

**CITY OF SPARTA
FINANCE AGENDA
February 5, 2020**

CITY HALL

6:00 p.m.

- 1. Call Meeting to Order**
- 2. Consent Agenda: Consisting of minutes of the regular meeting on January 8, 2020.**
- 3. Consideration of Maintenance Supervisor for Park Department**
- 4. Consideration of Salary for Maintenance Supervisor at Park Dept.**
- 5. Consideration of Employee Handbook Changes**
- 6. Consideration of New Bartender Fee Schedule**
- 7. Consideration of Vacation/Carryover days for Police Officers**
- 8. Consideration of Appointed Official Term Changes in Sec. 1-22 of our Ordinances**
- 9. Consideration of Chiller for Community Center**
- 10. Items for Future Consideration**
- 11. Adjourn**

A possible quorum of the Common Council may be in attendance at this meeting but no action will be taken by the Council.

Posted: 2-3-2020

CITY OF SPARTA
FINANCE MINUTES
January 8, 2020

PRESENT: Kevin Riley, Norm Stanek, Josh Lydon

ABSENT: None

ALSO PRESENT: Mark Sund, Todd Fahning, Jim Church, Erika McTaggart, Kevin Brueggeman, Matthew Hoffland, Dale Passehl, Dennis Johnson, Ed Hansen, Dave Kuderer, Todd Hanson, Kristen Gust, Pat Mulvaney, Leo Kim, HSR rep

Kevin Riley called the meeting to order at 6:00 p.m.

A motion was made by Josh Lydon and seconded by Norm Stanek to approve the Consent Agenda consisting of the minutes of the regular meeting of December 4, 2019. Motion carried 3-0.

Leo Kim, a resident on Riverwood Place, would like his tax bill reduced as he feels it is way out of line. His purchase price in 2018 was \$190,000 and he refinanced in Nov. 2019 for an amount of \$194,085. This is a 2 story house with no basement. He called Accurate Appraisals regarding this and was told that a change of assessment letter did go out. He did not receive this as it went to the construction company. His bill is showing an amount due of \$7539.27 and he figures it should be approximately \$4851.72. He was told by Accurate Appraisals that his house is "flagged" to be looked at closer next year. Mark said he would get copies of Mr. Kim's documents and contact Accurate Appraisals to see if an adjustment can be made. **A motion was made by Kevin Riley and seconded by Josh Lydon to have Mark Sund contact Accurate Appraisals and look into this situation for Mr. Kim. Motion carried 3-0.**

The Sparta Area Chamber of Commerce is requesting tourism funds in the amount of \$500.00 to stock trout in the La Crosse River for the free fishing weekend. The funding would be matched by the Chamber. **A motion was made by Norm Stanek and seconded by Josh Lydon to approve the disbursement of \$500.00 to the Sparta Area Chamber of Commerce from the tourism funds to stock trout in the La Crosse River for the free fishing weekend. Motion carried 3-0.**

Specialty Foods had intended to purchase 5 acres in the Eastside Business Park last July. The amount per acre has been decreased to \$7500.00 per acre now as we would like to close out this business park. This land sale will have to be re-approved for the new amount. The City will retain the right of first refusal. **A motion was made by Norm Stanek and seconded by Kevin Riley to approve the land sale for Specialty Foods in the Eastside Business Park for the new amount of \$7500.00 per acre. Motion carried 3-0.**

Todd Fahning received a design contract from HSR Associates in La Crosse regarding the stages and cost for the former Lakeview School to be converted to a new police station. They are in the beginning stages of designing the building and hope to be done with this stage in the Spring/Summer of 2020. The bidding would begin in August with construction starting in the fall and looking at opening in the Spring of 2021. The cost of the contract for this project is \$225,000.00. HSR is very familiar with this building which is a plus, and intends to recycle as much as they can between the old police station and the school building. **A motion was made by Kevin Riley and seconded by Norm Stanek to approve the Police Station Design Contract with HSR Association. Motion carried 3-0.**

Number 7 on the agenda will be skipped at this time.

A roll call vote from Josh Lydon, Norm Stanek and Kevin Riley was taken to go into Closed Session per Wis. Stats. 19.85(1)(c) considering employment, promotion, compensation or performance evaluation data of any public employee over which the governmental body has jurisdiction or exercises responsibility. This was at 6:24.

A roll call vote from Norm Stanek, Josh Lydon and Norm Stanek to go back into open session was taken at 6:46.

The salary for the new Chief, Emilee Nottestad, will be \$92,000 per year. She will contribute 6.5% to her retirement and it was approved that she can take a police squad car home. **A motion was made by Kevin Riley and seconded by Josh Lydon to approve the salary for the Chief of Police at \$92,000. Motion carried 3-0.**

A motion was made by Josh Lydon and seconded by Norm Stanek to approve a one-time payout/carry over of vacation days, all but 40 hours, and comp time to start at zero hours as of 1-1-20 to Dale Passehl, Superintendent of the Sanitation Department. Motion carried 3-0.

A motion was made by Norm Stanek and seconded by Josh Lydon to deny the ability of an employee to buy one week of vacation for this year. Motion carried 3-0.

Items mentioned for future consideration were:

Changes in Employee Handbook

Make is mandatory for employees to be on direct deposit for payroll

A motion was made by Norm Stanek and seconded by Josh Lydon to adjourn at 6:54 p.m. Motion carried 3-0.

Respectfully submitted,

Julie Hanson
City Clerk

City of Sparta

Job Description

Position: Maintenance Supervisor

Job Summary (Essential Functions)

Primary responsibility include mechanic work supervision and management of the maintenance of city properties including golf course, clubhouse, clubhouse grounds, parks, softball/baseball fields, Aquatics Center facilities, including landscaping, open spaces, and the equipment used to maintain these areas. Supervise and direct full time and seasonal staff.

Job Task (Additional Responsibilities)

- Implement general policies established by the Park Board.
- Maintain all grounds and equipment to a level equal to industry standards.
- Supervision and direction of full time and seasonal employees.
- Supervise all planting, fertilizing, care, and removal of turf, plants, shrubs, flowers, and trees on the golf course and parks.
- Communicate clearly and in a timely manner with the Golf Pro and Parks and Recreation Director changes in course conditions, maintenance plans and schedule of events.
- Inspect the course regularly and record all maintenance on course.
- Select and prepare proper fertilizers and nutrients to maintain turf playability consistent with the mission statement. Supervise and follow chemical treatments plans for greens, tee box and fairways. Monitoring the above mentioned areas for turf disease.
- Maintain drainage and irrigation systems. Winterization of irrigation system and well house.
- Ensure that chemicals, petroleum, and other controlled products are used, stored, and disposed of in accordance with the laws; maintain required records and strive to minimize chemical and petroleum use.
- Solicit bids for equipment purchasing, purchase equipment and supplies as needed.
- Oversee all course construction and maintenance.
- Assist with snow removal.
- Assist with other departments as needed on larger projects.
- Ensure proper cleanliness and sanitation of all club facilities on the golf course.
- Make recommendations for capital improvements and purchases.
- Ensure proper landscaping for the golf course and parks.

- Coordinate applicable work with outside contractors

Reports to

Parks and Recreation Director

Supervises

Full time and seasonal staff maintenance staff

Parks and Recreation Director
Brad Gilbertson



Proposed Changes to City of Sparta Personnel Policy Manual

Sec. 3.2 Compensatory Time Off; Applicability of Fair Labor Standards Act

As is currently stated:

(C) (2) The maximum compensatory time which may be accrued by an affected employee shall be forty (40) hours for all hourly employees. An hourly employee who has accrued the maximum number of compensatory hours shall be paid overtime compensation in cash for any additional overtime hours of work.

Proposed new language:

(C) (2) The maximum compensatory time which may be accrued by an affected employee shall be **eighty (80) hours** for all hourly employees. An hourly employee who has accrued the maximum number of compensatory hours shall be paid in compensation in cash for any additional overtime hours of work.

As is currently stated:

(c) (3) An employee shall be permitted to use accrued compensatory time 48 hours after a request is made to the supervisor; if to do so, would not duly disrupt the operations of the City. Unused compensatory time at the end of the year may be paid out to hourly employees.

Proposed new language:

(c) (3) An employee shall be permitted to use accrued compensatory time 48 hours after a request is made to the supervisor; if to do so, would not duly disrupt the operations of the City. **Last sentence removed.**

As is currently stated:

(c) (4) Salaried employees may accrue compensatory time to a maximum of forty (40) hours on an hour for hour basis. Any overtime hours worked after the maximum compensatory time has been reached shall be used in the current pay period or lost forever.

Proposed new language:

(c) (4) Salaried employees may accrue compensatory time to a maximum of **eighty (80) hours** on an hour for hour basis. Any overtime hours worked after the maximum compensatory time has been reached shall be used in the current pay period or lost forever.

Sec 3.4 Absences

As is currently stated:

(b) Employees may apply accrued vacation and personal holidays to receive full pay for scheduled hours absent, if accrued sick time is not available. Use of annual vacations and holidays should be considered only if no other options are available.

Proposed new language: comp

(b) Employees may apply accrued vacation, **compensatory time earned** and personal holidays to receive full pay for scheduled hours absent, if accrued sick time is not available. Use of annual vacations, **compensatory time earned** and holidays should be considered only if no other options are available.

Sec 4.2 Paid Vacation

As is currently stated:

(b) Vacation time shall be accrued according to the following schedule. Employees who are off from work for more than twelve (12) consecutive weeks will not accrue any vacation days during that period of time.

<u>Length of Employment</u>	<u>Vacation Time Earned</u>
0-2 years	5 days
2-5 years	10 days
5-13 years	15 days
13-20 years	20 days
20+ years	25 days

Proposed new language:

(b) Vacation time shall be accrued according to the following schedule. Employees who are off from work for more than twelve (12) consecutive weeks will not accrue any vacation days during that period of time.

<u>Length of Employment</u>	<u>Vacation Time Earned</u>
0-2 years	5 days
2-5 years	10 days
5-10 years	15 days
10-20 years	20 days
20+ years	25 days

Sec 4.4 Sick Leave

As is currently stated:

(b) **Purpose.** Sick leave is granted for medical reasons only as an accommodation to employees and is not intended to be a cash handout or an excuse to miss work. The use of sick leave for purposes other than sickness are grounds for suspension or termination.

Proposed new language:

(b) **Purpose.** Sick leave is granted for medical reasons only as an accommodation to employees and is not intended to be a cash handout or an excuse to miss work. The use of sick leave for purposes other than sickness **will result in immediate** suspension or termination.

As is currently stated:

(k) **Donating Sick Leave.** Employees in extraordinary circumstances may donate sick leave to another employee. The maximum amount that may be donated is eight (8) hours in any twelve (12) month period.

Proposed new language:

(k) **Donating Sick Leave.** Employees in extraordinary circumstances may donate sick leave to another employee. The maximum amount that may be donated is **forty (40)** hours in any twelve (12) month period.

As is currently stated:

(L) **Bonus Floating Holiday.** Any employee that uses no sick leave for any purpose in a calendar year (and worked the entire year) shall be entitled to one additional floating holiday to be used in the next calendar year.

Proposed new language:

(L) Bonus Floating Holiday. Any employee that uses no sick leave for any purpose **(not to include a donation to a fellow employee)** in a calendar year (and worked the entire year) shall be entitled to one additional floating holiday to be used in the next calendar year.

Sec 4.10 Payment of Wages and Payroll Deductions

As is currently stated:

(a) **Pay Day.** The City shall issue checks bi-weekly on Friday. Should a normally scheduled payday fall on a holiday, payment will be by 3:00 p. m. on the preceding day.

Proposed new language:

(a) Pay Day. The City shall issue checks bi-weekly on Friday (all newly hired fulltime and fulltime equivalent employees will be required to be paid by direct deposit to an account of their preference). Should a normally scheduled payday fall on a holiday, payment will be by 3:00 p. m. on the preceding day.

Sec. 4.11 Reimbursements

As is currently stated:

(f) **Receipts.** Receipts, to be filed with the Clerk within one (1) week of incurring the expense, are required for the following expenses in order to receive reimbursement. No reimbursement will be made without receipts.

- (1) Mileage, tolls, parking and garage charges.
- (2) Lodging
- (3) Registration and/or tuition fees
- (4) Meals

Proposed new language:

(f) Receipts. Receipts, to be filed with the **City Treasurer/City Accountant** within one (1) week of incurring the expense, are required for the following expenses in order to receive reimbursement. No reimbursement will be made without receipts.

- (1) Mileage, tolls, parking and garage charges.
- (2) Lodging
- (3) Registration and/or tuition fees
- (4) Meals

Sec 4.13 Uniform Allowance

As is currently stated:

Any full-time employee required to wear a uniform shall be reimbursed for uniform purchases, cleaning and repair costs upon submission of bills or receipts for such expenditures. Uniform allowances are limited to \$500 for sworn police personnel and \$350 for all other employees required to wear uniforms. Department Heads shall select the uniform style for each department. Part-time employees will be provided a uniform as deemed necessary by the Department Head.

Sec 4.13 Uniform/Clothing Allowance

Proposed new language:

Any full-time employee required to wear a uniform **or specific clothing (safety vests, steel toed boots, etc.)** shall be reimbursed for said uniform **or specific clothing purchases**, cleaning, and repair costs upon submission of bills or receipts for such expenditures. Uniform/clothing allowances are limited to **the agreed upon dollar amount in the collective bargaining agreement** for sworn police personnel and \$350 for all other employees required to wear **specific clothing**. Department Heads shall select the uniform/clothing style for each department. Part-time employees will be provided a uniform as deemed necessary by the Department Head.

