM

- Manufacture prohibition after January 1, 2025
- Sell-through for three years until January 1, 2028
- Chillers with no refrigerant leaving the unit are treated as a product and have compliance deadline of January 1, 2025

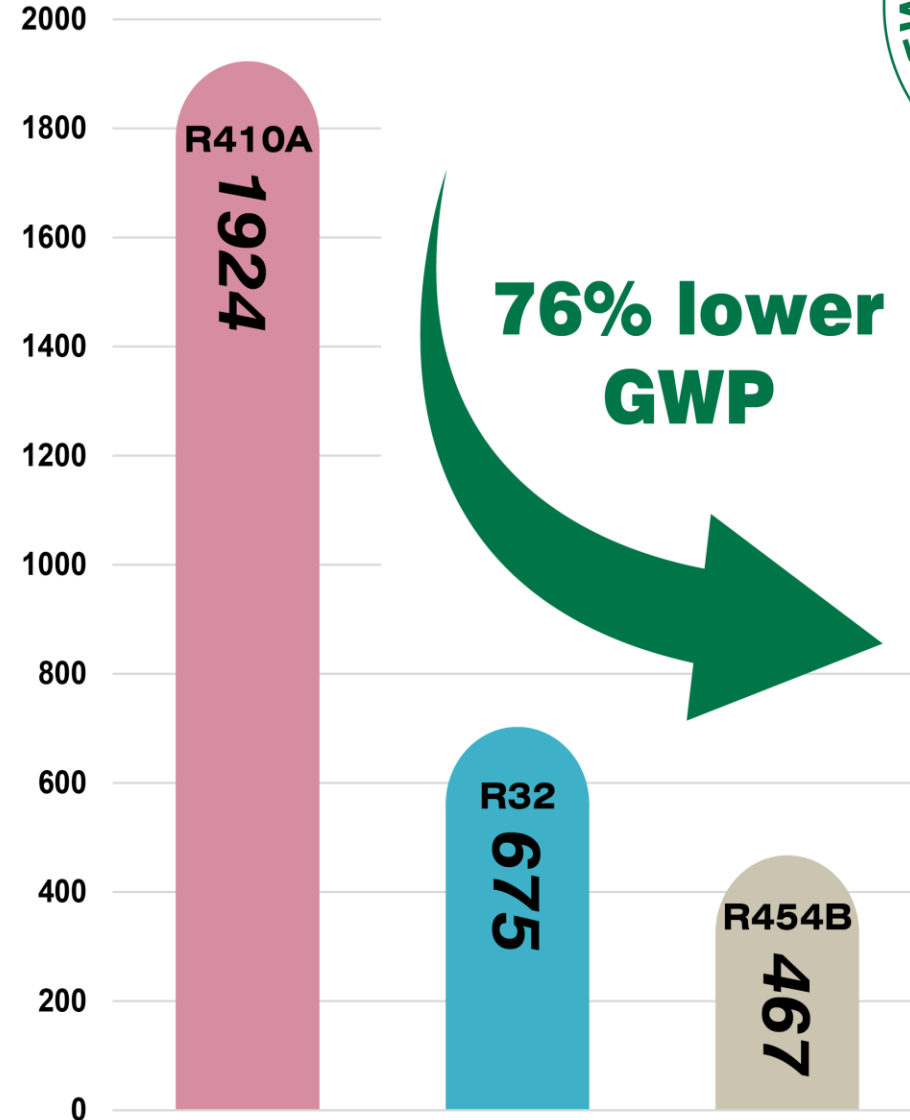
- Full system install prohibition after December 31, 2025

## VRF / VRV (AC/HP) SYSTEM




- Full system install prohibition after January 1, 2026

# Refrigerant Global Warming Potential

- Whalen is using R-454B refrigerant
- Lowest widely used GWP option to replace R-410A
  - 76% decrease vs R-410A
  - 34% decrease vs R-32
- Ozone depletion of ZERO
- Similar operation and efficiency to current R-410A products



# R-454B – A2L CLASS REFRIGERANT

SAFETY GROUPS		
 Higher Flammability	<b>A3</b>	<b>B3</b>
 Flammable	<b>A2</b>	<b>B2</b>
 Lower Flammability	<b>A2L</b>	<b>B2L</b>
No Flame Propagation	<b>A1</b>	<b>B1</b>
	(LOWER TOXICITY)	(HIGHER TOXICITY)

- R-454B is classified by ASHRAE as an A2L lower flammability refrigerant
- UL 60335 2-40 safety standard *requires* products with **more than 62 ounces** of A2L refrigerant to contain a factory installed Refrigerant Detection
- If a refrigerant leak is detected, the RDS triggers a system fault & the unit enters a mitigation mode to reduce leaked refrigerant concentration level

# Minimum Installation Area

Minimum area where a blower-equipped unit must be installed, and mechanical/natural ventilation is not required

Model	Charge (oz)	A <sub>min</sub> (ft <sup>2</sup> )
VPA0205 B(T/L)A	22	49
VPA0305 B(T/L)A	25	56
VPA0405 B(T/L)A	28	63
VPA0505 B(T/L)A	33	83
VPA0605 B(T/L)A	34	88
VPA0805 B(T/L)A	36	99
VPA0815 B(T/L)A	42	134
VPA1005 B(T/L)A	46	161
VPA1205 B(T/L)A	53	214



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Whisper Series Heat Pump  
Products

- Vertical Stack
- Vertical Closet
- Horizontal
- Console
- Rooftop





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VP Series Features

- Components of complete unit include:
  - Cabinet
  - Risers
  - Refrigeration chassis
  - Stainless steel hose kit
  - Return air panel
  - Supply air grilles
  - Thermostat



Heat pump available in 9 sizes  
Fan Coils available in 6 sizes

3 cabinet sizes for application flexibility

Kevlar or braided stainless steel hoses are used to connect the chassis to the risers allowing for ease of installation and service

Removable / slide-out chassis with factory mounted valves, quick connect electrical plug, easy accessibility for coil fin cleaning

Dual level compressor isolation and insulated compressor enclosure for quiet operation

Whalen offers the smallest footprint in the industry



Supply, return and condensate riser piping can be ordered factory installed, shipped separate, or field supplied

Typical Vertical Stack installation can be either direct discharge or ducted to remote air diffusers

Unit mounted or remote mounted plug-in thermostats

Designed to be furred in and concealed by drywall

Tamper resistant hinged acoustical door option

Flexibility for installation is provided where the cabinet can be delivered early for rough in and the chassis later when construction is complete

Stainless steel unit drain pan



# Whisperline® VP General Information



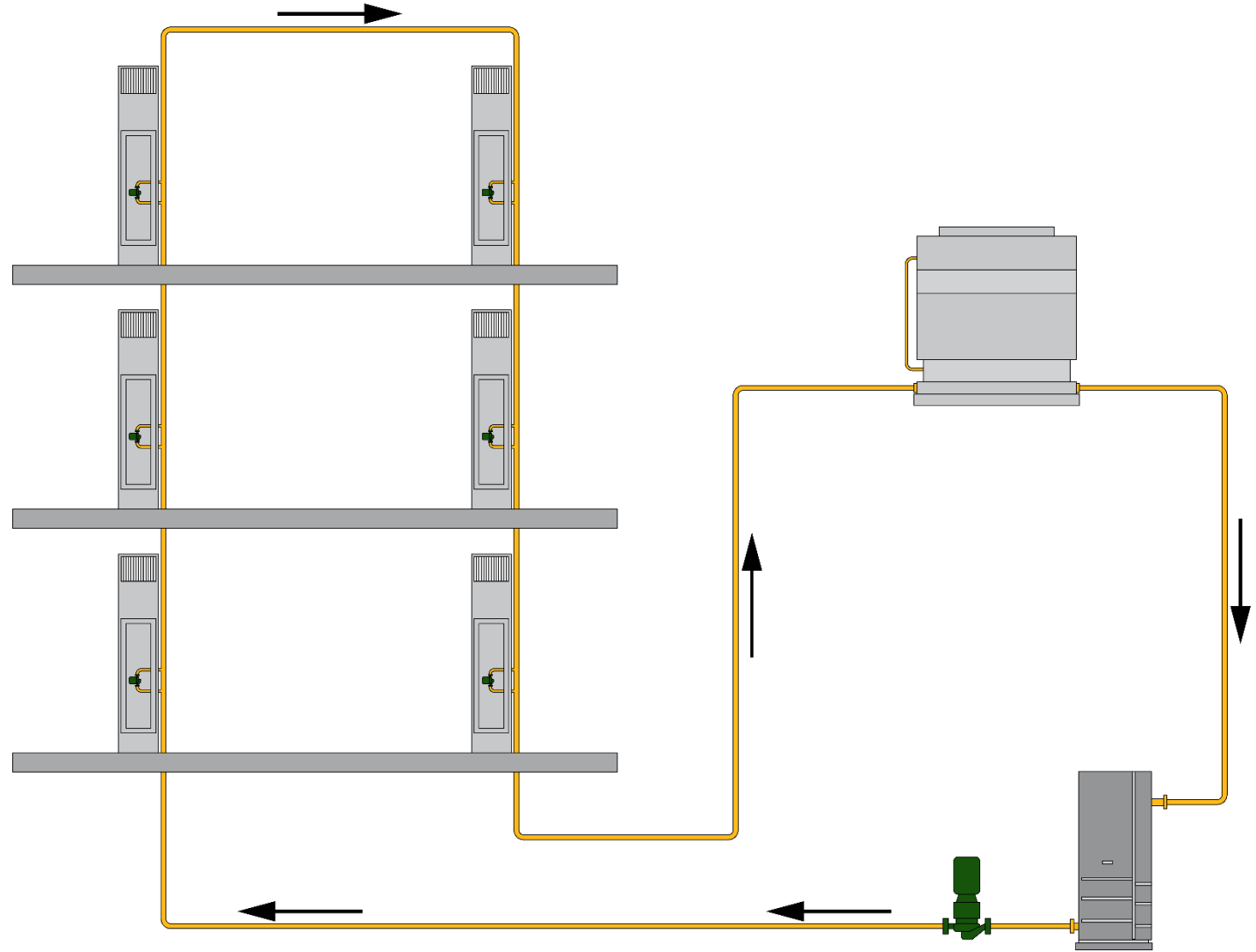
- 1-stage Capacity
  - Ranges from 13.2 – 18.0 EER
  - 8 sizes: 0.5 to 3-ton
- Voltage
  - 208-230/60/1, and 277/60/1
- Footprint
  - 0.5 to 1-ton: 16" x 17"
  - 1.25 to 2-ton: 18" x 20"
  - 2-ton extended to 3-ton: 20" x 22"
- Top ducted cabinet option
  - 54" tall: 0.5 - 2-ton
  - 64" tall: 2.5 - 3-ton



- Cabinet
  - 80", 84" or 88" Height as "Standard" and can be taller
  - Heavy gauge galvanized sheet metal construction
  - Single-piece wrapper reduces leakage at joints
  - Front panel snap lock eliminates fasteners and air leakage
  - Consists of control box, blower compartment, opening for chassis, and drain pan with P-trap
  - Installed behind the dry wall for finished look
  - Supply and return flanges to finish off opening
  - Multiple Supply Outlets

- Chassis
  - Refrigerant R-454B
  - Slide out for quick change out
  - Compressor covered with heavy gauge sheet metal insulated cover to reduce sound
  - Compressor isolated by rubber grommet mounting
  - TXV for improved refrigerant control
  - Molex connectors to cabinet control box





# Whisperpack® and Whisperline® Chassis

Optional Autoflow Regulator to Optimize Operation and Save Energy

Optional 2 or 3-Way Motorized Valves to Save Pumping Cost When Not Operating

Optional Coil Coating to Protect Coil in Harsh Environments

Double Isolated Compressor to Reduce Vibration Noise

Nylon Wrapped Refrigerant Lines to Prevent Rubs and Leaks

High Efficiency Refrigerant to Maximize Comfort

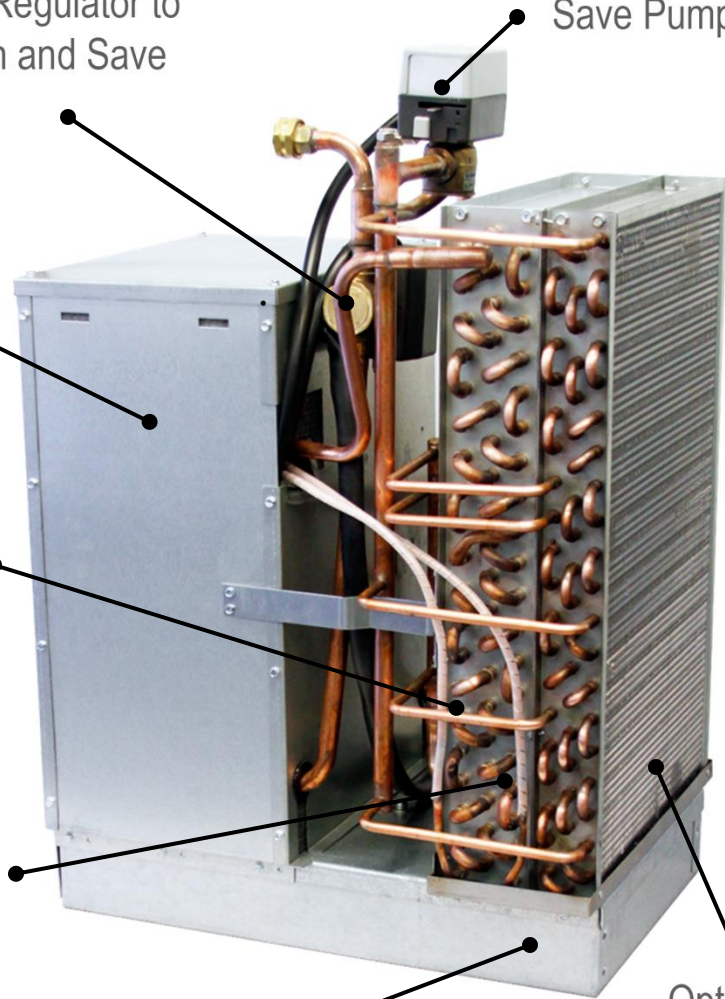
Isolated Coax Compartment to Reduce Sound

Optional Hybrid Heating Coil to Reduce Energy Use by Using Hot Water in the Supply Loop

Insta-Lock™ Hose Connector for Worry-Free and Tool-Less Connections

Insulated Compressor Compartment to Minimize Sound

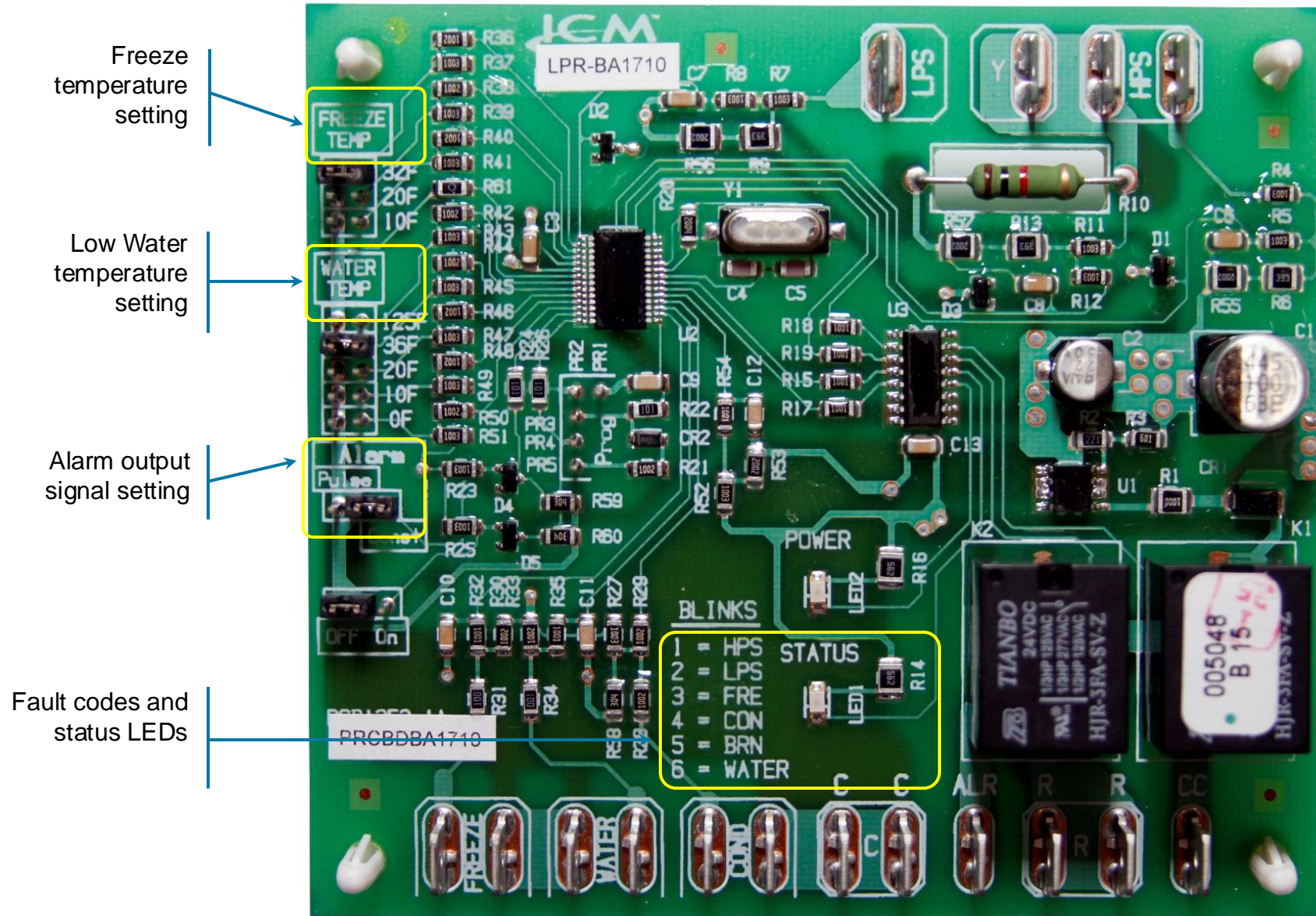
Quick Connect Plugs for Error-Free Connection



- Control
  - Random start
  - Anti-short cycle
  - Condensate overflow
  - Low voltage protection
  - Low airflow
  - Low liquid flow
  - Low entering air temperature
  - Brown-out power conditions
  - Low/High liquid temperature
  - Test mode

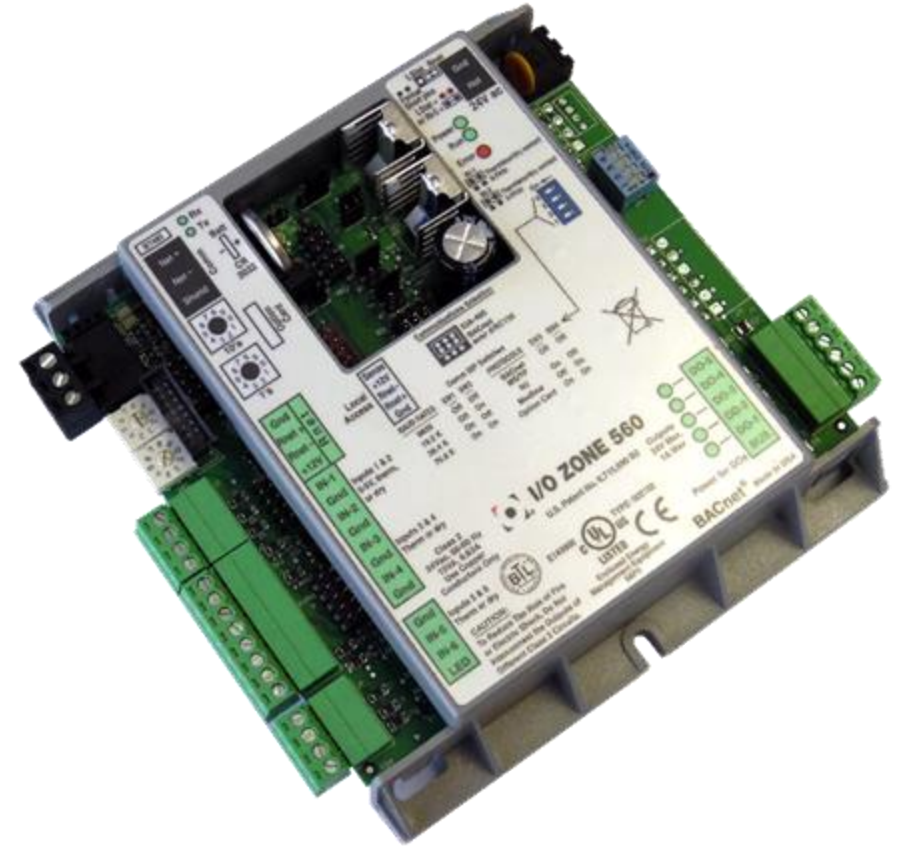


# Control Layout



# Factory Supplied DDC

- IO Zone 560 Multiple Protocol DDC
  - Native BACnet MS/TP
  - Modbus compatible
  - JCI N2 compatible
  - LonWorks (optional plug-in board)
- Factory mounted and wired
- Can display fault mode and fault type
- Extensive network points list to meet most BMS specifications
- Compatible with solid state control
- Must use wall sensor with DDC control



- 4 wall sensors allow direct communication with DDC controller
- Required for use of DDC board



ZS Standard



ZS Plus



ZS Pro



ZS Pro-F

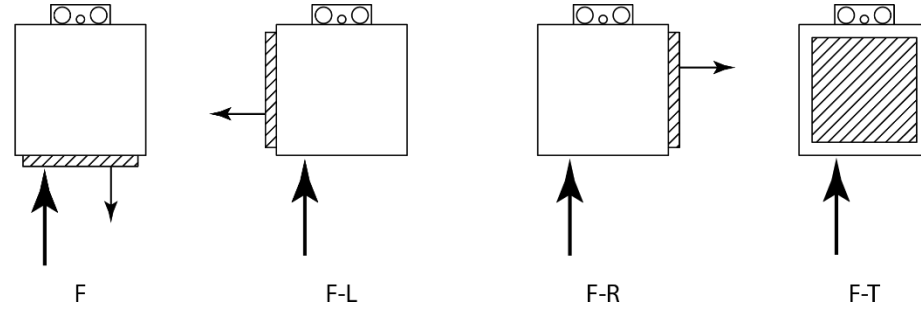
# Thermostat Options

- Provided they work with heat pumps we can use most popular thermostats.
  - Nest
  - EcoBee
  - Honeywell
  - Wi-Fi
- Provisions for surface mounting thermostat
  - ADA compliant option in RA panel

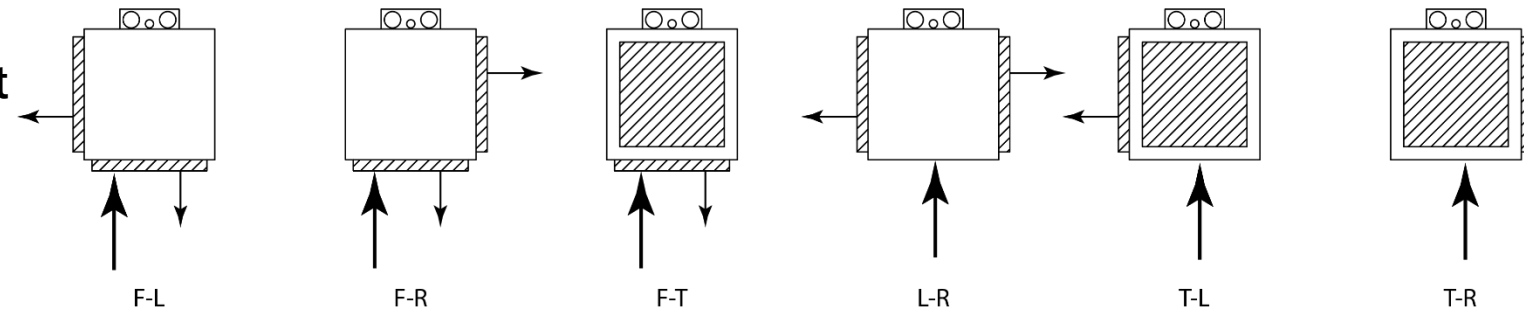


# Supply Air Arrangements

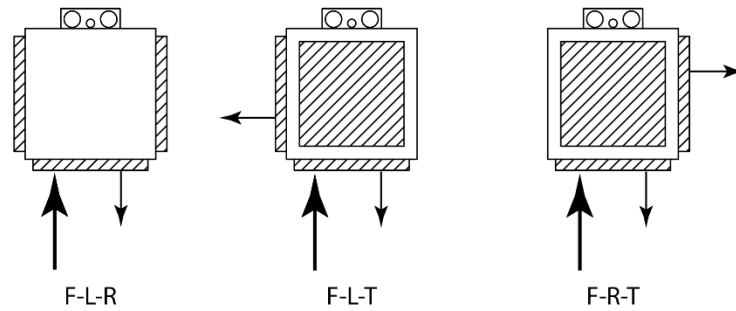
## Single Outlet



## Dual Outlet

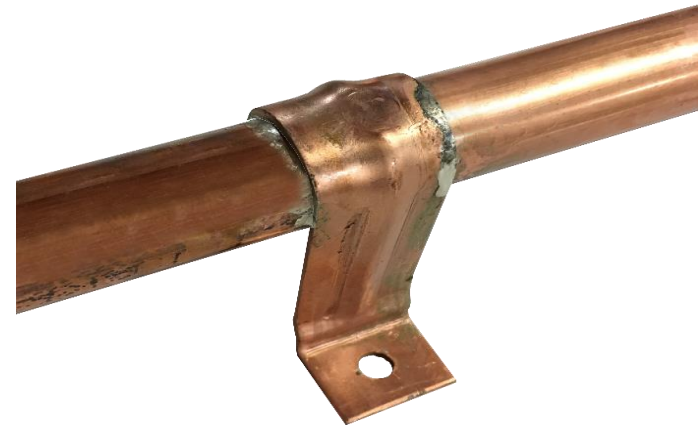


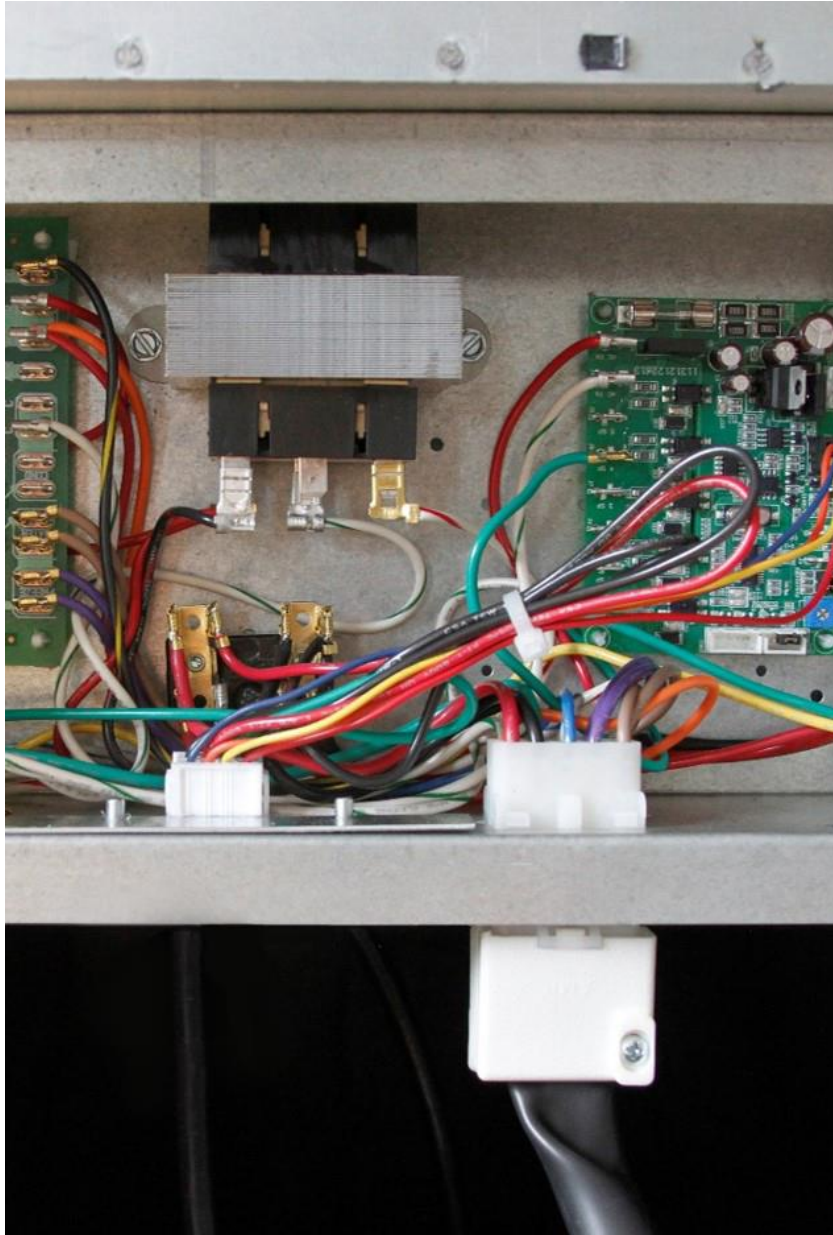
## Triple Outlet

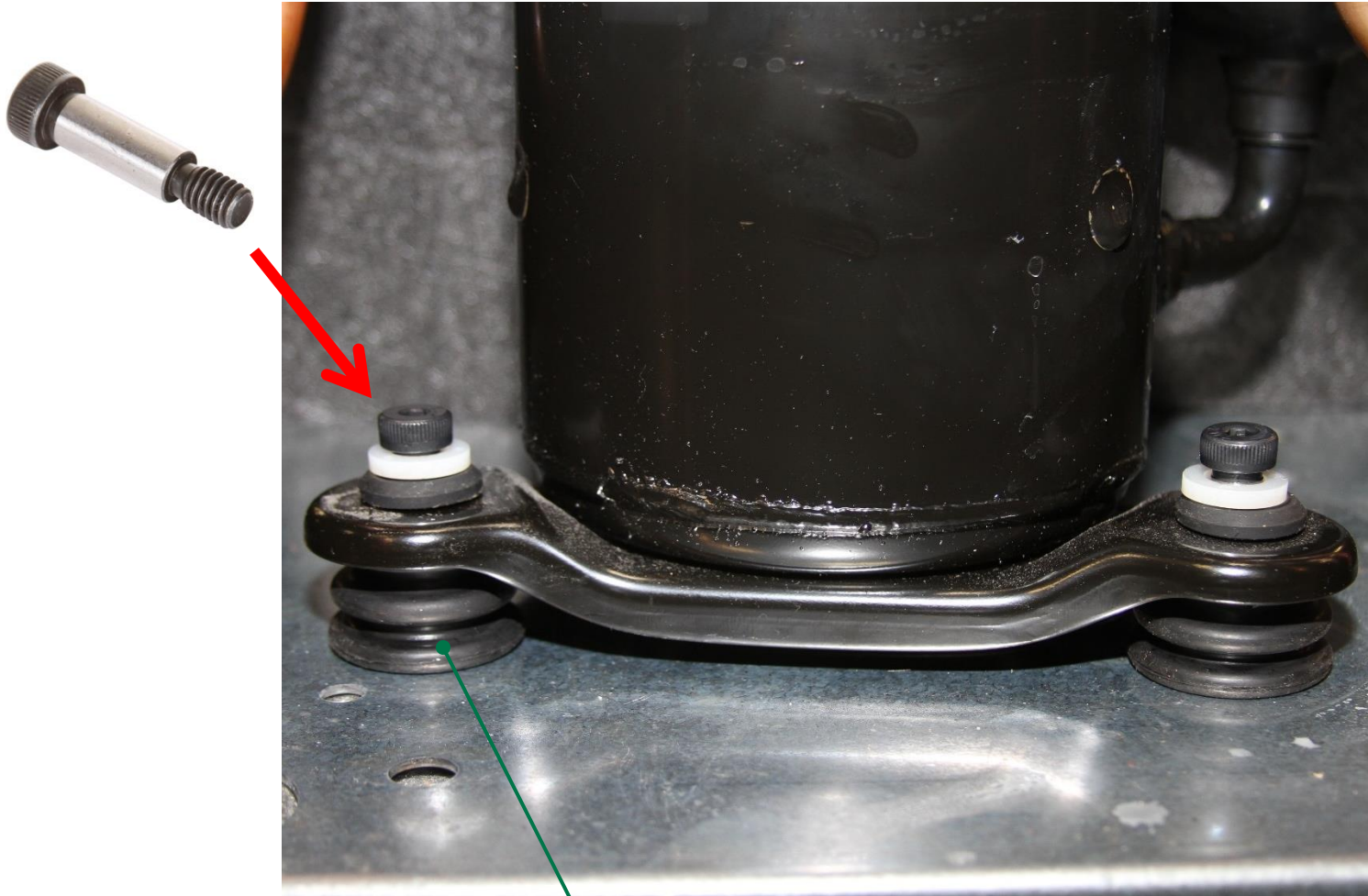


# Features and Benefits

- Risers
  - 3/4" to 4" diameter, type M or L copper
  - Supply and return risers with full port ball valves
  - Drain riser fully insulated with factory installed P-trap attached
  - Risers mounted / factory supplied / field supplied
  - Shipping straps to maintain alignment & ease installation...**they are NOT ANCHORS!**
- Primary and secondary riser configuration
- Riser extensions







