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Header 4

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 1377699

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0211

Vendor ID: VS0000045058

SO Doc ID: GSD2400000014

Legal Name: Taza Supplies Inc.

Published Date: 2/28/24

Alias/DBA: Tiles in Style, LLC

Close Date: 3/6/24

Total Bid: \$71,340.00

Close Time: 13:30

Response Date: 03/06/2024

Status: Closed

Response Time: 10:08

Solicitation Description: Building 17 Water Source Heat Pumps

Responded By User ID: Arsalan Alam

Total of Header Attachments: 4

First Name: Arsalan

Total of All Attachments: 4

Last Name: Alam

Email: arsi@tazasupplies.com

Phone: 6304739004



Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder: 1377699
Solicitation Description: Building 17 Water Source Heat Pumps
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2024-03-06 13:30	SR 0211 ESR03062400000004631	1

VENDOR
 VS0000045058
 Taza Supplies Inc.

Solicitation Number: CRFQ 0211 GSD2400000014
Total Bid: 71340
Response Date: 2024-03-06
Response Time: 10:08:35
Comments:

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey
 (304) 558-0094
 melissa.k.pettrey@wv.gov

Vendor Signature X **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	TRANE Water Source Heat Pumps - Model: GEHGO15A1 or EQUAL	6.00000	EA	5945.000000	35670.00

Comm Code	Manufacturer	Specification	Model #
40101806			

Commodity Line Comments: The proposal does not include the enhanced sound package. This option was not available with the horizontal airflow configuration w R410A.

Extended Description:

TRANE Water Source Heat Pumps - Model: GEHGO15A1 or EQUAL

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	TRANE Water Source Heat Pumps - Model: GEHGO18A1 or EQUAL	6.00000	EA	5945.000000	35670.00

Comm Code	Manufacturer	Specification	Model #
40101806			

Commodity Line Comments: The proposal does not include the enhanced sound package. This option was not available with the horizontal airflow configuration w R410A.

Extended Description:

TRANE Water Source Heat Pumps - Model: GEHGO18A1 or EQUAL



Axiom Standard Efficiency Water Source Heat Pump

Unit Overview	
WSHP Model	GEHG015A
Unit Configuration	Std eff horizontal R-410A
Nominal Capacity	1 1/4 ton
Refrigerant Type	R-410a
Refrigerant Circuit	Heating & cooling
Return-Air Arrangement	Right
Supply-Air Arrangement	Left
Weights and Dimensions	
Approximate unit weight	173.0 lb
Approximate shipping weight	297.0 lb
Unit width	25.500 in
Unit depth	46.000 in
Unit height	17.750 in



Airflow and Fluid Information			
Airflow Properties		Fluid Properties	
Design Airflow	475 cfm	Fluid Type	Water
Filter Type	2" throwaway	Fluid Freeze Point	32.00 F
Water In/Out Diameter	0.500 in	Fluid Flow Rate	3.80 gpm
		Fluid PD	8.60 ft H2O

Electrical, Motor, and Fan Information			
Electrical Information		Efficiency Information @ AHRI	
Unit Voltage	208-230/60/1	Cooling Efficiency Ratio	15.3 EER
External Static Pressure (ESP)	0.500 in H2O	Heating Efficiency Ratio	5.10 COP (kW/kW)
Total External SP	0.567 in H2O	Efficiency Information @ Design	
Total FLA	8.20 A	Cooling Power	1.07 kW
Min Circuit Ampacity (MCA)	10.00 A	Heating Power	1.07 kW
Max Overload Protection (MOP)	15.00 A		
Motor & Fan			
Motor Type	Variable ECM - Constant Torque		
Supply Motor HP	0.333 hp		

Coil Performance		
	Main Cooling	Main Heating
Gross Capacity	16.30 MBh	18.60 MBh
Gross Sensible Capacity	13.20 MBh	
Net Capacity	15.95 MBh	18.95 MBh
Net Sensible Capacity	12.85 MBh	
Heat of Rejection/Absorption	19.60 MBh	15.31 MBh
Entering Fluid Temperature	86.00 F	68.00 F
Leaving Fluid Temperature	96.32 F	59.94 F
Entering Dry Bulb (EDB)	80.60 F	68.00 F
Leaving Dry Bulb (LDB)	55.90 F	104.44 F
Entering Wet Bulb (EWB)	66.20 F	
Leaving Wet Bulb (LWB)	55.20 F	



Job Name: Building 17 WSHP
Prepared For:
Unit Tag: 1.25 T WSHP-6, 1.25 T WSHP-1, 1.25 T WSHP-2, 1.25 T WSHP-3, 1.25 T WSHP-4, 1.25 T WSHP-5
Quantity: 6

Heating Section

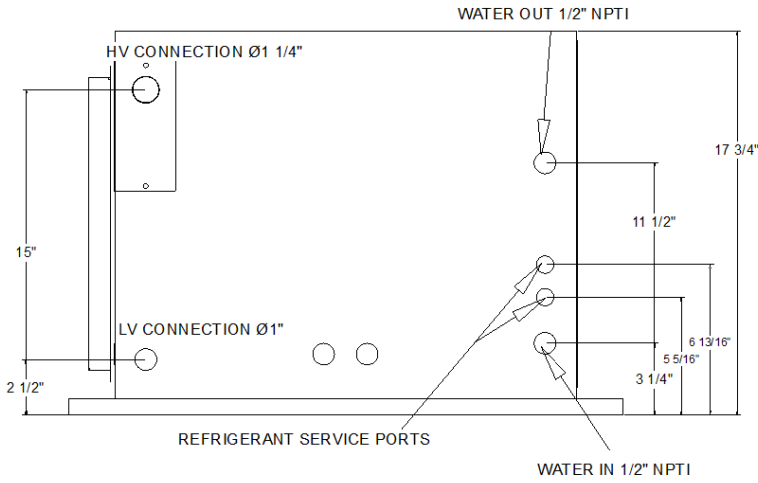
Function	Std eff horizontal R-410A	Heating EAT	68.00 F
Heat Type & Capacity	0.00 kW	Heating LAT	104.44 F
Input Heating Capacity	18.95 MBh		

Controls

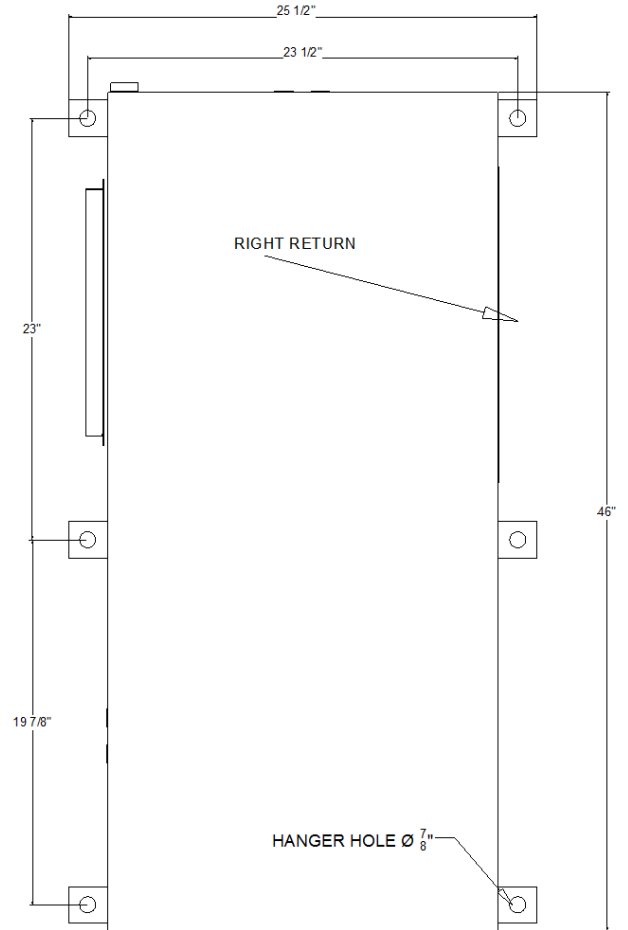
Control Types	Symbio 400B / UC400B Air-FI
Fault Sensors	Condensate overflow sensor
Temperature Sensor	Entering water sensor