Sec 5.7 Credit Card Use

As is currently stated:

Any City owned general credit cards will be kept by the City Administrator in a secure location. The use of the cards is limited to employees on business trips. The employee requesting use of one of the cards should contact the Administrator prior to the trip. The card should be returned to the Administrator at the completion of the trip. At no time will any personal purchases be allowed with City credit cards or on any City store accounts.

Proposed new language:

City owned general credit cards will be issued to each Department Head. Department Heads (or an employee they designate) will keep said credit card(s) in a secure location. Credit cards can only be used for purchases necessary for department operations and/or employee business travels. Personal purchases will not be allowed using a City owned credit card, charging to City store accounts, or using the City's Amazon corporate account. The receipts from all credit card transactions must be turned into the City Treasurer's office within seven (7) business days of the credit card transaction. Failure to turn in credit card transaction receipts in a timely manner may result in the loss of the use of the City credit card.

Proposed Fee Schedule for (Operator) Bartender Licenses:

Have a \$10.00 non-refundable fee up front to cover back ground checks in case they were to get denied. Then if approved, they would have to pay the remainder of the fee to get their license from Clerk.

The fee for a 2 year license (example: July 1, 2020 to June 30, 2022) would be \$60.00. If license is applied for during the months of July through June of the 2nd year (example: July 1, 2021 to June 30, 2022) the fee would be \$30.00. The fees would no longer be pro-rated.

Depending on how they answer the questions, they should know if there might be a possibility of being denied. So, if they paid the full fee up front and they were denied based on the questions asked, they will not be issued a refund. They can, however, appeal the decision through Public Safety.

OPERATOR (BARTENDER) LICENSE APPLICATION – Page 2

- | | |
|--|--------------------|
| 1. Have you been convicted of any felony or misdemeanor? | Yes _____ No _____ |
| 2. Have you been convicted of any license law or ordinance regulating the sale and/or Consumption of fermented malt beverages or intoxicating liquors? | Yes _____ No _____ |
| 3. Are there presently any charges, federal, state, or local pending against you? | Yes _____ No _____ |
| 4. Do you presently have any outstanding forfeiture, fees or fines owed to the City of Sparta? | Yes _____ No _____ |

If you answered yes to any of the above questions, list the offense convicted of, pending conviction, date of conviction, and State and county of conviction.

Date:	Nature of Offense:	County:	State:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

By signing below, the applicant states that he/she is the person named in the foregoing application, that the applicant has read and made a complete answer to each question, and that the answers in each instance are true and correct. The undersigned further understands that any license issued contrary to Chapter 125 of Wisconsin Statutes shall be void, and under penalty of state law, the applicant may be prosecuted for submitting false statements and affidavits in connection with this application.

Signature of Applicant: _____ **Date:** _____

Signature of person receiving application: _____ **Date:** _____

FOR OFFICE USE ONLY

Receipt # _____ Amount paid _____ Date paid _____

License Expiration Date: Provisional: _____ (not more than 60 days)
 Operators: June 30, _____ (annual)
 Temporary Period: _____ (not more than 14 days)

Date granted: _____

License #: _____

Date Issued: _____

Chief of Police Recommendation:

Yes: _____ No: _____

Current Sec. 1-22 - Appointed Officials

Official	How Appointed	Term, Expiration
Assessor	City Council	Two years, even no.
Building Inspector	Mayor-subject to council approval	Two years, even no.
Police Chief	Police and Fire Commission	Indefinite
City Attorney	City Council	One year
City Clerk	City Council	Indefinite
City Comptroller	City Council	Two years, odd no.
City Forester	Mayor-subject to council approval	One year
Parks & Rec Director	City Council	Indefinite
Public Works Director	City Council	Indefinite
Electrical Inspector	Mayor-subject to council approval	Two years, even no.
Fire District Trustee	City Council Member from Public Safety Comm	Three years
Plumbing Inspector	Mayor-subject to council approval	Two years, even no.
Safety Inspector	Mayor-subject to council approval	One year
Sanitation Superintendent	City Council	One year
Treasurer	City Council	Two years, even no.
Deputy Treasurer	City Council	Two years, even no.
Water Superintendent	City Council	Indefinite
Weed Commissioner	Mayor-subject to council approval	One year
Zoning Administrator	Mayor-subject to council approval	One year

Proposed Changes

Official	How Appointed	Term, Expiration
Assessor	City Council	Indefinite/Per Contract
Building Inspector	City Council	Indefinite
Police Chief	Police and Fire Commission	Indefinite
City Attorney	City Council	Indefinite
City Clerk	City Council	Indefinite
City Comptroller	City Council	Indefinite
City Forester	City Council	Indefinite
Parks & Rec Director	City Council	Indefinite
Public Works Director	City Council	Indefinite
Electrical Inspector	City Council	Indefinite
Fire District Trustee	City Council Member from Public Safety Committee appointed by Mayor	Three years
Plumbing Inspector	City Council	Indefinite
Safety Inspector	City Council	Indefinite
Sanitation Superintendent	City Council	Indefinite
Treasurer	City Council	Indefinite
Deputy Treasurer	City Council	Indefinite
Water Superintendent	City Council	Indefinite
Weed Commissioner	City Council	Indefinite
Zoning Administrator	City Council	Indefinite



Proposal

(Valid for 30 days from Proposal date)

**PROPRIETARY AND CONFIDENTIAL PROPERTY OF Trane U.S. Inc.
DISTRIBUTION TO OTHER THAN THE NAMED RECIPIENT IS PROHIBITED**

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Prepared For:
Brad Gilbertson
Park & Recreation Director
Sparta Community Center
1000 East Montgomery Street
Sparta, WI 54656

Date: February 3, 2020

Proposal Number: T2-20887-3

Job Name:
Sparta Community Center Chiller

Delivery Terms:
Freight Allowed and Prepaid - F.O.B. Factory

Payment Terms:
Net 30 Days

Trane U.S. Inc. is pleased to provide the following proposal for your review and approval.

Tag Data - Air-Cooled Scroll (Qty: 1)

Item	Tag(s)	Qty	Description	Model Number
A1	CH-1	1	60 Ton Air-Cooled (CGAM)	CGAM060A2

Product Data - Air-Cooled Scroll

Item: A1 Qty: 1 Tag(s): CH-1

Air-Cooled Scroll Packaged Chiller

Startup by Trane Factory Technician

60 Nominal Tons

208/60/3

High efficiency/performance

Full factory refrigerant charge (HFC-410A)

Factory installed freeze protection – **Requires a Separate 115 V circuit.**

Refrigerant isolation valves (discharge valve)

UL listed to US and Canadian safety standard

Factory installed flow switch & strainer

Standard cooling – Evaporator Leaving of 40-65

Grooved pipe connection

Factory insulation 0.75" – **All Cold Parts**

Microchannel coil

Across the line starter/direct on line

Circuit breaker-high fault rated control panel

BACnet Interface

High Amp short circuit rating

Elastomeric isolators

Comprehensive acoustic package – Low Noise fans and Compressor Wraps

Architectural louvered panels

1st year labor warranty

5 year compressor parts

Total Net Price (Excluding Sales Tax)\$ 38,667.00

Add \$900 to include Louvers
Add \$1050 to include Compressor Wraps

Notes:

- 1. Controls Integration by Others.
- 2. Installation & Rigging NOT included in this Proposal

Tax Status: Taxable <input type="checkbox"/> Exempt <input type="checkbox"/>	IF EXEMPT PLEASE SUBMIT COMPLETED TAX EXEMPTION CERTIFICATE WITH YOUR SIGNED PROPOSAL OR WITH YOUR PURCHASING DOCUMENTS, KEEP YOUR ORIGINAL ON FILE IN THE OFFICE. YOU WILL BE CHARGED TAX IF A VALID EXEMPTION CERTIFICATE IS NOT ON FILE BEFORE EQUIPMENT, PARTS OR SERVICES ARE PROVIDED. SEE WWW.TAXSITES.COM/STATE-LINKS.HTML FOR TAX FORMS.
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Robert Jordan for Jim Butterfield - Trane U.S. Inc.

2525 Larson Street
La Crosse, WI 54603
Cell: (608) 518-0635

This proposal is subject to your acceptance of the attached Trane terms and conditions.

TERMS AND CONDITIONS - COMMERCIAL EQUIPMENT

"Company" shall mean Trane U.S. Inc...

1. Acceptance. These terms and conditions are an integral part of Company's offer and form the basis of any agreement (the "Agreement") resulting from Company's proposal (the "Proposal") for the sale of the described commercial equipment and any ancillary services (the "Equipment"). **COMPANY'S TERMS AND CONDITIONS ARE SUBJECT TO PERIODIC CHANGE OR AMENDMENT.** The Proposal is subject to acceptance in writing by the party to whom this offer is made or an authorized agent ("Customer") delivered to Company within 30 days from the date of the Proposal. If Customer accepts the Proposal by placing an order, without the addition of any other terms and conditions of sale or any other modification, Customer's order shall be deemed acceptance of the Proposal subject to Company's terms and conditions. If Customer's order is expressly conditioned upon Company's acceptance or assent to terms and/or conditions other than those expressed herein, return of such order by Company with Company's terms and conditions attached or referenced serves as Company's notice of objection to Customer's terms and as Company's counter-offer to provide Equipment in accordance with the Proposal and the Company's terms and conditions. If Customer does not reject or object in writing to Company within 10 days, Company's counter-offer will be deemed accepted. Customer's acceptance of the Equipment will in any event constitute an acceptance by Customer of Company's terms and conditions. This Agreement is subject to credit approval by Company. Upon disapproval of credit, Company may delay or suspend performance or, at its option, renegotiate prices and/or terms and conditions with Customer. If Company and Customer are unable to agree on such revisions, this Agreement shall be cancelled without any liability.

2. Title and Risk of Loss. All Equipment sales with destinations to Canada or the U.S. shall be made as follows: FOB Company's U.S. manufacturing facility or warehouse (full freight allowed). Title and risk of loss or damage to Equipment will pass to Customer upon tender of delivery of such to carrier at Company's U.S. manufacturing facility or warehouse.

3. Pricing and Taxes. Following acceptance without addition of any other terms and condition of sale or any other modification by Customer, the prices stated are firm provided that notification of release for immediate production and shipment is received at Company's factory not later than 3 months from order acceptance. If such release is received later than 3 months from order acceptance date, prices will be increased a straight 1% (not compounded) for each 1 month period (or part thereof) beyond the 3 month firm price period up to the date of receipt of such release. If such release is not received within 6 months after the date of order acceptance, the prices are subject to renegotiation or at Company's option, the order will be cancelled. Any delay in shipment caused by Customer's actions will subject prices to increase equal to the percentage increase in list prices during that period of delay and Company may charge Customer with incurred storage fees. In no event will prices be decreased. The price of Equipment does not include any present or future foreign, federal, state, or local property, license, privilege, sales, use, excise, value added, gross receipts or other like taxes or assessments. Such amounts will be itemized separately to Customer, who will make prompt payment to Company. Company will accept valid exemption documentation for such from Customer, if applicable. All prices include packaging in accordance with Company's standard procedures. Charges for special packaging, crating or packing are the responsibility of Customer.

4. Delivery and Delays. Delivery dates are approximate and not guaranteed. Company will use commercially reasonable efforts to deliver the Equipment on or before the estimated delivery date will notify Customer if the estimated delivery dates cannot be honored, and will deliver the Equipment and services as soon as practicable thereafter. In no event will Company be liable for any damages or expenses caused by delays in delivery.

5. Performance. Company shall be obligated to furnish only the Equipment described in the Proposal and in submittal data (if such data is issued in connection with the order). Company may rely on the acceptance of the Proposal, and in submittal data as acceptance of the suitability of the Equipment for the particular project or location. Unless specifically stated in the Proposal, compliance with any local building codes or other laws or regulations relating to specifications or the location, use or operation of the Equipment is the sole responsibility of Customer. If Equipment is tendered that does not fully comply with the provisions of this Agreement, and Equipment is rejected by Customer, Company will have the right to cure within a reasonable time after notice thereof by substituting a conforming tender whether or not the time for performance has passed.

6. Force Majeure. Company's duty to perform under this Agreement and the Equipment prices are contingent upon the non-occurrence of an Event of Force Majeure. If the Company shall be unable to carry out any material obligation under this Agreement due to an Event of Force Majeure, this Agreement shall at Company's election (i) remain in effect but Company's obligations shall be suspended until the uncontrollable event terminates or (ii) be terminated upon 10 days' notice to Customer, in which event Customer shall pay Company for all parts of the Work furnished to the date of termination. An "Event of Force Majeure" shall mean any cause or event beyond the control of Company. Without limiting the foregoing, "Event of Force Majeure" includes: acts of God; acts of terrorism, war or the public enemy; flood; earthquake; tornado; storm; fire; civil disobedience; pandemic insurrections; riots; labor/labour disputes; labor/labour or material shortages; sabotage; restraint by court order or public authority (whether valid or invalid); and action or non-action by or inability to obtain or keep in force the necessary governmental authorizations, permits, licenses, certificates or approvals if not caused by Company; and the requirements of any applicable government in any manner that diverts either the material or the finished product to the direct or indirect benefit of the government.