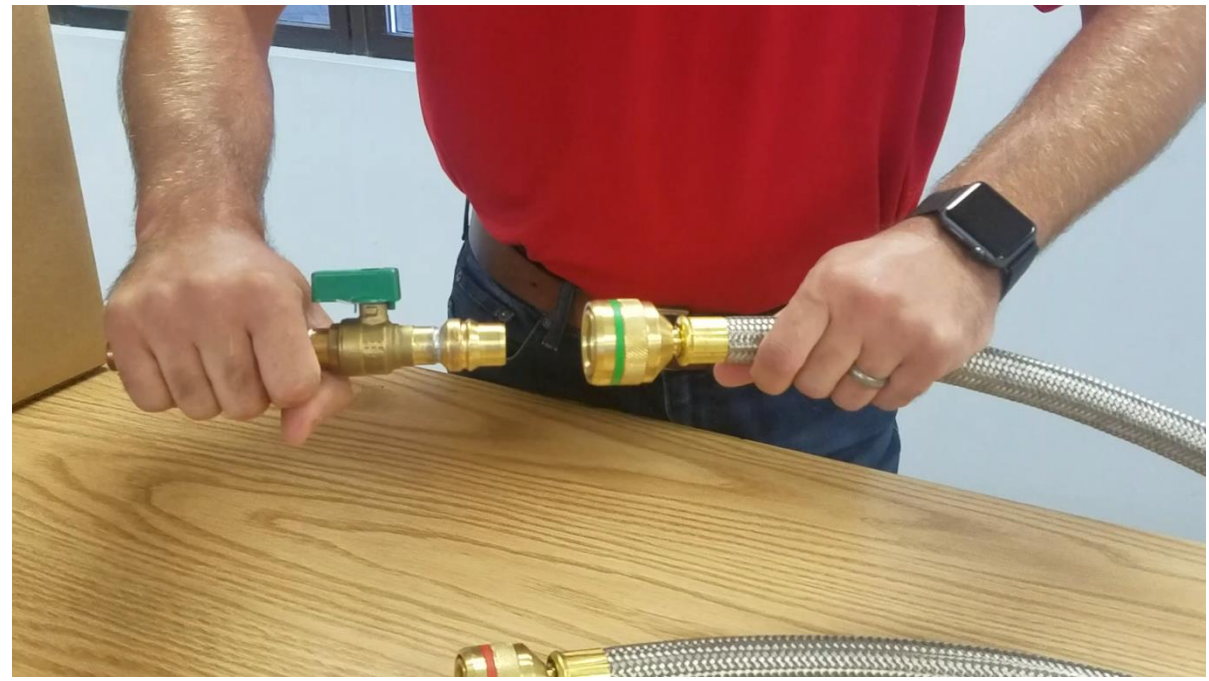
Rubber vibration isolators



Insulated sound enclosure

- Insta-Lock™ Braided Hose
  - 24" Stainless steel braided Hose
    - 1/2", 5/8", & 3/4" = 750 psi max working pressure
  - Solid brass quick connects on both ends
    - Instant connection with visual and audible indicators assuring connection is securely made
  - Decouples compressor and fan vibration to reduce sound levels







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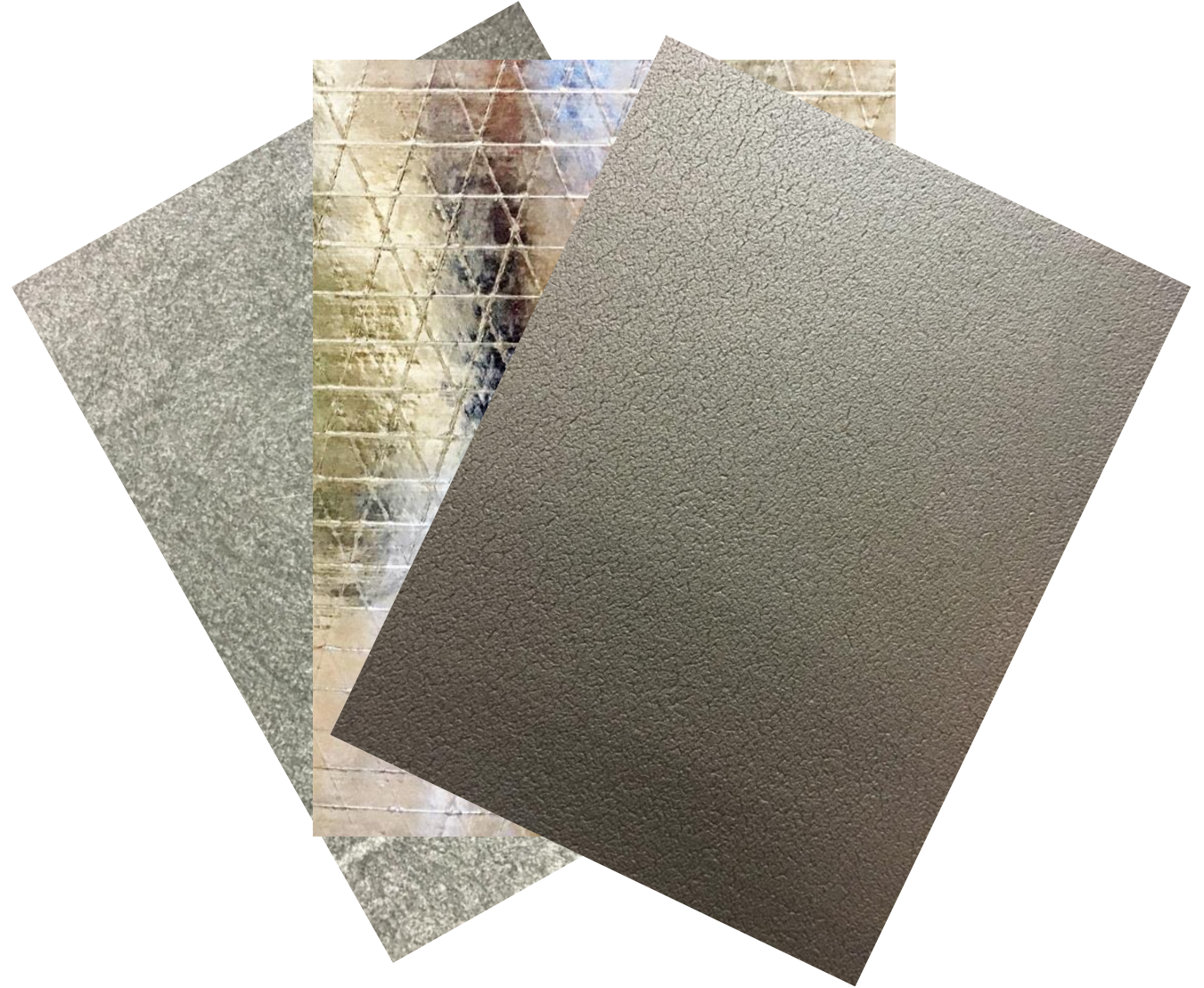
VP Series Options

# Cabinet Options

- Factory control options
  - Circuit Breaker (fused) or unfused disconnect
  - DDC control
  - Customer supplied DDC
- Motor options
  - Two-speed fan switch
  - Constant torque EC motor
  - Constant CFM EC motor
- Filtration options
  - Standard 1/2" throwaway
  - Optional 1" or 2" pleated MERV 8
  - Optional 1" or 2" pleated MERV 11
  - Optional 1" or 2" pleated MERV 13
  - Permanent aluminum



- Cabinet insulation
  - Fiberglass standard
  - Foil faced fiberglass
  - Closed cell



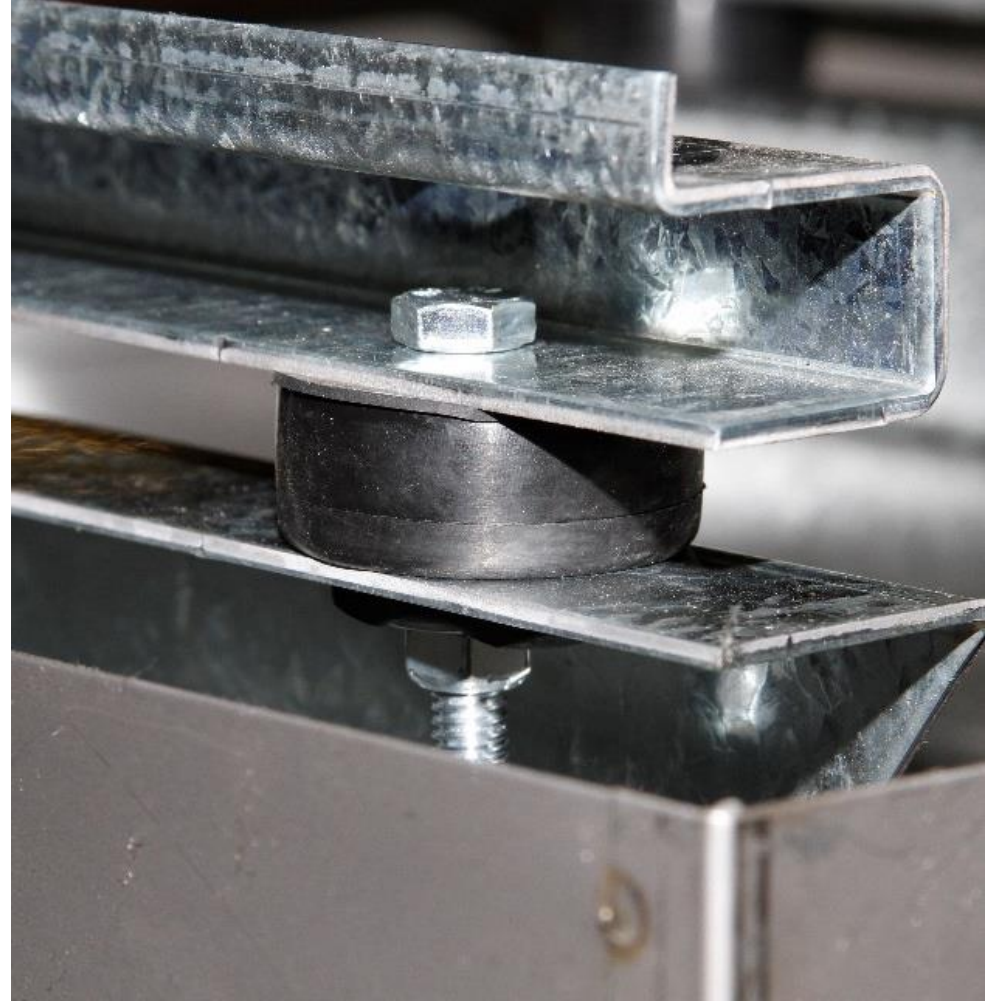
- Outdoor air opening
  - Manual or motorized damper
  - Located prior to filter & air coil
- Outdoor air internal duct
  - Top connection
  - 4" round duct
  - Compatible with constant airflow regulator





- Vibration isolation pad
  - Factory installed
  - No field labor required
  - Reduces vibrations transmitted into floor







# Chassis Water Circuit Options

- Motorized water valve
  - 2-way on all models or 3-way for Whisperpack
  - Caleffi or Belimo
- Auto flow regulator
  - Griswold or Hays
- Strainer
- Cupro-nickel water coil
- Insulated coax



# | Chassis Water Circuit Options

- Internal circulator for single riser system
  - Taco internal circulator
  - Piped and wired at the factory
- Additional sound suppression
  - Acoustical dampening material applied inside compressor box
  - Fiberglass insulation applied over dampening material
  - Reduce vibration transmission





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VP Series Accessories

- 2 - 14" cabinet stand
- Outdoor air plenum kit
- Return air panel
  - Heavy gauge sheet metal
  - Flush mounted chassis accessible
  - Any Sherwin-Williams color
  - Custom field painted



- Supply air grille
  - Single deflection
  - Double deflection
  - Either with opposed blade damper
  - Brushed aluminum or painted white
- Thermostat
  - Manual or automatic changeover
  - Programmable or non-programmable
  - Whips and pigtails available to speed installation





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Questions?



- Capacity
  - 5 sizes: 0.75 thru 1.5-ton
- Voltage
  - 115-1-60, 230/208-1-60, 265-1-60
- 2 Compact Foot Prints
  - 0.75 to 1-ton:  $44 \frac{9}{16} \times 10 \frac{3}{4} \times 25 \frac{1}{2}$
  - 1.25 to 1.5-ton:  $54 \frac{9}{16} \times 12 \frac{9}{16} \times 25 \frac{1}{2}$



- Environmentally friendly R-454B
- Advanced digital auto change-over unit mounted control with temperature display and 2-speed selection
- Remote-mounted thermostat available
- Right or left hand piping arrangement
- Stainless steel drain pan
  - P-trap by others





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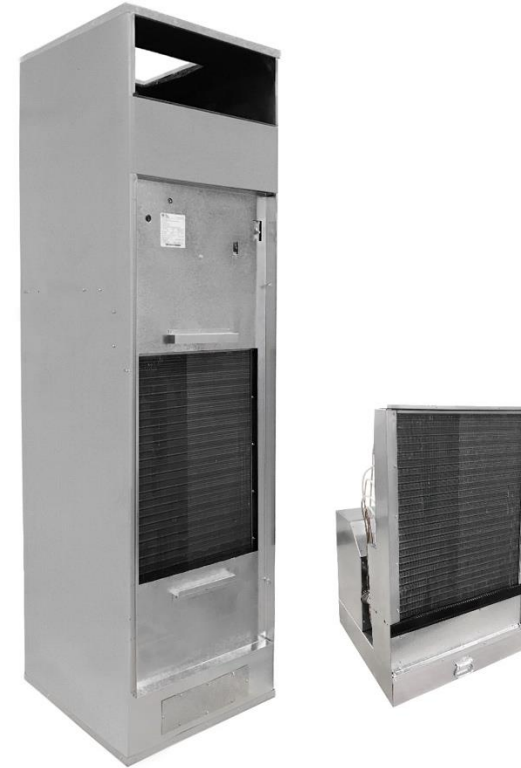
Questions?



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Whisperline® VD Series  
Two-Stage Heat Pump

- The Whisperline® VD Series is the only Two-Stage vertical stack heat pump
- Great for larger spaces such as, penthouses, gyms, conference spaces and others



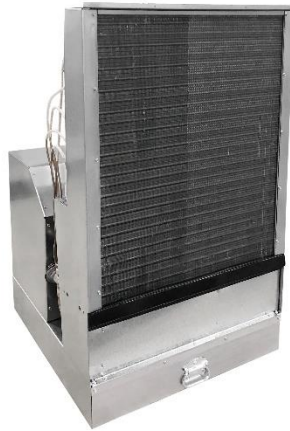




- The majority of options that are available on the other Whisper series model units are available on the VD Series.
  - MERV8, 11 and 13 filters
  - Discharge options
  - Even higher ESP
  - Electrical options
  - 4" Internal OA Duct
  - Silverrail sound reduction option



- Why use a Two-Stage unit?
  - For the High Speed EER?
  - For the Low Speed EER?
  - For overall EER?
  - For reduced sound?
  - For the capacity control?
  - For occupant comfort?
  - For GPM reduction?
  - Possible LEED® points?
  - Possible rebates or tax deductions?
  - For operational cost savings?
- Yes, to all the above.

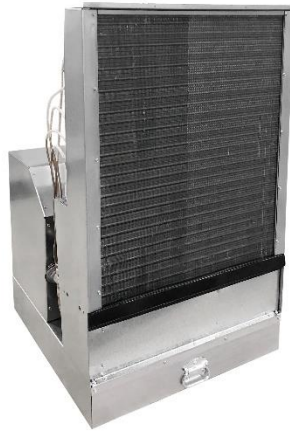


- We design projects based on peak conditions, but operate most often at off-peak conditions.
  - The estimated average time at off-peak conditions is 70%.
- Based on this, the VD Series will be operating in “Low Speed” the majority of the time.



- How does a Two-Stage save money and create a better occupied space condition?
  - Typically a Two-Stage unit will run for longer periods at low speed saving money by starting and stopping less.
- When in Low Speed mode, the GPM and CFM are reduced helping the overall project reduce operating cost and sound.
- By running longer and at lower capacity, it will do a better job on dehumidification helping with occupant comfort.
  - Lowered humidification may/should result in the thermostat setting that can be increased resulting in operational savings.
- Provides the best occupant comfort for at the best price point.

# Whisperline® VD General Information



- 2-stage Capacity
  - 16.0 / 17.6 EER at WLHP conditions
  - 3 sizes: 2, 2.5, & 3-ton
- Voltage
  - 208-230/60/1, and 265/60/1
- Footprint
  - 2 to 3-ton: 26" x 25"
- Top ducted cabinet option
  - 2 to 3-ton: 88" tall

# Whisperline® VD General Information



- Industry Exclusive only from Whalen
- 16.0 / 17.6 EER at WLHP conditions
- Capacity staging via 2H/2C t-stat
  - Airflow staging
  - Water staging via 4 methods
    - Internal regulated bypass
    - Modulating valve based on  $\Delta T$
    - Modulating flow control valve
    - Modulating internal circulator pump
- EC-CT standard or optional EC-CV blower motor
  - E.S.P. to 0.9"

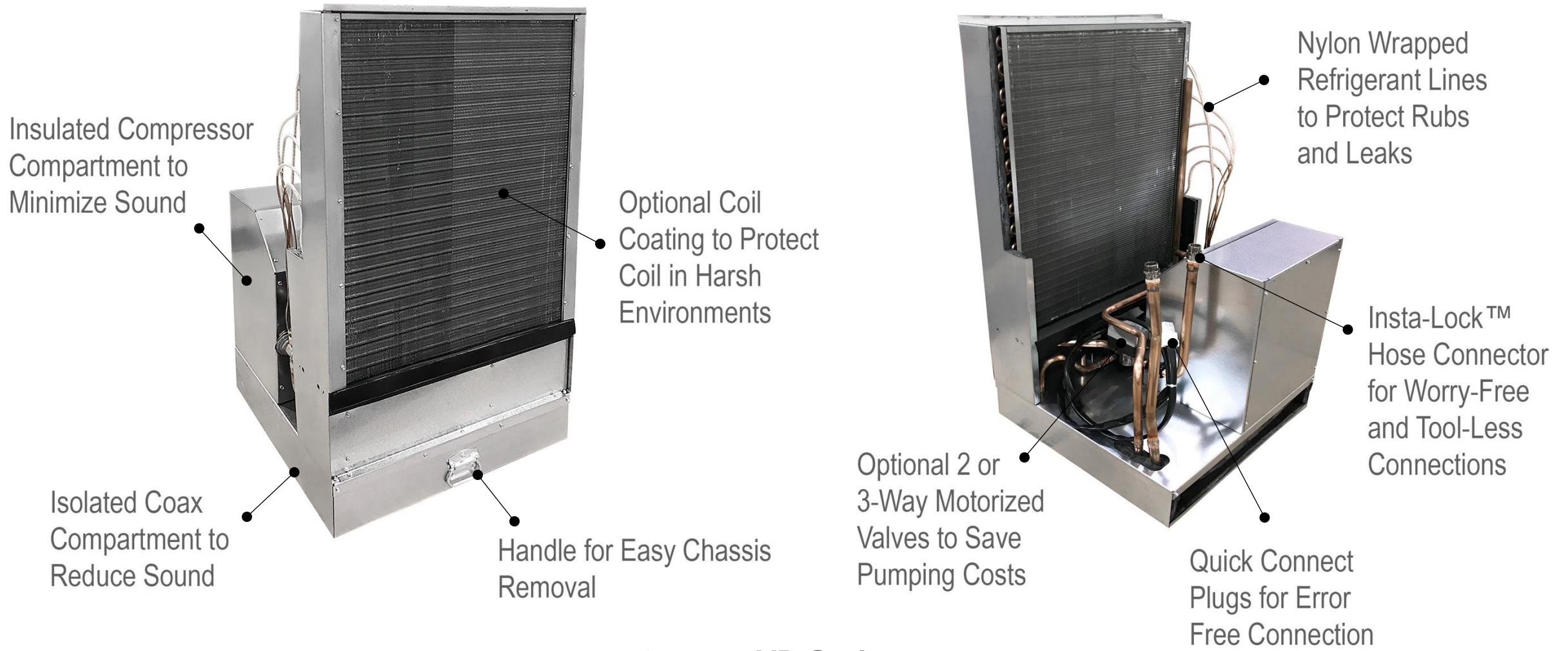


- Airflow staging
  - Upon a call for Heat/Cool the unit with the compressor in “Low” speed, the unit fan will run at “Low” speed.
  - When the 2nd stage is called with the compressor in “High” speed, the unit fan will run at “High” speed.
  - The airflow staging is separate from the thermostat. Please note that this may alter how certain thermostats are connected, please be sure to consult with the factory on thermostats “By Others”.

# Whisperline® VD General Information



- Water staging via 4 methods
  - Internal regulated bypass (NOT FOR VARIABLE FLOW)
    - The full GPM is supplied to the unit with a bypass valve that diverts water around the unit coil when in Stage 1, which will lower the GPM to match the “Low” compressor setting.
  - Modulating valve based on  $\Delta T$ 
    - A modulating PICV valve is used and is independent of compressor staging from the thermostat.
    - The valve modulates to maintain the  $\Delta T$  across each unit regardless of compressor stage.
  - Modulating valve based on two (2) flow setpoints
    - A modulating PICV valve is used and is driven to one of the two (2) GPM setpoints based on the compressor stage.
  - Proportional internal circulator pump
    - The pump is driven to the GPM setpoint based on the compressor stage.



**2-stage VD Series**



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Questions?



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**Aftermarket / Renovation Business**



## New Construction / Renovation

- 60+ years of designing time saving and efficient solutions for new construction and major renovations
- Product designed to save installation time
- Designed to simplify maintenance procedures
- Meet all current codes and EPA mandates
- Maximize occupant comfort



## Renovation / Aftermarket

- 25+ years of designing OEM replacements
- Plug-n-Play OEM WSHP replacements
  - No modifications or adapters
- Eliminate high renovation costs
- No / minimal down time
- Minimize revenue loss
- No need for multiplier contractors
- Generate revenue faster



## Advantages

- Higher revenue
- Less competition
- Natural tie in with other product lines (pumps, cooling towers, chillers, boilers)
- Set yourself apart as a solution provider

## Challenges

- Takes time to build the base
- Work to find projects “ready to go”
- Sales can be drip, drip, flood
- Persistent time investment
- Not a “Quote & Hope” business model

## Tony Landers

Vice President of Sales & Marketing



## JC Correa

VP of Manufacturing



## Scott Gavin

Regional Sales Manager



## Erwin Pino

Application Engineer



# Cold Point Sales Team



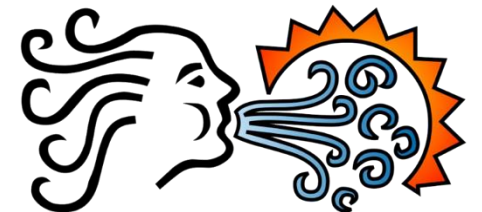
**Frank Carino**

Senior Sales Application Engineer



**Jason Gulla**

Inside Sales and Marketing



A D I R O N D A C K ▲ A I R E



## Chassis / Coil replacement

Time: minutes  
Internal Staff  
Expense: \$



## Partial Unit refresh

Time: 1/2 day  
1 contractor  
Expense: \$\$



Minimize expensive renovations  
No need to demo rooms  
Less down time / higher occupancy  
Increased comfort and IAQ



## Full Unit Replacement

Time: Several Days  
Multiple contractors  
Expense: \$\$\$



New construction / full renovations  
Designed to fit your space  
Achieve maximum occupant comfort  
Upgrade to latest technology

# Energy Audits & incentives



- **Energy Incentives**

- Utility Rebates
  - Prescriptive – Typically Pays Less
  - Energy Modeling - Typically Pays More
- Federal Tax Incentives
  - Federal Tax Deductions via Inflation Reduction Act
  - 168, 179, 179-D, and Others

- **Energy Grants**

- State and local jurisdiction grants
  - Energy models, calculations, and reports are usually necessary
  - Federal Grants stemming from the Inflation Reduction Act.

- **Benchmarking**

- Many Counties and States adopting Benchmarking of Buildings with Energy Star Portfolio Manager (ESPM) to record building energy usage.

- **Energy Audits**

- ASHRAE Level 1, 2, & 3 Energy Audits to find Energy Conservation Measures (ECMs)

- **Building Energy Performance Standards (BEPS)**

- BEPS is being adopted in
  - New York City & Washington DC
  - State of Maryland
  - Other States, Counties, & Cities coming online

- **Energy Loans**

- C-PACE
- Greenbank
- Other Energy Bases off-the-book financing

- **Property Tax Abatement**

- Some jurisdictions offer reductions to property tax amounts if the building owner implements energy efficiency measure.