Information for LEED Projects

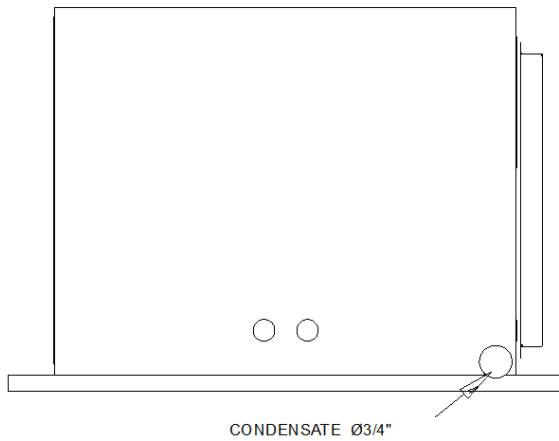
ASHRAE 90.1/CSA compliance	Yes
Refrigerant Charge	2.3 lb
Actual Motor Power kW	0.10 kW



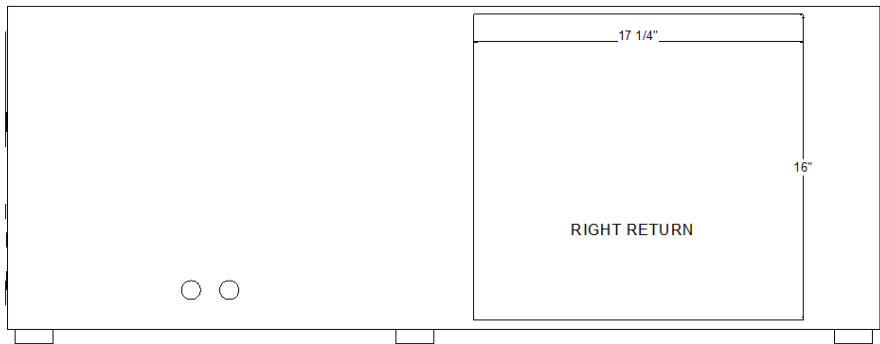
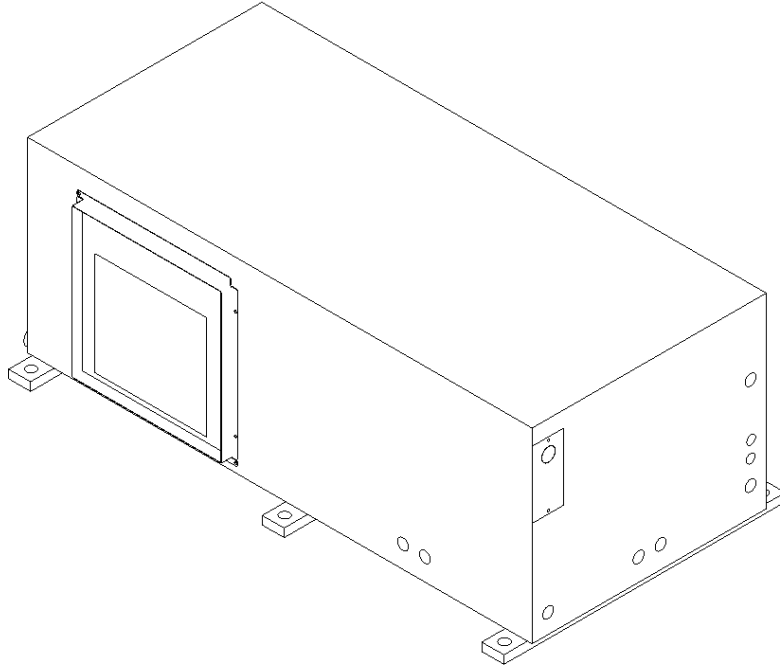
FRONT VIEW