7. Limited Warranty. Company warrants the Equipment manufactured by Company for a period of the lesser of 12 months from initial start-up or 18 months from date of shipment, whichever is less, against failure due to defects in material and manufacture and that it has the capacities and ratings set forth in Company's catalogs and bulletins ("Warranty"). **Equipment manufactured by Company that includes required start-up and sold in North America will not be warranted by Company unless Company performs the Equipment startup.** Exclusions from this Warranty include damage or failure arising from: wear and tear; corrosion, erosion, deterioration; modifications made by others to the Equipment; repairs or alterations by a party other than Company that adversely affects the stability or reliability of the Equipment; vandalism; neglect; accident; adverse weather or environmental conditions; abuse or improper use; improper installation; commissioning by a party other than Company; unusual physical or electrical or mechanical stress; operation with any accessory, equipment or part not specifically approved by Company; refrigerant not supplied by Company; and/or lack of proper maintenance as recommended by Company. Company shall not be obligated to pay for the cost of lost refrigerant or lost product. Company's obligations and liabilities under this Warranty are limited to furnishing replacement equipment or parts, at its option, FCA (Incoterms 2000) factory or warehouse (f.o.b. factory or warehouse for US domestic purposes) at Company-designated shipping point, freight-allowed to Company's warranty agent's stock location, for all non-conforming Company-manufactured Equipment (which have been returned by Customer to Company. Returns must have prior written approval by Company and are subject to restocking charge where applicable. Equipment, material and/or parts that are not manufactured by Company are not warranted by Company and have such warranties as may be extended by the respective manufacturer.

COMPANY MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING PREVENTION OF MOLD/MOULD, FUNGUS, BACTERIA, MICROBIAL GROWTH, OR ANY OTHER CONTAMINATES. No warranty liability whatsoever shall attach to Company until Customer's complete order has been paid for in full and Company's liability under this Warranty shall be limited to the purchase price of the Equipment shown to be defective. Additional warranty protection is available on an extra-cost basis and must be in writing and agreed to by an authorized signatory of the Company. **EXCEPT FOR COMPANY'S WARRANTY EXPRESSLY SET FORTH HEREIN, COMPANY DOES NOT MAKE, AND HEREBY EXPRESSLY DISCLAIMS, ANY WARRANTIES, EXPRESS OR IMPLIED CONCERNING ITS PRODUCTS, EQUIPMENT OR SERVICES, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF DESIGN, MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR OTHERS THAT ARE ALLEGED TO ARISE FROM COURSE OF DEALING OR TRADE.**

8. Indemnity. To the fullest extent permitted by law, Company and Customer shall indemnify, defend and hold harmless each other from any and all claims, actions, costs, expenses, damages and liabilities, including reasonable attorneys' fees, resulting from death or bodily injury or damage to real or personal property, to the extent caused by the negligence or misconduct of their respective employees or other authorized agents in connection with their activities within the scope of this Agreement. Neither party shall indemnify the other against claims, damages, expenses or liabilities to the extent attributable to the acts or omissions of the other party. If the parties are both at fault, the obligation to indemnify shall be proportional to their relative fault. The duty to indemnify will continue in full force and effect, notwithstanding the expiration or early termination hereof, with respect to any claims based on facts or conditions that occurred prior to expiration or termination.

9. Insurance. Upon request, Company will furnish evidence of its standard insurance coverage. If Customer has requested to be named as an additional insured under Company's insurance policy, Company will do so but only subject to Company's manuscript additional insured endorsement under its primary Commercial General Liability policies. In no event does Company waive any rights of subrogation.

10. Customer Breach. Each of the following events or conditions shall constitute a breach by Customer and shall give Company the right, without an election of remedies, to terminate this Agreement, require payment prior to shipping, or suspend performance by delivery of written notice: (1) Any failure by Customer to pay amounts when due; or (2) any general assignment by Customer for the benefit of its creditors, or if Customer becomes bankrupt or insolvent or takes the benefit of any statute for bankrupt or insolvent debtors, or makes or proposes to make any proposal or arrangement with creditors, or if any steps are taken for the winding up or other termination of Customer or the liquidation of its assets, or if a trustee, receiver, or similar person is appointed over any of the assets or interests of Customer; (3) Any representation or warranty furnished by Customer in connection with this Agreement is false or misleading in any material respect when made; or (4) Any failure by Customer to perform or comply with any material provision of this Agreement. Customer shall be liable to the Company for all Equipment furnished and all damages sustained by Company (including lost profit and overhead).

11. Limitation of Liability. NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT CONSEQUENTIAL, OR PUNITIVE OR EXEMPLARY DAMAGES (INCLUDING WITHOUT LIMITATION REFRIGERANT LOSS, BUSINESS INTERRUPTION, LOST DATA, LOST REVENUE, LOST PROFITS) EVEN IF A PARTY HAS BEEN ADVISED OF SUCH POSSIBLE DAMAGES OR IF SAME WERE REASONABLY FORESEEABLE AND REGARDLESS OF WHETHER THE CAUSE OF ACTION IS FRAMED IN CONTRACT, NEGLIGENCE, ANY OTHER TORT, WARRANTY, STRICT LIABILITY, OR PRODUCT LIABILITY). In no event will Company's liability in connection with the provision of products or services or otherwise under this Agreement exceed the entire amount paid to Company by Customer under this Agreement.

12. Nuclear Liability. In the event that the Equipment sold hereunder is to be used in a nuclear facility, Customer will, prior to such use, arrange for insurance or governmental indemnity protecting Company against all liability and hereby releases and agrees to indemnify Company and its suppliers for any nuclear damage, including loss of use, in any manner arising out of a nuclear incident, whether alleged to be due, in whole or in part to the negligence or otherwise of Company or its suppliers.

13. Intellectual Property; Patent Indemnity. Company retains all ownership, license and other rights to all patents, trademarks, copyrights, trade secrets and other intellectual property rights related to the Equipment, and, except for the right to use the Equipment sold, Customer obtains no rights to use any such intellectual property. Company agrees to defend any suit or proceeding brought against Customer so far as such suit or proceeding is solely based upon a claim that the use of the Equipment provided by Company constitutes infringement of any patent of the United States of America, provided Company is promptly notified in writing and given authority, information and assistance for defense of same. Company will, at its option, procure for Customer the right to continue to use said Equipment, or modify it so that it becomes non-infringing, or replace same with non-infringing Equipment, or to remove said Equipment and to refund the purchase price. The foregoing will not be construed to include any Agreement by Company to accept any liability whatsoever in respect to patents for inventions including more than the Equipment furnished hereunder, or in respect of patents for methods and processes to be carried out with the aid of said Equipment. The provision of Equipment by Company does not convey any license, by implication, estoppel, or otherwise, under patent claims covering combinations of said Equipment with other devices or elements. The foregoing states the entire liability of Company with regard to patent infringement. Notwithstanding the provisions of this paragraph, Customer will hold Company harmless against any expense or loss resulting from infringement of patents or trademarks arising from compliance with Customer's designs or specifications or instructions.

14. Cancellation. Equipment is specially manufactured in response to orders. An order placed with and accepted by Company cannot be delayed, canceled, suspended, or extended except with Company's written consent and upon written terms accepted by Company that will reimburse Company for and indemnify Company against loss and provide Company with a reasonable profit for its materials, time, labor, services, use of facilities and otherwise. Customer will be obligated to accept any Equipment shipped, tendered for delivery or delivered by Company pursuant to the order prior to any agreed delay, cancellation, suspension or extension of the order. Any attempt by Customer to unilaterally revoke, delay or suspend acceptance for any reason whatever after it has agreed to delivery of or accepted any shipment shall constitute a breach of this Agreement. For purposes of this paragraph, acceptance occurs by any waiver of inspection, use or possession of Equipment, payment of the invoice, or any indication of exclusive control exercised by Customer.

15. Invoicing and Payment. Equipment shall be invoiced to Customer upon tender of delivery thereof to the carrier. Customer shall pay Company's invoices within net 30 days of shipment date. Company reserves the right to add to any account outstanding for more than 30 days a service charge equal to the lesser of the maximum allowable legal interest rate or 1.5% of the principal amount due at the end of each month. Customer shall pay all costs (including attorneys' fees) incurred by Company in attempting to collect amounts due and otherwise enforcing these terms and conditions. If requested, Company will provide appropriate lien waivers upon receipt of payment. Company may at any time decline to ship, make delivery or perform work except upon receipt of cash payment, letter of credit, or security, or upon other terms and conditions satisfactory to Company. Customer agrees that, unless Customer makes payment in advance, Company will have a purchase money security interest in all Equipment to secure payment in full of all amounts due Company and its order for the Equipment, together with these terms and conditions, form a security agreement (as defined by the UCC in the United States and as defined in the Personal Property Security Act in Canada). Customer shall keep the Equipment free of all taxes and encumbrances, shall not remove the Equipment from its original installation point and shall not assign or transfer any interest in the Equipment until all payments due Company have been made. The purchase money security interest granted herein attaches upon Company's acceptance of Customer's order and on receipt of the Equipment described in the accepted Proposal but prior to its installation. The parties have no agreement to postpone the time for attachment unless specifically noted in writing on the accepted order. Customer will have no rights of set off against any amounts, which become payable to Company under this Agreement or otherwise.

16. Claims. Company will consider claims for concealed shortages in shipments or rejections due to failure to conform to an order only if such claims or rejections are made in writing within 15 days of delivery and are accompanied by the packing list and, if applicable, the reasons in detail why the Equipment does not conform to Customer's order. Upon receiving authorization and shipping instructions from authorized personnel of Company, Customer may return rejected Equipment, transportation charges prepaid, for replacement. Company may charge Customer any costs resulting from the testing, handling, and disposition of any Equipment returned by Customer which are not found by Company to be nonconforming. All Equipment damaged during shipment and all claims relating thereto must be made with the freight carrier in accordance with such carrier's policies and procedures. Claims for Equipment damaged during shipment are not covered under the warranty provision stated herein.

17. Export Laws. The obligation of Company to supply Equipment under this Agreement is subject to the ability of Company to supply such items consistent with applicable laws and regulations of the United States and other governments. Company reserves the right to refuse to enter into or perform any order, and to cancel any order, under this Agreement if Company in its sole discretion determines that performance of the transaction to which such order relates would violate any such applicable law or regulation. Customer will pay all handling and other similar costs from Company's factories including the costs of freight, insurance, export clearances, import duties and taxes. Customer will be "exporter of record" with respect to any export from the United States of America and will perform all compliance and logistics functions in connection therewith and will also comply with all applicable laws, rules and regulations. Customer understands that Company and/or the Equipment are subject to laws and regulations of the United States of America which may require licensing or authorization for and/or prohibit export, re-export or diversion of Company's Equipment to certain countries, and agrees it will not knowingly assist or participate in any such diversion or other violation of applicable United States of America laws and regulations. Customer agrees to hold harmless and indemnify Company for any damages resulting to Customer or Company from a breach of this paragraph by Customer.

18. General. Except as provided below, to the maximum extent provided by law, this Agreement is made and shall be interpreted and enforced in accordance with the laws of the state of New York for Equipment shipped to a U.S. location and the laws of the province to which Equipment is

shipped within Canada, without regard to its conflict of law principles that might otherwise call for the application of a different state's or province's law, and not including the United Nations Convention on Contracts for the International Sale of Goods. Any action or suit arising out of or related to this Agreement must be commenced within one year after the cause of action has accrued. To the extent the Equipment is being used at a site owned and/or operated by any agency of the Federal Government, determination of any substantive issue of law shall be according to the Federal common law of Government contracts as enunciated and applied by Federal judicial bodies and boards of contract appeals of the Federal Government. This Agreement contains all of the agreements, representations and understandings of the parties and supersedes all previous understandings, commitments or agreements, oral or written, related to the subject matter hereof. This Agreement may not be amended, modified or terminated except by a writing signed by the parties hereto. No documents shall be incorporated herein by reference except to the extent Company is a signatory thereon. If any term or condition of this Agreement is invalid, illegal or incapable of being enforced by any rule of law, all other terms and conditions of this Agreement will nevertheless remain in full force and effect as long as the economic or legal substance of the transaction contemplated hereby is not affected in a manner adverse to any party hereto. Customer may not assign, transfer, or convey this Agreement, or any part hereof, or its right, title or interest herein, without the written consent of the Company. Subject to the foregoing, this Agreement shall be binding upon and inure to the benefit of Customer's permitted successors and assigns. This Agreement may be executed in several counterparts, each of which when executed shall be deemed to be an original, but all together shall constitute but one and the same Agreement. A fully executed facsimile copy hereof or the several counterparts shall suffice as an original.

19. Equal Employment Opportunity/Affirmative Action Clause. Company is a federal contractor that complies fully with Executive Order 11246, as amended, and the applicable regulations contained in 41 C.F.R. Parts 60-1 through 60-60, 29 U.S.C. Section 793 and the applicable regulations contained in 41 C.F.R. Part 60-741; and 38 U.S.C. Section 4212 and the applicable regulations contained in 41 C.F.R. Part 60-250 Executive Order 13496 and Section 29 CFR 471, appendix A to subpart A, regarding the notice of employee rights in the United States and with Canadian Charter of Rights and Freedoms Schedule B to the Canada Act 1982 (U.K.) 1982, c. 11 and applicable Provincial Human Rights Codes and employment law in Canada.

20. U.S. Government Work.

The following provision applies only to direct sales by Company to the US Government. The Parties acknowledge that Equipment ordered and delivered under this Agreement are Commercial Items as defined under Part 12 of the Federal Acquisition Regulation (FAR). In particular, Company agrees to be bound only by those Federal contracting clauses that apply to "commercial" suppliers and that are contained in FAR 52.212-5(e)(1).