## ClimateMaster Replacements

### 816 / 817 Chassis Series

- 15 EER and 4.4 COP
- Unit sizes: 10k, 12k, 15k, 20k, 30k, 36k (350 to 1,200 CFM)
- Replaces California Heat Pump CHP-RF and ClimateMaster 816 and 817 chassis

### 816 Slant Coil Chassis Series

- 13 EER and 4.2 COP
- Unit sizes: 10k, 12k, 15k, 24k, 36k (350 to 1,200 CFM)
- Replaces ClimateMaster 816 Slant Coil chassis

### TRM Chassis Series

- 15 EER and 4.4 COP
- Unit sizes: 09k, 12k, 15k, 18k, 24k, 30k, 36k (325 to 1,200 CFM)
- Replaces ClimateMaster TRM series chassis

### 800 Chassis Series

- 13 EER and 4.5 COP
- Unit sizes: 08k, 10k, 12k (250 to 420 CFM)
- Replaces ClimateMaster/Friedrich 800 chassis

### 801 Chassis Series

- 14 EER and 4.5 COP
- Unit sizes: 08k, 10k, 12k, 15k, 19k (250 to 650 CFM)
- Replaces ClimateMaster/Friedrich 801 chassis

### CR / CS Slope Top Console Series

- 15 EER and 4.7 COP
- Unit sizes: 08k, 10k, 12k, 15k, 18k (250 to 600 CFM)
- Replacement Applications

### 814 Chassis Series

- 13 EER and 4.2 COP
- Unit sizes: 10k, 12k (350 to 400 CFM)
- Replaces ClimateMaster 814 series

## Command-Aire / Trane Replacements

### GET Chassis Series

- 14 EER and 4.3 COP
- Unit sizes: 09k, 12k, 15k, 18k (300 to 650 CFM)
- Replaces Trane GET chassis

### WPV Chassis Series

- 14 EER and 4.3 COP
- Unit sizes: 10k, 12k, 20k, 26k, 33k (360 to 1,100 CFM)
- Replaces Command-Aire WPV and Trane WPR chassis

### WPC Chassis Series

- 14 EER and 4.3 COP
- Unit sizes: 09k, 10k, 12k (230 to 400 CFM)
- Replaces WPC Command-Aire chassis

## Singer/McQuay / Snyder General Replacements

### HCA Chassis Series

- 15 EER and 4.4 COP
- Unit sizes: 08k, 10k, 12k, 15k, 20k, 24k (250 to 800 CFM)
- Replaces Singer/McQuay HC chassis

### HCC Chassis Series

- 13 EER and 4.4 COP
- Unit sizes: 10k, 12k, 20k, 24k (350 to 800 CFM)
- Replaces Singer/McQuay HCC chassis

### VF Chassis Series

- 15 EER and 4.4 COP
- Unit sizes: 10k, 12k, 15k, 20k, 24k, 26k, 33k, 40k (350 to 1,270 CFM)
- Replaces Singer/McQuay VF/VP/VG chassis

### LM Chassis Series

- 14 EER and 4.7 COP
- Unit sizes: 08k, 10k, 12k, 15k, 18k (245 to 550 CFM)
- Replaces Singer/McQuay LM Low Sill chassis

### LR / LS Chassis Series

- 13 EER and 4.5 COP
- Unit sizes: 08k, 10k, 12k, 15k, 18k (250 to 600 CFM)
- Replaces Singer/McQuay LM-B series chassis

### WCH / WMH Chassis Series

- 13 EER and 4.3 COP
- Unit sizes: 08k, 10k, 12k (250 to 400 CFM)
- Replaces Snyder General WCH chassis

### WMR Chassis Series

- 13 EER and 4.4 COP
- Unit sizes: 08k, 10k, 12k, 15k, 18k (250 to 600 CFM)
- Replaces Singer/McQuay WM-B chassis

### CC Chassis Series

- 13 EER and 4.4 COP
- Unit sizes: 10k, 12k, 15k, 20k, 26k, 33k, 40k, 52k (350 to 1,800 CFM)
- Replaces Singer/Climate Control CC series

## American Air Filter / Enercon Replacements

### ACW Chassis Series

- 14 EER and 4.6 COP
- Unit sizes: 08k, 10k, 12k, 15k, 19k (250 to 650 CFM)
- Replaces American Air Filter SSACW chassis

### BCW Chassis Series

- 12 EER and 4.2 COP
- Unit sizes: 08k, 10k, 12k (250 to 420 CFM)
- Replaces American Air Filter SSBCW chassis

### HW Chassis Series

- 14 EER and 4.5 COP
- Unit sizes: 09k, 12k, 20k, 26k, 33k, 40k, 51k, 55k (300 to 1,650 CFM)
- Replaces American Air Filter/Enercon HW straight blow through design unit

### Omega CHS Chassis Series

- 15 EER and 4.5 COP
- Unit sizes: 10k, 12k, 20k, 24k (350 to 800 CFM)
- Replaces Omega HRP chassis

### Zehnder/Rittling RTL Chassis Series

- 15 EER and 4.4 COP
- Unit sizes: 10k, 12k, 15k, 18k, 24k, 30k, 36k (300 to 1,200 CFM)
- Replaces Zehnder/Rittling VHCH chassis

### Slant-Fin WC Chassis Series

- 13 EER
- Unit sizes: 06k, 09k, 12k, 16k (200 to 510 CFM)
- Replaces Slant-Fin WC chassis

# AIR SOURCE PRODUCTS

## ClimateMaster Replacements

### 702 Chassis Series

- 10 EER
- Unit sizes: 09k, 12k, 15k, 18k (300 to 600 CFM)
- Replaces ClimateMaster / Friedrich 702, IslandAire-CM and RetroAire RC20 chassis

### VT Chassis Series

- 8 EER Cooling, 9 EER Heat Pump Cooling, 3.2 COP
- Unit sizes: 12k, 18k (400 to 600 CFM)
- Replaces ACP/ClimateMaster VT A, B, C series chassis

### Carrier 5QT Chassis Series

- 8 EER and 2.9 COP
- Unit sizes: 18k, 24k (600 to 800 CFM)
- Replaces Carrier 50QT chassis

### First Company PIC Chassis Series

- 11 EER and 3.4 COP
- Unit sizes: 09k, 12k, 15k, 18k, 24k (300 to 800 CFM)
- For renovation; Replaces RetroAire VPAC and First Company DPU chassis

### Magic Chef PWC Chassis Series

- 8 EER and 2.7 COP
- Unit sizes: 18k, 24k (600 to 800 CFM)
- Replaces Magic Chef PWC chassis

### Adirondack Aire PIN Chassis Series

- 10.4 EER and 3.0 COP
- Unit sizes: 09k, 12k, 15k (300 to 500 CFM)
- Existing PIN replacement only



### Whalen VI Chassis Series

- 14 EER and 4.4 COP
- Unit sizes: 06k, 10k, 12k, 20k, 24k, 30k, 36k (200 to 1,200 CFM)
- Replaces The Whalen Company VI chassis

### Johnson Controls VSC Chassis Series

- 13 EER and 4.4 COP
- Unit sizes: 9k, 12k, 15k, 18k, 24k, 30k, 36k (300 to 1200 CFM)
- Replaces Johnson Controls VSCS chassis

## Singer/McQuay Replacements

### EA Chassis Series

- 9 EER
- Unit sizes: 09k, 12k, 15k (300 to 500 CFM)
- Replaces McQuay EA, ES and RS, IslandAire ED and RetroAire RC-35

### EK Chassis Series

- 9 EER
- Unit sizes: 09k, 12k, 14k (300 to 465 CFM)
- Replaces Remington / Singer / McQuay K, IslandAire KF and RetroAire RC 60 chassis

### American Air Filter 16 Chassis Series

- 10 EER
- Unit sizes: 09k, 12k, 15k (300 to 500 CFM)
- Replaces American Air Filter Enersaver Type 16 and Type 16 Hydronic, IslandAire 16 and RetroAire RC-10 chassis

### American Standard / Singer 45 Chassis Series

- 10 EER
- Unit sizes: 09k, 12k, 15k, 18k (300 to 600 CFM)
- Replaces American Standard Type 45, Carteret Type 45, Remington / Singer Type 45, IslandAire 45 and RetroAire RC-10 chassis

### Ice-Cap / IslandAire RK Chassis Series

- 9 EER
- Unit sizes: 09k, 12k, 15k, 18k (300 to 600 CFM)
- Replaces Ice-Cap RSK, IslandAire RK and RetroAire RC-22

### Embassy / Weather Twin RM Chassis Series

- 9 EER
- Unit sizes: 09k, 12k, 15k, 18k (300 to 600 CFM)
- Replaces Embassy, Weather Twin RM, TPI Ra-Matic, Zone Aire S/SC/RM, IslandAire RM and RetroAire RC 20

# The Industry's First Choice for Multi-Story Heating and Cooling


Established in 1962, The Whalen Company is one of America's most innovative leaders in the commercial HVAC industry. As originators of vertical stacked fan coil units and heat pumps, we are committed to offering practical solutions for developers, architects and builders that reduce costs and improve performance.

The history of The Whalen Company demonstrates our commitment to purpose-driven engineering and operational efficiency. With one of the broadest portfolios of products offered of any manufacturer, The Whalen Company has the product to meet the needs of virtually any building.




## WATER-SOURCE HEAT PUMP PRODUCTS


### Closetline® Compact Packaged Unit

- 
- 15 EER
  - 275 to 2,000 CFM
  - Quiet operation
  - Solid state control with 8 safeties standard
  - Externally mounted control valves
  - Optional refrigerant detection system
  - Optional EC constant torque motor
  - Optional E-coated air coil for corrosion protection

### Closetline® 1-Stage Packaged Unit

- 
- 15 EER
  - 275 to 1,950 CFM
  - Quiet operation
  - Solid state control with 8 safeties standard
  - Optional factory mounted control valves
  - Optional refrigerant detection system
  - Optional hybrid heating and cooling
  - Optional EC constant torque motor
  - Optional E-coated air coil for corrosion protection

### Closetline® 2-Stage Packaged Unit

- 
- 17 EER
  - 600 to 1,900 CFM
  - Quiet operation
  - Solid state control with 8 safeties standard
  - EC constant volume motor
  - Stainless steel drain pan standard
  - Factory mounted modulating control valves
  - Optional refrigerant detection system
  - Optional E-coated air coil for corrosion protection


### Whisperline® Ducted Vertical

- 
- 14.0 EER
  - 200 to 1,200 CFM
  - Slide-out chassis for ease of service
  - Optional ECM variable speed motor
  - Optional closed cell or foil faced insulation
  - Stainless steel drain pan standard
  - Factory mounted internal water options
  - Microprocessor controls standard


### Whisperline® Two-Stage Vertical Stack

- 
- 18.5 EER
  - 800 to 1,200 CFM
  - 2-stage scroll compressor and ECM motor resulting in superior efficiency and comfort
  - Best-in-class sound levels and quiet operation
  - Service friendly features for easy repair and installation
  - Floating compressor design and cabinet isolation pad to minimize vibration transmission

### Whisperline® Vertical Stack

- 
- 14.0 EER
  - 200 to 1,200 CFM
  - Slide-out chassis for ease of service
  - Optional ECM variable speed motor
  - Optional closed cell or foil faced insulation
  - DX cooling with hydronic heating
  - Stainless steel drain pan standard
  - Factory mounted internal water options
  - Microprocessor controls standard

### Whispertherm® Vertical Stack

- 
- 14.0 EER
  - 200 to 1,200 CFM
  - Integrated core HRV/ERV module for outside air ventilation
  - Reverse cycle WSHP or DX cooling with hydronic heating
  - Slide-out chassis for ease of service
  - Optional ECM variable speed motor
  - Optional closed cell or foil faced insulation
  - Stainless steel drain pan standard
  - Factory mounted internal water options
  - Microprocessor controls standard

### Whisperline® Console


- 
- 14.0 EER
  - 200 to 1,200 CFM
  - Advanced digital auto change-over unit mounted control with temperature display, and speed selection
  - Microprocessor controls standard
  - Right or left-hand piping arrangement
  - Powder-painted drain pan

## FAN COIL PRODUCTS


### Inteli-line® Vertical Stack Fan Coil

- 
- 200 to 1,200 CFM
  - 2-pipe or 4-pipe
  - Optional electric heat
  - Fixed or slide-out chassis
  - Optional master / slave configuration
  - Standard PSC motor
  - Optional high static PSC motor
  - Optional EC motor
  - Optional DualPath™ Slide-Out Coil Pack


### Innoline® Riser Fan Coil

- 
- 200 to 800 CFM
  - 2-pipe or 4-pipe
  - Smallest footprint on the market
  - Reduced pumping cost
  - Standard PSC motor
  - Optional EC motor
  - Stainless steel drain pan standard


### Inteli-therm™ Vertical Stack Fan Coil

- 
- 200 to 1,200 CFM
  - Integrated HRV/ERV module for outside air ventilation
  - 2-pipe or 4-pipe
  - Slide-out Coil Pack for ease of service
  - Optional closed cell or foil faced insulation
  - Stainless steel drain pan standard
  - Microprocessor controls standard


### Horizontal Ceiling Fan Coil

- 
- 300 to 1,200 CFM
  - 2-pipe or 4-pipe
  - Optional electric heat (0.5 to 7kW)
  - PSC or EC motor options (up to 0.25" ESP)
  - 1 to 6-row coil options
  - Uncased, cased plenum, cased telescoping recessed, exposed painted cabinet


### Innoline® 50/50 Vertical Stack Fan Coil

- 
- 300 to 1,600 CFM
  - 4-pipe compatibility
  - Standard electric heat (0.5 to 9kW)
  - Optional EC motor
  - Naturally balanced
  - Fan and pump staging


### Hi-Performance Vertical Closet Fan Coil

- 
- 600 to 2,200 CFM
  - 2-pipe or 4-pipe
  - Optional electric heat (0.5 to 9kW)
  - Slide-out motor / blower assembly
  - PSC or EC motor options (up to 0.50" ESP)
  - Unit mounted piping package
  - 1 to 6-row coil options
  - Coil can be steam, DX, or hydronic
  - Front, bottom or rear return with top or bottom supply

### Hi-Performance Horizontal Ceiling Fan Coil

- 
- 600 to 2,200 CFM
  - 2-pipe or 4-pipe
  - Optional electric heat (0.5 to 9kW)
  - PSC or EC motor options (up to 0.50" ESP)
  - 1 to 6-row coil options
  - Uncased, cased plenum, cased telescoping recessed, exposed painted cabinet

### Belt Drive Air Handler

- 
- 800 to 12,000 CFM
  - 2-pipe or 4-pipe
  - High efficiency VFD ready motors (up to 3.75" ESP)
  - Electric duct heat (up to 45kW)
  - Up to 10HP motor options with adjustable pitch sheave
  - 1 to 10-row coil options
  - Single or optional double-wall cabinet design (solid or perforated liner)

### Console Fan Coil

- 
- 200 to 1,200 CFM
  - 2-pipe or 4-pipe
  - Optional electric heat (1 to 6kW)
  - Slide-out motor / blower assembly
  - PSC or EC motor options (up to 0.15" ESP)
  - 1 to 5-row coil options
  - Flat top, slope top, wrap slope top, wall recessed cabinet, concealed
  - Lowboy: 400-600 CFM; PSC motor; 1 to 4-row coil; exposed, wall recessed, front discharge





The  
Whalen  
Company

Questions?

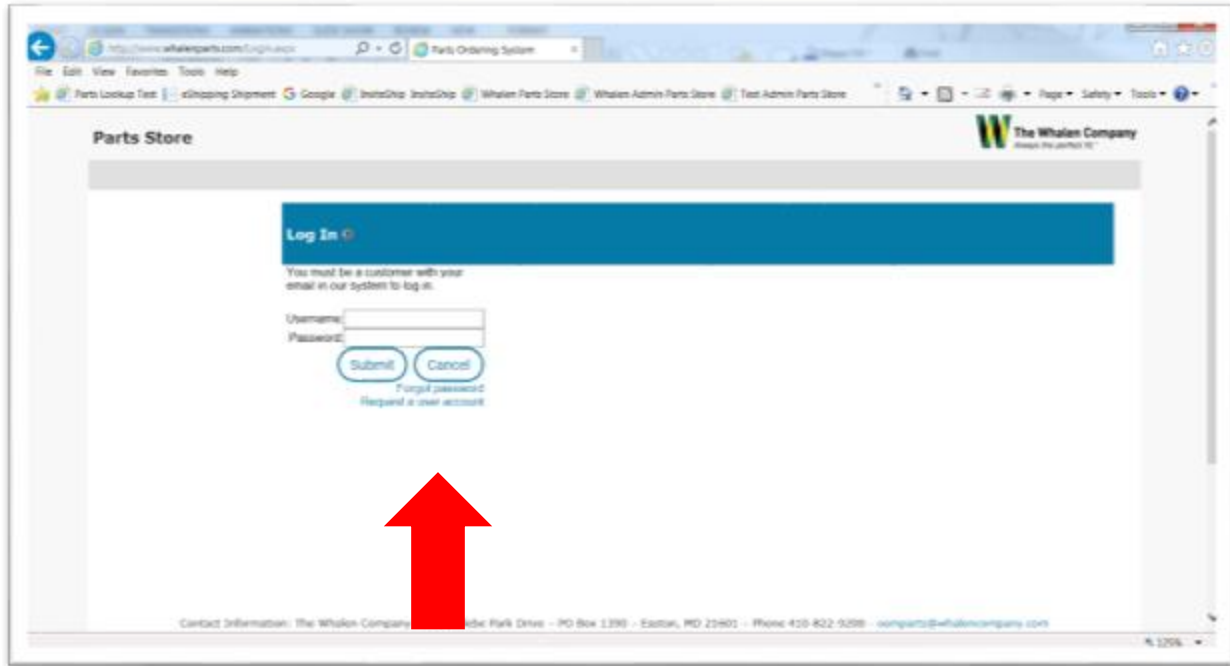


**The  
Whalen  
Company**

**Aftermarket Product Training**  
**[www.whalenparts.com](http://www.whalenparts.com)**

- Located at [www.whalenparts.com](http://www.whalenparts.com) & from the Whalen Company homepage
- Offers Representative Easy Access to Whalen & Shorefit Aftermarket Products.
- Representative Managers can manage users access and resetting of Passcodes at their company.
- Easy Product Selection based on commodity/size criteria, Whalen & Vendor part number, Original Equipment Order, and Building Name/Address.
- Whalen List Pricing with Representative and Quantity discounts automatically applied.
- Quick Ship Pricing Selection offering.
- Quotation storage and guaranteed pricing for 30 days.
- Direct Order Placement for fast turn on orders

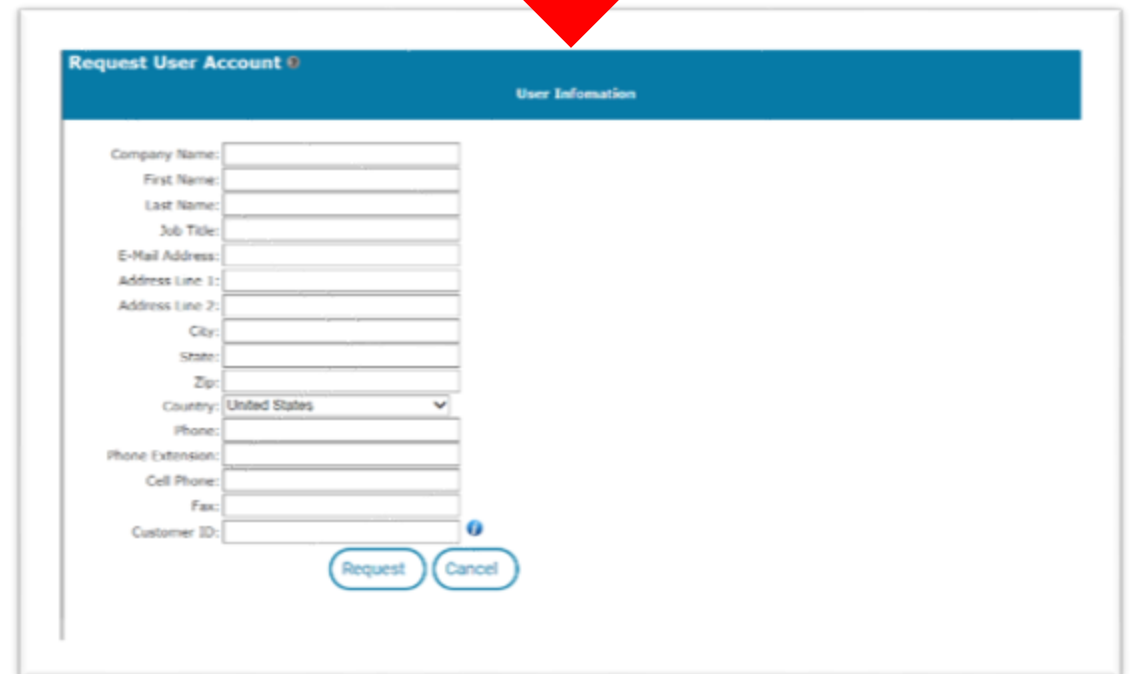




The screenshot shows a web browser window with the URL <http://www.whalenparts.com/login.aspx>. The page title is "Parts Store" and the Whalen Company logo is in the top right. A blue header bar contains the text "Log In". Below this, a message states: "You must be a customer with your email in our system to log in." There are input fields for "Username:" and "Password:". Below these fields are two buttons: "Submit" and "Cancel". A link "Forgot password" is also present. A red arrow points upwards from the bottom of the page towards the "Request a user account" link.

- Login at [www.whalenparts.com](http://www.whalenparts.com)
- Select Request a user account

- Complete the information in the form.
- Select Request



The screenshot shows a form titled "Request User Account" with a blue header bar. Below the header, the form is divided into sections. The first section is "User Information" and contains the following fields: "Company Name:", "First Name:", "Last Name:", "Job Title:", "E-Mail Address:", "Address Line 1:", "Address Line 2:", "City:", "State:", "Zip:", "Country:" (with a dropdown menu showing "United States"), "Phone:", "Phone Extension:", "Cell Phone:", "Fax:", and "Customer ID:". At the bottom of the form are two buttons: "Request" and "Cancel". A red arrow points downwards from the top of the page towards the "Request" button.

# Reset Your Password Notification

Whalen Aftermarket Parts Password Reset Email - Message (HTML)

FILE MESSAGE


Ignore Delete Reply Reply All Forward More Meeting To Manager Done Create New

Eden Schultz Team Email Reply & Delete

Rules OneNote Actions

Move Mark Unread Categorize Follow Up Translate Find Related Select Zoom

Tue 9/1/2015 3:54 PM

 craig.scurlock@bcatech.com

Whalen Aftermarket Parts Password Reset Email

To Patti Cannon

**Whalen Aftermarket Parts Password Reset**

Your user name: [pcannon2@whalencompany.com](mailto:pcannon2@whalencompany.com)

You recently requested a new password to sign in to your Whalen Aftermarket Parts account. To select a new password, click on the link below:


[Reset My Password](#)


This request was made on Tuesday September 01, 2015 - 07:54 PM

**Thank you for using Whalen Aftermarket Parts**

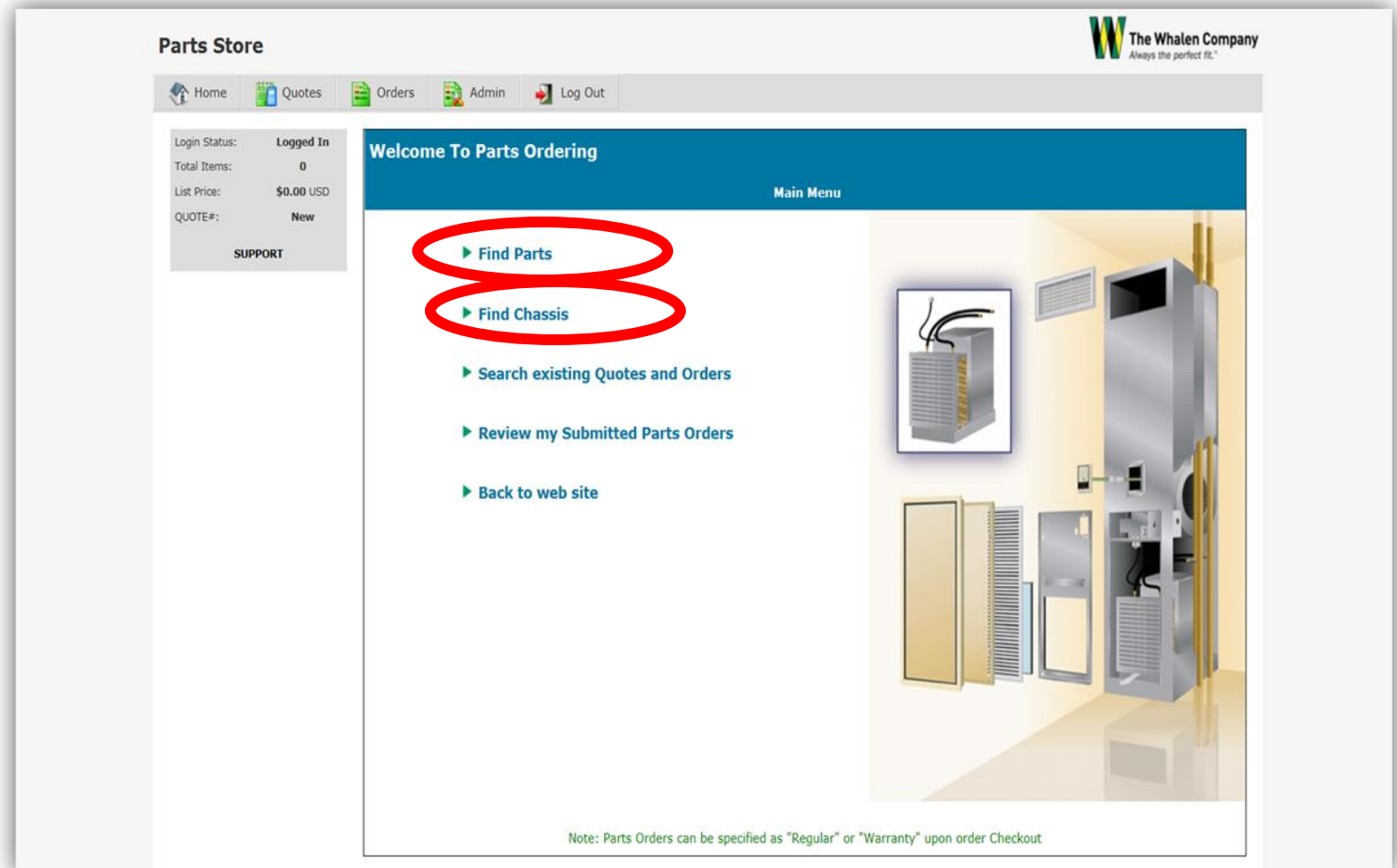
\*\*\*\*\*

Please do not reply to this message. Mail sent to this address cannot be answered.  
Contact Whalen at 410-822-9200 if there are any technical issues.

 craig.scurlock Parts Order Information:2174



- From the Home Screen make your selection based on the replacement part your customer is requesting for quote.
- \*Note Parts & Chassis have different selection menu due to selection criteria.



# Search For Replacement Parts

## Parts Store

[Home](#) [Quotes](#) [Orders](#) [Admin](#) [Log Out](#)

Login Status: **Logged In**  
Total Items: **0**  
List Price: **\$0.00 USD**  
QUOTE#: **New**

[SUPPORT](#)

### Parts Search

Enter Full Or Partial Information In Any Combination Of The Data Fields Below

Limit to first 100 ☒

Product Family:

Part Category:

Product Model:

Unit Size:

Description:

Part Number:

[Search](#)[Clear](#)[Back](#)

#### Parts Search Result


Info	Add	Number	Category	Description	Lead Time (Days)	List Price
		PMUCACW3G10F	FAN MOTOR	CW, 200 & 300 CFM RHE, 300 CFM HIGH STATIC & 400 CFM WFX, 115 VOLT PSC. (OBSOLETE)	2	\$165.00

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#### Discontinued part

 This part PMUCACW3G10F has been discontinued. You will be redirected to the valid replacement part PMEHXGHB4337.

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**Parts Store**

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Login Status: **Logged In**

Total Items: **0**

List Price: **\$0.00 USD**

QUOTE#: **New**

**SUPPORT**

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## Equipment Order Search

Enter Your Equipment Order Information To View The Specific Parts

**Parts**

☐

**Equipment Order Number**

☒

Order Number:


Address:

Project Name:

City:

State:

Input either your Order Number, Part of the Project Name, address, City or State and click "Search".