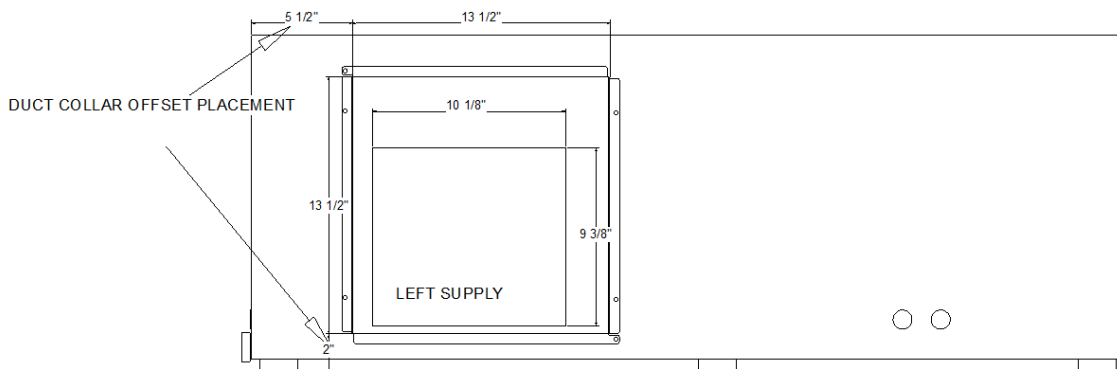
TOP VIEW



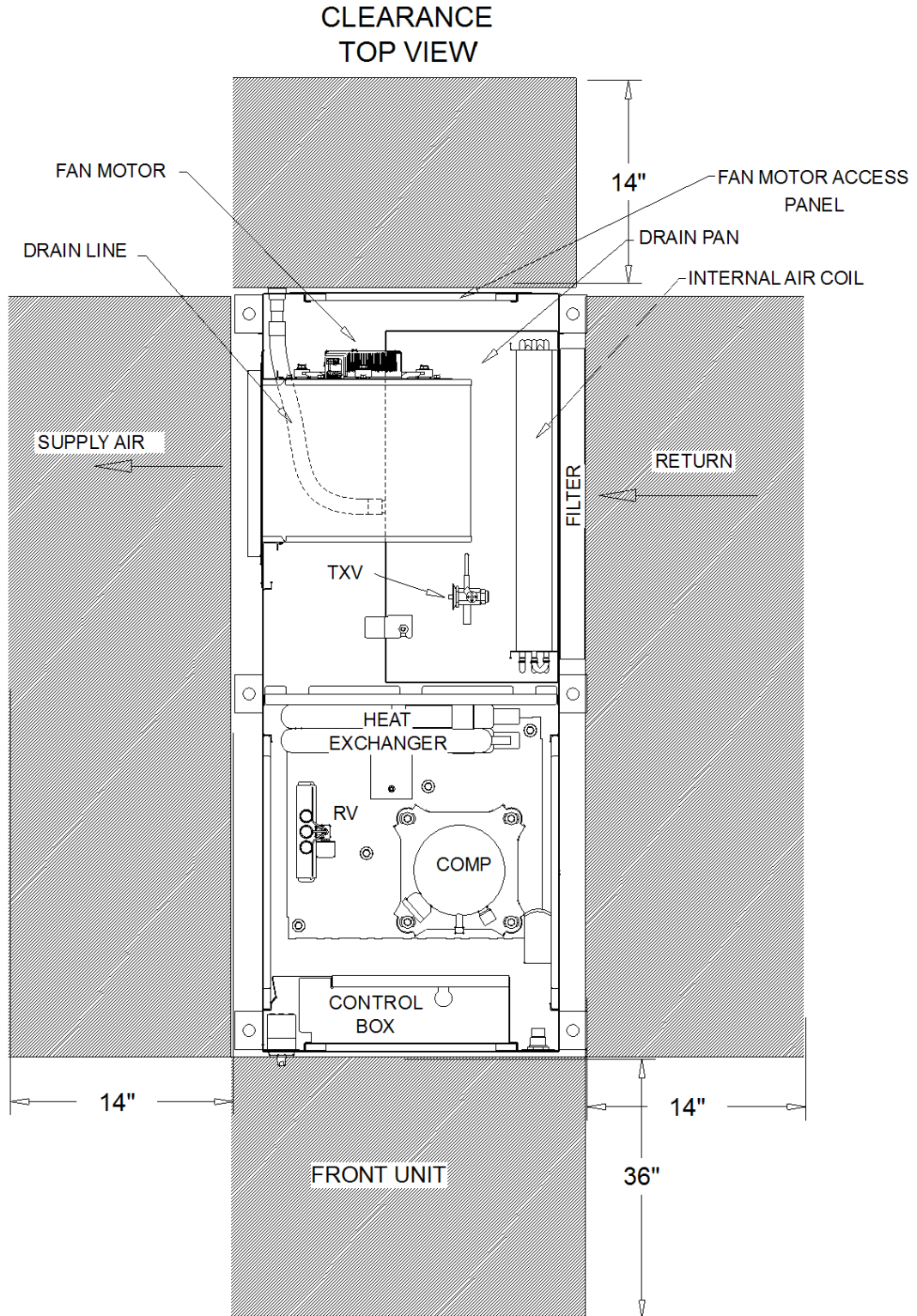
BACK VIEW



RIGHT VIEW



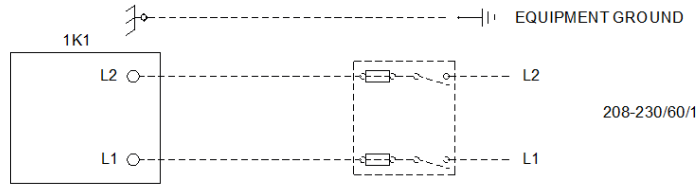
LEFT VIEW



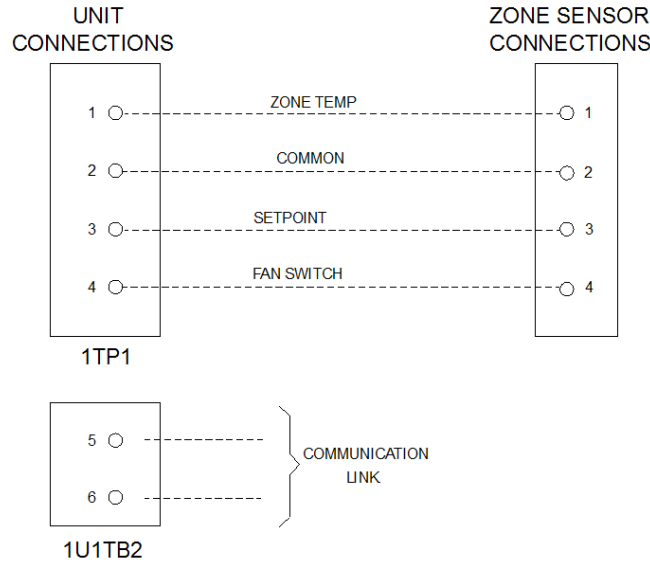
NOTES:

1. A minimum 14 inch clearance for servicing the unit is required for all 1/2 to 5 ton configurations from other mechanical and electrical equipment (where shown) to enable panel removal from the unit for service/maintenance ability. The optimum clearance required is 20 inches.

UNIT POWER WIRING 1 PHASE POWER SUPPLY



FIELD WIRING BELOW IS FOR SENSOR CONNECTIONS



NOTES:

1. DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY OTHERS. SOLID LINES INDICATE WIRING BY THE TRANE CO.
2. ALL FIELD WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), STATE, AND LOCAL REQUIREMENTS.

<p style="text-align: center;">⚠ WARNING</p> <p>HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS AND FOLLOW LOCK OUT AND TAG PROCEDURES BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE, REFER TO DRIVE INSTRUCTIONS FOR CAPACITOR DISCHARGE. FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.</p>	<p style="text-align: center;">⚠ AVERTISSEMENT</p> <p>TENSION DANGEREUSE! COUPER TOUTES LES TENSIONS ET OUVRIR LES SECTIONNEURS A DISTANCE. PUIS SUIVRE LES PROCEDURES DE VERROUILLAGE ET DES ETIQUETTES AVANT TOUTE INTERVENTION. VERIFIER QUE TOUTS LES CONDENSATEURS DES MOTEURS SONT DECHARGES. DANS LE CAS D'UNITES COMPORTANT DES ENTRAINEMENTS A VITESSE VARIABLE, SE REPORTER AUX INSTRUCTIONS DE L'ENTRAINEMENT POUR DECHARGER LES CONDENSATEURS. NE PAS RESPECTER CES MESURES DE PRECAUTION PEUT ENTRAÎNER DES BLESSURES GRAVES POUVANT ÊTRE MORTELLES.</p>	<p style="text-align: center;">⚠ ADVERTENCIA</p> <p>¡VOLTAJE PELIGROSO! DESCONECTE TODA LA ENERGÍA ELÉCTRICA INCLUSO LAS DESCONEXIONES REMOTAS Y SIGA LOS PROCEDIMIENTOS DE CIERRE Y ETIQUETADO ANTES DE PROCEDER AL SERVICIO. ASEGURESE DE QUE TODOS LOS CONDENSADORES DEL MOTOR HAYAN DESCARGADO EL VOLTAJE ALMACENADO. PARA LAS UNIDADES CON SIE DE DIRECCIÓN DE VELOCIDAD VARIABLE, CONSULTE LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR. EL NO REALIZAR LO ANTERIORMENTE INDICADO, PODRÍA OCASIONAR LA MUERTE O SERIAS LESIONES PERSONALES.</p>
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General

Equipment shall be completely assembled, piped, internally wired, fully charged with R-410A and test operated at the factory. Filters, thermostat field interface Terminal Plug (TP1), and all safety controls are furnished and factory installed. The system water inlet and outlet connections shall be female NPT composed of either copper or a bronze option. The equipment shall contain ETL-US-C, and AHRI-ISO 13256-1 listings and labels prior to leaving the factory. Service and caution area labels shall also be placed on the unit in their appropriate locations..

Unit casing

Panels shall be insulated with either 1/2-inch thick dual density bonded glass fiber, 1/2-inch thick foil faced glass fiber, or closed cell elastomeric foam. Foil faced insulation edges are encapsulated to prevent glass fibers from entering the airstream. The elastomeric foam is UL listed with a flammability rating of 5V. The glass fiber insulations have a flame spread of 25 or less and a smoke developed classification of 50 or less per ASTM E-84 and UL 723. The dual density insulation has a minimum rated service air velocity of 3600 feet per minute (FPM) and meets the erosion requirements of UL 181. Access for inspection and cleaning of the unit drain pan, coils and fan section shall be provided. The unit shall be installed for proper access. Procedures for proper access inspection and cleaning of the unit shall be included in the maintenance manual.