The following provision applies only to indirect sales by Company to the US Government. As a Commercial Item Subcontractor, Company accepts only the following mandatory flow down provisions: 52.219-8; 52.222-26; 52.222-35; 52.222-36; 52.222-39; 52.247-64. If the sale of the Equipment is in connection with a U.S. Government contract, Customer certifies that it has provided and will provide current, accurate, and complete information, representations and certifications to all government officials, including but not limited to the contracting officer and officials of the Small Business Administration, on all matters related to the prime contract, including but not limited to all aspects of its ownership, eligibility, and performance. Anything herein notwithstanding, Company will have no obligations to Customer unless and until Customer provides Company with a true, correct and complete executed copy of the prime contract. Upon request, Customer will provide copies to Company of all requested written communications with any government official related to the prime contract prior to or concurrent with the execution thereof, including but not limited to any communications related to Customer's ownership, eligibility or performance of the prime contract. Customer will obtain written authorization and approval from Company prior to providing any government official any information about Company's performance of the work that is the subject of the Proposal or this Agreement, other than the Proposal or this Agreement.

21. Limited Waiver of Sovereign Immunity. If Customer is an Indian tribe (in the U.S.) or a First Nation or Band Council (in Canada), Customer, whether acting in its capacity as a government, governmental entity, a duly organized corporate entity or otherwise, for itself and for its agents, successors, and assigns: (1) hereby provides this limited waiver of its sovereign immunity as to any damages, claims, lawsuit, or cause of action (herein "Action") brought against Customer by Company and arising or alleged to arise out of the furnishing by Company of any product or service under this Agreement, whether such Action is based in contract, tort, strict liability, civil liability or any other legal theory; (2) agrees that jurisdiction and venue for any such Action shall be proper and valid (a) if Customer is in the U.S., in any state or United States court located in the state in which Company is performing this Agreement or (b) if Customer is in Canada, in the superior court of the province or territory in which the work was performed; (3) expressly consents to such Action, and waives any objection to jurisdiction or venue; (4) waives any requirement of exhaustion of tribal court or administrative remedies for any Action arising out of or related to this Agreement; and (5) expressly acknowledges and agrees that Company is not subject to the jurisdiction of Customer's tribal court or any similar tribal forum, that Customer will not bring any action against Company in tribal court, and that Customer will not avail itself of any ruling or direction of the tribal court permitting or directing it to suspend its payment or other obligations under this Agreement. The individual signing on behalf of Customer warrants and represents that such individual is duly authorized to provide this waiver and enter into this Agreement and that this Agreement constitutes the valid and legally binding obligation of Customer, enforceable in accordance with its terms.

1-26.130-4 (0614)
Supersedes 1-26.130-4(0214)

Unit Overview

Chiller Model	CGAM
Unit Nominal Tonnage	60 tons
Refrigeration Capacity	55.85 tons
Cooling Efficiency	10.38 EER (Btu/W-h)
IPLV.IP	14.38 EER (Btu/W-h)
NPLV.IP	14.37 EER (Btu/W-h)
Elevation	0.000 ft
Unit Frequency	60. hertz
Unit Voltage	208.volt 3 phases
Refrigerant Type	R410A
Number of compressor	4
Number of circuits	2
Number of capacity steps	4
Agency Listing	UL/CUL



Evaporator Information

Evaporator Application

Std cooling

Fluid Temperatures		Flow Rate		Freeze protection	
Evaporator Leaving	44.00 F	Design Flow	133.4 gpm	Freeze protection	With freeze protection
Evaporator Entering	54.00 F	Min Flow	67.09 gpm	Fouling factor	0.000100 hr-sq ft-deg F/ Btu
Fluid Properties		Fluid Pressure Drop		Flow switch set point	Flow switch set point 60 cm/sec
Fluid Type	Water	Total PD evap+strainer	16.4 ft H2O	Water connection size	3.000 in
Freeze Point	32.00 F	Design Evap PD	11.6 ft H2O		
		Min PD	4.45 ft H2O		

Condenser Information

Unit Application	High ambient	Fin Material	Microchannel		
Ambient Air Temp.	95.0 F	Total airflow	47755 cfm	Number of Fans	6

Unit Electrical

Unit				RLA	LRA
Compressor Starter	Across the line	Incoming Power Line Conn. Type	Single point	Compressor A	50.20 A 351.00 A
Total Power	64.55 kW	Power Line Conn. Type	Circuit breaker-high fault rated	Compressor B	50.20 A 351.00 A
Compressor Power	56.90 kW	Short Circuit Current Option	High	Compressor D	50.20 A 351.00 A
Fan Power	7.330 kW	Short Circuit Current Rating	65000 A	Compressor E	50.20 A 351.00 A
Total Fan FLA	39.40 A	Single Point Power MCA	257 A		
		Single Point Power MOP	300 A		

Physical Information

Dimensions		Weights		Refrigerant Charge	Oil Charge
Length	150 in	Operating Weight	4156 lb	Circuit 1	33.0 lb 1.56 gal
Width	88 in	Shipping Weight	4136 lb	Circuit 2	33.0 lb 1.56 gal
Height	85 in				

Unit Acoustics (A-Weighted)

A-Weighted	Sound Power	Sound Pressure*	Unit Sound Package
100%	89 dBA	62 dBA	Comprehensive package

Note: In Accordance with AHRI 370

*Note: at 30 feet in free field

Warranty

Standard Warranty



Information for LEED Projects

Refrigerant (R410A) - ckt 1	33.0 lb	ASHRAE 90.1 - all versions up to 2016
Refrigerant (R410A) - ckt 2	33.0 lb	
Rated Capacity (AHRI)	55.86 tons	This product meets the minimum efficiency requirements of ASHRAE Standard 90.1 and CANS/CSA C743 for all versions (which are based on AHRI standard rating conditions) and, therefore, also meets the LEED "Minimum Energy Performance" prerequisite in the Energy and Atmosphere section. The LEED Green Building Rating System™, developed by the U.S. Green Building Council, provides independent, third-party verification that a building project meets green building and performance measures.
Rated Efficiency (AHRI)	10.38 EER (Btu/W-h)	
IPLV	14.38 EER (Btu/W-h)	
Refrigeration Capacity	55.85 tons	
Cooling Efficiency	10.38 EER (Btu/W-h)	
Compress Power	56.90 kW	
Fan Motor Power	7.330 kW	

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org.



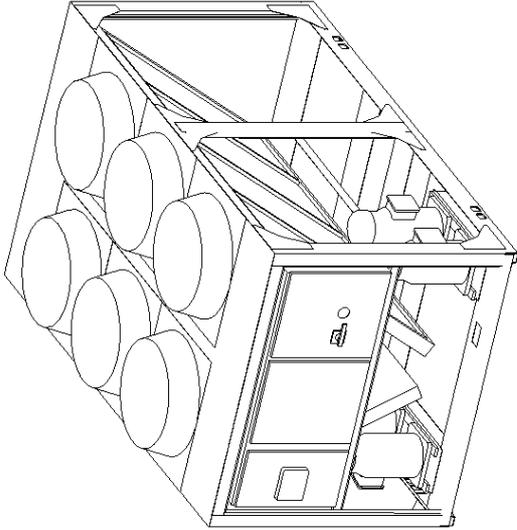
TOPSS Version Number: 231
Data Generation Date: 2/3/2020

INLET/OUTLET WATER
CONNECTION SIZE

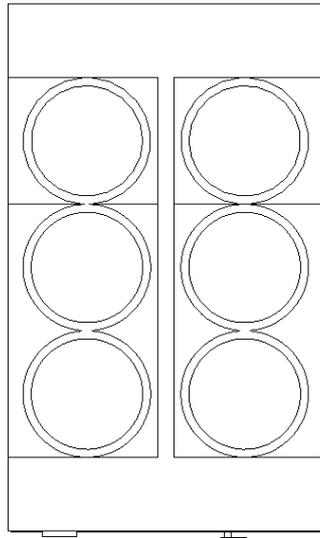
3" (80mm)

BRAZE PLATE
WATER VOLUME/STORAGE

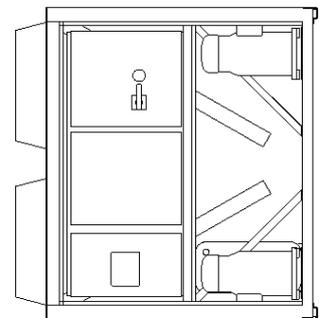
5.0 GAL (19.0 LITERS)