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After Selecting button for Equipment Order Number the search boxes will appear

## Find the Model and Serial Number

- Model and Serial numbers can be found on the silver nameplate attached to the front panel of the unit. (Behind the Air Grille and Filter)

THE WHALEN COMPANY EASTON, MARYLAND			
MODEL NO.	Serial No.	Refrigeration Chassis No.	
V.P. A- 100C- BD	508 2014110 0003	WG 1003- BCY D	
Compressor RLA	Fan Motor FLA	Refrigerant 35 Factory Charged	
14.1	73.0	N/A 48.5 OZ	
Test Pressure	Voltage	Hertz	Phase
0.2 PSIG	208- 230	60	1
Minimum Circuit Ampacity 17.6 Minimum Voltage 197	ESP: 3.9	Maximum Fuse Size	N/A or HACR type circuit breaker
Design Pressures: High Side 344 psig	4246	Cooling: A27 - W30/B25 R- 410a Heating: A20 - W20/B0 9 / 0	

THE WHALEN COMPANY EASTON, MARYLAND FAN COIL UNIT		
MODEL NO.	SERIAL NO.	MAX. WATER TEMP.
W602	973-7338A	160
VOLTS 1Ø A.C.	HZ	STATIC PRESSURE
115	60	0.55
FAN MOTOR THERMALLY PROTECTED AMPS.	1050/450 R.P.M. H.P.	
2.30	0.16	
HOT WATER VALVE AMPS.	HUMIDIFIER VALVE AMPS.	DAMPER MOTOR AMPS.
CLEARANCE TO COMBUSTIBLES "0" IN. (SEE UNIT INSTALLATION INSTRUCTIONS)		

THE WHALEN COMPANY LAUREL, MARYLAND 20810	
SERIES VI. Model No.:	WG 100- P-1
Refrig. Chassis No.:	2011
Control No.:	100111
Entry Service:	Volts: 208 Hz: 60 Ph: 1 Wbb.
System Service:	Volts: 208 Hz: 60 Ph: 1 Wbb.
Refrigeration System:	Refrigerant 22 Charge 1 lbs 10 oz.
Test Pressure:	300 P.S.I.
Compressor:	Volts: 208 Hz: 60 Ph: 1 FLA: 55.5 LRA: 10.5
FAN, 2 Speed:	Volts: 208 Hz: 60 Ph: 1 FLA: 7.5 LRA: 1.5
ELECTRIC COILS. (When applicable)	
Coil #1:	KW: 2.0 Volts: 208 Hz: 60 Ph: 1 FLA: 43.5 LRA: 8.5
Coil #2:	KW: 2.0 Volts: 208 Hz: 60 Ph: 1 FLA: 43.5 LRA: 8.5
MIN. CIRCUIT AMPACITY	MAX. FUSE SIZE
COOLING CYCLE	AMPS 35 AMPS
HEATING CYCLE	AMPS 35 AMPS
MAX. COMBINED OPERATING LOAD	AMPS 35 AMPS

## Years 1960s – 1999

Two digit year and followed by two to three digit job number.

Examples

6810 (Year 1968, Job No. 10)  
99100 (Year 1999, Job No. 100)

## Years 2000 to 2009

Two digit year (removal of second and third digit) and three digit job number.

Examples


20100 (Year 2000, Job No. 100)  
29016 (Year 2009, Job No. 16)

## Years 2010 to Present

Four digit year and three digit job number

Examples

2014052 (Year 2014, Job No. 52).

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Always the perfect fit.™

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Login Status: **Logged In**

Total Items: **0**

List Price: **\$0.00 USD**

QUOTE#: **New**

**SUPPORT**

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**Equipment Order Search**

Enter Your Equipment Order Information To View The Specific Parts

Parts ☐

Equipment Order Number ☒

Order Number:

Project Name:

Address:

City:

State:

Input either your Order Number, Part of the Project Name, address, City or State and click "Search".

Order Number: 20002


Project Name: Davenport Commons









Customer: Emerson-Swan, Inc

Address: 700 Columbus Ave

City: Boston

State: MA

Here is the list of items in that order. Click  to see the parts list for that item.

View	Part #	Description	Full Part #
	W022L3A	W202-L-3 115V 2P 3/4 Riser LH	
	W022L4A	W202-L-4 115V 2P 1 Riser LH	
	W022R4A	W202-R-4 115V 2P 1 Riser RH	
	W032L3A	W302-L-3 115V 2P 3/4 Riser LH	
	W032L4A	W302-L-4 115V 2P 1 Riser LH	
	W032R4A	W302-R-4 115V 2P 1 Riser RH	
	W042L5A	W402-L-5 115V 2P 1 1/4 Riser LH	
	W042R5A	W402-R-5 115V 2P 1 1/4 Riser RH	

By entering a portion of the job number you can view the Project Number, Project Name, Address, City or State based on your search criteria. Projects displayed will be only your Assigned territory!

# Select by Model Size or View All Parts in Project

http://whalen.bcatech.com/EnterpriseParts/equipmentSearch.a Parts Ordering System Parts Ordering System

File Edit View Favorites Tools Help

Parts Lookup Test eShipping Shipment Google InsiteShip InsiteShip Whalen Admin Parts Store Whalen Parts Store Test Admin Parts Store Test Parts Store

Page Safety Tools

Login Status: **Logged In**

Total Items: **0**

List Price: **\$0.00 USD**

QUOTE#: **New**

**SUPPORT**


**BACK TO MENU**

### Equipment Order Search

Enter Your Equipment Order Information To View The Specific Parts

☐ Parts

☒ Equipment Order Number

Order Number:  

Address:

Project Name:

City:


State:











Input either your Order Number, Part of the Project Name, address, City or State and click "Search".

[Search](#) [Clear](#) [Back](#)

**Order Number:** 20002  
**Project Name:** Davenport Commons  
**Customer:** Emerson-Swan, Inc

Address: 700 Columbus Ave  
City: Boston  
State: MA

Here is the list of items in that order. Click  to see the parts list for that item.

View	Part #	Description	Full Part #
	W022L3A	W202-L-3 115V 2P 3/4 Riser LH	
	W022L4A	W202-L-4 115V 2P 1 Riser LH	
	W022R4A	W202-R-4 115V 2P 1 Riser RH	
	W032L3A	W302-L-3 115V 2P 3/4 Riser LH	
	W032L4A	W302-L-4 115V 2P 1 Riser LH	
	W032R4A	W302-R-4 115V 2P 1 Riser RH	
	W042L5A	W402-L-5 115V 2P 1 1/4 Riser LH	
	W042R5A	W402-R-5 115V 2P 1 1/4 Riser RH	
	W052L5A	W502-L-5 115V 2P 1 1/4 Riser LH	
	W052R5A	W502-R-5 115V 2P 1 1/4 Riser RH	

[View All Parts](#)

Order Number: 20003

125%

You can view by selecting the model number by size or view all parts on the Project

Browser: http://whalen.bcatech.com/EnterpriseParts/Parts\_BOM.aspx

Navigation: File Edit View Favorites Tools Help

Links: Parts Lookup Test eShipping Shipment Google InsiteShip InsiteShip Whalen Admin Parts Store Whalen Parts Store Test Admin Parts Store Test Parts Store

Page: Safety Tools

## Parts Store

Home Quotes Orders Admin Help Log Out

Login Status: **Logged In**  
 Total Items: **0**  
 List Price: **\$0.00 USD**  
 QUOTE#: **New**

**SUPPORT**  
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### Bill Of Materials

**Unit Information**

Order #: 20003  
 Part #: WA4DXT1  
 Full Part #: WVIA0401DTGALEX1XXXXXXXXXACXE  
 Description: REP VI-AX-401-2 CHASSIS 265V EXT. RANGE

Category Filter:

[Add Replacement Unit](#)

Info Add	Part #	Model #	Category	Description	Lead Time (Days)	List Price
	PCTDRK157JB	RK157JB	COMPRESSOR	RK157JB, COMPRESSOR, 400 CFM VI, 1 Ton, 265 Volt, R22 (OBSOLETE)	2	\$340.00
	PDXCOAX0924	COAX-0924	COAX	COAX-0924, COAX CONDENSER COIL, 200 & 300 CFM R22 VI	2	\$273.00
	PDXEXPBAEB1	DXEXPBAEB1	THERMAL EXPANSION VALVE	DXEXPBAEB1, THERMAL EXPANSION VALVE 200 - 800 CFM VI, R22	2	\$114.00
	PDXEXPDIS442	44-2 DISTRIBUTOR	REFRIGERANT DISTRIBUTOR	44-2 DISTRIBUTOR, REFRIGERANT DISTRIBUTOR, 400 CFM R22 VI HEAT PUMP	2	\$18.00
	PDXV26-1651	V2-306060	REVERSING VALVE	V2-306060 REVERSING VALVES 200 - 800 CFM R22 VI, OBSOLETE	2	\$45.00
	PDXV2COIL124	L30-124801	SOLENOID COIL	L30-124801, 24 Volt solenoid Coil for V2-306060, V3-310080 & V3-312080 REVERSING VALVE, 200 - 800 CFM R22 VI	2	\$37.00
	PEPM-AMP061	PEPM-AMP061	CHASSIS PLUG	AMP 6 PIN CHASSIS PLUG, MALE (NOT PLUGGED, WIRED OR INSTALLED)	2	\$10.00
	PEPM-AMP061S	PEPM-AMP061S	CHASSIS PLUG	AMP 6 PIN CHASSIS PLUG, MALE STRAIN RELIEF (NOT PLUGGED, WIRED OR INSTALLED)	2	\$10.00
	PETBSTRIPM14			HOLLINGSWORTH #H2664		N/A
	PETF-18/121			#42742-2 FLAG SLIP ON18-12 WIRE SUB #425		N/A
	PETPMAMP001	PETPMAMP001	CHASSIS PLUG	MALE AMP PIN FOR MALE AMP PLUG	5	\$1.00
	PETSP16/141			SPADE(BLUE) 16-14 #10HOLE #2-320863-2		N/A
	PHCX11/2001	HXC11/2001	COIL	HXC11/2001, EVAPORATOR COIL, 400 CFM VI, 11.38 X 20 X 3 ROW	2	\$410.00

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ViewDelete	Line #	Qty	Number	Description	<input type="checkbox"/> Quick Ship	Lead Time	List Price Each	Net Price Each
	1	<input type="text" value="1"/>	PMEHXGHB4337	K48HXGHB-4337, REV, 200 & 300 CFM RHE, 300 CFM HIGH STATIC & 400 CFM WFX, 115 VOLT PSC.	<input type="checkbox"/>	5 days	\$184.00	\$90.16

SPA#

Total List Price: \$184.00  
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Whispertherm® Heat Pump  
Inteli-Therm™ Fan Coil

# | What is a Whispertherm<sup>®</sup> and Inteli-Therm<sup>™</sup> Unit?



- Both the Whalen Whispertherm<sup>®</sup> and Inteli-Therm<sup>™</sup> units include an Integrated Thermal Recovery Unit (ERV or HRV) with access to the module through the return panel. The module is self-contained and includes all items needed for a fully functioning engineered unit. Unit includes controls to ensure dedicated constant ventilation, optional high speed exhaust and freeze / defrost controls.

## Whispertherm® VT / VR Heat Pump

- The Whispertherm® unit accepts the following chassis
  - Whisperline®: Reverse Cycle or Cooling only
  - Whisperpack®: Cooling only with Hydronic Heat
- Capacity
  - 8 sizes: 0.5 to 3-tons
- EC constant torque motor only
- Voltage
  - Unit: 208-230/60/1 or 277/60/1
  - HRV: 115/60/1



# Inteli-Therm™ WT<sub>x</sub> Fan Coil

- The Inteli-Therm™ unit accepts the following coil packs
  - Inteli-Line® : 2-Pipe or 4-Pipe
- Capacity
  - 6 sizes: 300 – 1200 CFM
- EC constant torque motor only
- Voltage
  - Unit: 115/60/1, 208-230/60/1 or 277/60/1
  - HRV: 115/60/1



- Provides the space with clean, dedicated tempered ventilation air enhancing personal comfort while meeting code requirements.
  - May help with additional LEED points
  - Supply Air from the ERV is introduced in front of the main unit filter and coil allowing for additional filtration
- The TRU is designed to also be the bathroom exhaust fan for one or more bathrooms.
- Choose between Total Enthalpy or Sensible Only models to meet the project requirements.



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Why use a Whispertherm® or Intelli-Therm™?

- To meet code requirements.
  - Multiple CFM options for the Ventilation Air to meet the project requirements
- What are these codes
  - IEC 2015
  - ASHRAE 90.1
  - ASHRAE 62.1
- Not all Local and State codes call for an TRU at the local unit, but this seems to be the trend.
- Often, it will be evaluated that there is a money savings on the project on the ductwork and space required for the ductwork to go with individual TRU's.
- No additional items needed to ensure that the correct amount of ventilation air is being provided to the space.



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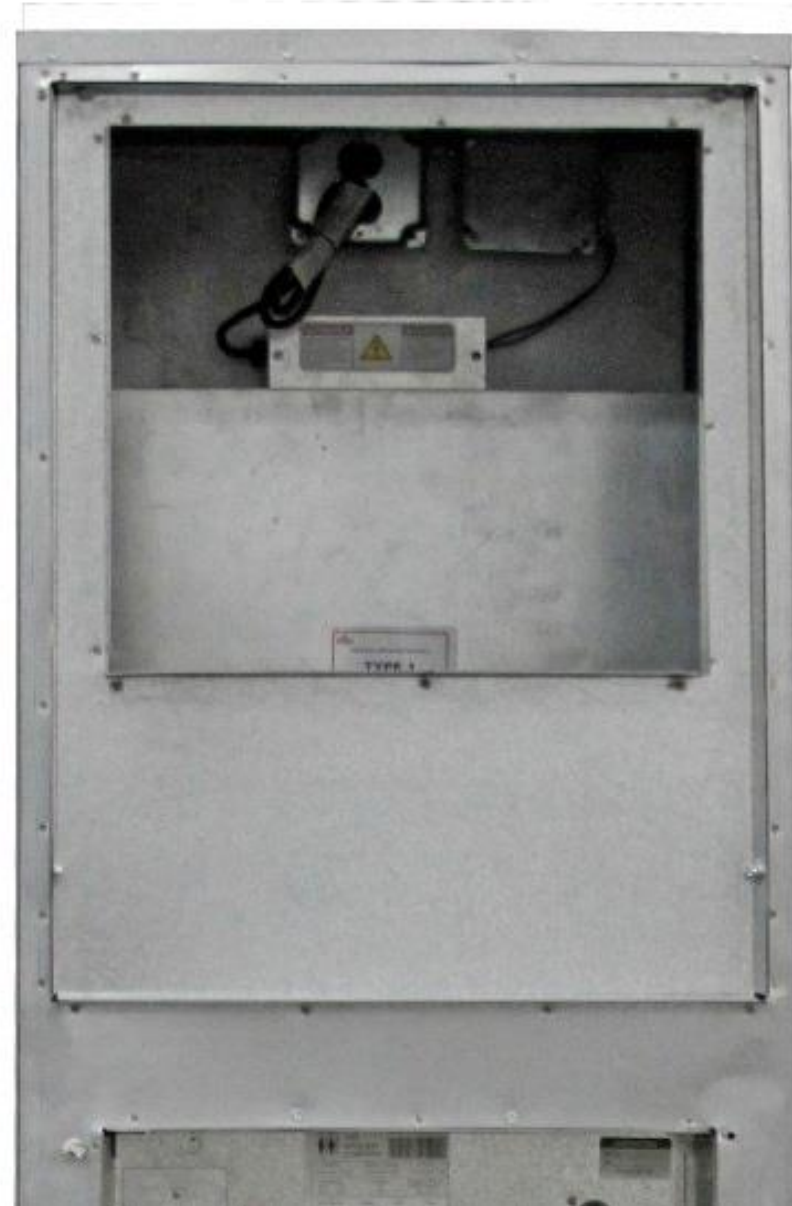
How they work

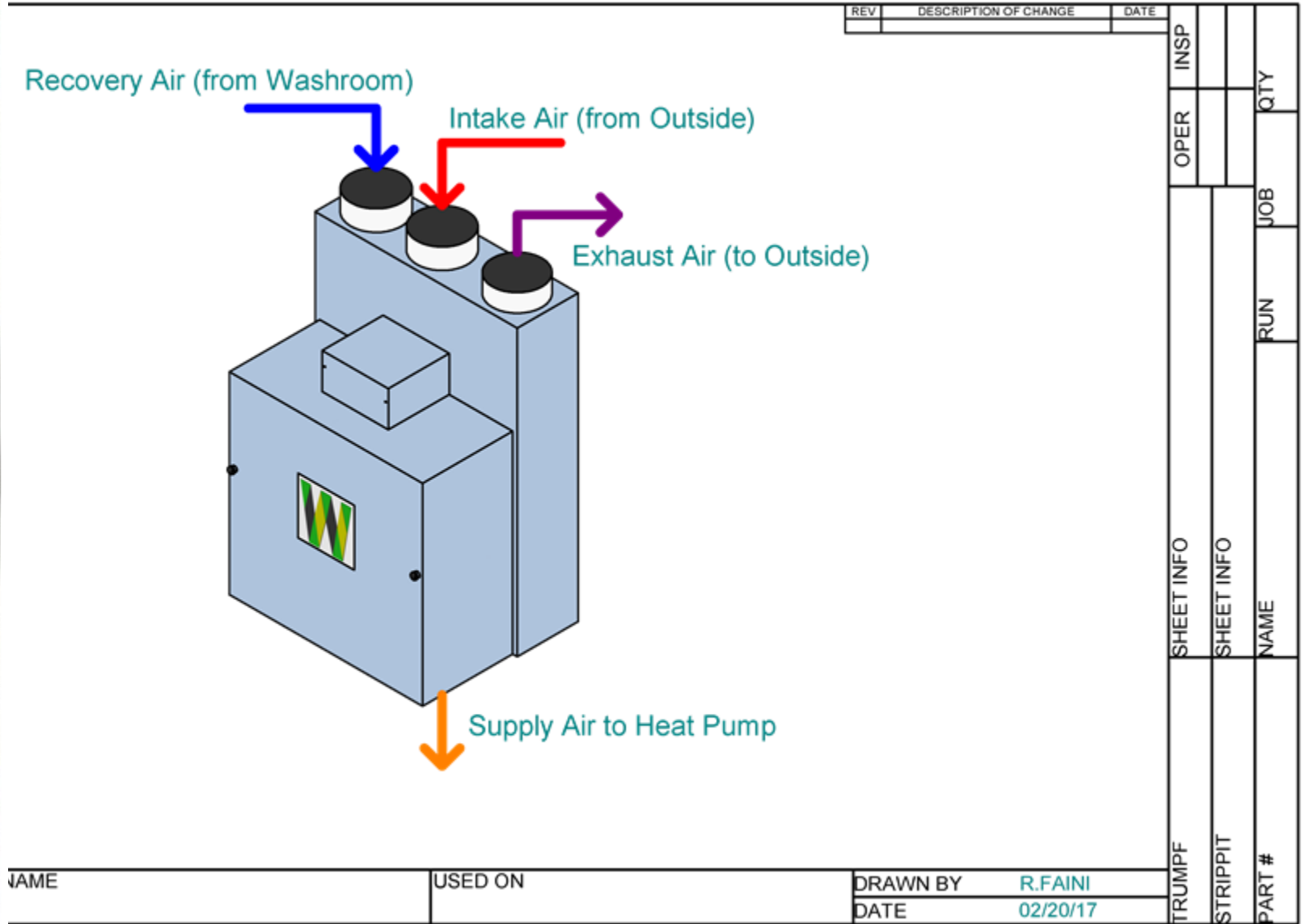
## How they work

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- Outside Air (Ventilation air) is introduced into the TRU, this air goes across the heat exchanger and becomes the unit Supply Air.
- Return Air (Bathroom(s) Exhaust) is introduced into the TRU, this air goes across the heat exchanger and becomes the unit Exhaust Air.
- Factory set and calibrated constant ventilation and high speed exhaust - No onsite balancing needed.
  - Various CFM settings are available









## How they work

---

- Control Options
  - Most common is for the unit to run (heat pump fan) 24/7 along with the ventilation air. As energy is a big issue, we have a control scheme that allows the unit fan to run at “Ultra Low Fan Speed” when there is no call for cool/heat.
    - This will have both the unit fan and the ERV fans consuming about 50-75 watts each
  - This will ensure proper operation of the ventilation system as well as circulating air throughout the space at a minimal cost.

## How they work

---

- The units are designed to give the project ample External Static Pressure while maintaining the CFM required.
  - The unit is designed with 5" duct resulting in very low ESP ratings.
  - As an average rule of thumb, the unit offers 0.30" ESP without a significant loss in CFM
- The system includes multiple safeties as standard.
  - Fan cycle defrost.
  - A "Patent Pending" fail safe freeze protection.



## Accessory Items

---

- Intake and Exhaust Wall Boxes.
  - 4", 5" and 6" Single Intake Wall Box
  - 4", 5" and 6" Single Exhaust Wall Box
  - Modular Exhaust / Intake Wall Boxes
    - Exhaust box has an acceleration cone to increase the exhaust velocity 7 times.
- Intake and Exhaust Louvers (mill Finished)
  - For single and Modular boxes
- Multiple washroom timers
  - 20 minutes standard
  - 5 to 60 minutes optional
  - Optional Push to Start / Push to Stop



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Things to consider

# | Things to Consider

- Why 115/1/60?
  - Eliminates extra controls needed for low voltage
  - Most bathroom switches are 115/1/60 already so easy to install
  - The unit and TRU can be tied into an emergency generator separately depending on the need of the project and code requirement
- Local wall penetration or ducted to/from a central shaft?
  - Often it is the architect saying no to a local penetration
  - Code requirement for separation of O/A and E/A
- ***Can operate 208v single-point power IF a neutral wire is run***

# | Things to Consider

- The competition may offer an alternative for a horizontal ERV unit.
  - The contractor has to tie this all together
    - Controls
    - Ductwork
    - Will they introduce the Supply Air into the unit
- The added cost of the required soffit (BY THE GC)
- Access panel for the ERV
- Typically installed in the bathroom
- Can this unit handle multiple bathrooms



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Closetline® Packaged Heat Pumps

# Closetline® Heat Pumps



# Product line overview



## Closetline<sup>®</sup> WC

Single-stage operation

Compact cabinet

External valve options

EC constant torque or  
constant volume motor

Standard or deluxe control

## Closetline<sup>®</sup> WR

Single-stage operation

Mid-size cabinet

Internal valve options

EC constant torque or  
constant volume motor

Standard or deluxe control

## Closetline<sup>®</sup> WZ

Two-stage operation

Mid-size cabinet

Modulating valve standard

EC constant volume motor

Deluxe control

# Closetline® WC Compact Series



- Capacity - 11 sizes: 0.5 to 5-ton
- 5 Voltages Available –
  - 208-230/60/1
  - 265/60/1
  - 208-230/60/3
  - 460/60/3
  - 575/60/3
- Compact Footprint
- Single-stage operation



# Closetline® WC Compact – EC Motor ratings

Model	CFM	GPM	Water Loop Heat Pump				Ground Loop Heat Pump			
			Cooling 86°F		Heating 68°F		Cooling 77°F		Heating 32°F	
			Capacity Btuh	EER Btuh / W	Capacity Btuh	COP	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP
WC**006	225	1.5	6,100	15.0	8,300	5.1	6,400	17.7	4,800	3.3
WC**009	325	2.3	8,600	14.3	11,600	4.5	9,000	16.7	7,200	3.3
WC**012	380	3.0	10,700	13.4	14,400	4.6	11,500	14.9	9,300	3.3
WC**015	525	3.8	14,700	16.4	15,900	4.9	15,200	17.3	10,700	3.6
WC**018	600	4.5	18,000	15.0	21,500	5.1	19,400	17.3	13,800	3.6
WC**024	800	6.0	24,900	15.4	28,500	5.1	25,800	18.0	19,000	3.7
WC**030	1000	7.5	29,200	14.5	35,000	4.8	30,500	17.3	23,000	3.6
WC**036	1150	9.0	35,200	15.3	43,500	4.8	36,400	17.4	27,900	3.6
WC**042	1400	10.5	41,800	15.2	48,500	4.9	43,400	17.4	31,700	3.5
WC**048	1550	12.0	48,900	15.2	57,500	4.8	50,800	17.6	38,100	3.5
WC**060	2000	15.0	60,200	14.7	68,000	4.7	62,200	17.4	44,300	3.5

- Standard or Deluxe solid state control board
- PSC or EC fan motors (high-static PSC motors are being phased-out)
- Refrigerant Detection System (RDS)
  - Optional sizes 4 ton & below
  - Required sizes 5 ton & above
- All valves are field installed in the hose kit.



# Closetline® WC Compact Series Options

- High efficiency ECM CV & CT motors blower motors
- Deluxe solid-state controls
- DDC Control board (BACnet, Modbus, and JCI N2)
- Cupro-nickel water heat exchanger
- Enhanced low sound package
- Tin-plated air coils for added protection from formicary corrosion
- Stainless-steel drain pans
- Extended-range for geothermal applications
- Electrical service disconnect

# Closetline® WR Mid-Size Series



- Capacity - 11 sizes: 0.5 to 5-ton
- 6 Voltages Available –
  - 115-1-60
  - 208-230/60/1
  - 265/60/1
  - 208-230/60/3
  - 460/60/3
  - 575/60/3
- Mid-Size Cabinet Footprint
- Single-stage operation





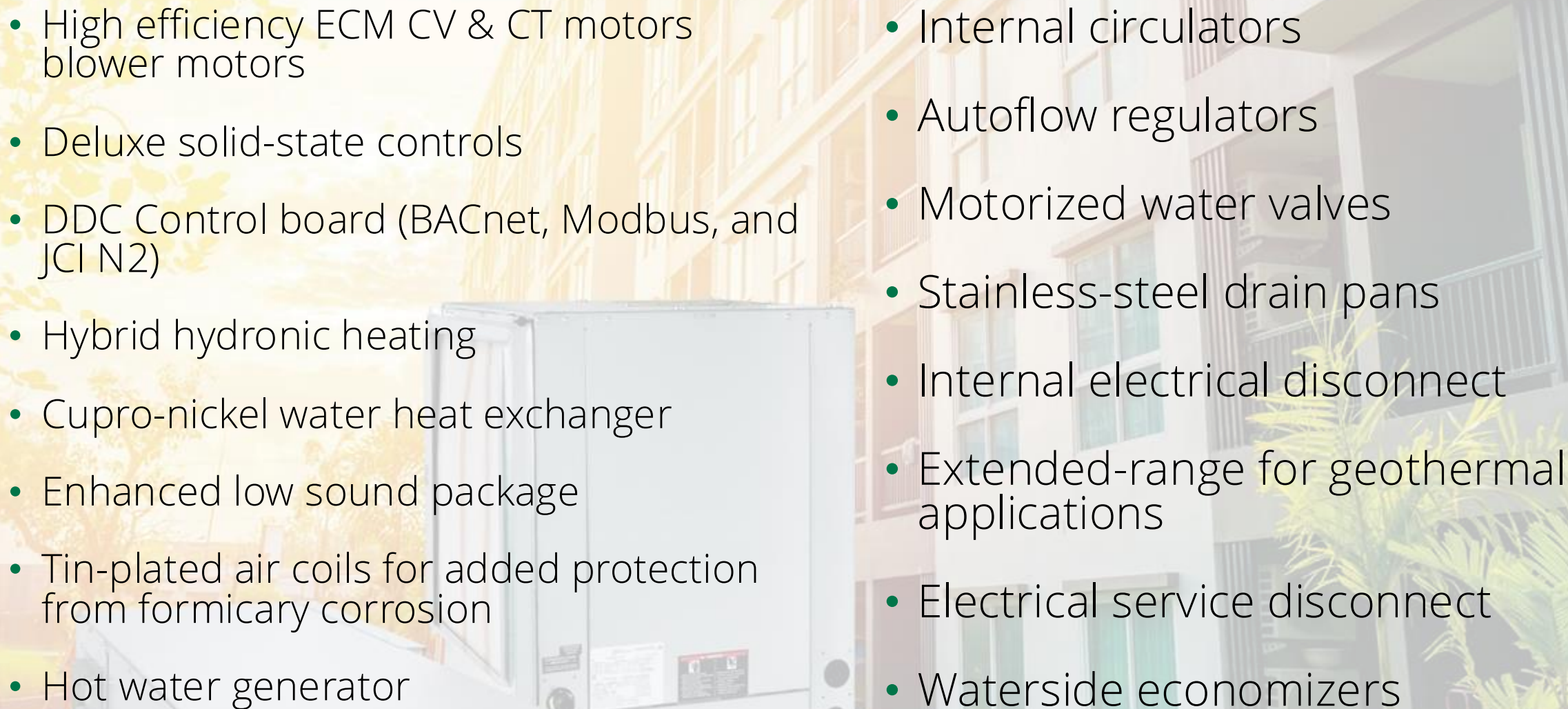
# Closetline® WR Mid-Size – EC Motor ratings

Model	CFM	GPM	Water Loop Heat Pump				Ground Loop Heat Pump			
			Cooling 86°F		Heating 68°F		Cooling 77°F		Heating 32°F	
			Capacity Btuh	EER Btuh / W	Capacity Btuh	COP	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP
WR**006	225	1.5	6,100	15.0	8,300	5.1	6,400	17.7	4,800	3.3
WR**009	325	2.3	8,600	14.3	11,600	4.5	9,000	16.7	7,200	3.3
WR**012	380	3.0	10,700	13.4	14,400	4.6	11,500	14.9	9,300	3.3
WR**015	525	3.8	14,700	16.4	15,900	4.9	15,200	17.3	10,700	3.6
WR**018	600	4.5	18,000	15.0	21,500	5.1	19,400	17.3	13,800	3.6
WR**024	800	6.0	24,900	15.4	28,500	5.1	25,800	18.0	19,000	3.7
WR**030	1000	7.5	29,200	14.5	35,000	4.8	30,500	17.3	23,000	3.6
WR**036	1150	9.0	35,200	15.3	43,500	4.8	36,400	17.4	27,900	3.6
WR**042	1400	10.5	41,800	15.2	48,500	4.9	43,400	17.4	31,700	3.5
WR**048	1550	12.0	48,900	15.2	57,500	4.8	50,800	17.6	38,100	3.5
WR**060	2000	15.0	60,200	14.7	68,000	4.7	62,200	17.4	44,300	3.5