Sound attenuation package

Sound attenuation will be applied as a standard feature in the product design. The sound reduction package (1/2 through 5-ton equipment) will include vibration isolation to the compressor and water-to-refrigerant coil, unit base stiffeners, and a second stage of vibration isolation to the compressor and water-to-refrigerant base pan.

The unit shall be tested and rated in accordance with AHRI 260.

Hanging Rod Grommets

A set of six rubber grommets shall be enclosed with each horizontal unit. These grommets are to be used in conjunction with unit hanging rods to isolate the vibration.

Compressor - 5 Ton and under

The unit shall contain a high efficiency rotary or scroll compressor. External vibration isolation shall be provided by rubber mounting devices located underneath the mounting base of the compressor. A second isolation of the refrigeration assembly shall be supported under the compressor mounting base. Internal thermal overload protection shall be provided. Protection against excessive discharge pressure shall be provided by means of a high pressure switch. Protection against a loss of charge shall be provided by a low pressure safety.

Air-to-refrigerant coil

The air-to-refrigerant coil shall consist of copper tubes mechanically bonded into evenly spaced aluminum fins. All coils shall be leak tested to 450 psig and pressure tested to 650 psig at the factory to ensure the pressure integrity. The tubes are to be completely evacuated of air and correctly charged with proper volume of refrigerant prior to shipment.

The refrigerant coil distributor assembly shall be of orifice style with round copper distributor tubes. The tubes shall be sized consistently with the capacity of the coil. Suction headers shall be fabricated from rounded copper pipe.

A thermostatic expansion valve shall be factory selected and installed for a wide range of control.



Water-to-refrigerant system - Copper heat exchanger

Heat Exchanger - The water-to-refrigerant heat exchanger is of a high quality coaxial coil for maximum heat transfer. The copper coil is deeply fluted to enhance heat transfer and minimize fouling and scaling. The coil has a working pressure of 400 psig on the water side and 650 psig on the refrigerant side. The factory shall provide rubber isolation to the heat exchanging device to enhance sound attenuation.

Reversing Valve - The reversing valve is a pilot operating sliding piston type with replaceable encapsulated magnetic coil. This valve is energized in cooling.

Tubing - The refrigerant tubing shall be of 99% pure copper. The system shall be free from contaminants and conditions such as drilling fragments, dirt and oil. All water lines that are located in the indoor air stream shall be insulated with 3/8 inch thick elastomeric insulation. The refrigerant lines that are located in the indoor air stream that are not directly over the drain pan area shall be insulated with 3/8 inch thick elastomeric insulation.

Electrical

The unit control box shall contain all necessary devices to allow heating and cooling operation to occur from a remote wall thermostat. These devices shall be as follows:

- 24 VAC energy limiting class II 75 VA (minimum) transformer

- 24 VAC blower motor relay

- 24 VAC compressor contactor for compressor control

- Field thermostat connections shall be provided for ease of hook-up to a Terminal Plug (TP1) located in the unit's control box

- Lockout circuit which controls cycling of the compressor shall be provided to protect the compressor during adverse operating conditions. The device may be reset by momentarily interrupting power to the 24 VAC control circuit. For units with the UC400B, if there is a fan/system switch on the sensor module, placing it in the ?OFF? position will reset the latched diagnostics.

Symbio/UC 400B controller

The Symbio/UC 400B controller shall utilize factory furnished and mounted DDC controls which shall have the ability to share information with one or many units on the same communication link. The Symbio/UC 400B control package shall include a 75VA (minimum) transformer. The controller shall provide random start delay, heating/cooling status, occupied/unoccupied mode, fan status and filter maintenance options. Three LEDs (light emitting diodes) shall be included for diagnostics of the equipment.

The Symbio/UC 400B shall be capable of a standalone application, or as applied to a full building automation installation.

The Air-Fi® Wireless Communications Interface (WCI) enables wireless communications between system controls, unit controls, and wireless sensors for Trane control products that use the BACnet® protocol. The WCI replaces the need for communications wire in all system applications.

Polymer Drain Pan

The polymer drain pan shall be constructed of a robust polymer material complying with UL94-5V flammability requirements. The bottom of the drain pan shall be sloped on two planes which pitches the condensate to the drain connection, this positively sloped drain pan complies with ASHRAE 62 for IAQ conformity.



Motor/Fan

The motor shall be an ECM variable speed motor with thermal overload protection. The ECM motor is programmed to provide soft starting and a constant torque over a range of static pressures and airflows. For the Deluxe Basic control options, an ECM control board is provided that allows easy field adjustment to manually set the fan speed to meet the specific application. For the UC400b, Tracer TU must be used to set the fan speed.

The fans shall be placed in a draw-through configuration and shall be a centrifugal, direct drive type. They are constructed of corrosion resistant galvanized material. Removal of the motor and fan wheel shall be made possible utilizing the factory provided orifice ring.

2" Disposable panel filter

A 2" disposable panel filter shall be provided with the unit. The filters shall be classified per UL Standard 900 for flammability. The filter shall have an initial resistance of 0.9" W.G. or less at 300 FPM. The filter shall have a final resistance of 0.5" W.G.

Thermostatic expansion valve

The equipment is provided with a bidirectional thermal expansion valve. This device allows operation of the equipment in the range of 25 to 110 degrees F entering fluid temperatures and 55 to 85 degrees F entering air temperatures. The equipment operates with one variable (entering water temperature, entering air temperature, cfm or gpm) at an extreme condition. All other variables must be within the nominal range of operation.

Disconnect switch

Disconnect Switch shall be unit mounted and easily accessed from the front of the unit. The disconnect switch shall be able to be locked in the off position with one padlock. The disconnect switch shall be UL508 Listed

Freeze Protection

Freeze protection shall be provided by use of a thermistor on the leaving water temperature side of the unit.

Matte Insulation - Horizontal 0.5 - 5 ton unit

Panels and corner posts shall be insulated with ½-inch thick dual density bonded glass fiber. The exposed side is a high density erosion proof material suitable for use in air streams up to 3600 feet per minute (FPM). The insulation meets the erosion requirements of UL 181. It has a flame spread of less than 25 and a smoke developed classification of less than 50 per ASTM E-84 and UL 723.

Standard sound attenuation package

Sound attenuation will be applied as a standard feature in the product design. The sound reduction package will include vibration isolation to the compressor and water-to-refrigerant coil, unit base stiffeners, and a second stage of vibration isolation to the compressor and water-to-refrigerant base pan.

The unit shall be tested and rated in accordance with AHRI 260.

Single point power connection

Single point power connection allows a convenient location to bring in the power supply to the unit. The one single power source will power the entire unit including the controls, compressor, blower motor and all installed options.