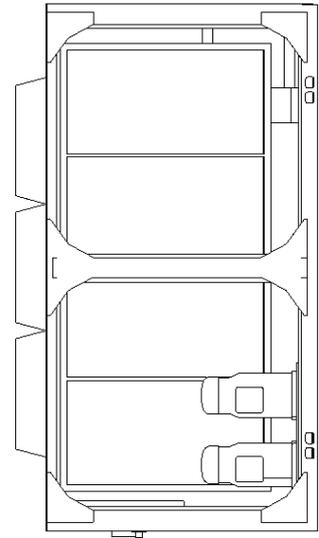
ISOMETRIC VIEW



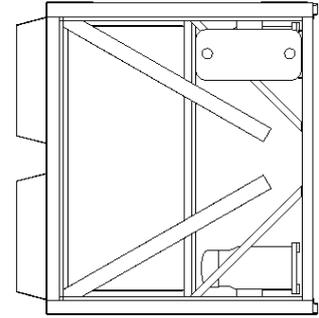
TOP VIEW



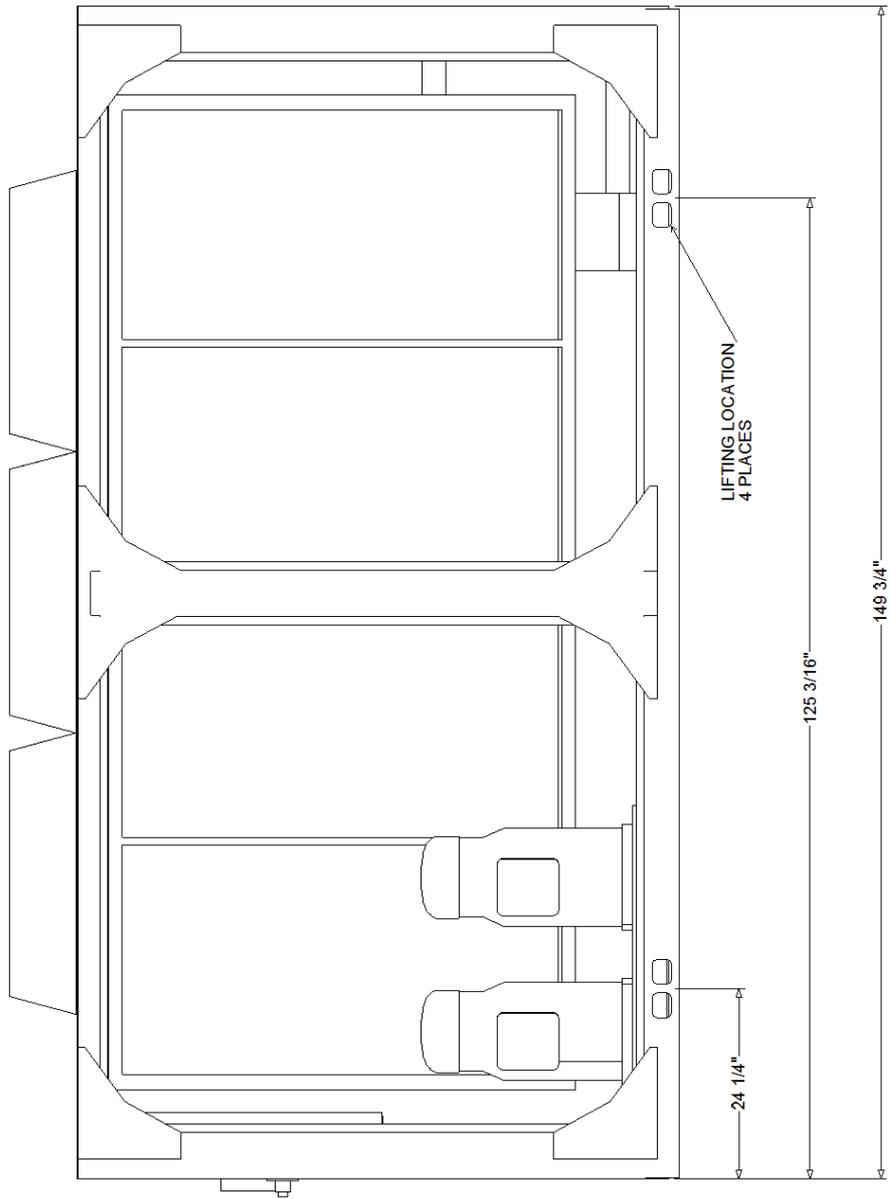
FRONT VIEW

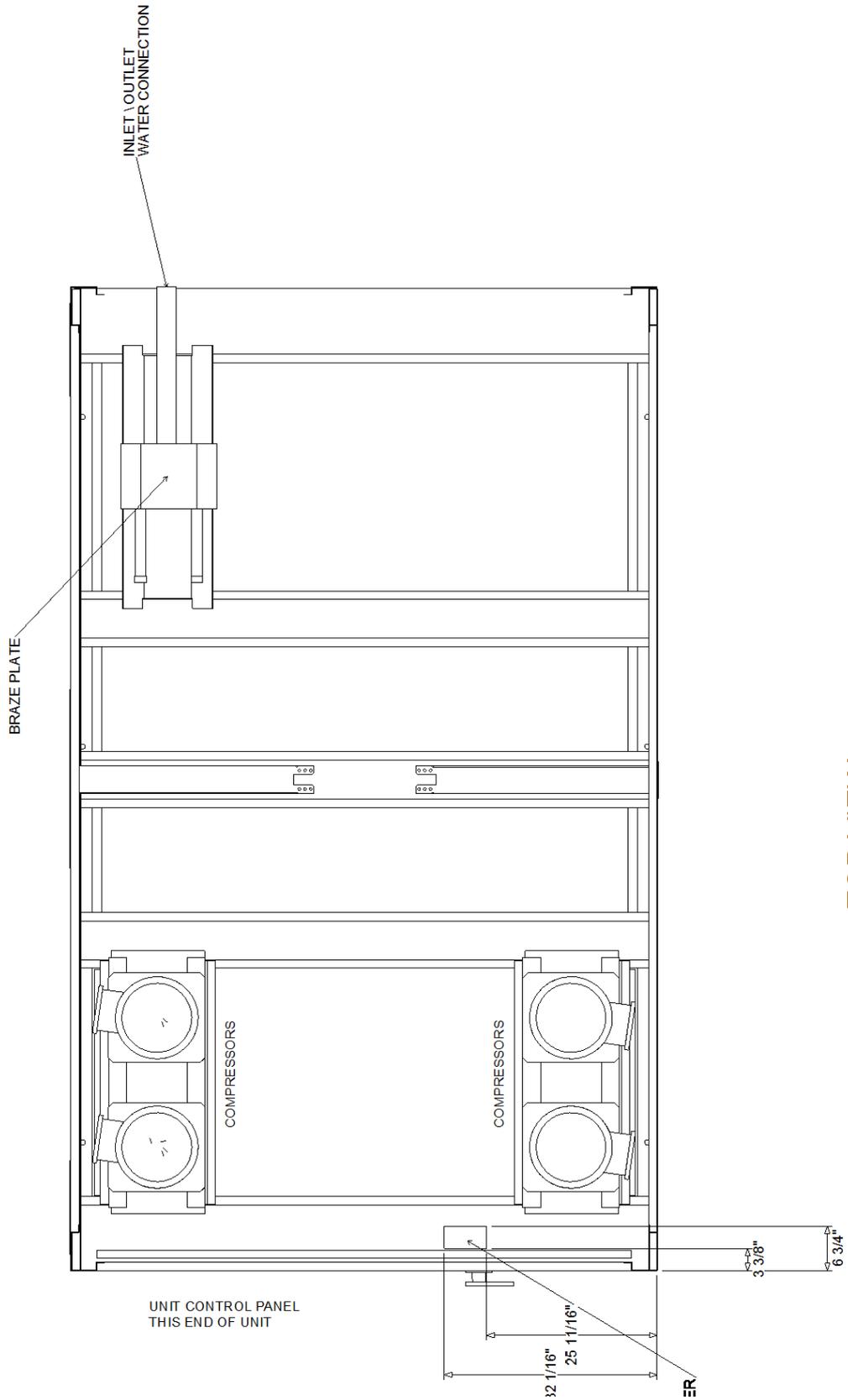


RIGHT SIDE VIEW

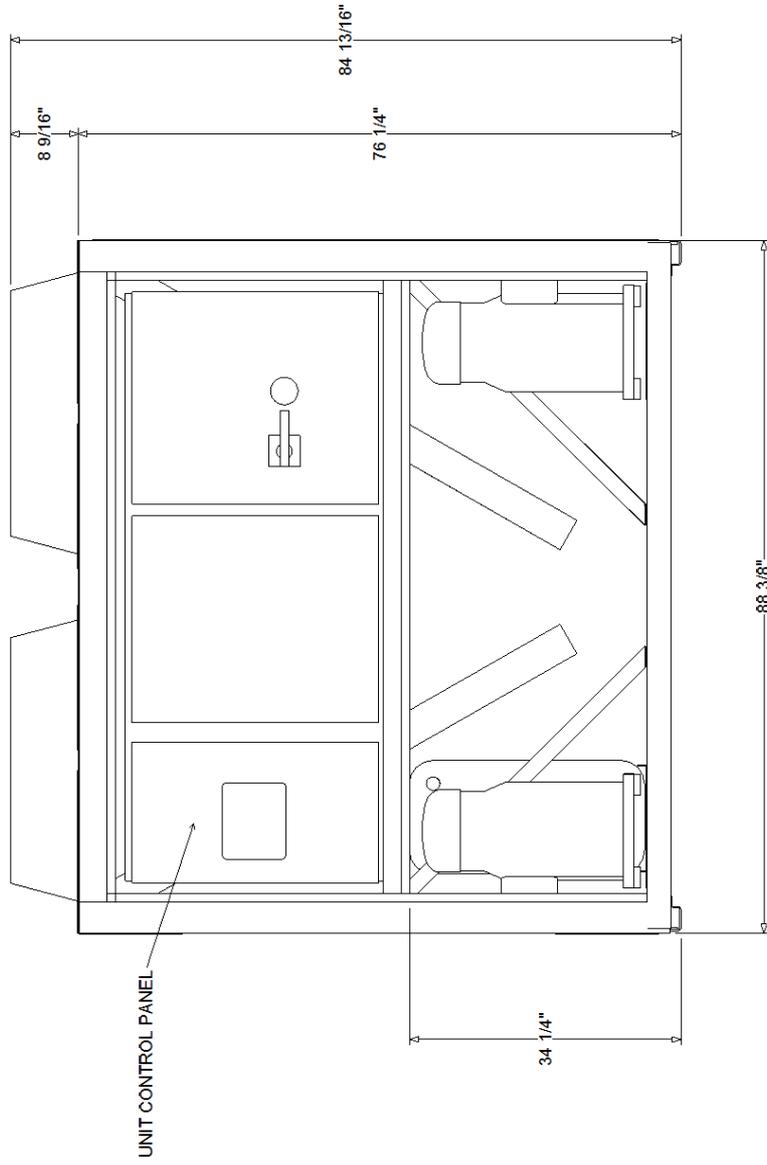


BACK VIEW

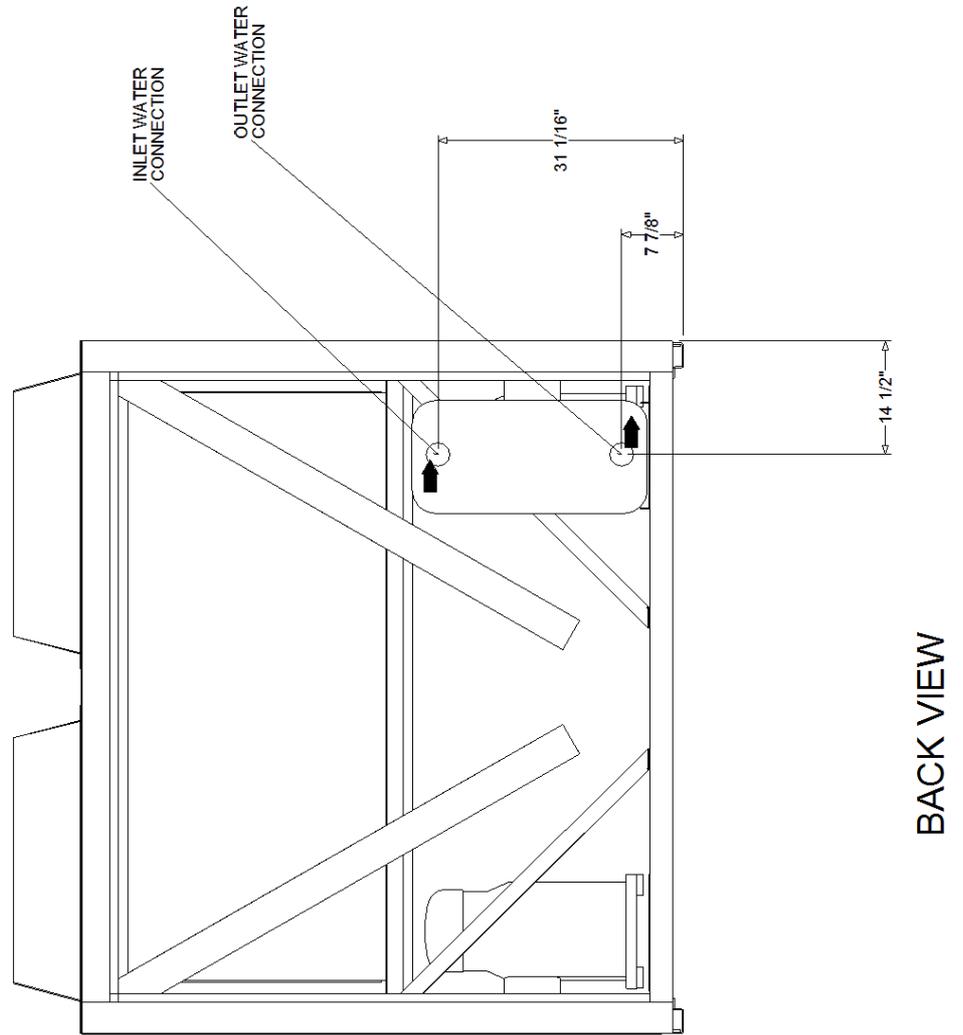


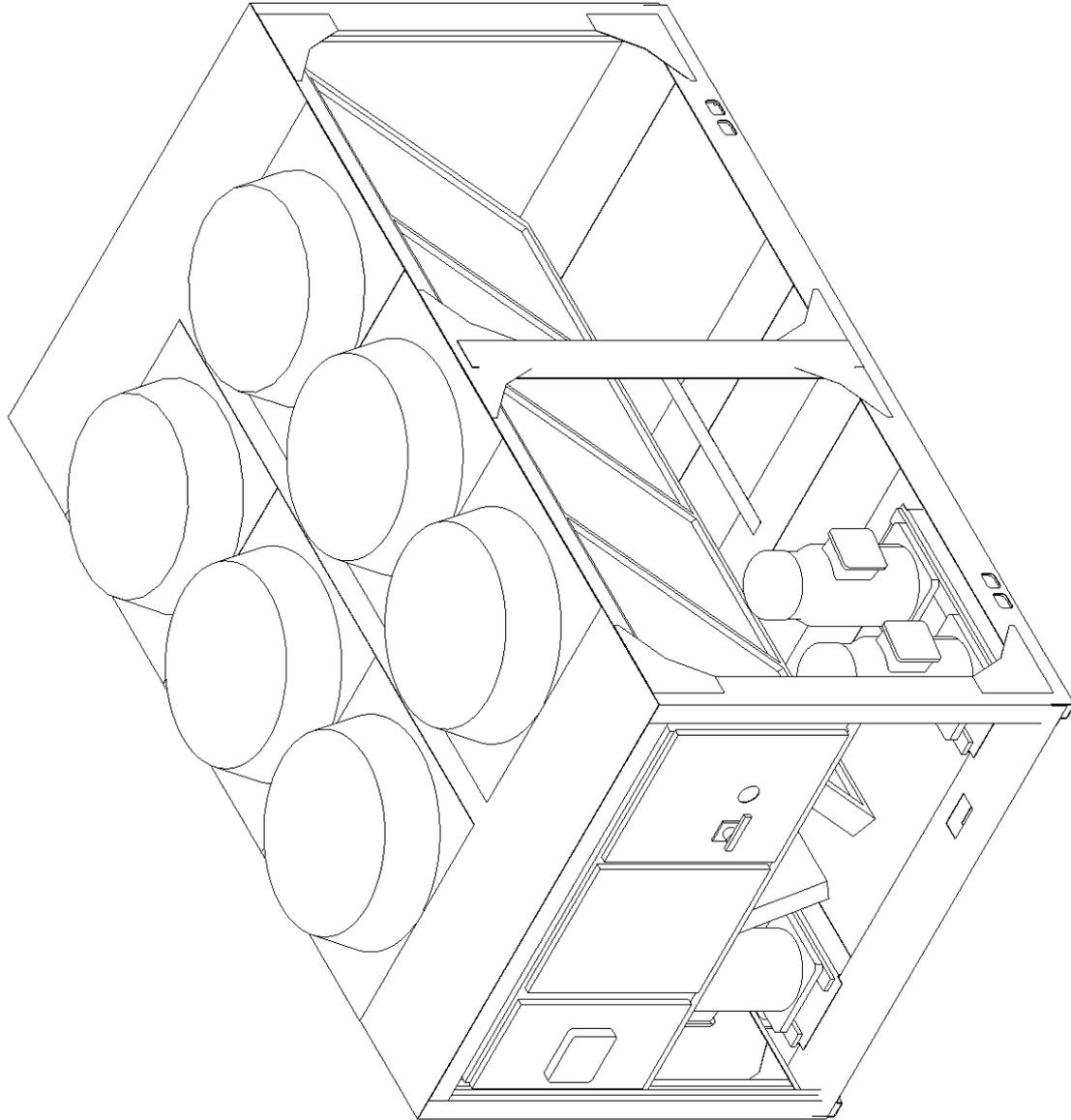


TOP VIEW
 CONDENSER, CONTROL PANEL AND
 VSD (WHEN ORDERED) REMOVED FOR CLARITY



FRONT VIEW

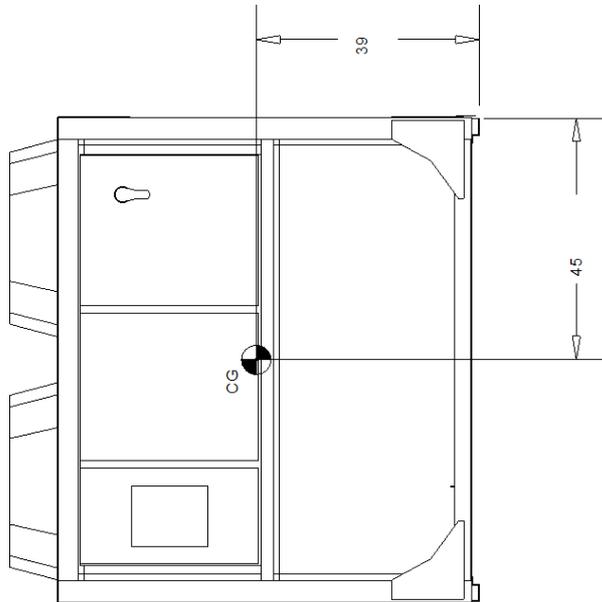




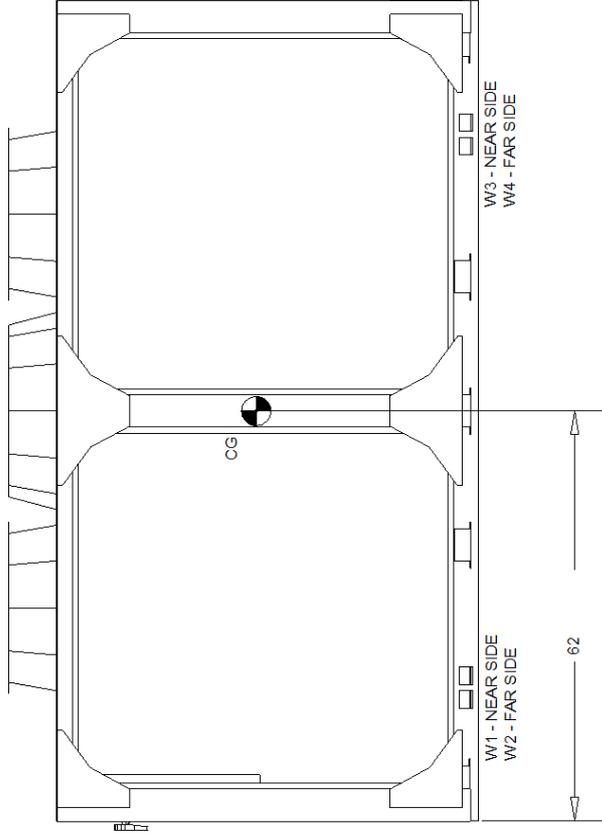
ISOMETRIC VIEW

UNIT CENTER OF GRAVITY

LIFTING WEIGHTS				
W1	W2	W3	W4	SHIPPING WEIGHT
1,267	1,314	763	792	4,135.9



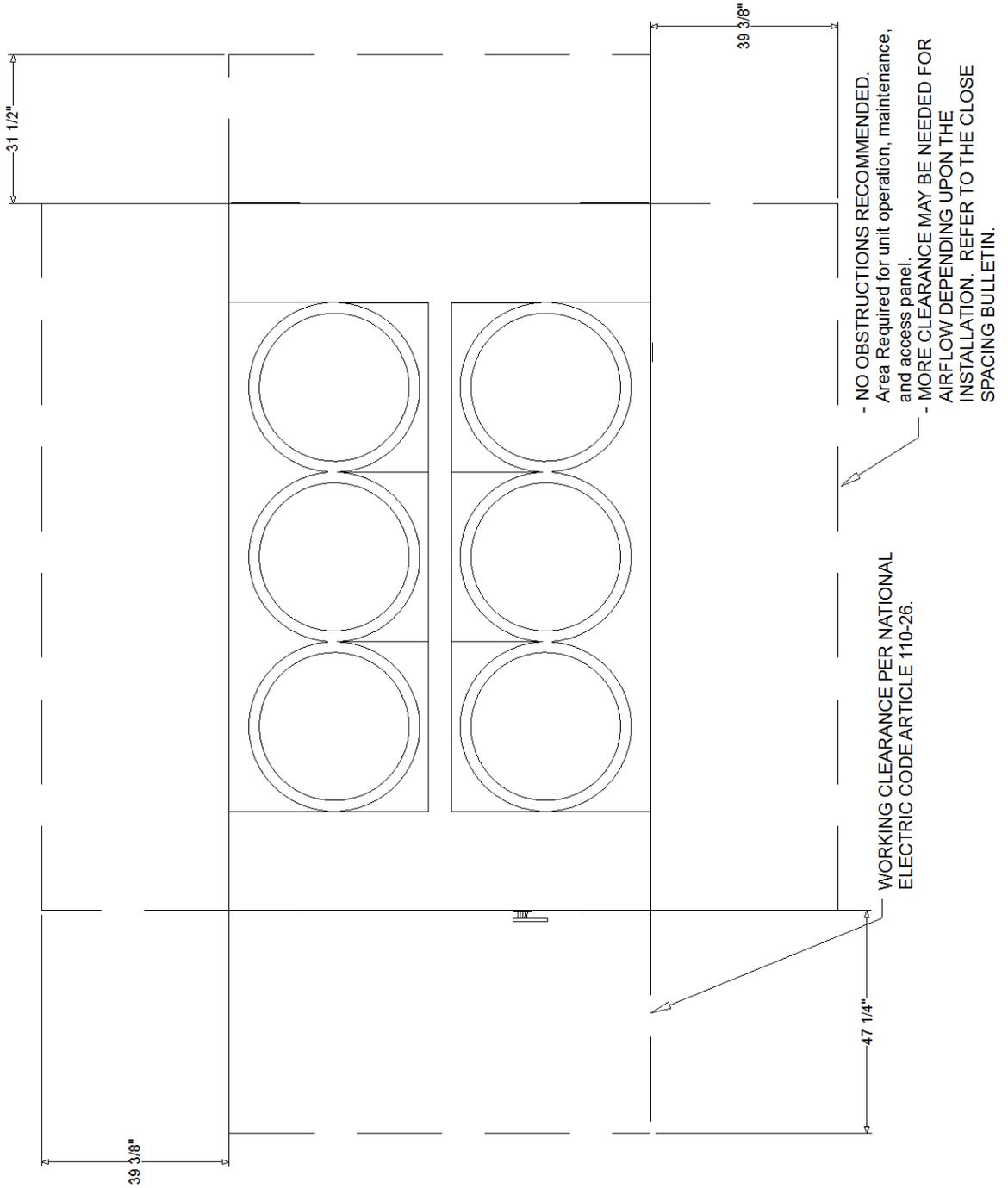
FRONT VIEW
CONTROL PANEL END



SIDE VIEW

UNIT CLEARANCE TOP VIEW

NO OBSTRUCTIONS ABOVE THE CONDENSER



UNIT RIGGING

LIFTING A UNIT WITH EQUAL LENGTH STRAPS WILL NOT PRODUCE A LEVEL UNIT DURING THE LIFT BECAUSE THE CG WILL NOT BE AT THE MIDPOINT BETWEEN THE BASE LIFTING HOLES. THE FOLLOWING ADJUSTMENTS MUST BE MADE TO PRODUCE A LEVEL LIFT:

- SINGLE SPREADER BAR LIFTING METHOD
IF THE UNIT CG IS CLOSER TO THE CONTROL PANEL, THE STRAPS ON THE CONTROL PANEL SIDE OF THE SPREADER BAR MUST BE ADJUSTED TO BE SHORTER THAN THOSE ON THE OPPOSITE SIDE OF THE SPREADER BAR, ALLOWING THE SPREADER BAR TO MOVE TOWARD THE CONTROL PANEL AND OVER THE UNIT CG. SEVERAL ADJUSTMENTS OF THE STRAP LENGTH MAY BE REQUIRED TO PRODUCE A LEVEL UNIT DURING LIFT.
- H-TYPE SPREADER BAR LIFTING METHOD
IF THE STRAPS FROM THE H BAR TO THE UNIT BASE ARE THE SAME LENGTH, THE CRANE LIFTING POINT ON THE CENTER WEB OF THE H BAR MUST BE ADJUSTED TO PRODUCE A LEVEL UNIT LIFT.



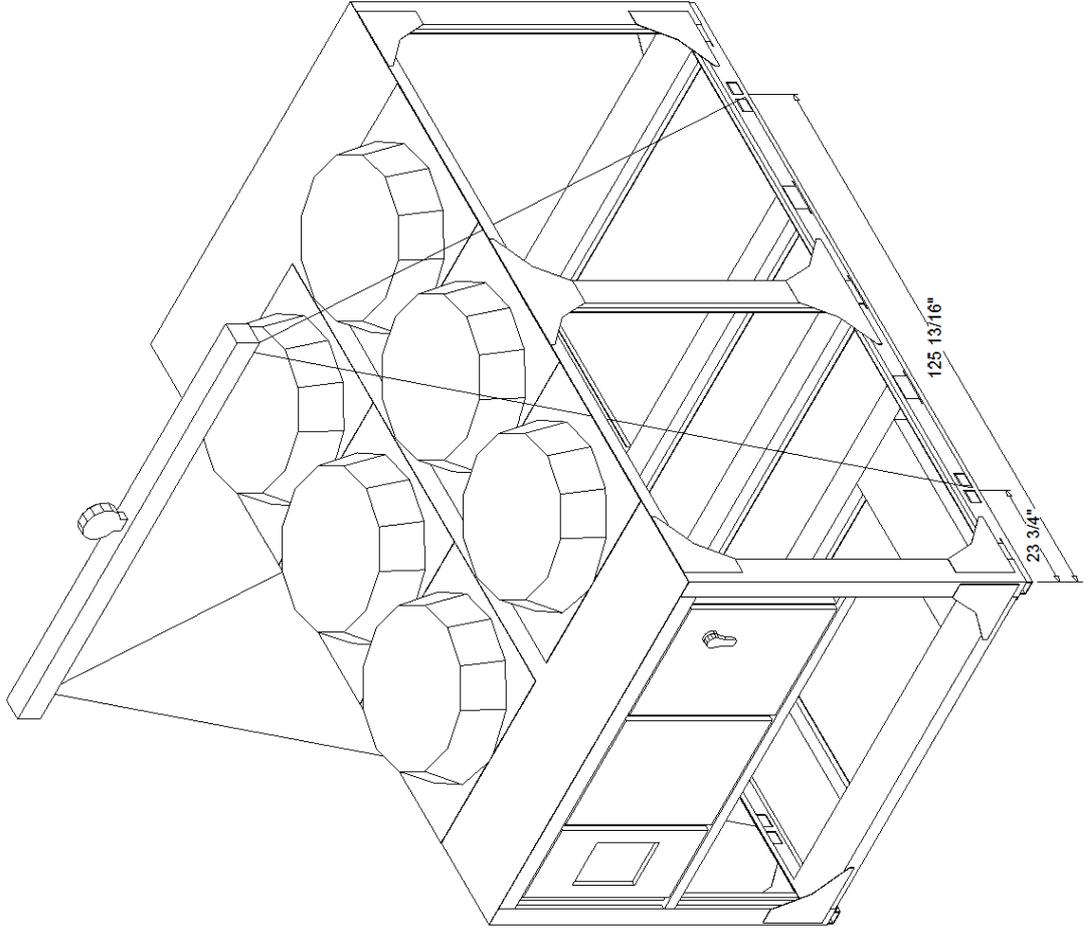
WARNING

IMPROPER LIFTING AND MOVING!

USE SPREADER BAR AS SHOWN IN DIAGRAM. REFER TO INSTALLATION MANUAL OR NAMEPLATE FOR UNIT WEIGHT. REFER TO INSTALLATION INSTRUCTIONS LOCATED INSIDE CONTROL PANEL FOR FURTHER RIGGING INFORMATION.

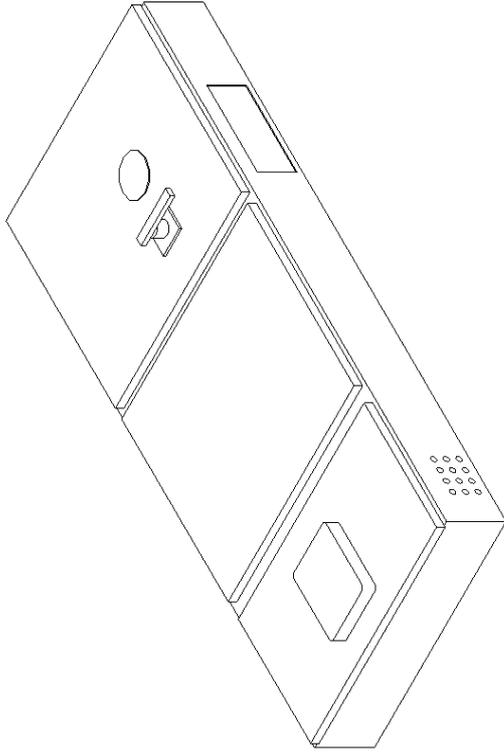
OTHER LIFTING ARRANGEMENTS COULD RESULT IN DEATH, SERIOUS INJURY OR EQUIPMENT DAMAGE.

DO NOT ALLOW LIFTING STRAPS TO CONTACT UNIT DURING LIFT!