- Standard or Deluxe solid state control board
- PSC or EC fan motors (high-static PSC motors are being phased-out)
- Refrigerant Detection System (RDS)
  - Optional sizes 4 ton & below
  - Required sizes 5 ton & above
- **Factory installed water options are available.**



# Closetline® WR Mid-Size Series Options

- 
- High efficiency ECM CV & CT motors blower motors
  - Deluxe solid-state controls
  - DDC Control board (BACnet, Modbus, and JCI N2)
  - Hybrid hydronic heating
  - Cupro-nickel water heat exchanger
  - Enhanced low sound package
  - Tin-plated air coils for added protection from formicary corrosion
  - Hot water generator
  - Internal circulators
  - Autoflow regulators
  - Motorized water valves
  - Stainless-steel drain pans
  - Internal electrical disconnect
  - Extended-range for geothermal applications
  - Electrical service disconnect
  - Waterside economizers

# Closetline® WZ 2-Stage Mid-Size Series



- Capacity - 6 sizes: 2 to 5-ton
- 3 Voltages Available –
  - 208-230/60/1
  - 208-230/60/3
  - 460/60/3
- Mid-Size Cabinet Footprint
- Two-stage operation





# Closetline® WZ 2-Stage – EC Motor ratings

Model	CFM	GPM	Water Loop Heat Pump				Ground Loop Heat Pump			
			Cooling 86°F		Heating 68°F		Cooling 77°F		Heating 32°F	
			Capacity Btuh	EER Btuh / W	Capacity Btuh	COP	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP
WZ**024 - Full	800	6.0	24,000	15.1	28,400	5.3	25,000	18.0	18,400	3.9
WZ**030 - Full	900	7.5	28,700	14.0	33,200	4.6	30,200	16.3	23,200	3.6
WZ**036 - Full	1150	9.0	35,000	14.0	44,200	4.6	36,400	16.4	28,600	3.6
WZ**042 - Full	1350	10.5	43,000	15.5	49,500	4.7	44,500	17.3	32,500	3.5
WZ**048 - Full	1250	12.0	47,500	15.5	55,000	4.8	49,000	17.7	36,000	3.7
WZ**060 - Full	1900	10.5	59,000	15.5	67,200	5.0	61,500	17.8	44,600	3.7
WZ**024 - Part	600	4.3	17,500	17.0	19,900	5.7	19,300	25.3	14,600	4.2
WZ**030 - Part	750	5.5	21,200	15.2	24,400	5.1	23,400	22.0	18,700	4.0
WZ**036 - Part	950	6.8	26,100	16.1	31,600	5.3	28,500	22.6	22,600	4.1
WZ**042 - Part	1050	8.5	32,500	17.0	36,000	5.1	35,000	23.5	26,400	4.0
WZ**048 - Part	1550	8.5	34,000	16.5	39,000	5.5	37,000	24.0	28,000	4.0
WZ**060 - Part	1900	15.0	42,000	17.5	47,300	5.5	45,500	24.9	34,000	4.2

# Closetline® WZ 2-Stage Mid-Size Series

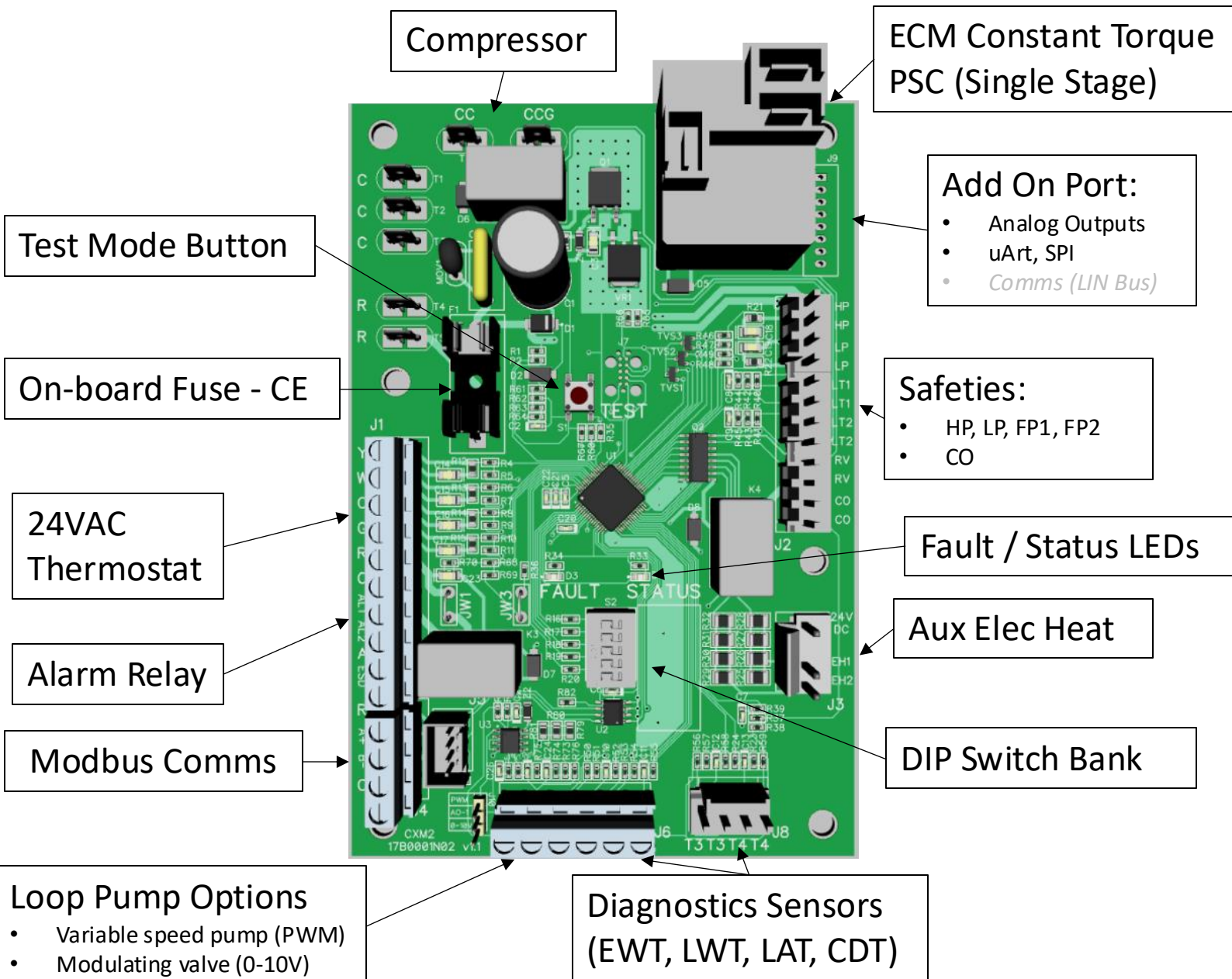
- Deluxe solid state control board
- EC-CV fan motors
- Refrigerant Detection System (RDS)
  - Optional sizes 4 ton & below
  - Required sizes 5 ton & above
- **Factory installed water options are available.**



# Closetline® WZ 2-Stage Mid-Size Series Options

- DDC Control board (BACnet, Modbus, and JCI N2)
- Hybrid hydronic heating
- Cupro-nickel water heat exchanger
- Enhanced low sound package
- Tin-plated air coils for added protection from formicary corrosion
- Hot water generator
- On/off internal circulators
- Variable speed Internal pumps
- Modulating water valves
- Internal electrical disconnect
- Extended-range for geothermal applications
- Electrical service disconnect

# Standard Solid-State Control



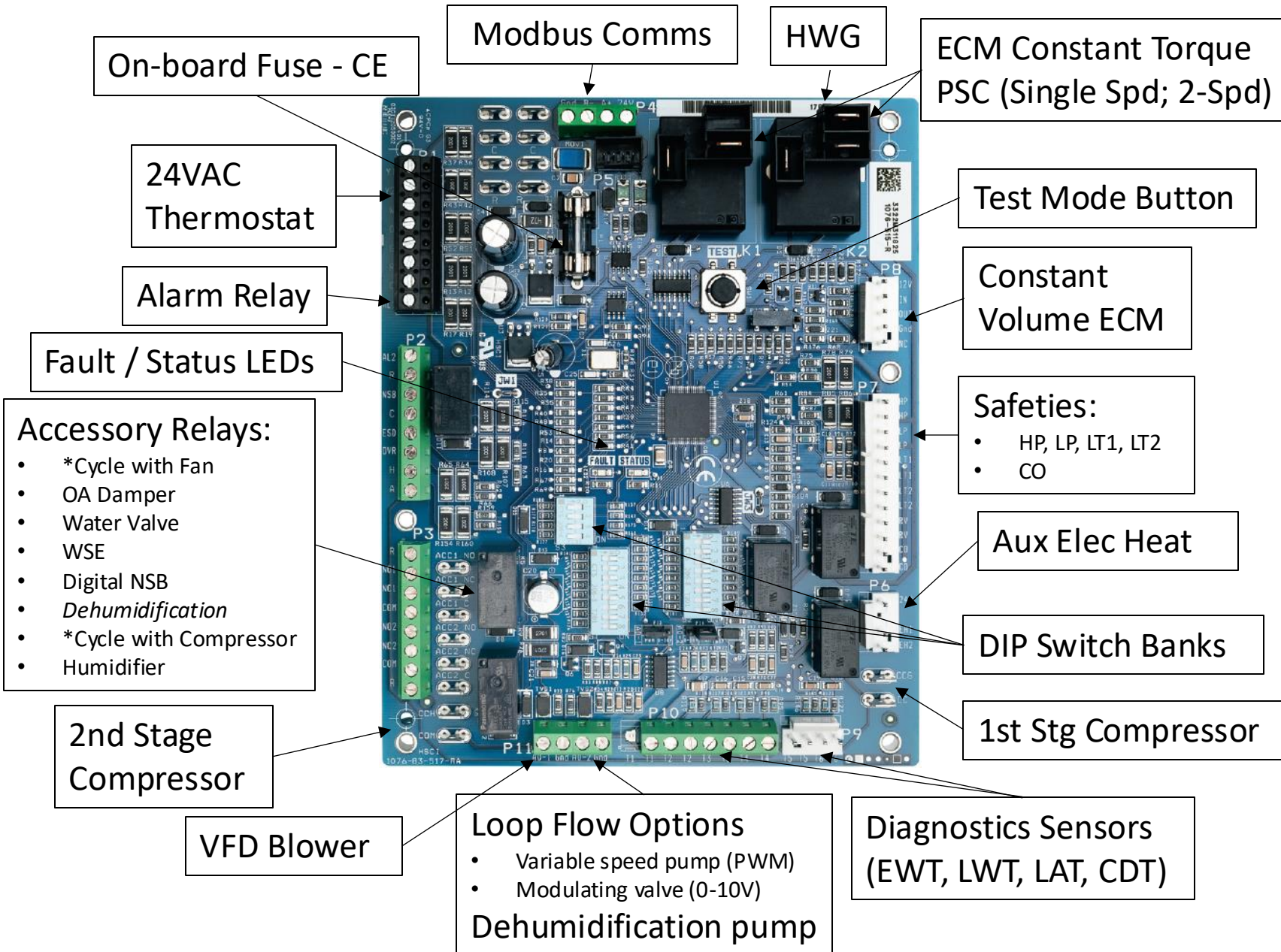
## Standard Control

- Inputs:
  - Digital – 10
  - Analog – 7
- Outputs:
  - Digital – 6
  - Analog – 1
- Communications: 2
  - RS-485 (Modbus)
  - Serial

- Anti-short cycle time delay on compressor operation.
- Low voltage protection.
- High voltage protection.
- Condensate overflow electronic protection.
- Water coil low temperature sensing (selectable for water or anti-freeze).
- Air coil low temperature sensing.
- Entering and leaving water temperature sensing.
- Compressor discharge temperature sensing.

- Emergency shutdown contacts.
- Random start on power up mode.
- Option to reset unit at thermostat or disconnect.
- Automatic intelligent reset. Unit automatically resets 5 minutes after trip if the fault has cleared. If a fault occurs three times sequentially without thermostat meeting temperature, then lockout requiring manual reset will occur.
- Ability to defeat time delays for servicing.
- The low-pressure switch is not be monitored for the first 120 seconds after a compressor start command to prevent nuisance safety trips.
- 24V output to cycle a motorized water valve or other device with compressor contactor.

# Deluxe Solid-State Control



## Deluxe Control

- Inputs:
  - Digital – 13
  - Analog – 8
- Outputs:
  - Digital – 10
  - Analog – 2
- Communications: 2
  - RS-485 (Modbus)
  - ClimateTalk (Emerson)

## Deluxe control features

- Same safeties as the standard control plus....
- Boilerless system heat control at low loop water temperature.
- Ability to allow up to three units to be controlled by one thermostat.
- Relay to operate an external damper.
- Relay to start system pump.
- 75VA control transformer. Control transformer shall have load side short circuit and overload protection via a built-in circuit breaker.

# Solid-State Control Comparison

Feature / Function	Standard Control	Deluxe Control
<b>Compressor Control</b>	Single-stage	Single-stage Multi-stage
<b>Blower Support</b>	PSC (1-speed) EC-Constant Torque (1-speed)	PSC (1 & 2-speed) EC-Constant Volume EC-Constant Torque (1 & 2-speed) VFD
<b>Communitcation</b>	Modbus	Modbus ClimaTalk (ECM)
<b>Inputs</b>	Digital - 10 Analog - 7	Digital - 13 Analog - 8
<b>Outputs</b>	Digital - 6 Analog - 1	Digital - 10 Analog - 2
<b>Dehumidification</b>	Future	Modulating valve control
<b>Internal Flow Control</b>	Variable Speed Pump Modulating valve	Variable Speed Pump Modulating valve
<b>Hot Water Generator</b>	N/A	HWG Control

# Minimum Installation Area – WC/WR/WZ 060

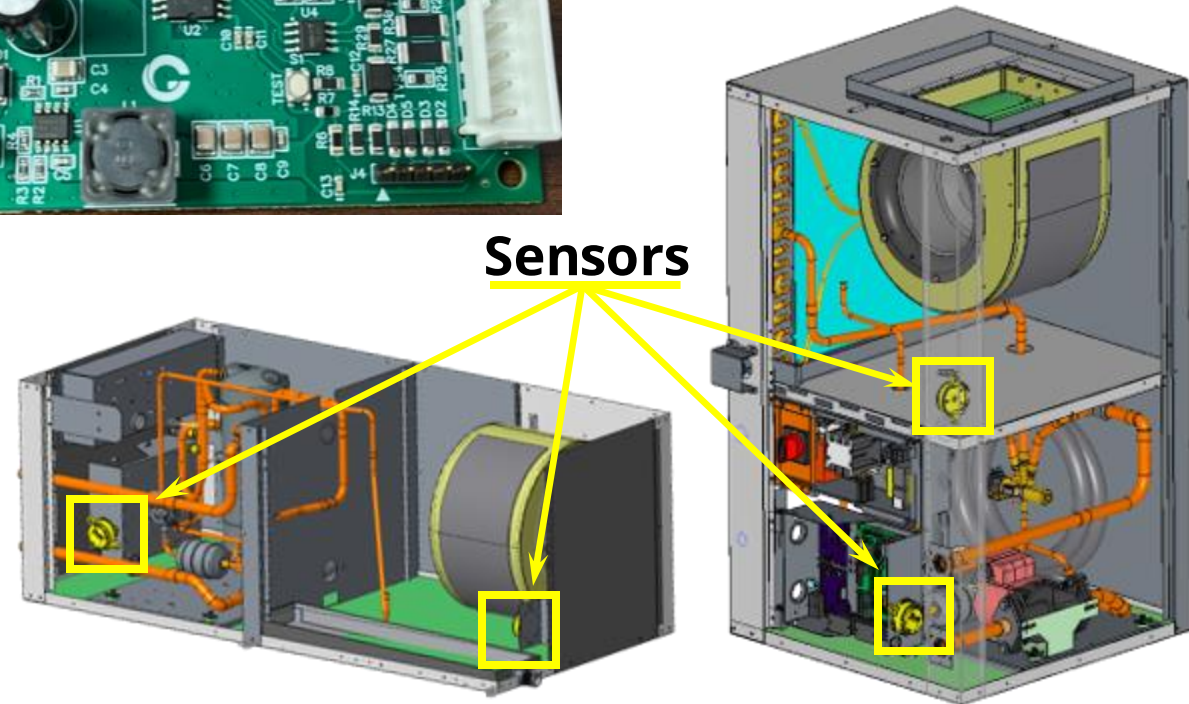
Minimum area where a blower-equipped unit must be installed, and mechanical / natural ventilation is not required

Model	Charge (oz)	A <sub>min</sub> (ft <sup>2</sup> )
WC / WR006	17	3.5
WC / WR009	18	3.7
WC / WR012	21	4.4
WC / WR015	29	6.0
WC / WR018	37	7.7
WC / WR024	40	8.3
WC / WR030	39	8.1
WC / WR036	46	9.6
WC / WR042	56	11.6
WC / WR048	56	11.6
WC / WR060	69	14.3

Model	Charge (oz)	A <sub>min</sub> (ft <sup>2</sup> )
WZ024	40	8.3
WZ030	36	7.5
WZ036	46	9.6
WZ042	56	11.6
WZ048	56	11.6
WZ060	69	14.3

# Refrigerant Detection System

- Upon leak detection the system shuts down compressor operation & runs the fan to disperse any concentration of leaked refrigerant
- RDS Includes:
  - 2 sensors per board
  - Sensor connector is unique
  - Multiple power supply for redundancy
  - No field adjustments or calibration during 15+ year life



# Horizontal Unit Dimension Comparison

Model	WCH Overall Cabinet			WRH Overall Cabinet			WZH Overall Cabinet		
	W	D	H	W	D	H	W	D	H
006	19.1	34.1	11.1	22.5	40.3	11.1	-	-	-
009	19.1	34.1	11.1	22.5	40.3	11.1	-	-	-
012	19.1	34.1	11.1	22.5	40.3	11.1	-	-	-
015	20.1	43.0	17.0	22.4	48.3	17.0	-	-	-
018	20.1	43.0	17.0	22.4	48.3	17.0	-	-	-
024	20.1	43.0	18.3	22.5	48.4	18.3	22.5	48.4	18.3
030	20.1	43.0	18.3	22.5	48.4	18.3	22.5	48.4	18.3
036	20.1	47.1	21.0	22.5	53.3	21.0	22.5	53.3	21.0
042	20.1	47.1	21.0	22.5	53.3	21.0	22.5	53.3	21.0
048	24.1	54.1	21.0	25.5	68.0	21.0	25.5	68.0	21.0
060	24.1	54.1	21.0	25.5	68.0	21.0	25.5	68.0	21.0

# Vertical Unit Dimension Comparison

Model	WCV Overall Cabinet			WRV Overall Cabinet			WZV Overall Cabinet		
	W	D	H	W	D	H	W	D	H
006	19.1	19.0	22.0	22.5	21.3	22.0	-	-	-
009	19.1	19.0	22.0	22.5	21.3	22.0	-	-	-
012	19.1	19.0	22.0	22.5	21.3	22.0	-	-	-
015	21.6	21.5	40.0	22.5	22.5	40.0	-	-	-
018	21.6	21.5	40.0	22.5	22.5	40.0	-	-	-
024	21.6	21.5	40.0	22.5	22.5	40.0	22.5	22.5	40.0
030	21.6	21.5	40.0	22.5	22.5	40.0	22.5	22.5	40.0
036	21.6	26.0	45.0	22.5	26.0	45.0	22.5	26.0	45.0
042	21.6	26.0	45.0	22.5	26.0	45.0	22.5	26.0	45.0
048	25.5	29.3	50.5	25.5	29.3	50.5	25.5	29.3	50.5
060	25.5	29.3	50.5	25.5	29.3	50.5	25.5	29.3	50.5



The  
Whalen  
Company

Questions?



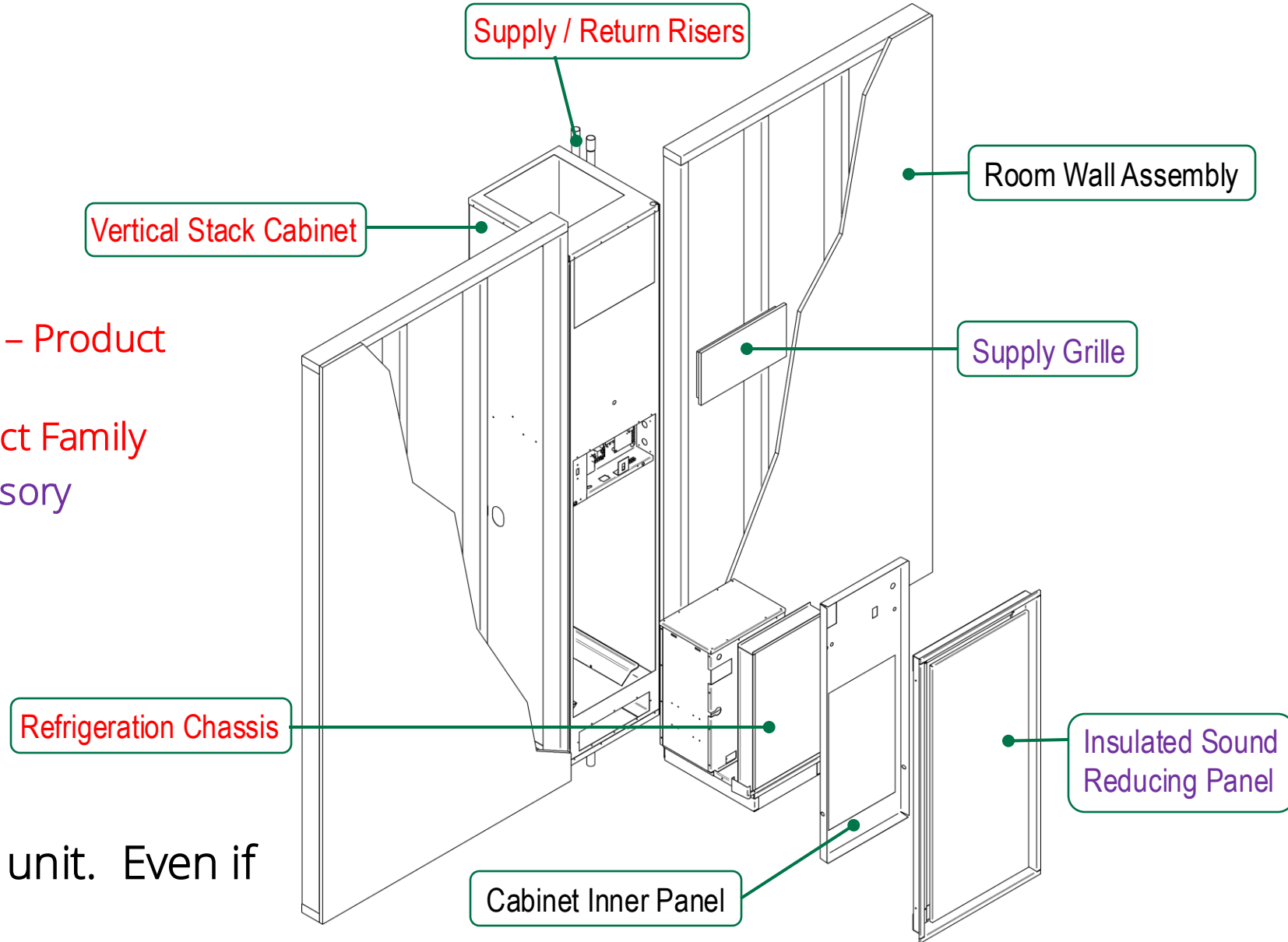
The  
Whalen  
Company

# Integrated Sales Center (ISC) Overview




# Vertical Stack Assembly

- Assembly process
  - Cabinet / Refrigeration chassis – **Product Family**
  - Risers – **Specific to each Product Family**
  - Return air sound panel - **Accessory**
  - Hose kit - **Accessory**
  - Thermostat - **Accessory**
  - Supply air grille – **Accessory**
- Everything must be added!
- Nothing is included with the unit. Even if required to operate.





 User Login


User Name:


Password:

Login☐ Remember Me

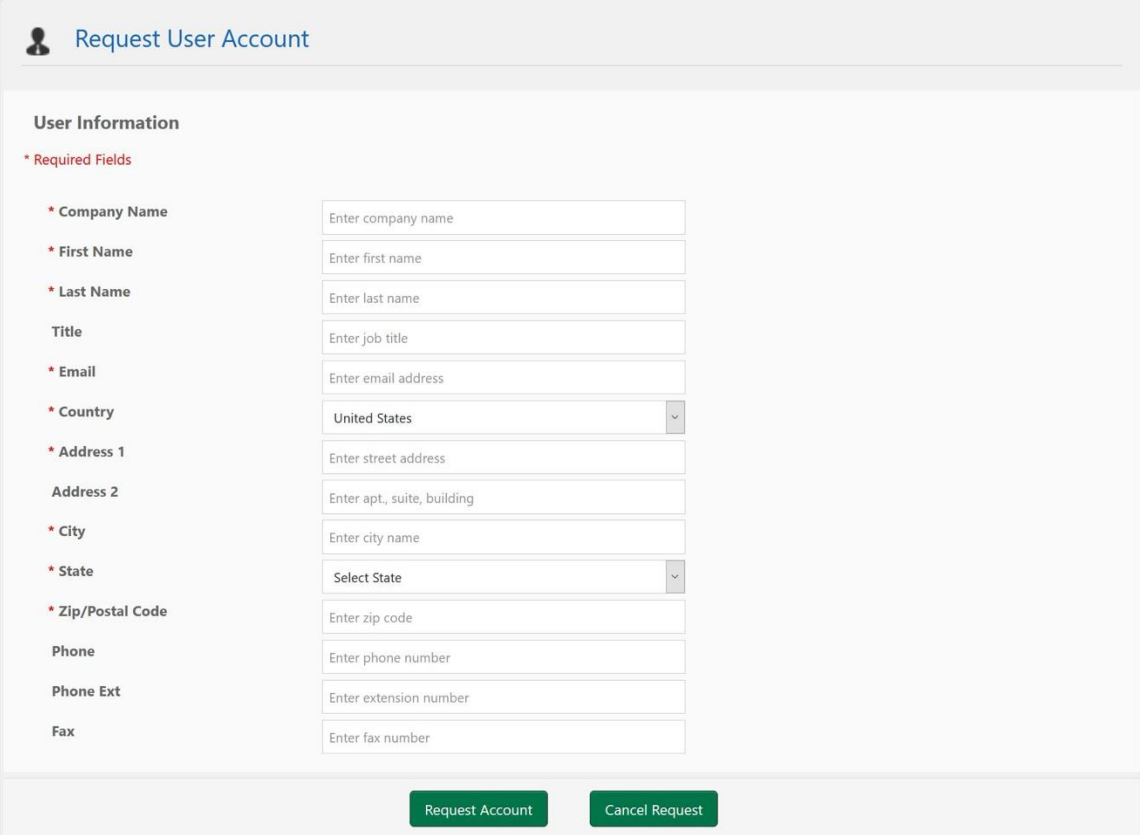
Forgot your password?

Request User Account





- For access to the program, complete the “Request User Account” form.
- Your Regional Manager will be notified and process the request.
- Your username will be your business email address.



The form is titled "Request User Account" and is divided into a "User Information" section. It contains several input fields, some of which are marked as required with a red asterisk. The fields are: Company Name, First Name, Last Name, Title, Email, Country (a dropdown menu currently showing "United States"), Address 1, Address 2, City, State (a dropdown menu currently showing "Select State"), Zip/Postal Code, Phone, Phone Ext, and Fax. At the bottom of the form, there are two buttons: "Request Account" and "Cancel Request".

User Information	
* Required Fields	
* Company Name	<input type="text" value="Enter company name"/>
* First Name	<input type="text" value="Enter first name"/>
* Last Name	<input type="text" value="Enter last name"/>
Title	<input type="text" value="Enter job title"/>
* Email	<input type="text" value="Enter email address"/>
* Country	<input type="text" value="United States"/>
* Address 1	<input type="text" value="Enter street address"/>
Address 2	<input type="text" value="Enter apt., suite, building"/>
* City	<input type="text" value="Enter city name"/>
* State	<input type="text" value="Select State"/>
* Zip/Postal Code	<input type="text" value="Enter zip code"/>
Phone	<input type="text" value="Enter phone number"/>
Phone Ext	<input type="text" value="Enter extension number"/>
Fax	<input type="text" value="Enter fax number"/>

# ISC Password Reset

- To reset your password, use the “Forgot your password?” link on the login page.
- You will receive an email from the address [ISC-noreply@whalencompany.com](mailto:ISC-noreply@whalencompany.com) with a temporary password.
- Your new password must be a combination of letters and number only. Passwords cannot contain special characters.