Axiom Standard Efficiency Water Source Heat Pump

Unit Overview

WSHP Model	GEHG018A
Unit Configuration	Std eff horizontal R-410A
Nominal Capacity	1 1/2 ton
Refrigerant Type	R-410a
Refrigerant Circuit	Heating & cooling
Return-Air Arrangement	Right
Supply-Air Arrangement	Left
Weights and Dimensions	
Approximate unit weight	173.0 lb
Approximate shipping weight	297.0 lb
Unit width	25.500 in
Unit depth	46.000 in
Unit height	17.750 in



Airflow and Fluid Information

Airflow Properties		Fluid Properties	
Design Airflow	570 cfm	Fluid Type	Water
Filter Type	2" throwaway	Fluid Freeze Point	32.00 F
Water In/Out Diameter	0.500 in	Fluid Flow Rate	4.50 gpm
		Fluid PD	11.80 ft H2O

Electrical, Motor, and Fan Information

Electrical Information		Efficiency Information @ AHRI	
Unit Voltage	208-230/60/1	Cooling Efficiency Ratio	15.6 EER
External Static Pressure (ESP)	0.500 in H2O	Heating Efficiency Ratio	5.00 COP (kW/kW)
Total External SP	0.586 in H2O	Efficiency Information @ Design	
Total FLA	9.70 A	Cooling Power	1.60 kW
Min Circuit Ampacity (MCA)	12.00 A	Heating Power	1.80 kW
Max Overload Protection (MOP)	20.00 A		
Motor & Fan			
Motor Type	Variable ECM - Constant Torque		
Supply Motor HP	0.333 hp		

Coil Performance

	Main Cooling	Main Heating
Gross Capacity	18.90 MBh	22.40 MBh
Gross Sensible Capacity	14.90 MBh	
Net Capacity	18.45 MBh	22.85 MBh
Net Sensible Capacity	14.45 MBh	
Heat of Rejection/Absorption	23.91 MBh	16.72 MBh
Entering Fluid Temperature	86.00 F	68.00 F
Leaving Fluid Temperature	96.63 F	60.57 F
Entering Dry Bulb (EDB)	80.60 F	68.00 F
Leaving Dry Bulb (LDB)	57.46 F	104.61 F
Entering Wet Bulb (EWB)	66.20 F	
Leaving Wet Bulb (LWB)	55.65 F	



Job Name: Building 17 WSHP
Prepared For:
Unit Tag: 1.5T WSHP-6, 1.5T WSHP-1, 1.5T WSHP-2, 1.5T WSHP-3, 1.5T WSHP-4, 1.5T WSHP-5
Quantity: 6

Heating Section

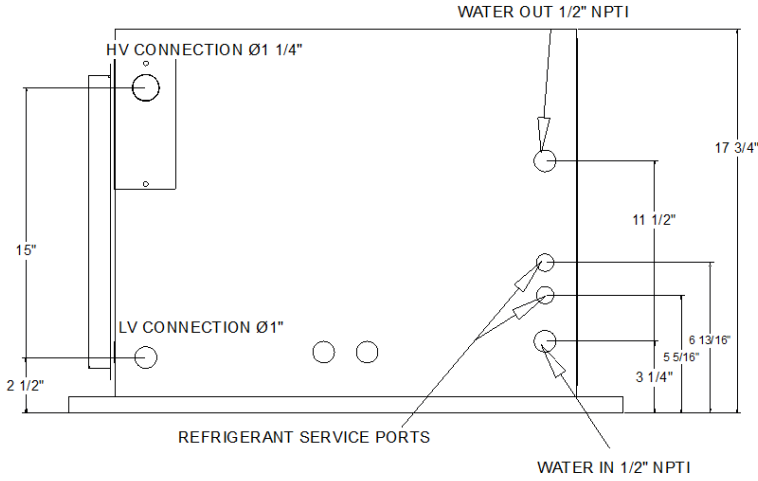
Function	Std eff horizontal R-410A	Heating EAT	68.00 F
Heat Type & Capacity	0.00 kW	Heating LAT	104.61 F
Input Heating Capacity	22.85 MBh		

Controls

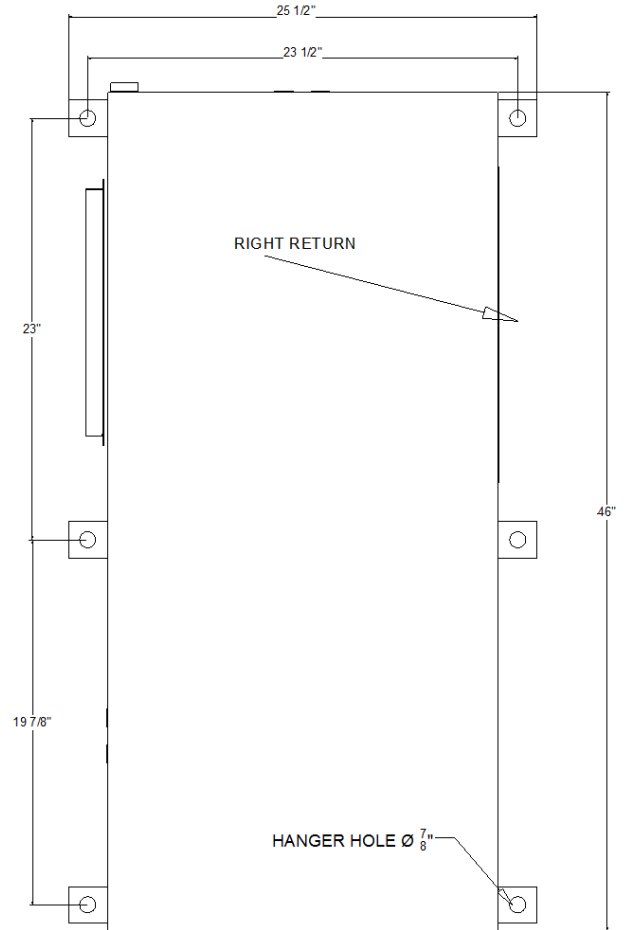
Control Types	Symbio 400B / UC400B Air-FI
Fault Sensors	Condensate overflow sensor
Temperature Sensor	Entering water sensor

Information for LEED Projects

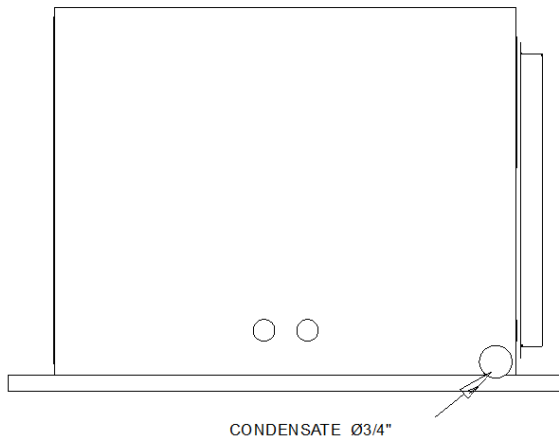
ASHRAE 90.1/CSA compliance	Yes
Refrigerant Charge	2.3 lb
Actual Motor Power kW	0.13 kW