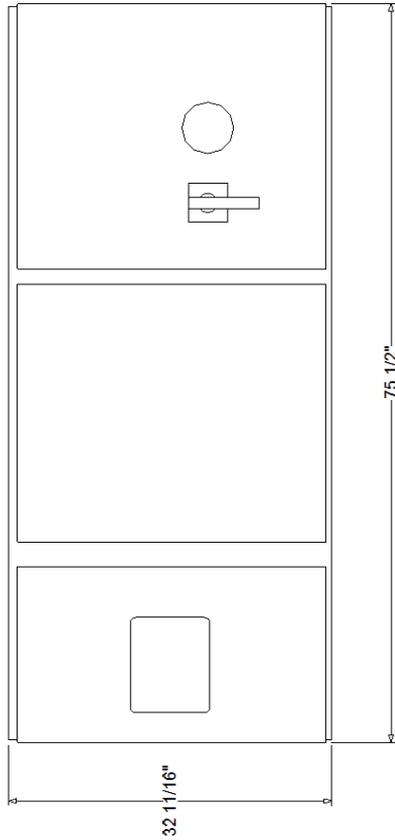
ISOMETRIC VIEW

SHORT CIRCUIT RATING 65kA

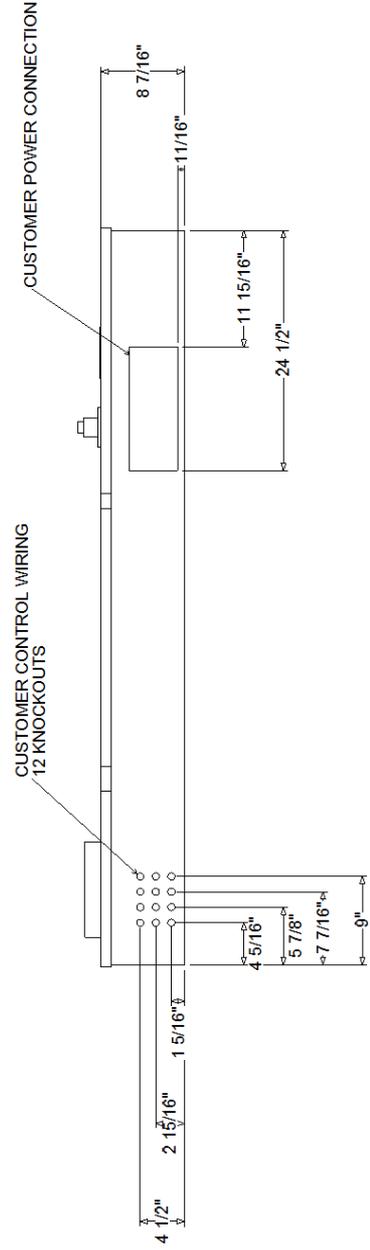


ISOMETRIC VIEW

CUSTOMER WIRE SELECTION TABLE			
POWER WIRE CONNECTION TO CIRCUIT BREAKER (1Q1)			
UNIT SIZE	UNIT EFF	VOLTAGE	CIR 1 & 2 (SINGLE POINT POWER) LUG WIRE SIZE RANGE (PER PHASE)
060	HIGH	200	(2 MAX Conductors per phase) 2/0-500MCM



FRONT VIEW

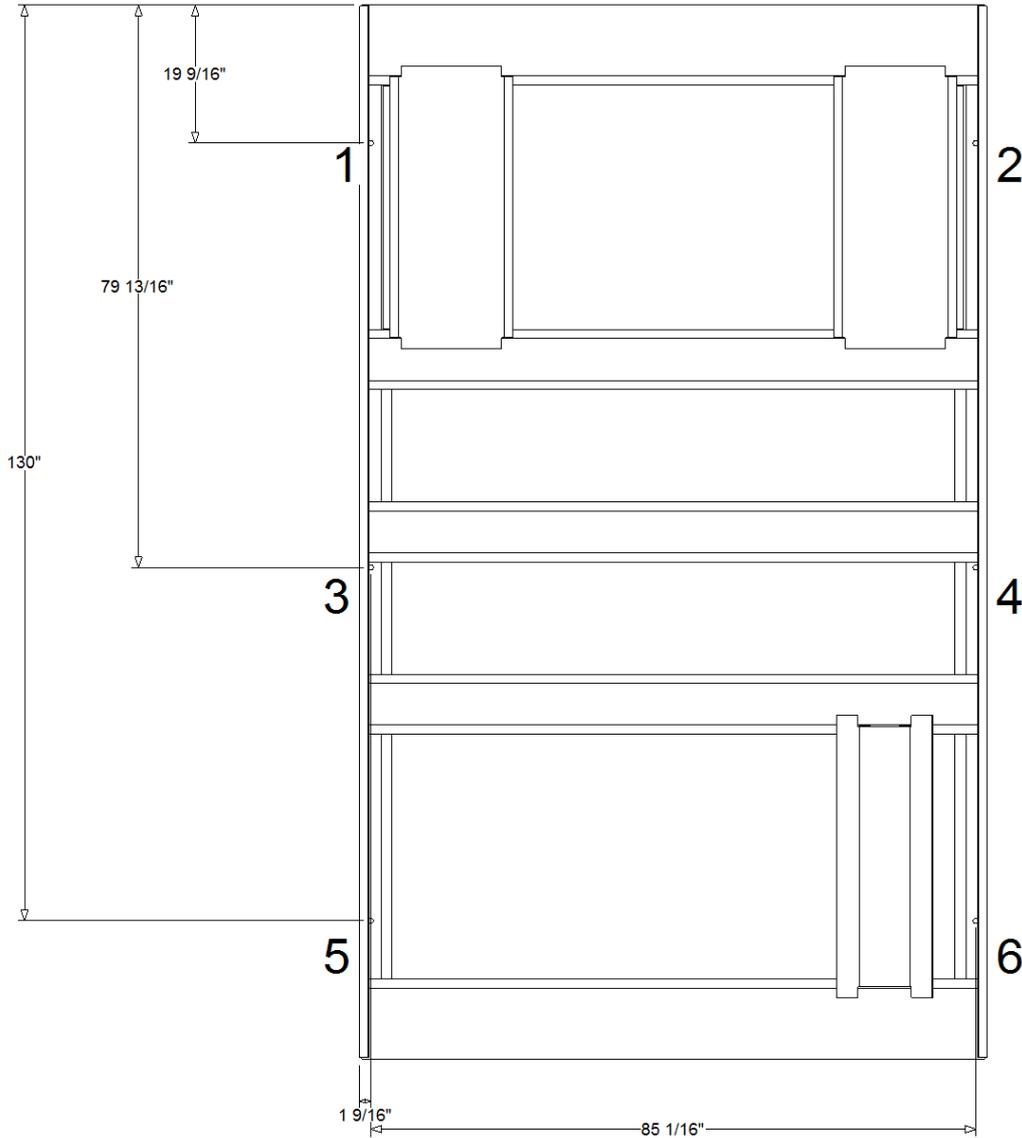


BOTTOM VIEW

UNIT SIZE	MOUNTING LOCATIONS & POINT LOAD WEIGHTS						TOTAL OPERATING WEIGHT
	1	2	3	4	5	6	
060	853	916	793	856	354	383	4,155.7

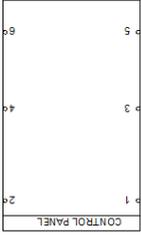
MOUNTING HOLE DIAMETER 3/4"

CONTROL PANEL



TOP VIEW

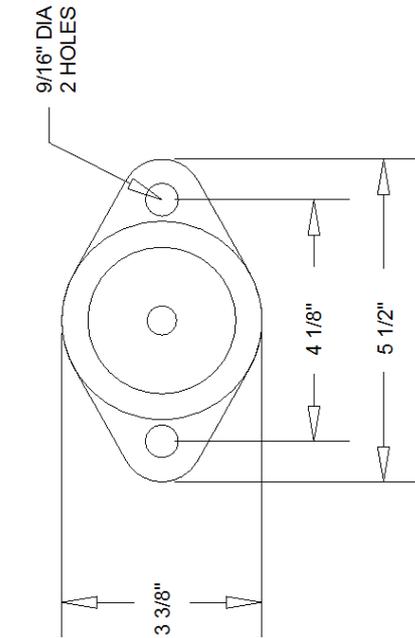
 DIMENSIONS ARE REFERENCED FROM
 THE END AND SIDE OF THE UNIT BASE



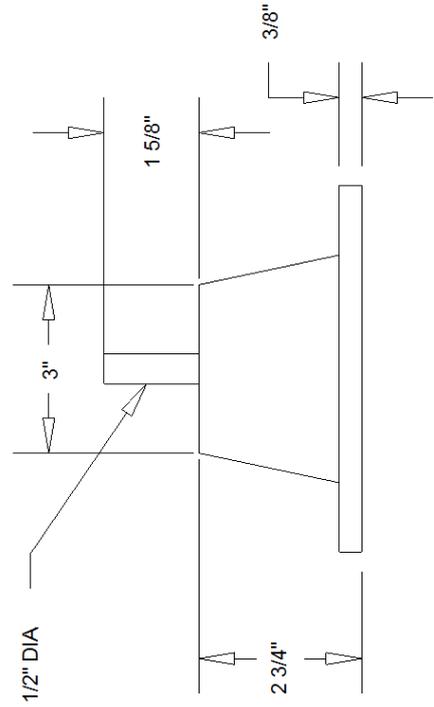
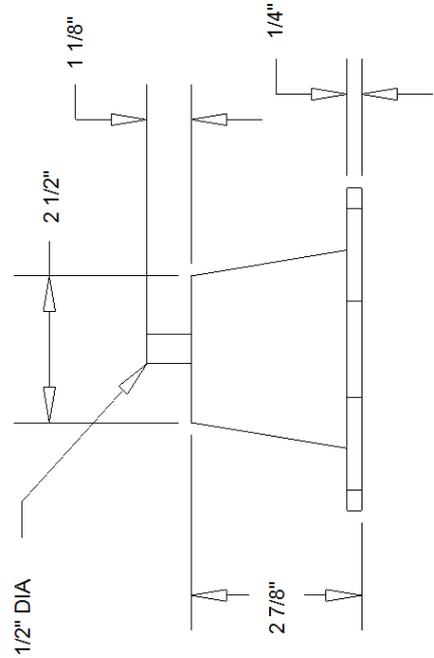
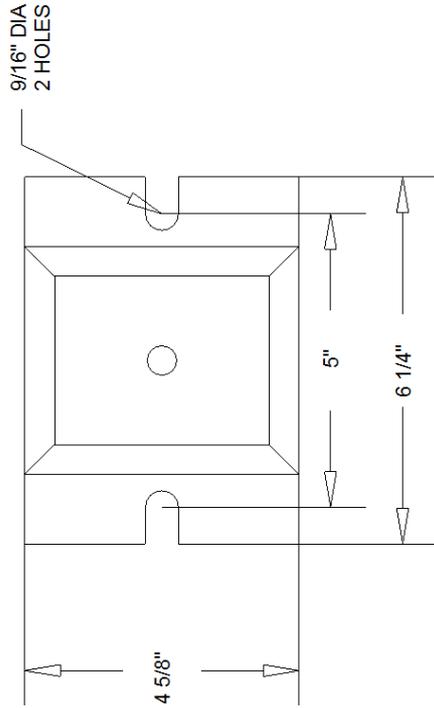
SEE ISOLATOR POINT LOADS FOR DETAILED INFORMATION ON ISOLATOR LOCATIONS.

UNIT SIZE	MOUNTING LOCATIONS AND ISOLATOR NUMBER					
	1	2	3	4	5	6
060	RDP-4 BRICK RED	RDP-4 BRICK RED	RDP-3 CHARCOAL	RDP-4 BROWN	RDP-3 CHARCOAL	RDP-3 CHARCOAL

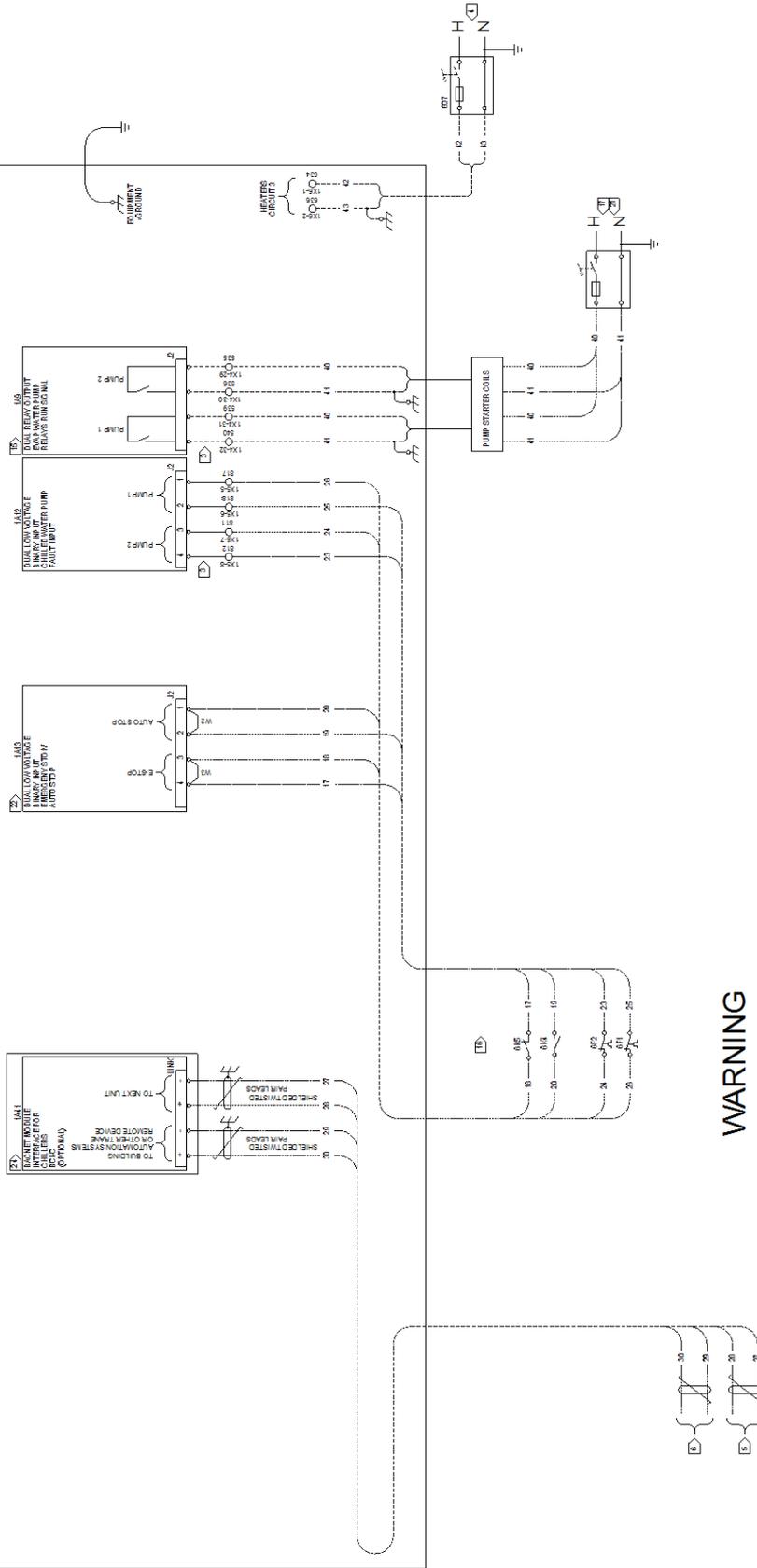
RDP-3 ISOLATORS



RDP-4 ISOLATORS



CONTROL PANEL
 PAGE 2 OF 2



WARNING

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 COULD RESULT IN DEATH OR SERIOUS INJURY.