Forgot your password?

To receive a new password, please enter your email address.

Submit

[Back to Login](#)



Password must contain letters & numbers only!

Integrated Sales Center Resources:



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time



### Important News

#### Current Fan Coil Lead Time

Innoline® (Riser Heat-Exchanger):	8-weeks
Inteli-line® (Cabinets):	8-weeks
Inteli-line® (Cabinets with Coil Packs):	12-weeks
Inteli-line® (Coil Packs, shipping separate):	4-weeks after cabinets
Inteli-Therm™ (WTX, WNX Room Fain Coil):	18-weeks
Risers Shipped Loose:	8-weeks
Direct Drive Horizontal & Vertical Fan Coils:	14-weeks

#### Current Heat Pump Lead Time

Whisper Series (VPA & VPC Cabinets):	8-weeks
Whisper Series (VPA & VPC Cabinets with Chassis):	10-weeks
Whispertherm® (VT/N-A & C Cabinets):	18-weeks
Whisper Series (WSHP Chassis, shipping separate):	4-weeks after cabinets
Risers Shipped Loose:	8-weeks
Closetline® (Packaged WSHP):	Contact Factory
Whisperline® WCS (Console WSHP):	5-weeks

Current Lead Time

## Integrated Sales Center Resources:

 Excel Production Schedules

 Presentations and Sales Tools

 Lead Time and Exchange Rate

 Competitive Information

 Valve Packages and Hose Connections

 Frequently Asked Questions

 ISC User Manual

 Training Videos

 Whalen Policies



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time



## Important News

### Current Fan Coil Lead Time

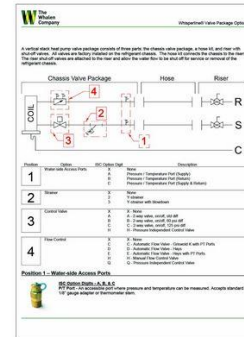
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Direct Drive Horizontal & Vertical Fan Coils:	14-weeks

### Current Heat Pump Lead Time

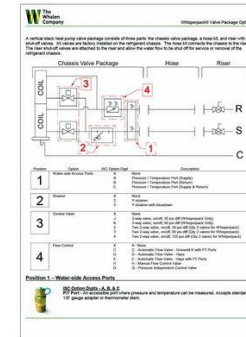
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Closetline® (Packaged WSHP):	Contact Factory
Whisperline® WCS (Console WSHP):	5-weeks

- We have added documents to help walk you through the valve package options for fan coils and heat pumps.
- The hose connection sheet shows the options available to connect your chassis or coil pack to the risers.

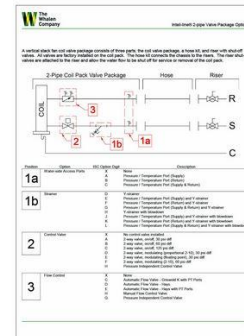
## Valve Packages and Hose Connections



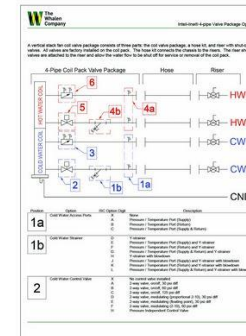
Whisperline® Valve Packages



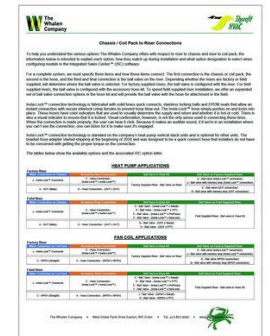
## Whisperpack® Valve Packages



## Inteli-line® 2 Pipe Valve Packages



## Inteli-line® 4 Pipe Valve Packages



### Chassis to Riser Connections

- 
- The  
Whalen  
Company**



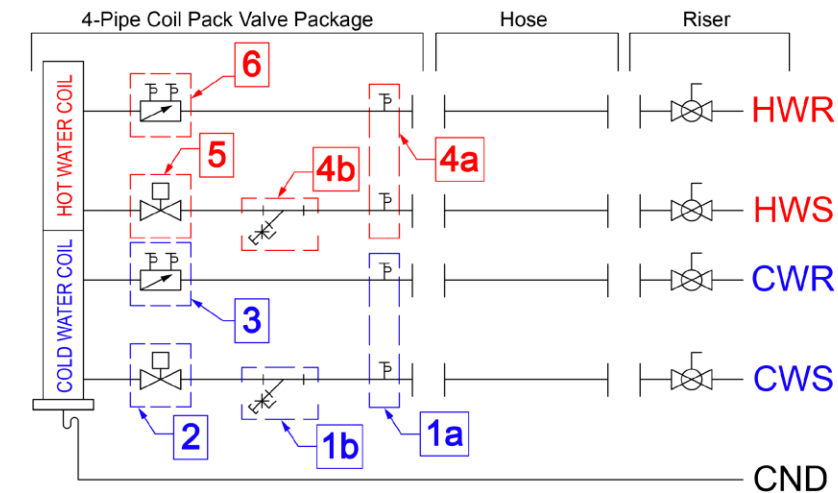
### Position 2 – Cold Water Control Valve



### Position 3 – Cold Water Flow Control



A vertical stack fan coil valve package consists of three parts: the coil valve package, a hose kit, and riser with shut-off valves. All valves are factory installed on the coil pack. The hose kit connects the chassis to the risers. The riser shut-off valves are attached to the riser and allow the water flow to be shut off for service or removal of the coil pack.



Position	Option	ISC Option Digit	Description
1a	Cold Water Access Ports	X	None
		A	Pressure / Temperature Port (Supply)
		B	Pressure / Temperature Port (Return)
		C	Pressure / Temperature Port (Supply & Return)
1b	Cold Water Strainer	D	Y-strainer
		E	Pressure / Temperature Port (Supply) and Y-strainer
		F	Pressure / Temperature Port (Return) and Y-strainer
		G	Pressure / Temperature Port (Supply & Return) and Y-strainer
		H	Y-strainer with blowdown
		J	Pressure / Temperature Port (Supply) and Y-strainer with blowdown
		K	Pressure / Temperature Port (Return) and Y-strainer with blowdown
		L	Pressure / Temperature Port (Supply & Return) and Y-strainer with blowdown
2	Cold Water Control Valve	X	No control valve installed
		A	2-way valve, on/off, 30 psi diff
		B	2-way valve, on/off, 60 psi diff
		C	2-way valve, on/off, 125 psi diff
		D	2-way valve, modulating (proportional 2-10), 30 psi diff
		E	2-way valve, modulating (floating point), 30 psi diff
		F	2-way valve, modulating (2-10), 60 psi diff
		H	Pressure Independent Control Valve

## Integrated Sales Center Resources:



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time



## Important News

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## Whalen Lead Times - May 2023



Lead Times



Canadian Exchange & Freight Guidelines



Aftermarket Products Lead Times

## Whalen Lead Times - Archive



Integrated Sales Center Resources:



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time



## Important News

### Current Fan Coil Lead Time

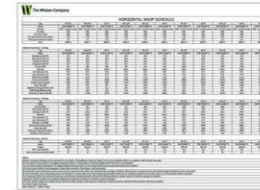
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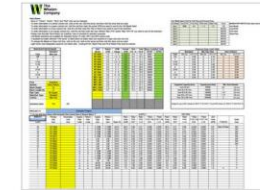
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- Standard performance schedules are available to allow copy & paste to an engineer's schedule
- Riser sizing tools to help size risers
- Product presentations to learn & familiarize yourself and engineers with Whalen products
- Marketing material to help you sell
- Material for Online training classes

## Presentations and Sales Tools

A screenshot of a spreadsheet titled 'Standard Performance Schedules' showing various data columns and rows for scheduling purposes.

Standard Performance Schedules

A screenshot of a spreadsheet titled 'Whalen Riser Sizing' with multiple columns for riser calculations and specifications.

Whalen Riser Sizing

A screenshot of a spreadsheet titled 'LEED Credit Calculator' with a grid for tracking LEED credits.

LEED Credit Calculator



Presentations



Marketing Materials



Online Training - October 2020

## Integrated Sales Center Resources:

- Excel Production Schedules
- Presentations and Sales Tools
- Lead Time and Exchange Rate
- Competitive Information**
- Valve Packages and Hose Connections
- Frequently Asked Questions
- ISC User Manual
- Training Videos
- Whalen Policies



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time



## Important News

### Current Fan Coil Lead Time

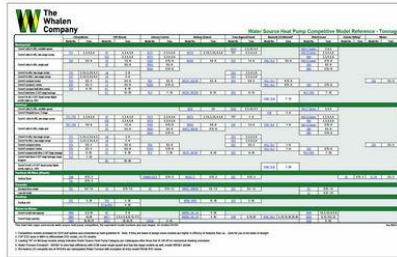
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## Competitive Information

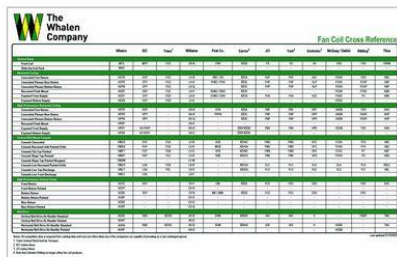
### Heat Pump Units



The screenshot shows a detailed spreadsheet titled 'WSHP Competitive Model Reference'. It lists various heat pump models with columns for model numbers, capacities, and other technical specifications. The data is organized into multiple sections, likely representing different product lines or regions.

WSHP Competitive Model Reference

### Fan Coil units



The screenshot shows a detailed spreadsheet titled 'FCU Competitive Model Reference'. It lists various fan coil unit models with columns for model numbers, capacities, and other technical specifications. The data is organized into multiple sections, likely representing different product lines or regions.

FCU Competitive Model Reference

- Single page sheet with models and sizes.
- Information to help you identify competitive units for heat pump and fan coil units.
- Model numbers include links to competitive websites to ease product comparison.
- Can easily see where product gaps exist.

## Integrated Sales Center Resources:



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time



## Important News

## Current Fan Coil Lead Time

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Whisperline® WCS (Console WSHP):	5-weeks

- Factory tour video
- Introduction to the Whalen management team
- ISC training videos.
  - Full length or specific topics
- Will continue to add additional training topics

## Training Videos



The Whalen Company Factory Tour



The Whalen Company Management Team



ISC Training Videos

## Integrated Sales Center Resources:



Excel Production Schedules



Presentations and Sales Tools



Lead Time and Exchange Rate



Competitive Information



Valve Packages and Hose Connections



Frequently Asked Questions



ISC User Manual



Training Videos



Whalen Policies



**Now Available!**  
**Low GWP Refrigerant Products**



## September Lead Time

### Important News



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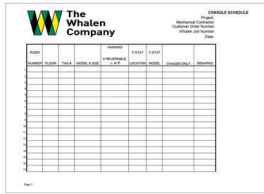
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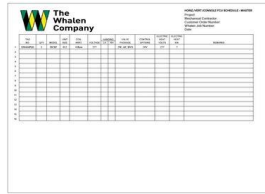
## Production Schedules

A screenshot of a Microsoft Excel spreadsheet titled "Closetline Vertical & Horizontal Heat Pump Schedule". The spreadsheet has a header row with various columns for unit information and a large grid of rows for data entry.

Closetline Vertical & Horizontal Heat Pump Schedule

A screenshot of a Microsoft Excel spreadsheet titled "Console Schedule". The spreadsheet has a header row with various columns for unit information and a large grid of rows for data entry.

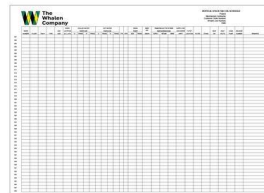
Console Schedule

A screenshot of a Microsoft Excel spreadsheet titled "Horizontal & Vertical Fan Coil Schedule". The spreadsheet has a header row with various columns for unit information and a large grid of rows for data entry.

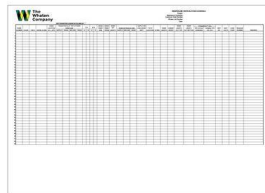
Horizontal & Vertical Fan Coil Schedule

A screenshot of a Microsoft Excel spreadsheet titled "Riser Fan Coil Schedule". The spreadsheet has a header row with various columns for unit information and a large grid of rows for data entry.

Riser Fan Coil Schedule

A screenshot of a Microsoft Excel spreadsheet titled "Vertical Stack Fan Coil Schedule". The spreadsheet has a header row with various columns for unit information and a large grid of rows for data entry.

Vertical Stack Fan Coil Schedule

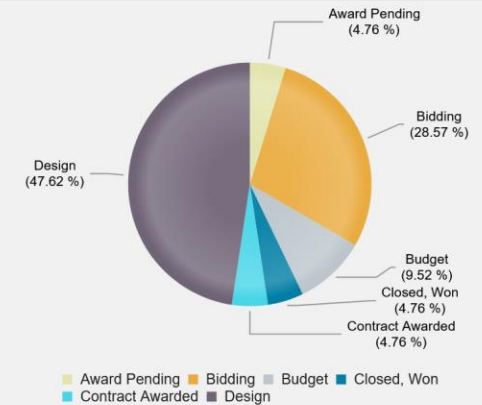
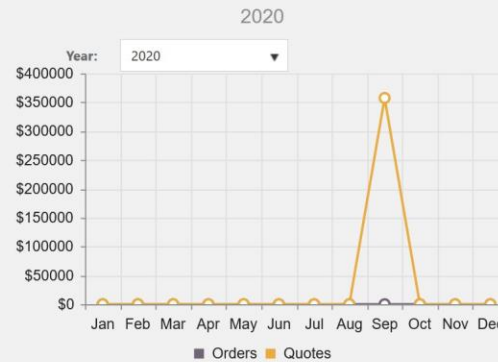
A screenshot of a Microsoft Excel spreadsheet titled "Whisperline Vertical Stack Heat Pump Schedule". The spreadsheet has a header row with various columns for unit information and a large grid of rows for data entry.

Whisperline Vertical Stack Heat Pump Schedule

- Production schedules are Microsoft Excel documents used to identify airflow configuration, riser location.
- Allows a final check to ensure what was configured in ISC matches what you intended to configure.
- Ties unit tag to riser to cabinet to chassis / coil pack.
- One line per unit
- Required for every project regardless of size.

## Sales Representative Dashboard

- My Recent Projects (21)
- My Recent Quotes (49)
- Open Orders not yet Submitted (4)
- Submitted Orders, Waiting on Approval (0)
- Approved Orders (0)
- Create Quick Quote
- My Leads (0)





My Projects - Active

[Show Other Employee Projects](#)

Project listing for : Tony Landers

21 Active

57 Inactive

Show All

[Create Project](#)

New Project Name:

☒ New☐ From Template[Add New](#)

Search On:

[Advanced Search](#)

Quick Search:

All

Show Records :

20

	Schedule	Status	Project Name	Phase	Created By	Last Modified	Expected Bid Due	% Probability	Quotes	Orders	Submittal	Actions
<input type="checkbox"/>			38th and Blake	Bidding	Mike Wolf	10/19/2020		50				
<input type="checkbox"/>			WRx Suppy Air	Design	Buddy Cross	10/09/2020		25				
<input type="checkbox"/>			Price compare	Design	Tony Landers	09/29/2020		25				
<input type="checkbox"/>			410 Wabash - New	Design	Tony Landers	09/18/2020		25				
<input type="checkbox"/>			Video Project	Design	Evie Sibert	09/09/2020		25				
<input type="checkbox"/>			West Shore Grand Hotel	Budget	Tony Landers	08/31/2020		25				
<input type="checkbox"/>			1000 Ponce De Leon	Bidding	Justin Compaine	07/31/2020		25				
<input type="checkbox"/>			5th & Clyde	Design	Tony Landers	06/27/2020		25				
<input type="checkbox"/>			Mt Terrace Copy	Design	Danny Sala-Diakanda	06/25/2020		25				
<input type="checkbox"/>			C-F Brickell (Submittal)	Contract Awarded	Abid Rehman	06/25/2020		25				
<input type="checkbox"/>			Kaanapali Royale - 5	Design	Tony Landers	05/12/2020		25				
<input type="checkbox"/>			Kohala Suites	Design	Tony Landers	12/13/2019		25				
<input type="checkbox"/>			Kings Island	Bidding	Tony Landers	12/13/2019		25				
<input type="checkbox"/>			Koula Condos	Award Pending	Tony Landers	12/13/2019		25				
<input type="checkbox"/>			Contemporary Resort Tower Rehab	Bidding	Tom Edwards	12/12/2019	12/01/2019	25				
<input type="checkbox"/>			Mt. Terrace	Bidding	Kelsey Koshi	11/20/2019	10/01/2019	25				
<input type="checkbox"/>			Disney Spec unit	Design	Tony Landers	11/11/2019		25				
<input type="checkbox"/>			Hyatt Waikiki	Design	Tony Landers	06/28/2019		25				
<input type="checkbox"/>			615 Piikoi	Closed, Won	Tony Landers	06/14/2019		100				
<input type="checkbox"/>			7 Platt St Vertical Stack-2	Bidding	Tony Landers	04/30/2019		25				

[Delete Selected Projects](#)[Restore Projects](#)



HOME



DASHBOARDS ▾



MY PROJECTS



ADMINISTRATION ▾



SUPPORT



MFG. TOOLS ▾



## Edit Employee

User Name: tlanders@whalencompany.com (Tony Landers)

Date Created: 06/19/2017

General Information

Settings

### \* Required Fields

\* First Name:

Tony

\* Last Name:

Landers

\* Country:

United States ▾

\* Address 1:

8900 Glebe Park Drive

Address 2:

\* City:

Easton

\* State:

MD

\* Zip/Postal Code:

21601

\* Brands:

Whalen ✕

\* Product Types:

Heat Pumps ✕

Fan Coils ✕

Risers ✕

Riser Fan Coil ✕

\* Email:

tlanders@whalencompany.com

\* User Name:

tlanders@whalencompany.com

Phone:

Phone Ext:

Fax:



Save



Cancel

## My Projects - Active

Project listing for : Tony Landers

 3 Active

 1 Inactive

Show All

Create Project

New Project Name:

New Project

☒ New

☐ From Template

Add New

Search On:



Advanced Search

Quick Search:

Show Records :

Schedule	Status	Project Name	Phase	Created By	Last Modified	Expected Bid Due	% Probability	Quotes	Orders	Submittal	Actions
		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
		CFM Test	Design	Tony Landers	05/06/2020		25				 
		RushCo	Design	Hudson Rice	12/02/2019		25				 
		test2	Design	Tony Landers	08/06/2019		50				 

1 - 3 of 3 items

## Project Information

### General Project Information

\* Required Fields

Created On: 10/22/2020  
Created By: Tony Landers  
Last Modified: 10/22/2020  
Modified By: salesinfo@whalencompany.com

\* Project Name: New Project  
Description:  
Display Units: Imperial  
Expected Bid Due:  
\* % Probability: 25.00

### Location

Location Name:  
Address:  
City:  
State: Select a State  
Zip/Postal Code:  
Country: United States

### Project Status and Type

Status: ☒ Active Template: ☐ Yes

\* Project Type:

New Building

\* Owner Type:

Private

\* Vertical Market

- ☒ Office  
☐ Lodging  
☐ Education K-12  
☐ College Dormitories  
☐ Residential Multi-family  
☐ Assisted Living Facility  
☐ Government Facilities

\* Project Phase

- ☒ Design  
☐ Budget  
☐ Bidding  
☐ Award Pending  
☐ Contract Awarded  
☐ Hold  
☐ Closed, Won  
☐ Closed, Lost  
☐ Dead

### Other Information

#### Project Users

Note: Allow others to help you such as your representative

User Name	First Name	Last Name	Permission Level
salesinfo@whalencompany.com	Tony	Landers	Non-Revocable Administrator
dsaladiakanda@gmail.com	Danny	Sala-Diakanda	Project Administrator
danny_sala@hotmail.com	Danny	Sala-Diakanda	Project Administrator

1 - 3 of 3 items

Add / Edit Users

#### Project Documents

Actions	File Name	Document Type

No items to display

Max file size 30MB. File extensions accepted: xls,xlsx,txt,doc,docx,pdf,png,gif,jpg,and jpeg.



Add Documents





#### Other Contacts

Rep Firm: 1 The Whalen Company  
Engineering Firm:  
Notes:


Note: Contact Information on this screen will appear on the submittal cover page printout.

Save Cancel








 Welcome, Tony
 



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[DASHBOARDS](#)
[MY PROJECTS](#)
[ADMINISTRATION](#)
[SUPPORT](#)

 Project Users List

Users listing For: New Project
 [Add New Contact](#)
[Remove Users](#)




	Actions	Company Name	User Name	
<input type="checkbox"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>		1 The Whalen Company	dsaladiakanda@gmail.com	Danny
<input type="checkbox"/>		1 The Whalen Company	danny_sala@hotmail.com	Danny
<input type="checkbox"/>		1 The Whalen Company	salesinfo@whalencompany.com	Tony





[Back to Schedule](#)

Search

Search : 
[Search](#)
[Clear](#)

Frequently Added Users:

Actions	Company Name	User Name	First Name	Last Name
	1 The Whalen Company	dsaladiakanda@gmail.com	Danny	Sala-Diakanda
	1 The Whalen Company	danny_sala@hotmail.com	Danny	Sala-Diakanda
	N/A	jjones@whalencompany.com	Jennifer	Jones



1


1 - 3 of 3 items

[Close](#)

email	Phone	Permission Level
<input type="text"/>	<input type="text"/>	<input type="text"/>
m	4076590653	Project Administrator
n	410-822-9200	Project Administrator
ny.com	410-822-9200	Non-Revocable Administrator

1 - 3 of 3 items

## Project Information

### General Project Information

\* Required Fields

Created On: 10/22/2020  
Created By: Tony Landers  
Last Modified: 10/22/2020  
Modified By: salesinfo@whalencompany.com

\* Project Name: New Project  
Description:  
Display Units: Imperial  
Expected Bid Due:  
\* % Probability: 25.00

### Location

Location Name:  
Address:  
City:  
State: Select a State  
Zip/Postal Code:  
Country: United States

### Project Status and Type

Status: ☒ Active Template: ☐ Yes

\* Project Type: New Building  
\* Owner Type: Private

\* Vertical Market

- ☒ Office
- ☐ Lodging
- ☐ Education K-12
- ☐ College Dormitories
- ☐ Residential Multi-family
- ☐ Assisted Living Facility
- ☐ Government Facilities

\* Project Phase

- ☒ Design
- ☐ Budget
- ☐ Bidding
- ☐ Award Pending
- ☐ Contract Awarded
- ☐ Hold
- ☐ Closed, Won
- ☐ Closed, Lost
- ☐ Dead

### Other Information

#### Project Users

Note: Allow others to help you such as your representative

User Name	First Name	Last Name	Permission Level
salesinfo@whalencompany.com	Tony	Landers	Non-Revocable Administrator
dsaladiakanda@gmail.com	Danny	Sala-Diakanda	Project Administrator
danny_sala@hotmail.com	Danny	Sala-Diakanda	Project Administrator

1 - 3 of 3 items

Add / Edit Users

### Project Documents

Actions	File Name	Document Type
---------	-----------	---------------

No items to display

Max file size 30MB. File extensions accepted: xls, xlsx, txt, doc, docx, pdf, png, gif, jpg, and jpeg.



Add Documents

### Other Contacts

Rep Firm: 1 The Whalen Company  
Engineering Firm:  
Notes:

Note: Contact Information on this screen will appear on the submittal cover page printout.

Save Cancel

HOME DASHBOARDS MY PROJECTS ADMINISTRATION SUPPORT

## Project Information

### General Project Information

**\* Required Fields**

Created On: 10/22/2020

Created By: Tony Landers

Last Modified: 10/22/2020

Modified By: Tony Landers

**\* Project Name:**

Description:

Display Units:

Expected Bid Due:

**\* % Probability:**

### Location

Location Name:

Address:

City:

State:

Zip/Postal Code:

Country:

**\* Vertical Market**

☒ Office

☐ Lodging

☐ Education K-12

☐ College Dormitories

☐ Residential Multi-family

☐ Assisted Living Facility

☐ Government Facilities

**\* Project Phase**

☒ Design

☐ Budget

☐ Bidding

☐ Award Pending

☐ Contract Awarded

☐ Hold

☐ Closed, Won

☐ Closed, Lost

☐ Dead

**Other Information**

**Project Users**

Note: Allow others to help you such as your representative

User Name	First Name	Last Name	Permission Level
salesinfo@whalencompany.com	Tony	Landers	Non-Revocable Administrator
dsaladiakanda@gmail.com	Danny	Sala-Diakanda	Project Administrator
danny_sala@hotmail.com	Danny	Sala-Diakanda	Project Administrator

1 - 3 of 3 items

Add / Edit Users

**Project Documents**

Actions	File Name	Document Type
No items to display		

Max file size 30MB. File extensions accepted: xls,xlsx,txt, doc, docx, pdf, png, gif, jpg, and jpeg.

Add Documents


**Other Contacts**

Rep Firm:

Engineering Firm:

Notes:

Upload



DROP HERE

BROWSE

OK

Note: Contact Information on this screen will appear on the submittal cover page printout.

Save

Cancel

Welcome, Tony

HOME
DASHBOARDS
MY PROJECTS
ADMINISTRATION
SUPPORT

Project Information

### General Project Information

**\* Required Fields**

Created On: 10/22/2020

Created By: Tony Landers

Last Modified: 10/22/2020

Modified By: Tony Landers

**\* Project Name:** New Project

Description:

Display Units: Imperial

Expected Bid Due:

**\* % Probability:** 25.00

### Location

Location Name:

Address:

City:

State: Select a State

Zip/Postal Code:

Country: United States

### Project Information

Status:

**\* Project Type:** New Building

**\* Owner Type:** Private

**\* Vertical Market:**

Office
Design

Lodging
Budget

Education K-12
Bidding

College Dormitories
Award Pending

Residential Multi-family
Contract Awarded

Assisted Living Facility
Hold

Government Facilities
Closed, Won

Closed, Lost

Dead

### Other Information

#### Project Users




Note: Allow others to help you such as your representative

User Name	First Name	Last Name	Permission Level
salesinfo@whalencompany.com	Tony	Landers	Non-Revocable Administrator
dsaladiakanda@gmail.com	Danny	Sala-Diakanda	Project Administrator
danny_sala@hotmail.com	Danny	Sala-Diakanda	Project Administrator

1 - 3 of 3 items

Add / Edit Users

#### Project Documents

Actions	File Name	Document Type
  	tblModel.xlsx	Other

1 - 1 of 1 items

Max file size 30MB. File extensions accepted: xls, xlsx, txt, doc, docx, pdf, png, gif, jpg, and jpeg.

Add Documents

#### Other Contacts

Rep Firm: 1 The Whalen Company

Engineering Firm:

Notes:

Edit Project Document

File Name:  
tblModel.xlsx

Document Type:  
Other

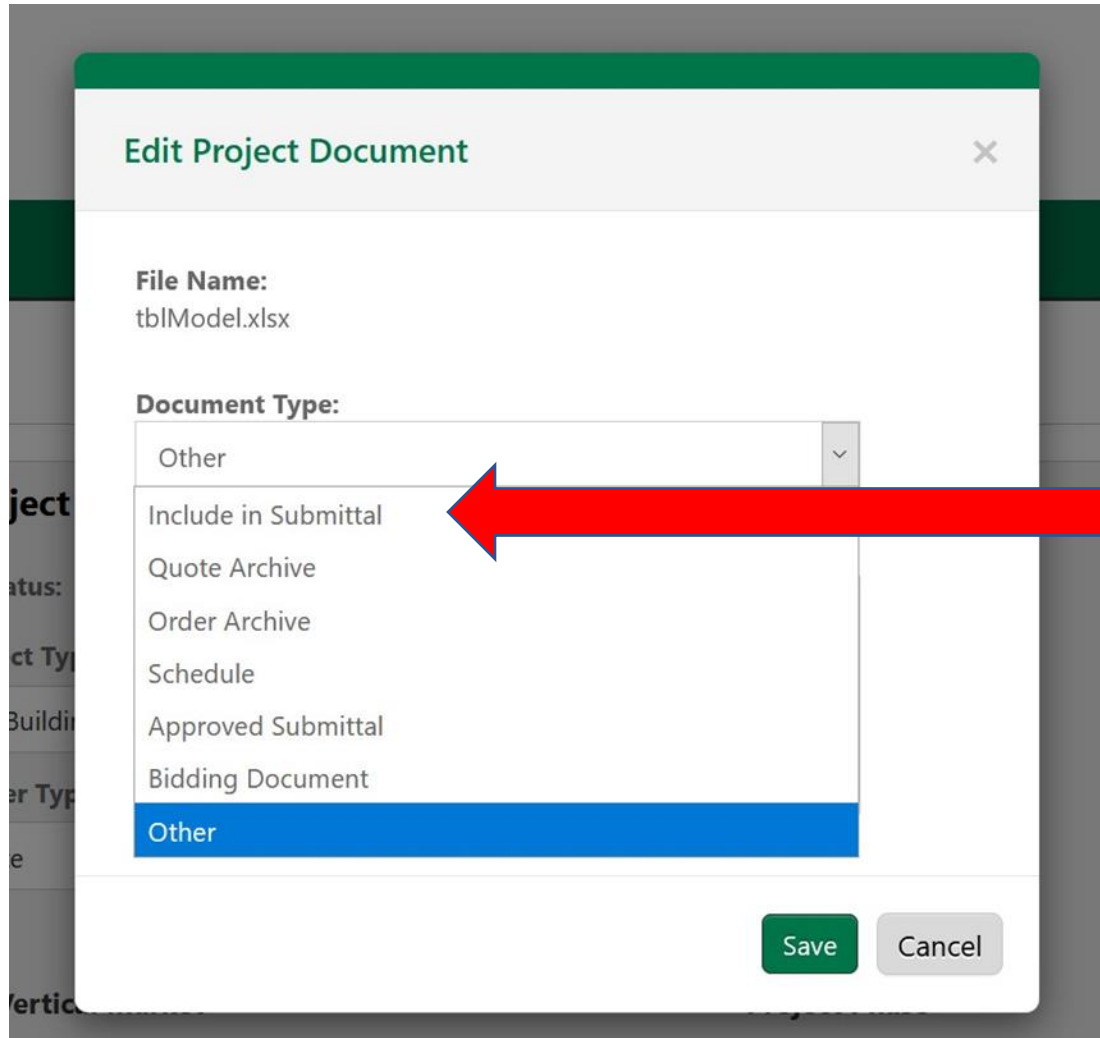
Comment:

Save Cancel

Note: Contact Information on this screen will appear on the submittal cover page printout.