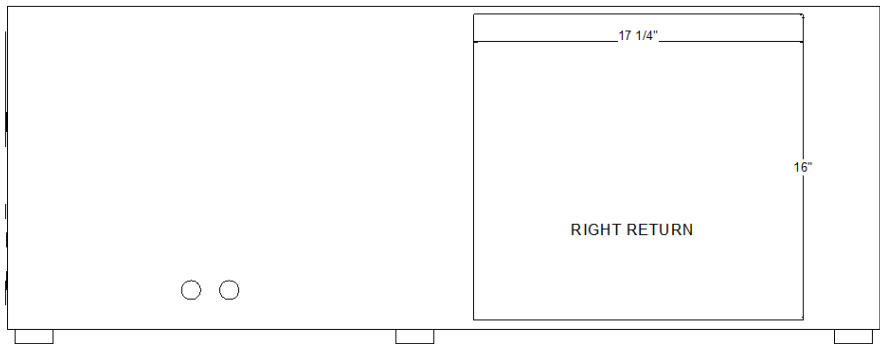
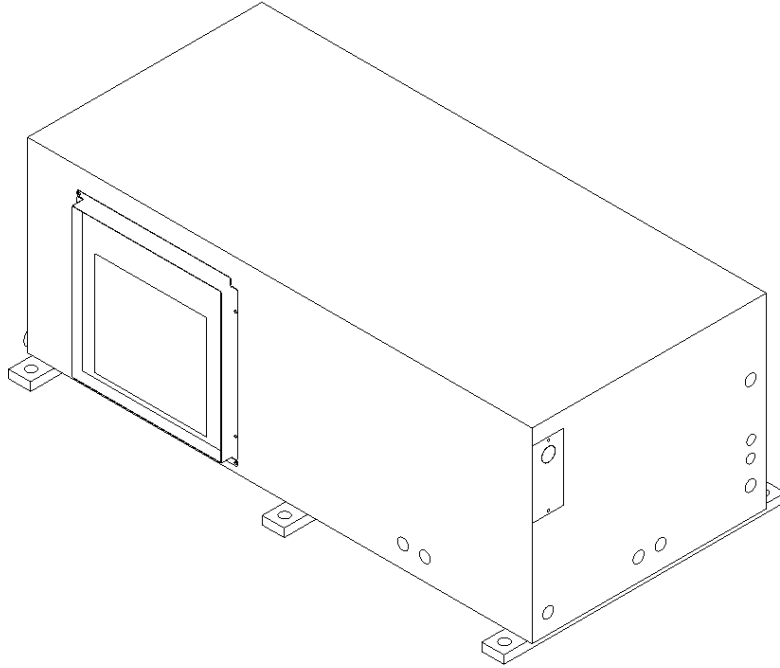
FRONT VIEW