USE COPPER CONDUCTORS ONLY!
 UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
 FAILURE TO DO THE ABOVE COULD RESULT IN EQUIPMENT DAMAGE.

- 1 SINGLE SOURCE POWER IS PROVIDED AS STANDARD ON THESE PRODUCTS, FIELD CONNECTIONS ARE MADE TO 1X1, OR 1Q2.
- 2 FOR VOLTAGES 200V/60HZ, 220V/50HZ, 380V/60HZ, 460V/60HZ, WIRE 26A SHALL BE CONNECTED TO H2. FOR VOLTAGES 230V/60HZ & 575V/60HZ, WIRE 26A SHALL BE CONNECT TO H3. 400V/50HZ UNIT IS FACTORY WIRED WITH 26A CONNECTED TO H3 - RECONNECT WIRE 26A TO H2 FOR 380V/50HZ, OR H4 FOR 415V/50HZ. H4 IS ONLY AVAILABLE WITH 400V/50HZ PANELS.
- 3 FIELD CONNECTIONS ARE ONLY MADE IN A CUSTOMER PROVIDED PUMP (PTYP=NONE). THESE CONNECTIONS WILL BE MADE BY THE FACTORY WHEN THE PUMP IS PROVIDED BY THE FACTORY (PTYP=DHHP).
- 4 CUSTOMER SUPPLIED POWER 115/60/1 OR 220/50/1 TO POWER RELAYS. MAX FUSE SIZE IS 20 AMPS. GROUND ALL CUSTOMER SUPPLIED POWER SUPPLIES AS REQUIRED BY APPLICABLE CODES. GREEN GROUND SCREWS ARE PROVIDED IN UNIT CONTROL PANEL.
- 5 WIRED TO NEXT UNIT. 22 AWG SHIELDED COMMUNICATION WIRE EQUIVALENT TO HELIX LF22P0014216 RECOMMENDED. THE SUM TOTAL OF ALL INTERCONNECTED CABLE SEGMENTS NOT TO EXCEED 4500 FEET. CONNECTION TOPOLOGY SHOULD BE DAISY CHAIN. REFER TO BUILDING AUTOMATION SYSTEM (BAS) COMMUNICATION INSTALLATION LITERATURE FOR END OF LINE TERMINATION RESISTOR REQUIREMENTS.
- 6 WIRED TO TRACER OR OTHER TRANE REMOTE DEVICE. 22 AWG SHIELDED COMMUNICATION WIRE EQUIVALENT TO HELIX LF22P0014216 RECOMMENDED. THE SUM TOTAL OF ALL INTERCONNECTED CABLE SEGMENTS NOT TO EXCEED 4500 FEET. CONNECTION TOPOLOGY SHOULD BE DAISY CHAIN. REFER TO BUILDING AUTOMATION SYSTEM (BAS) COMMUNICATION INSTALLATION LITERATURE FOR END OF LINE TERMINATION RESISTOR REQUIREMENTS.
- 7 WIRED TO CUSTOMER CHILLED WATER SET POINT 2-10V OR 4-20mA.
- 8 WIRED TO CUSTOMER EXTERNAL DEMAND LIMIT 2-10V OR 4-20mA.
- 9 WIRED TO CUSTOMER 2-10V OR 4-20mA % CAPACITY ANNUNCIATOR.
- 10 WIRED TO TRACER OR OTHER REMOTE DEVICE.
11. REFER TO CGAM ELECTRICAL SCHEMATIC FOR SPECIFIC ELECTRICAL CONNECTION INFORMATION AND NOTES PERTAINING TO WIRING INSTALLATION.
- 12 ALL UNIT POWER WIRING MUST BE 600 VOLT COPPER CONDUCTORS ONLY AND HAVE A MINIMUM TEMPERATURE INSULATION RATING OF 90 DEGREE C. REFER TO UNIT NAMEPLATE FOR MINIMUM CIRCUIT AMPACITY AND MAXIMUM OVERCURRENT PROTECTION DEVICE. PROVIDE AN EQUIPMENT GROUND IN ACCORDANCE WITH APPLICABLE ELECTRIC CODES. REFER TO WIRE RANGE TABLE FOR LUG SIZES.
13. ALL FIELD WIRING MUST BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE AND LOCAL REQUIREMENTS.
14. ALL CUSTOMER CONTROL CIRCUIT WIRING MUST BE COPPER CONDUCTORS ONLY AND HAVE A MINIMUM INSULATION RATING OF 300 VOLTS. EXCEPT AS NOTED, ALL CUSTOMER WIRING CONNECTIONS ARE MADE TO CIRCUIT BOARD MOUNTED BOX LUGS WITH A WIRE RANGE OF 14 TO 18 AWG OR DIN RAIL MOUNTED SPRING FORCE TERMINALS.
- 15 UNIT PROVIDED DRY CONTACTS FOR THE CONDENSER/CHILLED WATER PUMP CONTROL. RELAYS ARE RATED FOR 7.2 AMPS RESISTIVE, 2.88 AMPS PILOT DUTY, OR 1/4 HP, 7.2 FLA AT 120 VOLTS 60 HZ, CONTACTS ARE RATED FOR 5 AMPS GENERAL PURPOSE DUTY 240 VOLTS.
- 16 CUSTOMER SUPPLIED CONTACTS FOR ALL LOW VOLTAGE CONNECTIONS MUST BE COMPATIBLE WITH DRY CIRCUIT 24 VOLTS DC FOR A 12 mA RESISTIVE LOAD. SILVER OR GOLD PLATED CONTACTS RECOMMENDED.
- 17 FIELD CONNECTIONS ARE ONLY MADE IN A CUSTOMER PROVIDED PUMP. THESE CONNECTIONS WILL BE MADE BY THE FACTORY WHEN THE PUMP IS PROVIDED BY THE FACTORY. CUSTOMER SUPPLIED POWER 115V, 60Hz, 1PH.
- 18 CUSTOMER SUPPLIED 3 PHASE POWER.
- 19 OPTIONAL FIELD ASSIGNED PROGRAMMABLE RELAYS (STAT=PRLY). CLASS 1 FIELD WIRED MODULE, RELAY AT 120V. 7.2A RESISTIVE 2.88A PILOT DUTY, 1/2 HP 7.2FLA; AT 240VAC. 5 AMPS GENERAL PURPOSE.
- 20 WIRED TO CUSTOMER 0-10 VDC PUMP SPEED SIGNAL.
- 21 WHEN FACTORY PROVIDED PUMP IS NOT SELECTED. CUSTOMER MUST SUPPLY SUITABLE PUMP SYSTEM. REFER TO PUMP MANUFACTURER FOR WIRING REQUIREMENTS.
- 22 THE CONTACTS FOR AUTO STOP AND EMERGENCY STOP SWITCHES ARE JUMPERED AT THE FACTORY BY JUMPERS W2 & W3 TO ENABLE UNIT OPERATION. IF REMOTE CONTROL IS DESIRED, REMOVED THE JUMPERS AND CONNECT TO THE DESIRED CONTROL CIRCUIT.
- 23 1A15, LCI MODULE USED WHEN (COMM = LCI).
- 24 1A41, BACNET INTERFACE MODULE USED WHEN (COMM = BCNT).



Validation Period

Product performance, mechanical specifications and submittal data is valid for a period of 4 months from the date of the submittal generation. If 4 months or more has elapsed between submittal generation and equipment release, the product and submittal will need to be verified. It is the purchaser's responsibility to request such verification.

Foundation

Provide rigid, non-warping mounting pads or a concrete foundation of sufficient strength and mass to support the applicable operating weight (i.e. including completed piping, and full operating charges of refrigerant, oil and water). Once in place, the unit must be level within 1/4" across the length of the unit. The Trane Company is not responsible for equipment problems resulting from an improperly designed or constructed foundation.

General

Units are constructed of a galvanized steel frame with galvanized steel panels and access doors. Component surfaces are finished with a powder-coated paint.

Each unit ships with full operating charges of refrigerant and oil.

Compressor and Motor

The unit is equipped with four hermetic, direct-drive, 3600 rpm 60 Hz suction gas-cooled scroll compressors. The simple design has only three major moving parts and a completely enclosed compression chamber which leads to increased efficiency. Overload protection is internal to the compressors. The compressor includes: centrifugal oil pump, oil level sight glass and oil charging valve. Each compressor will have compressor heaters installed and properly sized to minimize the amount of liquid refrigerant present in the oil sump during off cycles.

Unit-Mounted Starter

The control panel is designed per UL 1995. The starter is in an across-the-line configuration, factory-mounted and fully pre-wired to the compressor motor and control panel. Typically, Trane scroll compressors are up to full speed in one second when started across-the-line.

A factory-installed, factory-wired 820 VA control power transformer provides all unit control power (120 Vac secondary) and Trane CH530 module power (24 Vac secondary).

A molded case high interrupting capacity circuit breaker, factory pre-wired with terminal block power connections and equipped with a lockable external operator handle, is available to disconnect the chiller from main power.

Power Connection

Power connections include main three-phase power and one separate 115V, 20 amp customer provided single phase power connection is required to power the heaters (if used for freeze protection).

Short circuit current rating of 65 kA is provided.

Evaporator

Braze plate evaporator is made of stainless steel with copper as the braze material. It is designed to withstand a refrigerant side working pressure of 430 psig (29.6 bars) and a waterside working pressure of 150 psig (10.5 bars). Evaporator is tested at 1.1 times maximum allowable refrigerant side working pressure and 1.5 times maximum allowable water side working pressure. It has one water pass. A water strainer and a flow switch are factory installed.

Immersion heaters protect the evaporator to an ambient of -20°F (-29°C).

All evaporators have grooved pipe connections.

Note: An additional 115V, 20 amp field provided single phase power connection is required to power the heaters (if used for freeze protection).

The condenser coil has an integral sub-cooling circuit. The maximum allowable working pressure of the condenser is 650 psig (44.8 bars). Condensers are factory proof tested at 650 psig (44.8 bars).

Direct-drive vertical discharge condenser fans are balanced and individually protected. Three-phase condenser fan motors with permanently lubricated ball bearings and external thermal overload protection are provided.

The unit starts and operates from 32.0 F to 125.0 F.

Refrigerant Circuits

The unit has dual refrigerant circuits. Each refrigerant circuit has Trane scroll compressors piped in parallel with a passive oil management system. A passive oil management system maintains proper oil levels within compressors and has no moving parts. Each refrigerant circuit includes filter drier, electronic expansion valve, liquid line and discharge service valves. Capacity modulation is achieved by turning compressors on and off. The unit has four capacity stages.

Unit Controls

The microprocessor-based control panel is factory-installed and factory-tested. The control system is powered by a pre-wired control power transformer, and will turn on and off compressors to meet the load. Microprocessor-based chilled water reset based on return water is standard. The unit comes with a factory installed flow switch.

The Trane CH530 microprocessor automatically acts to prevent unit shutdown due to abnormal operating conditions associated with low evaporator refrigerant temperature and high condensing temperature. If an abnormal operating condition continues and the protective limit is reached, the machine will shut down.

The panel includes machine protection for the following conditions: low evaporator refrigerant temperature and pressure, high condenser refrigerant pressure, critical sensor or detection circuit faults, lost communication between modules, phase loss, phase reversal, over temperature protection, external and local emergency stop, and loss of evaporator water flow.

When a fault is detected, the control system conducts more than 100 diagnostic checks and displays results. The display will identify the fault, indicate date, time, and operating mode at time of occurrence, and provide type of reset required and a help message.

Data contained in available reports includes: water and air temperatures, refrigerant pressures and temperatures, flow switch status, EXV position, and compressor starts and run-time. All necessary settings and setpoints are programmed into the microprocessor-based controller via the operator interface. The controller is capable of receiving signals simultaneously from a variety of control sources, in any combination, and priority order of control sources can be programmed.

Communications

BACNet Interface allows the user to easily interface using BACNet MS/TP via a single twisted-pair wiring to a factory-installed and tested communication board.



Comprehensive Acoustic Package

Acoustical treatment for compressors is factory installed.

Architectural Louvered Panels

Louvered panels cover the complete condensing coil and service area beneath the condenser.

Isolators

Molded elastomeric isolators, sized to reduce vibration transmission to the supporting structure when the unit is installed, ship with the chiller.