Save
Cancel

# Adding Documents to Project



**Edit Project Document** [X]



**File Name:**  
tblModel.xlsx





**Document Type:**

- Other
- Include in Submittal
- Quote Archive
- Order Archive
- Schedule
- Approved Submittal
- Bidding Document
- Other


**Save** **Cancel**

- Assign the Document Type to your file and click save.
- Documents you want included in the submittal will be added at the end of the document.
- File type must be a .png to be added to the submittal









 Welcome, Tony
 



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[MY PROJECTS](#)
[ADMINISTRATION](#)
[SUPPORT](#)
[MFG. TOOLS](#)


 **Project Schedule**

454-test

Expected Bid Due: September 2024

 Project Information
  Users
  Quotes
  Orders
  Submittal
  Support Requests
  Activities
  Import

Summary View

Select a Product Family: R-454B Packaged Heat Pumps
 Select a Model: Select a Model
 [View](#)


Select Action: Copy
 Select Project: 454-test
 Select Schedule: Select Schedule
 [Copy](#)

Main
 454 Packaged unit freight
 454 mixed unit freight
 Training
 Add Schedule

Select	Price	Qty	Tag	Model	Model Number	Unit Size	Include In Submittal	List Price	Total List Price	Quote Name	Order Name	Date Modified	Data
<input type="checkbox"/>													


No Line Items for current project with specified parameters.

Current Phase: Design

☒ Design
 ☐ Budget
 ☐ Bidding
 ☐ Award Pending
 ☐ Contract Awarded
 ☐ Hold
 ☐ Closed, Won
 ☐ Closed, Lost
 ☐ Dead
 [Save](#)


## Horizontal and Vertical

Please select the appropriate model to configure.




**Closetline Single-Stage Compact Cabinet**  
WC Packaged Heat Pump

i



**Closetline Single-Stage Mid-Size Cabinet**  
WR Packaged Heat Pump

i



**Closetline Two-Stage Mid-Size Cabinet**  
WZ Packaged Heat Pump

i

Close

## Pricing

### General Information:

Tagging :

 1  

### Unit Model:

Brand: W - Whalen Closetline Series \$0.00

Product Family: C - Single-Stage Compact Cabinet \$0.00

System Configuration: G - Heat Pump \$0.00

Unit Capacity: Select an option \$0.00

### Cabinet Configuration:

Unit Configuration: Select an option \$0.00

Cabinet Air Flow: Select an option \$0.00

### Cabinet Options:

Drain Pan Options: A - Stainless Steel Drain Pan \$0.00

Insulation Option: A - Fiberglass with Foil Faced Air Handler \$0.00

Application: 1 - WSHP Application \$0.00

Sound Attenuation: X - Standard Quiet Construction \$0.00

Filter Mounting Type: B - Full Frame - 1 Inch - Ducted Return \$0.00

Filtration: X - Field installed / field furnished \$0.00

### Electrical Options:

Voltage: Select an option \$0.00

Control Type: A - Solid State Control for Thermostat Input \$0.00

Power Termination: Y - Single Point Power No disconnect \$0.00



Closetline Single-Stage Compact Cabinet

### Pricing Summary

WC Packaged Heat Pump: WC\_G\_\_A\_XAXAA1XBXSXXXC\_XXXXX




Unit List Price: \$0.00

Number of Units: 1

Accessories: \$0.00

Spare Chassis: \$0.00

Total List Price: \$0.00

 Save  Save and New  Cancel

## Cabinet Options:

Drain Pan Options:	A - Stainless Steel Drain Pan	\$0.00
Insulation Option:	A - Fiberglass with Foil Faced Air Handler	\$0.00
Application:	1 - WSHP Application	\$0.00
Sound Attenuation:	X - Standard Quiet Construction	\$0.00
Filter Mounting Type:	B - Full Frame - 1 Inch - Ducted Return	\$0.00
Filtration:	X - Field installed / field furnished	\$0.00

## Electrical Options:

Voltage:	Select an option	\$0.00
Control Type:	A - Solid State Control for Thermostat Input	\$0.00
Power Termination:	X - Single Point Power: No disconnect	\$0.00
Fan :	Select an option	\$0.00

## Refrigeration Options:

Refrigerant Detection:	X - No Refrigerant Detection Sensor Installed	\$0.00
Refrigerant Circuit Options:	S - Standard Coax	\$0.00
Coil Protection:	C - Copper tube / Aluminum fin	\$0.00

## Water Options:

Control Valve:	X - No control valve installed	\$0.00
Flow Control:	X - No flow control device installed	\$0.00
Hot Water Generator:	X - None - No Hot Water Generator	\$0.00






Closetline Single-Stage  
Compact Cabinet

## Pricing Summary

WC Packaged Heat Pump: WC\_G\_\_A\_XAXAA1XBXSXXC\_XXXXX

Unit List Price: \$0.00  
Number of Units: 1  
Accessories: \$0.00  
Spare Chassis: \$0.00  
Total List Price: \$0.00

 Save  Save and New  Cancel

## Accessories

 Edit

Item ID	Part Description	List Price	\$0.00
---------	------------------	------------	--------

## Project Schedule

454-test

Expected Bid Due: September 2024



Project Information



Users



Quotes



Orders



Submittal



Support Requests



Activities



Import



Summary View

Select a Product Family:

R-454B Packaged Heat Pumps

Select a Model:

Select a Model

View



Select Action:

Copy

Select Project:

454-test

Select Schedule:

Select Schedule

Quantity:

1

Copy

Main

454 Packaged unit freight

454 mixed unit freight

Training

Add Schedule

Show All

General												Misc.	
Select	Price	Qty	Tag	Model	Model Number	Unit Size	Include In Submittal	List Price	Total List Price	Quote Name	Order Name	Date Modified	Pricing D Version
<input type="checkbox"/>	\$	1	HP-1	Closetline Single-Stage Compact Cabinet	WCHG012ABXAXAA1XBXSXXXCBTXXXXX		Yes	\$5130	\$5568			9/25/2024 9:14:44 AM	23.9
<input type="checkbox"/>	\$	1	HP-2	Closetline Single-Stage Compact Cabinet	WCHG015ABXAXAA1XBXSXXXCBTXXXXX		No	\$5883	\$6321			9/25/2024 9:14:59 AM	23.9
<input type="checkbox"/>	\$	1	HP-3	Closetline Single-Stage Compact Cabinet	WCHG018ABXAXAA1XBXSXXXCBTXXXXX		Yes	\$6376	\$6814			9/25/2024 9:15:11 AM	23.9
<input type="checkbox"/>	\$	1	HP-4	Closetline Single-Stage Compact Cabinet	WCHG024ABXAXAA1XBXSXXXCBTXXXXX		Yes	\$6793	\$7231			9/25/2024 9:15:21 AM	23.9
<input type="checkbox"/>	\$	1	HP-5	Closetline Single-Stage Compact Cabinet	WCHG030ABXAXAA1XBXSXXXCBTXXXXX		Yes	\$7282	\$7720			9/25/2024 9:15:34 AM	23.9
<input type="checkbox"/>	\$	1	HP-6	Closetline Single-Stage Compact Cabinet	WCHG036ABXAXAA1XBXSXXXCBTXXXXX		No	\$7570	\$8008			9/25/2024 9:15:50 AM	23.9
<input type="checkbox"/>	\$	1	HP-7	Closetline Single-Stage Compact Cabinet	WCHG060ABAAXAA1XBXSXXXCBTXXXXX		Yes	\$10398	\$10905			9/25/2024 9:16:25 AM	23.9

Current Phase: Design



Design



Budget



Bidding



Award Pending



Contract Awarded



Hold



Closed, Won



Closed, Lost



Dead



Save

Review models, unit tags, and quantities configured.

## Project Schedule

454-test

Expected Bid Due: September 2024

Project Information

Users

Quotes

Orders

Submittal

Support Requests

Activities

Import

Summary View

Select a Product Family: R-454B Packaged Heat Pumps

Select a Model: Select a Model

View

Select Action: Copy

Select Project: 454-test

Select Schedule: Select Schedule

Quantity: 1

Copy

Main

454 Packaged unit freight

454 mixed unit freight

Training

Add Schedule

Show All

General							Include In Submittal	List Price	Total List Price	Quote Name	Order Name	Misc.	
Select <div><input type="checkbox"/></div>	Price	Qty	Tag	Model	Model Number	Unit Size						Date Modified	Pricing D Version
<div><input type="checkbox"/></div>	\$	1	HP-1	Closetline Single-Stage Compact Cabinet	WCHG012ABXAXAA1XBXSXXCBTXXXXX		<div><input checked="" type="checkbox"/></div>	\$5130	\$5568			9/25/2024 9:14:44 AM	23.9
<div><input type="checkbox"/></div>	\$	1	HP-2	Closetline Single-Stage Compact Cabinet	WCHG015ABXAXAA1XBXSXXCBTXXXXX		<div><input type="checkbox"/></div>	\$5883	\$6321			9/25/2024 9:14:59 AM	23.9
<div><input type="checkbox"/></div>	\$	1	HP-3	Closetline Single-Stage Compact Cabinet	WCHG018ABXAXAA1XBXSXXCBTXXXXX		<div><input checked="" type="checkbox"/></div>	\$6376	\$6814			9/25/2024 9:15:11 AM	23.9
<div><input type="checkbox"/></div>	\$	1	HP-4	Closetline Single-Stage Compact Cabinet	WCHG024ABXAXAA1XBXSXXCBTXXXXX		<div><input checked="" type="checkbox"/></div>	\$6793	\$7231			9/25/2024 9:15:21 AM	23.9
<div><input type="checkbox"/></div>	\$	1	HP-5	Closetline Single-Stage Compact Cabinet	WCHG030ABXAXAA1XBXSXXCBTXXXXX		<div><input checked="" type="checkbox"/></div>	\$7282	\$7720			9/25/2024 9:15:34 AM	23.9
<div><input type="checkbox"/></div>	\$	1	HP-6	Closetline Single-Stage Compact Cabinet	WCHG036ABXAXAA1XBXSXXCBTXXXXX		<div><input type="checkbox"/></div>	\$7570	\$8008			9/25/2024 9:15:50 AM	23.9
<div><input type="checkbox"/></div>	\$	1	HP-7	Closetline Single-Stage Compact Cabinet	WCHG060ABAAXAA1XBXSXXCBTXXXXX		<div><input checked="" type="checkbox"/></div>	\$10398	\$10905			9/25/2024 9:16:25 AM	23.9

Current Phase: Design

Design

Budget

Bidding

Award Pending

Contract Awarded

Hold

Closed, Won

Closed, Lost

Dead

Save

## Submittal Generator

Project Name : New Project

Select a product family, then select the items that you would like in the submittal. Additional submittal information is available under Products Links. All the items must be fully configured for an accurate submittal and only validated line items will be shown .

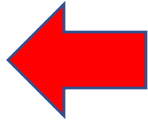
Product Family

Heat Pumps

[Product Information](#)

[Downloads](#)

- ☒ Cabinet
- ☒ Tagging Schedule
- ☒ Risers
- ☒ Piping drawings
- ☒ Grilles
- ☒ Performance sheets
- ☒ Electrical
- ☒ Specification sheets
- ☒ Warranty
- ☒ IOM
- ☒ Exclude Option Listing



Submittal can be tailored to include only the type of information you want by checking / unchecking these items.

Note: It may take several minutes to generate the submittal, based upon the number of items selected. Do not click the back button.

Generate Submittal

Back to Schedule



8900 Glebe Park Drive, Easton, MD 21601  
Ph: 410-822-9200 Fax: 410-822-8926

Project number: 20193826  
Project name: New Project  
Job Location:  
Representative:

Friday, October 23, 2020

## Approval

Approved By:

Title:

Date:

Note: This submittal is based on equipment and options listed on the attachment(s) and represents our intent. It is the representative's responsibility to review this submittal and verify that it meets the project requirements.

## Project Summary

Qty	Model Description	Model Number
1	Packaged Heat Pump - Closetline Packaged Heat Pump	CASHG009ABX1AXCD
1	Packaged Heat Pump - Closetline Packaged Heat Pump	CASHG015ABX1AXCD
1	Packaged Heat Pump - Closetline Packaged Heat Pump	CASHG024ABX1AXCD
1	Packaged Heat Pump - Closetline Packaged Heat Pump	CASVG024ABX1AXCD

## New Project

October 23, 2020

## Mechanical Specification: Packaged Heat Pump - Closetline Packaged Heat Pump

Qty: 4 - Tag(s): HP-1, HP-2, HP-3, HP-4

Selected packaged heat pump unit is single-stage heat pump factory assembled and ready to install.

Unit operation includes reverse cycle heat pump

Power supply for all heat pumps is 208/230v - 1 phase - 60Hz operation with 24 volt control.

Unit water coils shall incorporate an electro-coated steel outer tube and a copper inner tube. The inner tube shall be spirally fluted and bonded to insure controlled refrigerant velocity and distribution. The coil shall be rated to withstand 650 psig refrigerant and 400 psig fluid working pressures.

Unit shall include Whalen standard galvanized coil casing and coil constructed with copper tubes and aluminum fins.

Unit control is configured for heat pump thermostat input. All field or customer supplied Heat Pump thermostats MUST include anti-short cycle protection to prevent rapid ON/OFF cycling of the compressor. A delay of at least 4 minutes is required. Setting and verifying the anti-short cycle delay is the responsibility of the installing contractor.

Low refrigerant temperature sensor factory set to 32 degrees F / Low water temperature sensor factory set to 36 degrees F.

Unit cabinets are thermally and acoustically insulated with 1/2" thick - 2# density fiberglass insulation throughout unit.

Return air filter is 1" thick MERV 4, fiberglass throwaway type.

Qty: 3 - Tag(s): HP-1, HP-2, HP-3

Selected packaged heat pump unit cabinet is of a horizontal configuration.

Horizontal cabinet is configured with return air on the left side of cabinet and supply air on the end of the unit.

Qty: 1 - Tag(s): HP-4

Selected packaged heat pump unit cabinet is of a vertical configuration.

Vertical cabinet is configured with return air on the right side of cabinet and supply air on the top of the unit.

Qty: 1 - Tag(s): HP-1

Unit capacity shall be nominal 0.75-tons / 300 nominal CFM airflow.

Qty: 1 - Tag(s): HP-2

Unit capacity shall be nominal 1.25-tons / 500 nominal CFM airflow.

Qty: 2 - Tag(s): HP-3, HP-4

Unit capacity shall be nominal 2.0-tons / 800 nominal CFM airflow.

The fan shall be slow speed forward curved centrifugal type capable of two fan speeds, and shall be accessible for removal and maintenance through service opening.

Motors shall be plug-in, multi-speed type with 1050-RPM maximum.

Fan motors for heat pumps shall be of the permanently lubricated constant-torque ECM type, suitable for the current characteristics shown on the drawings, and shall have built-in overload protection.

Qty: 2 - Tag(s): HP-1, HP-2

The fan shall be slow speed forward curved centrifugal type capable of two fan speeds, and shall be accessible for removal and maintenance through service opening.

Motors shall be plug-in, multi-speed type with 1050-RPM maximum.

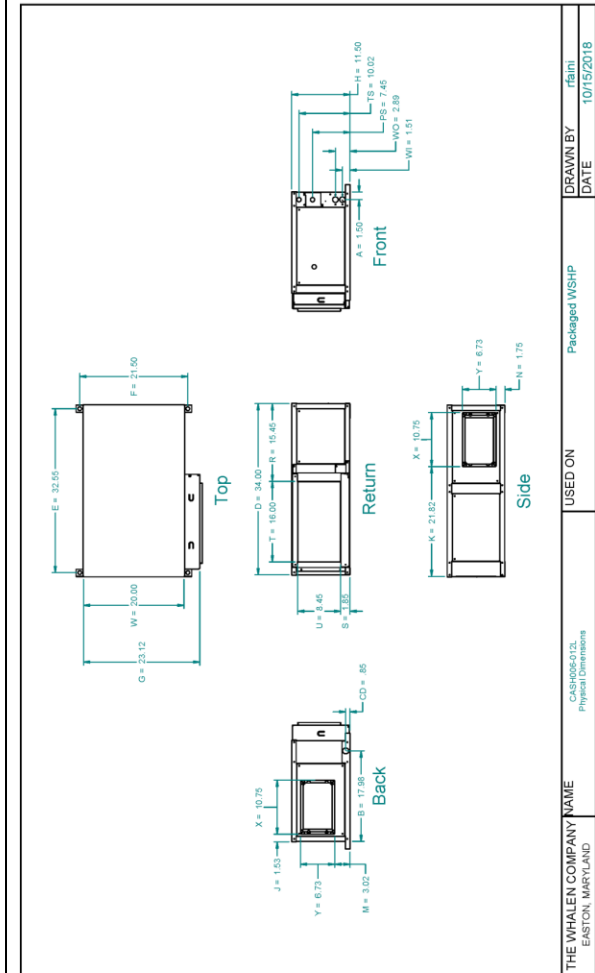
Fan motors for heat pumps shall be of the permanently lubricated constant-torque ECM type, suitable for the current characteristics shown on the drawings, and shall have built-in overload protection.

## New Project

October 23, 2020

## Horizontal Heat Pump Drawing

Qty: 1 Tag(s): HP-1



## Project Schedule

454-test

Expected Bid Due: September 2024

Project Information Users Quotes Orders Submittal Support Requests Activities Import

Summary View

Select a Product Family: R-454B Packaged Heat Pumps Select a Model: Select a Model View

Select Action: Quote Select Quote Type: New Create Quote

454 Packaged unit freight 454 mixed unit freight Training Add Schedule

Show All

General												Misc.	
Select	Price	Qty	Tag	Model	Model Number	Unit Size	Include In Submittal	List Price	Total List Price	Quote Name	Order Name	Date Modified	Pricing Version
<input checked="" type="checkbox"/>	\$	1	HP-1	Closetline Single-Stage Compact Cabinet	WCHG012ABXAXAA1XBXSXXXC8TXXXXX		Yes	\$5130	\$5568			9/25/2024 9:14:44 AM	23.9
<input type="checkbox"/>	\$	1	HP-2	Closetline Single-Stage Compact Cabinet	WCHG015ABXAXAA1XBXSXXXC8TXXXXX		No	\$5883	\$6321			9/25/2024 9:14:59 AM	23.9
<input checked="" type="checkbox"/>	\$	1	HP-3	Closetline Single-Stage Compact Cabinet	WCHG018ABXAXAA1XBXSXXXC8TXXXXX		Yes	\$6376	\$6814			9/25/2024 9:15:11 AM	23.9
<input checked="" type="checkbox"/>	\$	1	HP-4	Closetline Single-Stage Compact Cabinet	WCHG024ABXAXAA1XBXSXXXC8TXXXXX		Yes	\$6793	\$7231			9/25/2024 9:15:21 AM	23.9
<input checked="" type="checkbox"/>	\$	1	HP-5	Closetline Single-Stage Compact Cabinet	WCHG030ABXAXAA1XBXSXXXC8TXXXXX		Yes	\$7282	\$7720			9/25/2024 9:15:34 AM	23.9
<input type="checkbox"/>	\$	1	HP-6	Closetline Single-Stage Compact Cabinet	WCHG036ABXAXAA1XBXSXXXC8TXXXXX		No	\$7570	\$8008			9/25/2024 9:15:50 AM	23.9
<input checked="" type="checkbox"/>	\$	1	HP-7	Closetline Single-Stage Compact Cabinet	WCHG060ABAAXAA1XBXSXXXC8TXXXXX		Yes	\$10398	\$10905			9/25/2024 9:16:25 AM	23.9

Current Phase: Design

Design Budget Bidding Award Pending Contract Awarded Hold Closed, Won Closed, Lost Dead Save

## Quote Worksheet



### Quote Information



Quote Number:	14015	Status:	Open
Quote Date:	9/25/2024	Project Name:	454-test
Estimate number of releases:	1	Quote Expiration:	11/24/2024
Transaction Type:	Direct Factory Invoice	Job Name:	454-test- 5
Expected Close Date:	September 2024	% Probability:	25.00
Follow Up Date:			

### Shipping Information



### Quoted To Information



#### Sell To

Search

Name:	
Company:	
Address 1:	
Address 2:	
City:	
State:	Select a State
Zip/Postal Code:	
County / Region:	
Country:	United States
Email:	
Phone:	

#### Ship To

Same as Sell To

Search

Location Name:	
Company:	
Address 1:	
Address 2:	
City:	
State:	Select a State
Zip/Postal Code:	
County / Region:	
Country:	United States
Email:	
Phone:	

# Quote Price Summary

## Quote Details - Configured



### Line Item Summary



Qty	Tag	Item ID	Description	Cost Adds	Total Cost	List Price	List Adds	Total
1	HP-1		WCHG012ABXAXAA1XBXSXXCBTXXXXX	\$0.00	\$1,478.00	\$5,130.00	\$0.00	\$5,130.00
1	HP-3		WCHG018ABXAXAA1XBXSXXCBTXXXXX	\$0.00	\$1,837.00	\$6,376.00	\$0.00	\$6,376.00
1	HP-4		WCHG024ABXAXAA1XBXSXXCBTXXXXX	\$0.00	\$1,957.00	\$6,793.00	\$0.00	\$6,793.00
1	HP-5		WCHG030ABXAXAA1XBXSXXCBTXXXXX	\$0.00	\$2,098.00	\$7,282.00	\$0.00	\$7,282.00
1	HP-7		WCHG060ABAAXAA1XBXSXXCBTXXXXX	\$0.00	\$2,996.00	\$10,398.00	\$0.00	\$10,398.00

1 - 5 of 5 items

### Accessories



Qty	Tag	Item ID	Accessory Description	Total Cost	List Price	Total
4	---	AHKPS07524BBAXXXXXXXXXXXXX	Hose Kit Assembly - Closetline	\$284.00	\$332.00	\$1,328.00
5	----	ATHS001SMNW111P6506LDHXAX	Thermostat - Packaged Heat Pump	\$100.00	\$96.00	\$480.00
5	----	TAG	Service - Unit Tagging	\$10.00	\$10.00	\$50.00
1		AHKPS10024BBAXXXXXXXXXXXXX	Hose Kit Assembly - Closetline	\$86.00	\$401.00	\$401.00

1 - 4 of 4 items

### Net Adds



### Special Engineering Requests



### Pricing Summary



All Pricing in USD \$		Current
Total List Price	\$	38,238.00
Weighted Multiplier		0.3800
Sub-Total Net	\$	14,530.44
Net Adds	\$	500.00
Total Net Price	\$	15,030.44



## Sales Quote

## Quote Information

Quote Number:	6231	Status:	Open
Quote Date:	10/23/2020	Project Name:	New Project
Quote Expiration:	12/22/2020	Job Name:	New Project- 1

## Quoted To Information

Quoted To	Ship To
Name:	Name:
Company:	Company:
Address 1:	Address 1:
Address 2:	Address 2:
City:	City:
State:	State:
Zip:	Zip:
Country:	Country:
Email:	
Phone:	
Fax:	

## Shipping Information

Lead Time:	Standard
Shipping Via:	Best Way

## Equipment Summary

Packaged Heat Pump			
Qty		Description	Total Price
1	Unit Capacity	009 - 0.75 ton Packaged Heat Pump	\$2,684.00
1	Unit Capacity	015 - 1.25 ton Packaged Heat Pump	\$3,403.00
2	Unit Capacity	024 - 2.00 ton Packaged Heat Pump	\$7,496.00
2	Fan	G - ECM - Constant Torque Motor	\$504.00
2	Fan	D - ECM - Constant Torque Motor	\$526.00

## Pricing Summary

All Pricing in USD \$

Total List Price		\$14,613.00
Weighted Multiplier	-----	0.380
Equipment Net Price	-----	\$5,552.94
Net Adds	-----	\$0.00
Special Engineering Requests	-----	\$0.00
Estimated Freight	<i>*Freight cost has been estimated based on 1 required trailers (unless quoted)</i>	\$2,695.00
Total Net Price	-----	\$8,247.94

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me



## Sales Quote

## Equipment Detail

CASHG009ABX1AXCG AAXXXXXXXXXX1AA

## Tag(s): HP-1

Brand	C - Closetline Series
Product Family	A - Small Cabinet
Operating Stages	S - Single-stage operation
Unit Configuration	H - Horizontal unit configuration
System Configuration	G - Heat Pump (Heating default)
Unit Capacity	009 - 0.75 ton Packaged Heat Pump
Revision (Major)	A - 1st Generation
Voltage	B - Unit Voltage: 208/230-60-1
Power Termination	X - Single Point Power: Without unit disconnect
Refrigerant Circuit Options	1 - Standard Coax for WSHP application
Revision (Minor)	A - 1st Minor Revision
Sound Attenuation	X - Standard Quiet Construction
Coil Protection	C - Copper tube / Aluminum fin
Fan	G - ECM - Constant Torque Motor
Control Type	A - Solid State Control for Thermostat Input
Water Temperature Sensors	A - 32°F Freeze Protection with 36°F Low/High Liquid Temp setting
Electric Heat	X - None - No electric heat
Electric Heat Voltage	X - None - No electric heat
Control Valve	X - No control valve installed
Flow Control	X - No flow control device installed
Water Flow	XXXX - Manual valve or no flow control device installed
Strainer / Pressure Ports	X - No Strainer or Pressure Ports Installed
Airflow Configuration	1 - Horizontal - Left Return / End Supply (90 degree)
Insulation Option	A - Fiberglass
Filtration	A - 1" MERV 4 Throwaway

CASHG015ABX1AXCG AAXXXXXXXXXX1AA

## Tag(s): HP-2

Brand	C - Closetline Series
Product Family	A - Small Cabinet
Operating Stages	S - Single-stage operation
Unit Configuration	H - Horizontal unit configuration
System Configuration	G - Heat Pump (Heating default)
Unit Capacity	015 - 1.25 ton Packaged Heat Pump
Revision (Major)	A - 1st Generation
Voltage	B - Unit Voltage: 208/230-60-1
Power Termination	X - Single Point Power: Without unit disconnect
Refrigerant Circuit Options	1 - Standard Coax for WSHP application
Revision (Minor)	A - 1st Minor Revision

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me

# Special Engineering Request

## Accessories



Qty	Tag	Item ID	Accessory Description	Total Cost	List Price	Total
4	---	AHKPS07524BBAXXXXXXXXXXX	Hose Kit Assembly - Closetline	\$284.00	\$332.00	\$1,328.00
5	---	ATHS001SMNW111P6506LDHXAX	Thermostat - Packaged Heat Pump	\$100.00	\$96.00	\$480.00
5	---	TAG	Service - Unit Tagging	\$10.00	\$10.00	\$50.00
1	---	AHKPS10024BBAXXXXXXXXXXX	Hose Kit Assembly - Closetline	\$86.00	\$401.00	\$401.00



1 - 4 of 4 items

No



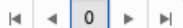
## Special Engineering Requests



Expand the Special Engineering Request section and click the " + " sign.



	Reference	Description	Qty	Price Each	Set-Up Fee	Total	Date Reviewed	Status
0								



No items to display

## Pricing Summary

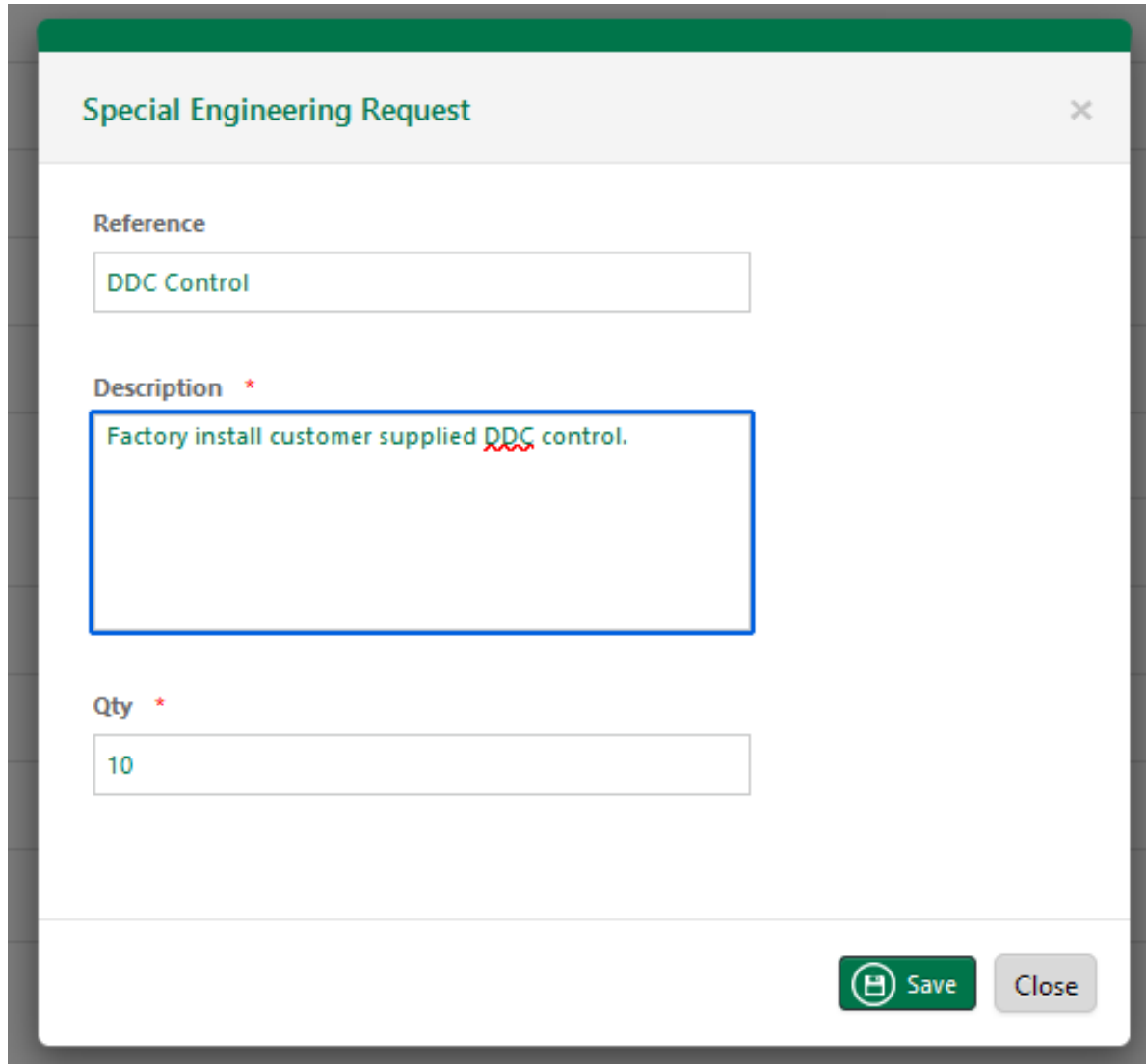


All Pricing in USD \$

Current

Total List Price	\$	38,238.00
Weighted Multiplier		0.3800
Sub-Total Net	\$	14,530.44
Net Adds	\$	500.00
Total Net Price	\$	15,030.44

# Special Engineering Request



The screenshot shows a web form titled "Special Engineering Request" with a close button (X) in the top right corner. The form contains three input fields: "Reference" with the value "DDC Control", "Description" with the value "Factory install customer supplied DDC control.", and "Qty" with the value "10". The "Description" field is highlighted with a blue border. At the bottom right, there are two buttons: "Save" (green with a floppy disk icon) and "Close" (grey).

Special Engineering Request

Reference

DDC Control

Description \*

Factory install customer supplied DDC control.

Qty \*

10

Save Close

- Enter a reference that will show on the quote
- Enter a short description of what is required.
- Enter quantity of units to which this SER will apply.
- Click save button to add to the quote
- Repeat for each special required.

# Special Engineering Request

Qty	Tag	Item ID	Description	Cost Adds	Total Cost	List Price	List Adds	Total
1	HP-1		CASHG006ADX1BXCDAAXXXXXXXX1AA	\$0.00	\$849.00	\$4,898.00	\$0.00	\$4,898.00
1	HP-3		CASHG024ADX1BXCDAAXXXXXXXX1AA	\$0.00	\$1,198.00	\$6,527.00	\$0.00	\$6,527.00
1	HP-4		CASHG036ADX1BXCDAAXXXXXXXX1AA	\$0.00	\$1,418.00	\$7,553.00	\$0.00	\$7,553.00
1	HP-5		CASHG048ADX1BXCDAAXXXXXXXX1AA	\$0.00	\$1,631.00	\$8,545.00	\$0.00	\$8,545.00

1 - 4 of 4 items

## Accessories



Qty	Tag	Item ID	Accessory Description	Total Cost	List Price	Total
-----	-----	---------	-----------------------	------------	------------	-------

0

No items to display

## Net Adds



## Special Engineering Requests



		Reference	Description	Qty	Price Each	Set-Up Fee	Total	Date Reviewed	Status
<input type="checkbox"/>		DDC Control	Factory install customer supplied DDC control.	10					
<input type="checkbox"/>		Special Paint color	Paint unit Magenta - RAL 4010	10					
<input type="checkbox"/>		Tall cabinet	Need 100" cabinet	10					

1 - 3 of 3 items

## Pricing Summary



Multiplier, Markup Commissions - Configured Products



## Notes



All sales subject to terms and conditions of sales agreement

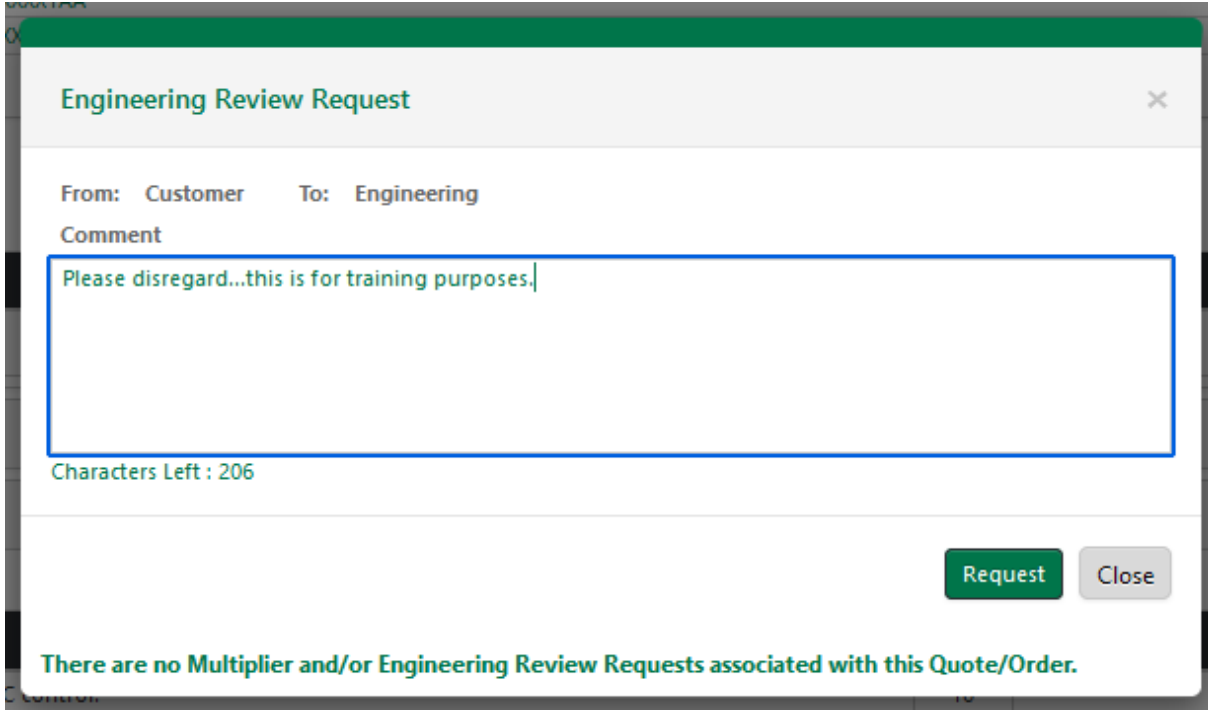
Save
 Request Engineering Review
 Create Order
 Archive Copy
 Return



Do not forget to click " Request Engineering Review " button at the bottom of the page

# Special Engineering Request

- Enter comment or note to engineering and click “Request” button.



The screenshot shows a web-based dialog box titled "Engineering Review Request" with a close button (X) in the top right corner. Below the title bar, it displays "From: Customer" and "To: Engineering". A "Comment" label is positioned above a large text input area. The input area contains the text "Please disregard...this is for training purposes." and has a blue border. Below the input area, it says "Characters Left : 206". At the bottom right of the dialog, there are two buttons: a green "Request" button and a grey "Close" button. At the bottom of the dialog, a message states: "There are no Multiplier and/or Engineering Review Requests associated with this Quote/Order."

Engineering Review Request

From: Customer To: Engineering

Comment

Please disregard...this is for training purposes.

Characters Left : 206

Request Close

There are no Multiplier and/or Engineering Review Requests associated with this Quote/Order.

- You will receive an Email that we have received the SER.

## Engineering Review Request



ISC-noreply@whalencompany.com

To [Sales Info](#)

[i](#) If there are problems with how this message is displayed, click here to view it in a web browser.

### Integrated Sales Center - Engineering Review Request

A special engineering review request has been submitted for the following Quote:

Quote Number	12496
Job Name:	ISC Training- 1
Notes	Please disregard...this is for training purposes.

This request will be reviewed by the Application Engineering group and you should receive a details notice once the review is completed.

**Thank you for using Integrated Sales Center**

# Special Engineering Request

Qty	Tag	Item ID
1	HP-1	CASHG006ADX1BXCDAAXXXXXXXX1AA
1	HP-3	CASHG024ADX1BXCDAAXXXXXXXX1AA
1	HP-4	CASHG036ADX1BXCDAAXXXXXXXX1AA
1	HP-5	CASHG048ADX1BXCDAAXXXXXXXX1AA

Accessories

Qty	Tag
0	

Net Add

Spec

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Factory install customer supplied DDC control.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Paint unit Magenta - RAL 4010
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Tall cabinet

Pricing Summary

Multiplier, Markups And Commissions - Configured Products

Notes

All sales subject to terms of sales agreement

1	HP-3	CASHG024ADX1BXCDAAXXXXXXXX1AA
1	HP-4	CASHG036ADX1BXCDAAXXXXXXXX1AA
1	HP-5	CASHG048ADX1BXCDAAXXXXXXXX1AA

Accessories

Qty	Tag
0	

Net Adds

Special Eng

<input type="checkbox"/>	<input checked="" type="checkbox"/>	DDC control
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Paint unit Magenta - RAL 4010
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Tall cabinet

Pricing Summary

Multiplier, Markups And Commissions - Configured Products

Notes

All sales subject to terms of sales agreement



Notice all the button at the bottom are gone after SER is submitted.

# Special Engineering Request

4	Voltage	D - Unit Voltage: 265-60-1	\$793.00
1	Fan / Fan Control Wiring	G - ECM - Constant Torque Motor (wired for 1 fan speed)	\$342.00
3	Fan / Fan Control Wiring	D - ECM - Constant Torque Motor (wired for 1 fan speed)	\$1,071.00

## Net Adds

Reference	Description	Qty	Price Each	Set-Up Fee	Total
LESS THAN 10 UNIT FEE	Quotes and Orders for less than 10 units require a \$500.00 fee	1	\$500.00	\$0.00	\$500.00

## Special Engineering Requests

Reference	Description	Qty	Price Each	Set-Up Fee	Total
DDC Control	Factory install customer supplied DDC control. <i>Status: Not Reviewed</i>	10			
Special Paint color	Paint unit Magenta - RAL 4010 <i>Status: Not Reviewed</i>	10			
Tall cabinet	Need 100" cabinet <i>Status: Not Reviewed</i>	10			

## Pricing Summary

All Pricing in USD \$

Total List Price	\$27,523.00
Weighted Multiplier	0.480
Equipment Net Price	\$13,211.04
Net Adds	\$500.00
Special Engineering Requests	\$0.00
Estimated Freight	<i>Freight cost has been estimated based on 1 required trailers (unless quoted)</i> \$6,395.00
Total Net Price	<b>\$20,106.04</b>

Prepared by:

This estimate is based on equipment listed on this sales quote. If you have any questions, please feel free to contact me.

- Looking at the quote will also indicate the status of the SER.
- If it is not submitted, they will not show.

- After Engineering has reviewed, you will get a notification telling you the status or requesting additional information.

## Engineering Review Request



ISC-noreply@whalencompany.com

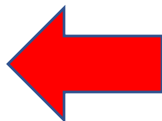
To [Sales Info](#)

[i](#) If there are problems with how this message is displayed, click here to view it in a web browser.

### Integrated Sales Center - Engineering Review Request

A special engineering review request was previously requested the following Quote. Your request has been reviewed by the Application Engineering group. Please review the information below.

Quote Number	12496
Job Name:	ISC Training- 1
Notes	Processed and approved



Thank you for using Integrated Sales Center

# Special Engineering Request

Accessories

Qty
Tag
Item ID
Accessory Description
Total Cost
List Price
Total

0

No items to display

Net Adds

Special Engineering Requests

-
+

		Reference	Description	Qty	Price Each	Set-Up Fee	Total	Date Reviewed	Status
<input type="checkbox"/>		DDC Control	Factory install customer supplied DDC control.	10	\$250.00	\$0.00	\$2,500.00	10/19/2023	Approved
<input type="checkbox"/>		Special Paint color	Paint unit Magenta - RAL 4010	10	\$0.00	\$500.00	\$500.00	10/19/2023	Approved
<input type="checkbox"/>		Tall cabinet	Need 100" cabinet	10	\$100.00	\$500.00	\$1,500.00	10/19/2023	Approved

1

1 - 3 of 3 items

Pricing Summary

Multiplier, Markup And Commissions on Configured Products

Notes

All sales subject to terms of sales agreement

Save

Request Engineering Review

Create Order

Archive Copy

Return



After processing, Pricing is filled in & buttons are back

# Special Multiplier Request

## Quote Worksheet


### Quote Information


Quote Number: 12496

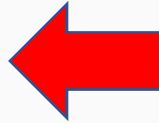
Quote Date: 10/18/2023

Estimate number of releases:


Transaction Type:

Expected Close Date:   \*

Follow Up Date:  



### Shipping Information

Requested Ship Date:  

Lead Time:

Ship Via:

### Quoted To Information

- Set Transaction type to proper setting
- Typically, Direct Factory Invoice for a commissioned sale
- Buy/resell for orders less than 10 units.



Do not forget to click " Request Engineering Review " button at the bottom of the page

## Quote Worksheet



### Quote Information



Quote Number: 12496

Quote Date: 10/18/2023

Estimate number of releases: 0

Transaction Type: Direct Factory Invoice

Expected Close Date: October 2023

Follow Up Date:

Status: Open

Project Name: ISC Training

Quote Expiration: 12/17/2023

Job Name: ISC Training- 1

% Probability: 25.00

Expected Release For Production Date:

### Shipping Information



Requested Ship Date:

Lead Time: Standard

Ship Via: Best Way

### Quoted To Information



Expected Close Date – Date Whalen will receive a PO

Expected Release for Production – Date you will release to manufacturing

Requested Ship date – Date the project will begin shipping

# Special Multiplier Request

 Quote Worksheet



## Quote Information

Quote Number: 12496  
Quote Date: 10/18/2023  
Estimate number of releases: 0

Status: Open  
Project Name: ISC Training  
Quote Expiration: 12/17/2023

The field Expected Release For Production Date must be a date.

 Quote Worksheet

## Quote Information

The field Requested Ship Date must be a date.

Quote Number: 12496  
Quote Date: 10/18/2023  
Estimate number of releases: 0



If the fields are blank, this will be the error you receive.

# Special Multiplier Request

Accessories

Qty

Tag

Item ID

Accessory Description

Total Cost

List Price

Total

0

No items to display

Net Adds

Special Engineering Requests

Pricing Summary

Multiplier, Markup And Commissions - Configured Products

Commercial Product Line	Published Multiplier	Requested Multiplier	Approved Multiplier	Mark Up %	Gross Profit	Published Commission %	Requested Commission %	Approved Commission %
Heat Pumps	0.35	.33	0.35		0.00	4	5	4

Commission Split

Split Commission:

☐ Yes
☒ No

Specification Type:

Select Specification Type

Request Special Discount

Representative Name

Commission Percent

Notes

Save

Request Engineering Review

Create Order

Archive Copy

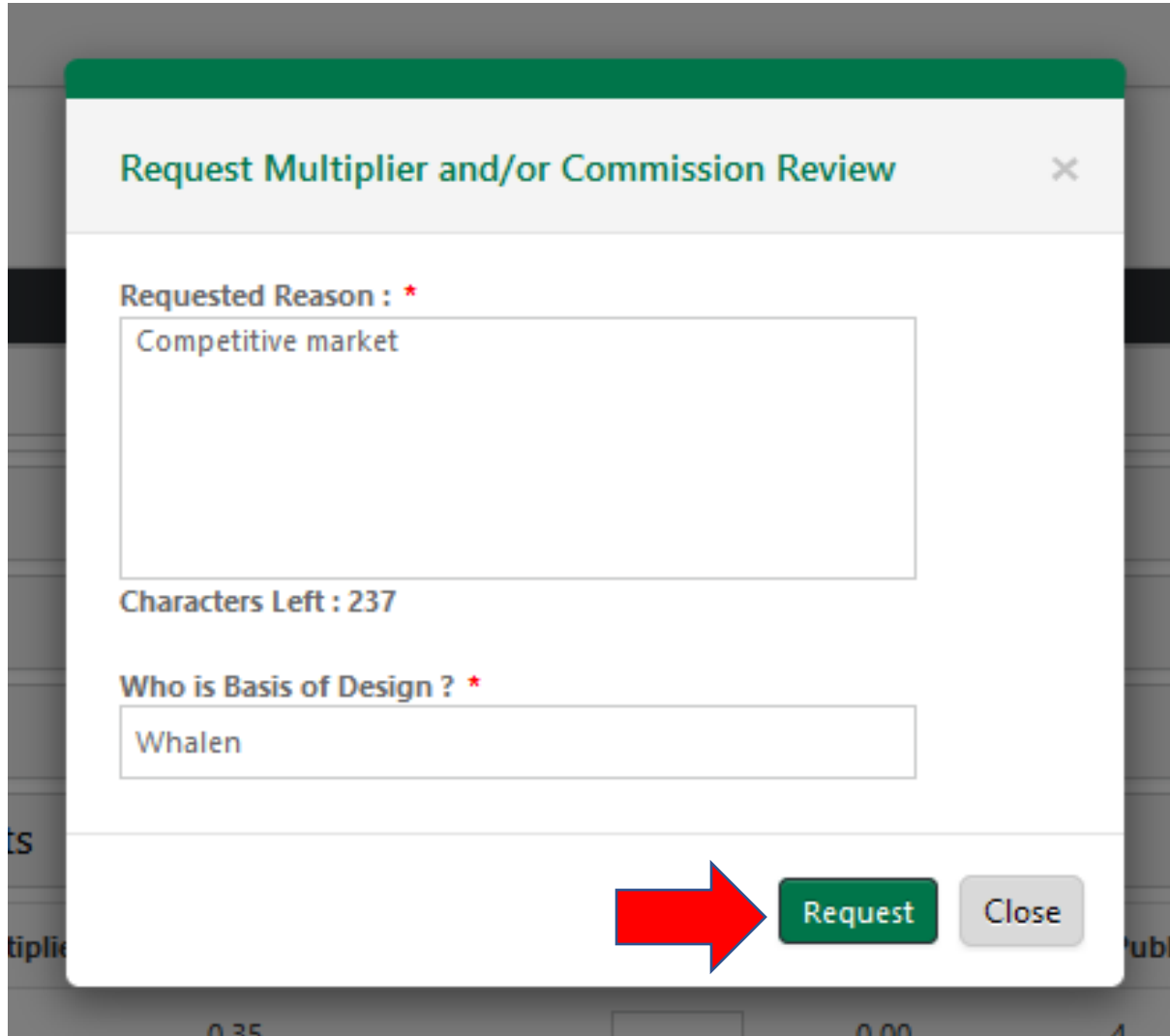
Return



Enter desired multiplier & commission.  
Click Request Special Discount.

# Special Multiplier Request

- Enter the reason for the special Multiplier Request and who is the Basis of Design.
- Click “ Request ” button to submit the request to Whalen.



Request Multiplier and/or Commission Review

Requested Reason : \*

Competitive market

Characters Left : 237

Who is Basis of Design ? \*



Whalen


Request Close



# Special Multiplier Request

## Special Multiplier Approval Details

 ISC-noreply@whalencompany.com  
To:  ISC Order Entry  
Cc: Tony Landers

 If there are problems with how this message is displayed, click here to view it in a web browser.

Rep Company: 1 The Whalen Company  
Rep Contact Name: Tony Landers  
Rep Phone: 410-822-9200  
Rep Email: [salesinfo@whalencompany.com](mailto:salesinfo@whalencompany.com)  
Regional Sales Manager: Order Entry

## Pricing Summary for Job: ISC Training- 1

Pricing Summary	Previous	Requested
Total List Price:	\$27,523.00	\$27,523.00
<b>Weighted Multiplier:</b>	<b>0.3500</b>	<b>0.3300</b>
Sub-Total Net:	\$9,633.05	\$9,082.59
Net Adds:	\$500.00	\$500.00
Special Engineering Requests:	\$4,500.00	\$4,500.00
Total Net Price:	\$14,633.05	\$14,082.59
Mark Up:	\$0.00	\$0.00
Estimated Freight:	\$6,395.00	\$6,395.00
Tax:	\$0.00	\$0.00
Total Price:	\$21,028.05	\$20,477.59
Estimated Commission:	\$565.32	\$679.13
Estimated Commission %:	4	5

## Request Details

Commercial Product Line	Published Multiplier	Requested Multiplier	Published Commission %	Requested Commission %
Heat Pumps	0.3500	0.3300	4.00%	5.00%

- You will receive an Email that we have received the SMR.
- Typically get a response within a day.

# Special Multiplier Request

- Similar to Special Engineer Request, all the buttons at the bottom of the page are not available until the request is processed.

Accessories

Qty	Tag	Item ID
0		

Net Adds

Special Engineering Requests

Pricing Summary

Multiplier, Markup And

Commercial Product Line	Approved Multiplier	Mark Up %
Heat Pumps	0.35	

Commission Split

Split Commission: ☐ Yes ☒ No

Specification Type:

Notes

All sales subject to terms of sales agreement

[Return](#)

After Submitting SMR



Notice all the button at the bottom are gone after SMR is submitted.

## Project Schedule

454-test

Expected Bid Due: September 2024

Project Information Users Quotes Orders Submittal Support Requests Activities Import

Summary View

Select a Product Family: R-454B Packaged Heat Pumps

Select a Model: Select a Model

Select Action:

Order

Select Order Type:

New

Create Order



Do not create order here

Main

454 Packaged unit freight

454 mixed unit freight

Training

Add Schedule

Show All

Select	Price	Qty	Tag	Model	General	Unit Size	Include In Submittal	List Price	Total List Price	Quote Name	Order Name	Misc. Date Modified
<input type="checkbox"/>	\$	1	HP-1	Closetline Single-Stage Compact Cabinet	WCHG012ABXAXAA1XBXSXXXCBTXXXXX		<input checked="" type="checkbox"/>	\$5130	\$5568	454-test- 5		9/25/2024 9:14:44 AM
<input type="checkbox"/>	\$	1	HP-2	Closetline Single-Stage Compact Cabinet	WCHG015ABXAXAA1XBXSXXXCBTXXXXX		<input type="checkbox"/>	\$5883	\$6321			9/25/2024 9:14:59 AM
<input type="checkbox"/>	\$	1	HP-3	Closetline Single-Stage Compact Cabinet	WCHG018ABXAXAA1XBXSXXXCBTXXXXX		<input checked="" type="checkbox"/>	\$6376	\$6814	454-test- 5		9/25/2024 9:15:11 AM
<input type="checkbox"/>	\$	1	HP-4	Closetline Single-Stage Compact Cabinet	WCHG024ABXAXAA1XBXSXXXCBTXXXXX		<input checked="" type="checkbox"/>	\$6793	\$7231	454-test- 5		9/25/2024 9:15:21 AM
<input type="checkbox"/>	\$	1	HP-5	Closetline Single-Stage Compact Cabinet	WCHG030ABXAXAA1XBXSXXXCBTXXXXX		<input checked="" type="checkbox"/>	\$7282	\$7720	454-test- 5		9/25/2024 9:15:34 AM



Always create your order from the final quote.

Current Phase: Design

Design Budget Bidding Award Pending Contract Awarded Hold Closed, Won Closed, Lost Dead Save

Pricing Summary <span>⊖</span>		
All Pricing in USD \$		Current
Total List Price	\$	14,613.00
Weighted Multiplier		0.3800
Sub-Total Net	\$	5,552.94
Total Net Price	\$	5,552.94
Mark Up	\$	0.00
Estimated Freight	<input type="checkbox"/> Freight Quoted - Quote Number	\$ 2,695.00
Tax	Non-Taxable ▾	\$ 0.00
Total Price	\$	8,247.94
Estimated Commission	\$	277.65
Estimated Commission %	%	5.00

LTL freight / special freight

Multiplier, Markup And Commissions - Configured Products <span>⊕</span>
Notes <span>⊕</span>

All sales subject to terms of sales agreement

⊞ Save
Request Engineering Review
Create Order
Archive Copy
⊗ Return



Always create your order from the final quote.

 Order Worksheet

## Order Information



Order Number : 2594

Date : 10/23/2020

Factory Order Number :

Transaction Type: Direct Factory Invoice

Expected Order Date: October 2020

Estimate number of releases: 1

Status: Open

Project Name: New Project

Purchase Order:

Job Name: New Project- 1

## Customer Information



## Sell To

Customer Account: WHACOM

Name: Tony Landers

Company: 1 The Whalen Company

Address 1: 8900 Glebe Park Drive

Address 2:

City: Easton

State: Select a State

Zip/Postal Code: 21601

County / Region:

Country: Canada

Tax Exempt: ☐ Yes ☒ No

Tax Certificate #:

## Ship Via

Requested Ship Date:

## Ship To

Same as Bill To

Search

Location Name:

Company:

Address 1:

Address 2:

City:

State: FL

Zip/Postal Code:

County / Region:

Country: United States

Contact Name:

Contact Phone:

Special Order Instructions

Order Details - Configured

Line Item Summary

Qty	Tag	Item ID	Description	List Price	List Adds	Total
1	HP-1		CASHG009ABX1AXCGAAXXXXXXXX1AA	\$2,936.00	\$0.00	\$2,936.00
1	HP-2		CASHG015ABX1AXCGAAXXXXXXXX1AA	\$3,655.00	\$0.00	\$3,655.00
1	HP-3		CASHG024ABX1AXCDAAXXXXXXXX1AA	\$4,001.00	\$0.00	\$4,001.00
1	HP-4		CASVG024ABX1AXCDAAXXXXXXXXBAA	\$4,021.00	\$0.00	\$4,021.00

1

1 - 4 of 4 items

Accessories

Qty	Tag	Item ID	Accessory Description	List Price	Total
-----	-----	---------	-----------------------	------------	-------

0

No items to display

Net Adds

Special Engineering Requests

Pricing Summary

All Pricing in USD \$

Current

Total List Price	\$	14,613.00
Weighted Multiplier		0.3800
Sub-Total Net	\$	5,552.94
Total Net Price	\$	5,552.94
Mark Up	\$	0.00
Estimated Freight	<input type="checkbox"/> Freight Quoted - Quote Number	\$ 2,695.00
Tax	Non-Taxable	\$ 0.00
Total Price	\$	8,247.94
Estimated Commission	\$	277.65
Estimated Commission %	%	5.00

# Attach Required Documents

Estimated Commission

Estimated Commission %

Multiplier, Markup And Commissions - Configured Products

Notes

Rep Checklist

Select File

File Name

Select a Documentation Type ▼

Upload

Select a Documentation Type

Purchase Order

Approved Submittal

Credit Approval

Riser Schedule

Other

All sales subject to terms of sales agreement



Save

Request Engineering Review

Submit Order

Archive Copy



Return



Do not Forget to attach PO, Approved Submittal, & Riser Schedule

## Special Engineering Requests



## Pricing Summary



All Pricing in USD \$

Current

Total List Price	\$	14,613.00
Weighted Multiplier		0.3800
Sub-Total Net	\$	5,552.94
Total Net Price	\$	5,552.94
Mark Up	\$	0.00
Estimated Freight <input type="checkbox"/> Freight Quoted - Quote Number	\$	2,695.00
Tax <input type="text" value="Non-Taxable"/>	\$	0.00
Total Price	\$	8,247.94
Estimated Commission	\$	277.65
Estimated Commission %	%	5.00

## Multiplier, Markup And Commissions - Configured Products



## Notes



## Rep Checklist



All sales subject to terms of sales agreement



Do not Submit Order until reviewed by your RM & Inside Sales



The  
Whalen  
Company

Questions?