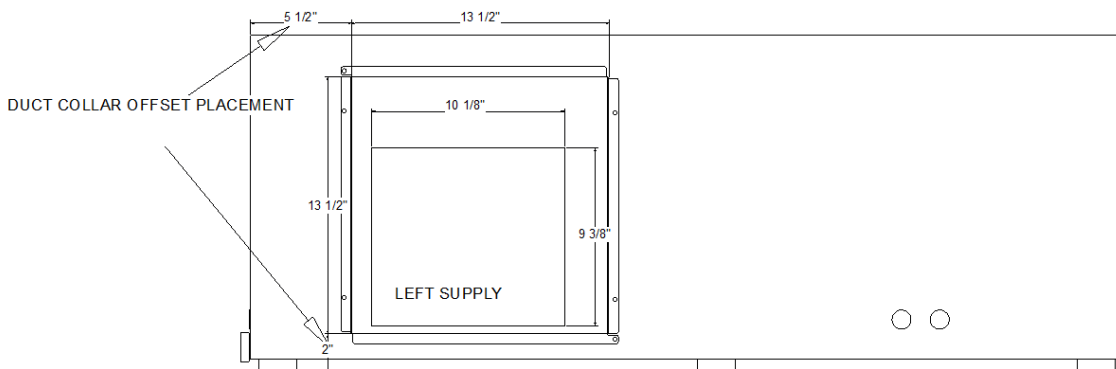
TOP VIEW



BACK VIEW

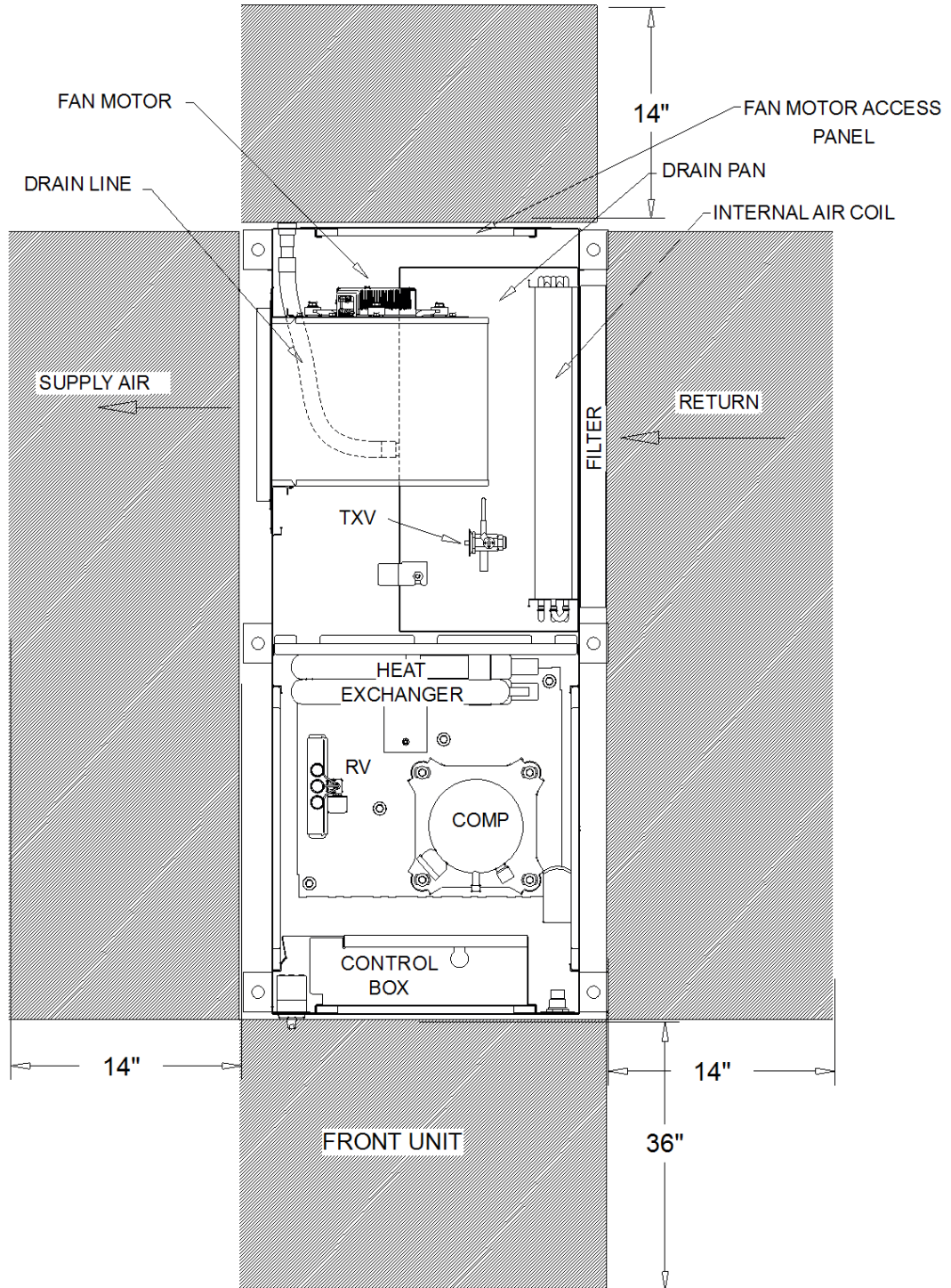


RIGHT VIEW



LEFT VIEW

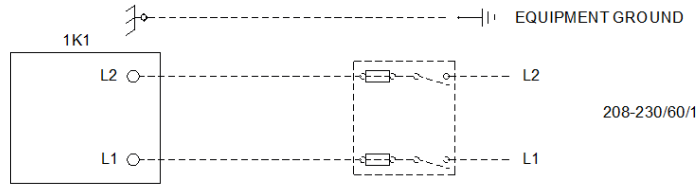
CLEARANCE TOP VIEW



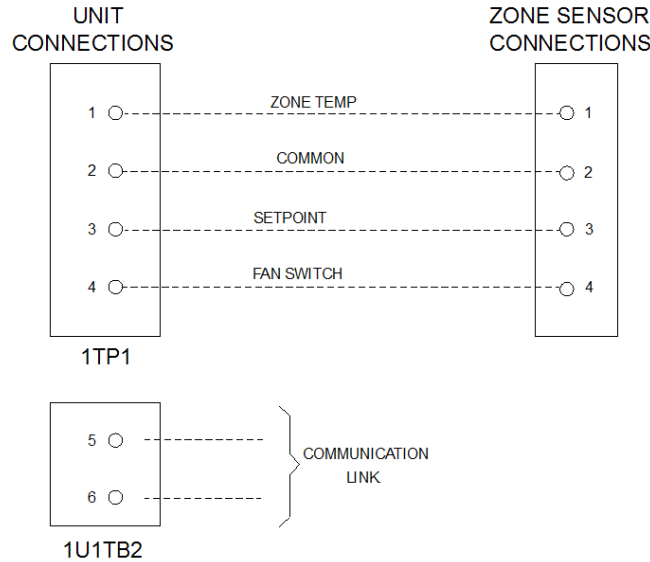
NOTES:

1. A minimum 14 inch clearance for servicing the unit is required for all 1/2 to 5 ton configurations from other mechanical and electrical equipment (where shown) to enable panel removal from the unit for service/maintenance ability. The optimum clearance required is 20 inches.

UNIT POWER WIRING 1 PHASE POWER SUPPLY



FIELD WIRING BELOW IS FOR SENSOR CONNECTIONS



NOTES:

1. DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY OTHERS. SOLID LINES INDICATE WIRING BY THE TRANE CO.
2. ALL FIELD WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), STATE, AND LOCAL REQUIREMENTS.

<p style="text-align: center;">⚠ WARNING</p> <p>HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS AND FOLLOW LOCK OUT AND TAG PROCEDURES BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE, REFER TO DRIVE INSTRUCTIONS FOR CAPACITOR DISCHARGE. FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.</p>	<p style="text-align: center;">⚠ AVERTISSEMENT</p> <p>TENSION DANGEREUSE! COUPER TOUTES LES TENSIONS ET OUVRIR LES SECTIONNEURS A DISTANCE. PUIS SUIVRE LES PROCEDURES DE VERROUILLAGE ET DES ETIQUETTES AVANT TOUTE INTERVENTION. VERIFIER QUE TOUTS LES CONDENSATEURS DES MOTEURS SONT DECHARGES. DANS LE CAS D'UNITES COMPORTANT DES ENTRAINEMENTS A VITESSE VARIABLE, SE REPORTER AUX INSTRUCTIONS DE L'ENTRAINEMENT POUR DECHARGER LES CONDENSATEURS. NE PAS RESPECTER CES MESURES DE PRECAUTION PEUT ENTRAÎNER DES BLESSURES GRAVES POUVANT ÊTRE MORTELLES.</p>	<p style="text-align: center;">⚠ ADVERTENCIA</p> <p>¡VOLTAJE PELIGROSO! DESCONECTE TODA LA ENERGÍA ELÉCTRICA INCLUSO LAS DESCONEXIONES REMOTAS Y SIGA LOS PROCEDIMIENTOS DE CIERRE Y ETIQUETADO ANTES DE PROCEDER AL SERVICIO. ASEGURESE DE QUE TODOS LOS CONDENSADORES DEL MOTOR HAYAN DESCARGADO EL VOLTAJE ALMACENADO. PARA LAS UNIDADES CON SE DE DIRECCIÓN DE VELOCIDAD VARIABLE, CONSULTE LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR. EL NO REALIZAR LO ANTERIORMENTE INDICADO, PODRÍA OCASIONAR LA MUERTE O SERIAS LESIONES PERSONALES.</p>
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General

Equipment shall be completely assembled, piped, internally wired, fully charged with R-410A and test operated at the factory. Filters, thermostat field interface Terminal Plug (TP1), and all safety controls are furnished and factory installed. The system water inlet and outlet connections shall be female NPT composed of either copper or a bronze option. The equipment shall contain ETL-US-C, and AHRI-ISO 13256-1 listings and labels prior to leaving the factory. Service and caution area labels shall also be placed on the unit in their appropriate locations..

Unit casing

Panels shall be insulated with either 1/2-inch thick dual density bonded glass fiber, 1/2-inch thick foil faced glass fiber, or closed cell elastomeric foam. Foil faced insulation edges are encapsulated to prevent glass fibers from entering the airstream. The elastomeric foam is UL listed with a flammability rating of 5V. The glass fiber insulations have a flame spread of 25 or less and a smoke developed classification of 50 or less per ASTM E-84 and UL 723. The dual density insulation has a minimum rated service air velocity of 3600 feet per minute (FPM) and meets the erosion requirements of UL 181. Access for inspection and cleaning of the unit drain pan, coils and fan section shall be provided. The unit shall be installed for proper access. Procedures for proper access inspection and cleaning of the unit shall be included in the maintenance manual.

Sound attenuation package

Sound attenuation will be applied as a standard feature in the product design. The sound reduction package (1/2 through 5-ton equipment) will include vibration isolation to the compressor and water-to-refrigerant coil, unit base stiffeners, and a second stage of vibration isolation to the compressor and water-to-refrigerant base pan.

The unit shall be tested and rated in accordance with AHRI 260.

Hanging Rod Grommets

A set of six rubber grommets shall be enclosed with each horizontal unit. These grommets are to be used in conjunction with unit hanging rods to isolate the vibration.

Compressor - 5 Ton and under

The unit shall contain a high efficiency rotary or scroll compressor. External vibration isolation shall be provided by rubber mounting devices located underneath the mounting base of the compressor. A second isolation of the refrigeration assembly shall be supported under the compressor mounting base. Internal thermal overload protection shall be provided. Protection against excessive discharge pressure shall be provided by means of a high pressure switch. Protection against a loss of charge shall be provided by a low pressure safety.

Air-to-refrigerant coil

The air-to-refrigerant coil shall consist of copper tubes mechanically bonded into evenly spaced aluminum fins. All coils shall be leak tested to 450 psig and pressure tested to 650 psig at the factory to ensure the pressure integrity. The tubes are to be completely evacuated of air and correctly charged with proper volume of refrigerant prior to shipment.

The refrigerant coil distributor assembly shall be of orifice style with round copper distributor tubes. The tubes shall be sized consistently with the capacity of the coil. Suction headers shall be fabricated from rounded copper pipe.

A thermostatic expansion valve shall be factory selected and installed for a wide range of control.



Water-to-refrigerant system - Copper heat exchanger

Heat Exchanger - The water-to-refrigerant heat exchanger is of a high quality coaxial coil for maximum heat transfer. The copper coil is deeply fluted to enhance heat transfer and minimize fouling and scaling. The coil has a working pressure of 400 psig on the water side and 650 psig on the refrigerant side. The factory shall provide rubber isolation to the heat exchanging device to enhance sound attenuation.

Reversing Valve - The reversing valve is a pilot operating sliding piston type with replaceable encapsulated magnetic coil. This valve is energized in cooling.

Tubing - The refrigerant tubing shall be of 99% pure copper. The system shall be free from contaminants and conditions such as drilling fragments, dirt and oil. All water lines that are located in the indoor air stream shall be insulated with 3/8 inch thick elastomeric insulation. The refrigerant lines that are located in the indoor air stream that are not directly over the drain pan area shall be insulated with 3/8 inch thick elastomeric insulation.

Electrical

The unit control box shall contain all necessary devices to allow heating and cooling operation to occur from a remote wall thermostat. These devices shall be as follows:

- 24 VAC energy limiting class II 75 VA (minimum) transformer

- 24 VAC blower motor relay

- 24 VAC compressor contactor for compressor control

- Field thermostat connections shall be provided for ease of hook-up to a Terminal Plug (TP1) located in the unit's control box

- Lockout circuit which controls cycling of the compressor shall be provided to protect the compressor during adverse operating conditions. The device may be reset by momentarily interrupting power to the 24 VAC control circuit. For units with the UC400B, if there is a fan/system switch on the sensor module, placing it in the ?OFF? position will reset the latched diagnostics.

Symbio/UC 400B controller

The Symbio/UC 400B controller shall utilize factory furnished and mounted DDC controls which shall have the ability to share information with one or many units on the same communication link. The Symbio/UC 400B control package shall include a 75VA (minimum) transformer. The controller shall provide random start delay, heating/cooling status, occupied/unoccupied mode, fan status and filter maintenance options. Three LEDs (light emitting diodes) shall be included for diagnostics of the equipment.

The Symbio/UC 400B shall be capable of a standalone application, or as applied to a full building automation installation.

The Air-Fi® Wireless Communications Interface (WCI) enables wireless communications between system controls, unit controls, and wireless sensors for Trane control products that use the BACnet® protocol. The WCI replaces the need for communications wire in all system applications.

Polymer Drain Pan

The polymer drain pan shall be constructed of a robust polymer material complying with UL94-5V flammability requirements. The bottom of the drain pan shall be sloped on two planes which pitches the condensate to the drain connection, this positively sloped drain pan complies with ASHRAE 62 for IAQ conformity.



Motor/Fan

The motor shall be an ECM variable speed motor with thermal overload protection. The ECM motor is programmed to provide soft starting and a constant torque over a range of static pressures and airflows. For the Deluxe Basic control options, an ECM control board is provided that allows easy field adjustment to manually set the fan speed to meet the specific application. For the UC400b, Tracer TU must be used to set the fan speed.

The fans shall be placed in a draw-through configuration and shall be a centrifugal, direct drive type. They are constructed of corrosion resistant galvanized material. Removal of the motor and fan wheel shall be made possible utilizing the factory provided orifice ring.

2" Disposable panel filter

A 2" disposable panel filter shall be provided with the unit. The filters shall be classified per UL Standard 900 for flammability. The filter shall have an initial resistance of 0.9" W.G. or less at 300 FPM. The filter shall have a final resistance of 0.5" W.G.

Thermostatic expansion valve

The equipment is provided with a bidirectional thermal expansion valve. This device allows operation of the equipment in the range of 25 to 110 degrees F entering fluid temperatures and 55 to 85 degrees F entering air temperatures. The equipment operates with one variable (entering water temperature, entering air temperature, cfm or gpm) at an extreme condition. All other variables must be within the nominal range of operation.

Disconnect switch

Disconnect Switch shall be unit mounted and easily accessed from the front of the unit. The disconnect switch shall be able to be locked in the off position with one padlock. The disconnect switch shall be UL508 Listed

Freeze Protection

Freeze protection shall be provided by use of a thermistor on the leaving water temperature side of the unit.

Matte Insulation - Horizontal 0.5 - 5 ton unit

Panels and corner posts shall be insulated with ½-inch thick dual density bonded glass fiber. The exposed side is a high density erosion proof material suitable for use in air streams up to 3600 feet per minute (FPM). The insulation meets the erosion requirements of UL 181. It has a flame spread of less than 25 and a smoke developed classification of less than 50 per ASTM E-84 and UL 723.

Standard sound attenuation package

Sound attenuation will be applied as a standard feature in the product design. The sound reduction package will include vibration isolation to the compressor and water-to-refrigerant coil, unit base stiffeners, and a second stage of vibration isolation to the compressor and water-to-refrigerant base pan.

The unit shall be tested and rated in accordance with AHRI 260.

Single point power connection

Single point power connection allows a convenient location to bring in the power supply to the unit. The one single power source will power the entire unit including the controls, compressor, blower motor and all installed options.



Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Centralized Request for Quote
 Miscellaneous**

Proc Folder: 1377699	Reason for Modification: Addendum No. 1
Doc Description: Building 17 Water Source Heat Pumps	
Proc Type: Central Purchase Order	

Date Issued	Solicitation Closes	Solicitation No	Version
2024-02-28	2024-03-06 13:30	CRFQ 0211 GSD2400000014	2

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Customer Code:
Vendor Name : Taza Supplies Inc.
Address : 16940 Vincennes Ave,
Street : 16940 Vincennes Ave,
City : South Holland
State : Illinois **Country :** US **Zip :** 60473
Principal Contact : Ken Jones
Vendor Contact Phone: 630-473-9004 **Extension:** 1028

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey
 (304) 558-0094
 melissa.k.pettrey@wv.gov

Vendor
 Signature X

FEIN# 93-475717

DATE 03/06/2024

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION

Addendum No. 1 is issued to publish and distribute the attached information to the vendor community.

REQUEST FOR QUOTATION

The West Virginia Purchasing Division is soliciting bids on behalf of the WV Department of Administration, General Services Division, to establish a contract for the for the one-time purchase of Water Source Heat Pumps (WSHP) per the bid requirements, specifications and terms and conditions as attached hereto.

This solicitation is for items only.

INVOICE TO		SHIP TO	
DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION 103 MICHIGAN AVENUE CHARLESTON WV US		DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION BLDG 17 - CONTRACTORS 2101 WASHINGTON ST CHARLESTON WV US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	TRANE Water Source Heat Pumps - Model: GEHGO15A1 or EQUAL	6.00000	EA	\$5,945.00	\$35,670.00

Comm Code	Manufacturer	Specification	Model #
40101806	Trane	(Attached separately)	GEHGO15A1

Extended Description:
TRANE Water Source Heat Pumps - Model: GEHGO15A1 or EQUAL

INVOICE TO	SHIP TO
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DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION 103 MICHIGAN AVENUE CHARLESTON WV US	DEPARTMENT OF ADMINISTRATION GENERAL SERVICES DIVISION BLDG 17 - CONTRACTORS 2101 WASHINGTON ST CHARLESTON WV US
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	TRANE Water Source Heat Pumps - Model: GEHGO18A1 or EQUAL	6.00000	EA	\$5,945.00	\$35,670.00

Comm Code	Manufacturer	Specification	Model #
40101806	Trane	(Attached separately)	GEHGO18A1

Extended Description:
 TRANE Water Source Heat Pumps - Model: GEHGO18A1 or EQUAL

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Vendor technical question deadline @ 12pm	2024-02-28

SOLICITATION NUMBER: GSD2400000014

Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as (“Solicitation”) to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation:

- 1. To publish vendor questions and agency responses.**

No other changes.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

Attachment A

CRFQ GSD2400000014

Vendor questions and responses.

Q1. Can you please provide the drawings and specifications for these?

A1. Specifications are attached in the bid documentation and there are no drawings.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: GSD2400000014

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Taza Supplies Inc.

Company



Authorized Signature

03/06/2024

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.



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<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Vendor technical question deadline @ 12pm	2024-02-28

	Document Phase	Document Description	Page
GSD240000014	Final	Building 17 Water Source Heat Pumps	4

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions