

QUAKERTOWN COMMUNITY SCHOOL DISTRICT

INVITATION TO BID



SPECIFICATIONS

FOR

FOOD SERVICE DISHWASHERS

2026

INSTRUCTION TO BIDDERS

I. INVITATION TO BID

The Quakertown Community School District (District) will accept sealed bids for the purchase and delivery of (3) dishwashers to replace dishwashers at the following buildings: *High School, Strayer Middle School and Sixth Grade Center* in accordance with the specifications and instructions set forth herein.

Questions regarding the detailed specifications of this bid are to be **e-mailed to Rob Christine: rchristine@qcsd.org**, and only written responses to an e-mailed question will be provided. Furthermore, the question and answer to the question will be provided to all entities that have the bid package.

All bids are to be submitted in a sealed envelope marked appropriately as in the following example:

FROM: (Your Company Name)
TO: QCSD Facilities Building
 “Food Service Dishwasher Bid”
 Attn: Rob Christine
 311 S. Ninth St
 Quakertown, PA 18951

Delivery of sealed bids: Sealed bids may be hand delivered or mailed to QCSD Facilities Building 311 S. Ninth St, Quakertown PA 18951. Bids will be received until **10:00 a.m.**, prevailing time, **Wednesday, May 20th, 2026** at which time *bids will be publicly opened*.

A mandatory pre-bid walk-through will be conducted on **Wednesday, May 13th, 2026 at 10:00 a.m.** starting at the High School , 600 Park Ave, Quakertown PA 18951. A facilities representative will provide details at each building. ***Non-attendees will not be permitted to bid.***

II. GENERAL CONDITIONS

A. Preparation of Bids:

- If any bidder finds discrepancies in these specifications or is in doubt to the meaning of any part thereof, those concerns and/or questions should be forwarded to Lorie Olexson by email: lolexson@qcsd.org. If it is deemed necessary, additional instructions in the form of addendums will be issued. Only these written changes will be binding. Oral or other changes, interpretations, or clarifications will be without legal effect

All bids must be prepared and submitted on the forms provided as part of these specifications. **No other forms will be accepted.** Additional pages that clarify bids may be submitted with the bid forms..

- Bids must be typewritten or legibly written in ink and must be signed by the bidder on the enclosed form. Changes, alterations, or interlineations to any of the bid documents are not permitted and such changes may disqualify a bid from consideration. **UNSIGNED DOCUMENTS WILL NOT BE CONSIDERED.**
- Bids must show both unit and total prices. Should figures be irreconcilable, the unit price shall govern and award will be made on that basis. The bid prices stated shall include installation, removal and disposal of equipment and delivery to the designated receiving location for the District.
- The Bidder agrees, if awarded the contract, to furnish, deliver and install all said equipment, at such places and in such quantities as herein specified, and to remove and dispose of equipment being replaced and that all of the equipment shall be subject to the inspection and approval of the District. In the event that any of the items shall be rejected as unsuitable or not in conformity with these specifications, such equipment shall be at once removed and other items of proper quality as set forth in these specifications shall be furnished in place thereof at no additional expense to the District.
- Bidders are expected to examine the specifications and all instructions. Failure to do so will be at the bidders' risk.

It is the responsibility of the bidder to indicate on the bid form any variances between the submitted bid and the district's specifications, no matter how slight. In the absence of any notation to the contrary, it will be presumed that the vendor is bidding and will provide the item as specified.

- Bids or Modifications or withdrawals thereof submitted after the time set for opening will not be considered.
- Bids must be submitted to the District properly executed by the Bidder; if a partnership, it shall be executed by at least one of the partners; if a corporation, it must be executed by the president, vice-president, or other persons properly authorized to sign for the corporation and attested by the secretary or assistant secretary with corporate seal attached; if a Limited Liability company, the bid must be executed by a manager of the limited liability company.

A. Submittal of Bids:

Bids are to be submitted in a sealed envelope bearing the name of the vendor and plainly marked with the bid category and due date.

Any bids received after the stated due date and time shall not be opened by the school district. The school district will not be responsible for lateness of receipt due to mail delays.

Bid Checklist –

o Complete Bid Package

§ Bid Submission Form

§ Invitation to Bid pricing form

§ Non-Collusion Affidavit

§ Anti-Discriminatory Clause

C. Approved/Acceptable/ or Equal Manufacturers:

The product descriptions listed herein are specifications only to the extent that they specify the item to be quoted. The Manufacturer/Brand names listed in the specifications are the result of past experience and ongoing product testing and evaluation. They are not intended to limit competition but do indicate the quality required and are an integral part of the specifications. If a bidder is bidding an “**EQUAL**” product, the product must entirely meet all specifications listed within the bid. Samples, if applicable, may be requested to assist in the evaluation process.

D. Sales Tax Exoneration:

The school district is exempt from all state sales tax and federal excise tax, and these taxes should not be included in quotes. If awarded and upon request, a tax exemption certificate will be issued.

E. Bid Awards:

1. The bid will be awarded to the lowest responsible and responsive bidder on the basis of the lowest unit price, kind, quality, and material being equal; however, the District reserves the right to also consider the ability of the Bidder to fulfill all terms of the contract when making an award.
2. It is mutually understood and agreed by the District and the bidder that the District may make its award for one or for more than one of the items set forth in these specifications or may make its award for all the items set forth in these specifications. The District has the right to accept or reject all or any portion of the bids submitted and to make the award in the best interest of the Quakertown Community School District.
3. The contract to furnish the equipment will be awarded to the responsible bidder whose bid, conforming to these instructions and specifications, will be most advantageous to Quakertown Community School District, price and other factors considered.
4. Bid prices must remain firm for 120 days from the date of the bid opening. Time may be extended by mutual consent of the Bidder(s) and the District.
5. Where the invitation for bids describes or specifies a particular item, no alternates shall be permitted.

F. Contract:

The Invitation to Bid, Bid Specifications, Bidder's response, awarded bids, purchase orders and any associated attachments shall comprise and complete the binding contract documents.

G. Qualifications of Bidders:

All Bidders must be known to be engaged in the business and well qualified to carry out their contract, and satisfactory evidence to that effect must be furnished when required or requested.

The Bidder shall be financially solvent, be experienced and competent to furnish the materials and supplies required to satisfactorily furnish the item(s). Past performance shall be used as a major criterion in determining the qualifications of the Bidder.

Where a Bidder cannot comply with the conditions stated herein, the Bidder must state exceptions and describe his terms and limitations as a responsible Bidder.

PLEASE ANSWER THE FOLLOWING QUESTIONS:

- a) Has the bidder ever debarred from bidding on public contracts? _____
- b) Has the bidder ever failed to perform a contract? _____
- c) Has the bidder ever litigated with a public body over contract performance?

H. Invoicing and Payments:

Each purchase order must be invoiced separately. The District purchase order number and District item number must appear on all invoices, packages and correspondence.

The District reserves the right to pay invoices electronically, by check or by credit card transaction.

The District will not pay for overages in shipments due to standard packaging, license fees, permits, bonds, or any other costs outside of the formal bid award.

All bids will be on an F.O.B. destination basis. Freight charges will not be paid by the District, regardless of the size of the order. All deliveries must be shipped prepaid.

All payments are approved by the District Board of School Directors which meets once a month. Invoices following delivery and acceptance of all goods ordered will be processed and paid after the regularly scheduled Board of Directors meeting of the following month. *No partial payments will be issued. The District will make every effort to pay vendors' invoices within forty-five (45) days of receipt of materials.*

I. Delivery:

Successful Bidders are required to make complete delivery of all bid items awarded to them, including items on back order and/or out of stock. Complete delivery of all awarded items must be made within 60 calendar days from date of the purchase order, except as otherwise noted. Specific delivery instructions will be provided to Bidders at the time of bid award.

The School District will accept deliveries of equipment during the weekdays, Monday thru Friday, between the hours of 8:00 am and 3:00 pm. NO DELIVERIES SHALL BE MADE ON SATURDAYS OR SUNDAYS.

All deliveries must include a packing slip/list in each shipment. All shipping labels and packing slips/lists must clearly show the following - Purchase Order Number, Contents, and Shipper's Name & Address. If no packing slip/list accompanies the shipment, the District receiving location item record list and count will be used as the confirmation of receipt.

J. Prices:

Bids must show a total price as designated on the bid specification forms. All bids shall be net delivered prices.

The Bidder must note the extrapolation which would proportionately change the total bid quantity and the respective total bid price. This shall be the responsibility of the Bidder preparing and

submitting the bid response. If no change is indicated, it shall be assumed that the bid price is reflective of the quantity as indicated in the specification presented. Changes or alterations in the bid are not permitted. Prices quoted must be typewritten or written with ink.

K. Quality of Material:

All material furnished shall be new, and of the best quality of their respective kinds. The Bidder must supply descriptive literature and supply samples (if requested) for any and all alternate item(s) bids.

Any and all references to commercial types, styles, trade names, and catalogs are only intended to be descriptive, not restrictive. The intention is to indicate to the Bidders the kind, quality, and size that will be acceptable by the District.

Where alternate items are accepted, Bidders proposing alternate products must state the following on the bid form - name of the manufacturer and product name/number.

Failure to change the description as indicated above will be interpreted to mean the Bidder intends to furnish the particular make of article called for in the specifications. Substitutions will not be permitted after bids have been opened and awarded by the Quakertown Community School District.

IV. LEGAL CONDITIONS

1. All property or services furnished must comply with any and all applicable Federal, State, and local laws, codes and regulations. All applicable laws shall be deemed to be part of these specifications and the contract shall be read and enforced as though they were included.
2. The Pennsylvania Law 734 No. 159 - Worker and Community Right to Know Act - provides for information to be made available to employees and community residents regarding hazardous substances introduced into the workplace and into the general environment by employers subject to the law. Material Safety Data Sheets (MSDS) must be included with the bid response for all applicable items.
3. The District shall not be liable for any costs incurred by Bidders in preparing and submitting proposals, nor in fulfilling any bid requirements.
4. Bidders may be required to furnish evidence in writing that they maintain permanent places of business and have adequate equipment, finances and personnel to furnish the items offered satisfactorily and expeditiously, and to provide the necessary services and warranties for items they propose to furnish.
5. The Bidder agrees that if awarded an order under these specifications, it will indemnify and hold harmless the Quakertown Community School District, its members, would be employees and representatives from all suits and actions of every nature brought against them, or any of them growing out of the order(s), written or verbal, entered into between the District and the Bidder.
6. The District reserves the right to reject any and all bids or parts of bids for any reason and for no reason and may waive formalities, technicalities and irregularities in accordance with Pennsylvania law. The District also reserves the right to award in any manner which appears from all considerations to be the most economical and advantageous to the District, subject to

the requirements to comply with applicable Pennsylvania Law.

7. Conditioned bids or bids which do not conform to the bid requirements shall be rejected unless the bid has a minor technicality or irregularity and is one which can be waived pursuant to the provisions of Subsection 6 and Pennsylvania law..

V. BID CONDITIONS

1. The Quakertown Community School District has the right to accept or reject all or any portion of any or all bids submitted and to make the award in the best interest of the District.

2. The successful Bidder agrees to furnish and deliver the specified item at such time, at such place, and in such quantities as herein specified, and that all items shall be subject to the inspection and approval of the District. In the event that any item(s) shall be rejected as damaged, unsuitable or not in conformance with these specifications, expressed or implied, such items shall be removed by the successful Bidder immediately and replacement items meeting specifications shall be furnished in place thereof at the expense of the successful Bidder.

3. In the event that the successful Bidder shall neglect or refuse to furnish and deliver the said item as provided in these specifications or to replace any which are rejected as stated in the preceding paragraph, then, in such event, the District is authorized and empowered to purchase the item in conformity with this contract from such party or parties and in such manner as it shall select at the expense of the successful Bidder or to cancel this contract reserving to itself, nevertheless, all rights for damage which may be incurred by the District.

IV. GUARANTEE

The successful Bidder agrees that they will not assign, transfer or sublet the bid, unless specific permission to do so is granted in writing by the District.

V. DELIVERY LOCATIONS

Building	Address	City	State	Zip
High School	600 Park Ave	Quakertown	PA	18951
Strayer MS	1200 Ronald Reagan Dr	Quakertown	PA	18951
Sixth Grade Center	349 S. 9th St	Quakertown	PA	18951

BID SUBMISSION FORM

COMPLETE AND SUBMIT WITH BID

Quakertown Community School District
Facilities Building
311 S. Ninth St.
Quakertown, Pennsylvania 18951

We, the undersigned, herewith propose and agree to furnish the Quakertown Community School District (District) any one or all of the items that we have priced, at the prices recorded on the attached Invitation to Bid Price Forms.

This proposal is subject to all the terms of the conditions, specifications and other documents incorporated herein, and we hereby agree to acknowledge an obligation of entering into a contract or purchase order(s) executed by the District and failure to do so will constitute a basis upon which the District may retain the bid security.

We understand that the District reserves the right to reject any or all bids not deemed satisfactory or to select one or more items from bids recommended by the District.

The undersigned Bidder certifies to having read the "Advertisement", "Invitation to Bid", "Bid Proposal", "General Conditions", "Specifications", and "Bulletin(s)", if any, all of which with such purchase orders as shall be executed by the District, constitute the contract documents, and offers to furnish the equipment as specified the District in exact accordance with these specifications and conditions at the unit prices stated on the attached forms.

We certify that we use first quality goods and that all materials are to be supplied directly from the manufacturer, and are not to be, in any way, seconds or rejected goods. .

We certify that any deviations from the specifications have been fully documented (including reasons for deviation) in our response herein. We understand that deviations must be approved in writing. If we do not supply properly documented deviations, we assure the District of full compliance with the specification and conditions, and assure the District that samples accompanying the bid meet all construction specifications. We understand that any deviations found on submitted samples that are not properly documented, are subject to bid disqualification.

We understand that In the event that the successful Bidder shall neglect or refuse to furnish and deliver the said item as provided in these specifications or to replace any which are rejected as stated in the paragraphs above, then, in such event, the District is authorized and empowered to purchase/lease the item in conformity with this contract from such party or parties and in such manner as it shall select at the expense of the successful Bidder or to cancel this contract reserving to itself, nevertheless, all rights for damage which may be incurred by the District.

Please fill in the appropriate blank.

INDIVIDUAL _____ (SEAL)
Name of individual trading as (Trade Name)

PARTNERSHIP _____ (SEAL)
Name of Partnership trading as (Name of Partnership)

LIMITED LIABILITY _____ (SEAL)
Name of Limited Liability trading as (Name of Limited Liability)

LIMITED LIABILITY _____ (SEAL)
Name of Limited Liability trading as (Name of Limited Liability)

CORPORATION _____ (SEAL)
Name of Corporation

Mailing Address _____

Telephone Number _____

Email Address _____

Signature _____

Type Name of Above _____

Title of Officer _____

Date _____

(Name of Corporation)

BY: _____
(Vice President)

ATTEST:

Assistant Secretary

(CORPORATE SEAL)

Business Address _____

_____ or (if appropriate)

(Name of Corporation)

Witness:

****BY: _____
Authorized Representative

Business Address: _____

*** (1) Complete, as appropriate, the following statement:

The Corporation has been organized and is existing under laws of the

_____ of _____

(2) If the Corporation has been organized under laws other than those of the Commonwealth of Pennsylvania, complete as appropriate, by deletion, the following statement:

The Corporation (has) (has not) been granted a certificate of authority to do business in the Commonwealth of Pennsylvania under applicable laws.

Attach appropriate proof, dated as the date of the Proposal, evidencing authority to execute in behalf of the Corporation in accordance with requirements of the Contract Documents.

SIGNATURES

(Individual Bidder) _____

IN WITNESS WHEREOF, the undersigned has caused this Proposal to be executed as of the day and year indicated on the first page hereof.

WITNESS: _____

_____ SEAL

_____ (Signature of Individual)

Trading and doing business as * _____

Business Address: _____

*If a fictitious or trade name is employed in the conduct of business, insert such name and complete, as appropriate, by deletion, the following statement: The foregoing fictitious or trade name (has) (has not) been registered under Pennsylvania Law.

ANTI-DISCRIMINATION CLAUSE

1. In accordance with the provisions of the Pennsylvania School Code, the Contractor agrees:

- a. That in the hiring of employees for the performance of work under this contract, or any subcontractor hereunder, no contractor, subcontractor, nor any person acting on behalf of such contractor or subcontractor, shall by reason or race, creed, color, discriminate against any citizen of the Commonwealth of Pennsylvania who is qualified and available to perform work to which the employment relates;
- b. That no Contractor, subcontractor, or any person acting on behalf, shall in any manner discriminate against or intimidate any employee hired for performance of work under this contract on account of race, creed, or color;
- c. That there may be deducted from the amount payable to the contractor under this contract, a penalty of five dollars (\$5.00) for each person for each calendar day during which such person was discriminated against or intimidated, in violation of the provisions of the contract; and,
- d. That this contract may be canceled or terminated by the Quakertown Community School District and all money due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this portion of the contract.

Initial_____

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

1. This Non-Collusion Affidavit is material to any contract awarded pursuant to this bid. According to the Pennsylvania Anti-Bid Rigging Act, 73 P.S.. §§ 1611 et seq., governmental agencies may require Non-Collusion affidavits to be submitted together with bids.
2. This Non-Collusion Affidavit must be executed by the member, officer or employee of the Bidder who makes the final decision on prices and the amount quoted in the bid.
3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the affidavit should examine it carefully before signing and assure himself/herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Bidder with responsibilities for the preparation, approval or submission of the bid.
4. In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an affidavit must be submitted separately on behalf of each party.
5. The term "complementary bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
6. **Failure to file an Affidavit in compliance with these instructions will result in disqualification of the bid.**

NON-COLLUSION AFFIDAVIT

Bid Name _____

State of _____

County of _____

I state that I am _____

of _____
(Title) (Name of firm)

And that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

1. The price(s) and amount of this bid have been arrived at independently and without consultation, communication, or agreement with any other contractor, bidder, or potential bidder.
2. Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor the approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before the bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit an intentionally high or noncompetitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
5. _____, its affiliates, subsidiaries,
(Name of Firm)

Officers, directors and employees are not currently under investigation by any governmental agency and have not in the last three years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

I state that _____ understands and acknowledges that the
(Name of Firm)

Above representations are material and important, and will be relied on by the **Quakertown Community School District** when recommending for award the items for which this bid is submitted.

I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the **Quakertown Community School District** of the true facts relating to the submission of bids for this contract.

Print Name of Authorized Person & Company Position

Signature of Authorized Person

Sworn to and subscribed before me This _____ day of _____, 20____.

Notary Public My commission expires _____

DISHWASHER PRICES

**Any and all references to commercial types, styles, trade names, and catalogs are only intended to be descriptive, not restrictive. The intention is to indicate to the Bidder the kind, quality, and size that will be acceptable by the District.*

QUANTITY	QUANTITY/ BRAND ITEM	UNIT PRICE	TOTAL PRICE	SUBSTITUTIONS

DETAILED WRITTEN SPECIFICATIONS
JOB NAME: QUAKERTOWN COMMUNITY SCHOOL DISTRICT
6TH GRADE CENTER
LOCATION: QUAKERTOWN, PA

Champion Model 66 PRO rack conveyor washer

1. DESCRIPTION

- a. Rack conveyor, single-tank warewasher
- b. Energy Star Rated.
- c. The rinse system shall not consume any more than 100 gallons of fresh water an hour.
- d. Shall be a minimum of 209 racks per hour.
- e. Fully automatic, constructed of heavy-gauge stainless steel, with stainless steel angle frame to form rigid support for machine components.
- f. Shall have top mounted controls with single point electrical connection, all electrical components including booster heater inter-wired and inter-plumbed.
- g. HMI display with change water function, cleaning and operation instructions multi-lingual.
- h. A programmable dwell feature, with automatic rack centering in the center of the wash zone, for higher soiled racks.
- i. Tanks and hoods are water-tight single unit construction.
- j. Doors
 - i. Fully insulated, 180° opening, hinge access doors.
 - ii. No gaskets are required to seal the doors.
 - iii. The machine will have insulated hinged access doors, providing access to the interior of the machine.
 - iv. The doors will slide into place, creating a tight seal.
 - v. Doors are leak-proof, insulated HINGED, and allow easy access for cleaning.
 - vi. Doors shall have safety switches to stop the conveyor if the door is opened in operation.
- k. Perforated stainless steel refuse screens and pump intake strainers shall be easily removed for cleaning.
- l. Pumps have motor overload protection and are mounted directly on the frame with service from the front of the machine.
- m. Shall have "energy sentinel" switch to activate pump motors only when racks enter machine.
- n. Upper and lower arm assemblies shall be one piece cast stainless steel.
- o. Rinse water shall be 180°F.
- p. The built-in booster shall be nested beneath the wash tank. The booster is not to exceed 21KW for 70°F rise.
- q. The "power on" switch shall automatically fill the tanks and turn on tank heaters and booster heater.
- r. Wash temperatures are thermister controlled with electric heating elements, and shall have low water protection.

- s. Rack conveyor shall be progressive dual pawl bar, anti-jam conveyor drive system with almost constant forward movement through the machine and a standard 20 3/4" chamber to accept 20" x 20" racks and 18" x 26" sheet pans through vertical opening.
- t. Shall have stainless steel enclosure panels on front and sides, stainless steel base and feet.
- u. Includes 1 peg and 1 flat dish rack.
- v. DIMENSIONS: 66" (L) X 25" (W) X 58 1/2" (H).

2. UTILITY REQUIREMENTS

- a. Electrical
 - i. 480 volt/60 Hz/3 phase,
 - ii. Single point electric connection
- b. Hot Water line sizes (inches): 1/2"
- c. Incoming water temp: 110°F;
- d. Ventilation
 - i. Load end: 200 CFM @ 1/4" static pressure
 - ii. Unload end: 400 CFM @ 1/4" static pressure
- e. Direction of operation: left to right

3. SPECIAL FEATURES TO INCLUDE:

- a. Direction of operation: Right to Left
- b. 2nd year warranty parts & labor
- c. Built-in 21KW electric booster heater
- d. 100 GPH water saving booster heater, 70 degree rise
- e. Prodigy series HMI display with multiple programmable features
- f. PROgressive drive for more consistent results
- g. Proportional final rinse for greater consistency
- h. Electric booster nested under the tank for optimal heat exchange
- i. Automatic drain valves
- j. Single piece hood design
- k. Single piece fully stainless steel wash arm manifolds
- l. Automatic de-lime function

4. OPTIONAL EQUIPMENT TO BE INCLUDED:

- a. Built-in 21KW water saving booster heater, 70° rise
- b. Cc208c water softener
- c. Shock arrestor
- d. Table Limit Switch (whisker style)
- e. (1) extended vent cowl w/ 15" stacks (set)

5. AGENCY APPROVALS

- a. NSF
- b. UL

6. INSTALLATION

- a. Installation scope of work:
 - i. Perform a pre-installation site visit once an order placed.
 - ii. Receive Champion warewasher and water softener at installer's warehouse
 - iii. Deliver and bring into the building the above-mentioned equipment to the job site

- iv. Remove and dispose of existing rack conveyor washer, external booster heater, and all packing material
- v. Uncrate and set in place the above-mentioned equipment
- vi. Perform final hookups within 5' to properly sized utilities including water, electric, and drain lines
- vii. Reuse existing ventilation duct work to tie into Champion vent cowls
- viii. Supply (2) 40 lbs. bags of softening salt
- ix. Startup and calibrate the above-mentioned equipment to factory specifications
- x. Install new water softener and provide two 40 lb. bags of pelletized softening salt (not rock salt)
- xi. Installation to occur during NORMAL working hours (Monday – Friday; 7 AM – 5 PM)
- xii. Install to reflect non prevailing wage / nonunion labor rates
- xiii. Optional price for PREVAILING wage / non union labor rates
- xiv. Any required permits are to be supplied by Quakertown School District
- xv. Any required upgrades to accommodate the new equipment, not outlined in this scope of work, are to be completed by Quakertown School District
- xvi. The quote does not include any unforeseen price increases, labor and materials, upgrades, which may be required should problems arise.
- xvii. General Notes:
 - 1. Quakertown School District to provide electrical wire whip(s) and properly sized electrical breaker(s)
 - 2. Not responsible for existing walls / floor conditions or repairs. All cleaning, repairs and/or painting by OTHERS
 - 3. Removal of existing soap equipment will be removed by kitchen equipment contractor and left on site. Installation of new or existing soap equipment is by the chemical company.
 - 4. Any equipment not supplied by seller will not be connected to new machine unless noted in this scope of work.
 - 5. Owner to provide a clear pathway from receiving area to permanent location for removal and delivery of equipment.

Champion®

The Dishwashing Machine Specialists

PROJECT: _____

ITEM # _____ QTY: _____

MODEL # _____

AIA # _____ SIS # _____

66 PRO Electric

HIGH TEMPERATURE ELECTRIC RACK CONVEYOR



Rendered image is for general visual representation only. Please refer to specifications for the latest detailed product information.



STANDARD FEATURES

- **44" Single Tank + 22" Prewash**
- **Perpetual Rack Advance System**
with digital jam monitoring, and mechanical drive protection
- **Automated Delime Function**
with user-customizable alert intervals
- **209 Racks Per Hour**
- **0.48 Gallons/Rack With Energy Sentinel** (idle pump shut-off)
- **Advanced Touchscreen Display**
intuitive condition alerts, with user friendly cleaning and operation visual guidance, multi-lingual
- **Enhanced Visual On-board Diagnostics**
quickly identify machine faults for rapid resolution and less downtime
- **Automatic Tank Fill**
- **Programmable Machine Dwell**
pauses rack in wash zone for extended cleaning, NSF Certified Pot & Pan Mode
- **Automatic Drain Valve**
- **Single-Piece Hood Design**
- **Single-Piece Scrap Screen**
more robust and faster cleaning
- **Single-Piece Stainless Steel Upper And Lower Wash Arm Manifolds**
- **Single-Point Electrical Connection**
- **20" Standard Vertical Clearance**
accommodates 18" x 26" sheet pans
- **Fully Insulated Doors**
open a full 180° for unrestricted cleaning access
- **All Stainless Steel Heavy Gauge Construction**
including base, legs and feet
- **Enclosure Panels** (front and sides)
- **2 HP Pump Motor** with stainless steel impeller
- **Factory Authorized Start-Up**
- **Vent Fan Control**
- **ENERGY STAR® Certified**
- **Made in America**

SPECIFIER STATEMENT

Specified unit will be Champion model 66 PRO Series high temperature rack conveyor dishwashing machine. Features top mounted prodigy HMI user interface controls with proactive maintenance software, proportional rinse, using only 100 GPH, optional built-in 21kW booster, progressive anti-jam drive system, energy sentinel (idle pump shut-off), 209 racks per hour, single-piece hood design, single-piece stainless steel upper & lower wash arms manifolds, full 180° opening leak proof insulated hinged access doors.

1 Year parts and labor warranty.

In the USA:

3765 Champion Blvd, Winston-Salem, NC 27105
Tel: (336) 661-1556 Fax: (336) 661-1979
www.championindustries.com

In Canada:

2674 N. Service Rd., Jordan Station, Ontario, Canada L0R1S0
Tel: (905) 562-4195 Fax: (905) 562-4618
www.championindustries.com/icanada

HIGH TEMPERATURE ELECTRIC RACK CONVEYOR DISHWASHING MACHINE

ACCESSORIES

- ☐ Drain water tempering kit (unmounted)
- ☐ Table limit switch, unmounted (recommended on all rack conveyor installations) (unmounted)
 - o WHISKER STYLE
 - o BUTTON STYLE
- ☐ Vent cowl, stainless steel with 7" stacks & locking dampers
- ☐ Extended vent cowl, with 7" stacks, locking dampers & external curtain
- ☐ Flanged feet (unmounted)
- ☐ Water hammer kit (unmounted)
- ☐ Chemical pump kit (detergent and rinse aid, mounted and interwired)
- ☐ Water pressure regulating valve (unmounted; standard with booster)
- ☐ ION scale prevention device (unmounted)
- ☐ Water softening system (manufactured, warrantied and serviced by Kinetico)
- ☐ Dish racks:
 - o PEG RACK
 - o FLAT RACK
 - o SHEET PAN RACK
- ☐ Splash shields
- ☐ Cantilever sideloader (without hood) for 90° load operation
 - o 24" SIDELOAD
 - o 30" SIDELOAD (ACCEPTS SHEET PANS)
- ☐ Model PRO-90B unloader (90° corner conveyor table)
- ☐ Model PRO-90B loader (90° corner conveyor table)
- ☐ Model RCT 64 or RCT 84 roller conveyor table (see factory for custom length)
- ☐ Stainless steel rear enclosure panels
- ☐ Correctional package (contact factory)

OPTIONS

- ☐ Two-point electrical connection, separate for machine and booster (field convertible)
- ☐ 33" Blower dryer – electric
- ☐ Booster heaters (completely interplumbed, controls are interwired)
 - o 40°F RISE (BUILT-IN) (FIELD CONVERTED)
 - o 70°F RISE (BUILT-IN)
- ☐ Direct link connectivity solution
- ☐ Direct link plus+ connectivity solution

**Cantilever
Sideloader**
(no hood)



PRO-90B
90° Corner Conveyor
table loader and
unloader available



Model RCT 64 or RCT 84
Roller conveyor table



UTILITIES

1	Electrical Connections Machine electrical connection and booster electrical connection
2	Hot Water Machine with built-in booster Main connection 1/2" NPT 110° incoming water
4	Hot Water Machine with no booster Main water connection 1/2" NPT 180° incoming water
5A	Drain Connection 1-1/4" NPT Drain Max Flow Rate (g/min) 15
8	Vents A Stack connection – load end 150 CFM @ 1/4" static pressure B Stack connection – unload end 400 CFM @ 1/4" static pressure

Warning: Plumbing and electrical connections should be made by qualified personnel who will observe all the applicable plumbing, sanitary, and safety codes and the National Electrical Code.

Note: Water Hammer Arrestor (meeting ASSE-1010 standard or equivalent) to be supplied (by others) in common water supply line at service connection.

Plumbing Notes: Because of the variation in house-supplied steam and water pressures, steam and water pressure regulating valves (PRVs) may be needed. (Water PRV is standard on machines with booster.) The PRVs can either be purchased from Champion or obtained locally.

Water hardness of 3 grains/US Gal (0.83 Imp Gal) – 5.3 Mg/L or less

Venting Notes: Fabricated duct size: 3-7/8" x 15-7/8" (outside dimensions)

Optional Drain Tempering: 1/2" NPT cold water connection required. 1/2" NPT drain connection from back flow preventer to house drain. (FIELD INSTALLED and PLUMBED).

SPECIFICATIONS

Capacity	
Racks per hr (NSF rated)	209
Wash tank (US gal.)	17
Prewash tank (US gal.)	9
Conveyor speed (ft/min)	5.8
Conveyor speed Pot/Pan Mode (ft/min) (only one rack at a time in pot/pan)	4.5
Motor Horsepower	
Drive	1/6
Wash	2
Prewash	2
Water Consumption	
US Gal. per hr (max. use)	100
US Gal. per rack	0.48
Heating	
Tank Heat, electric (kW)	15
Electric booster (built-in) (kW supplied for 40°F rise)	12
Electric booster (built-in) (kW supplied for 70°F rise)	21
Booster heaters completely inter plumbed, controls are interwired.	
Venting	
Load end (minimum CFM)	150
Unload end (minimum CFM)	400
Standard 20"x 20" Rack Complement	
Peg	1
Flat	1

Single Tank PRO Rack Machine and Booster Ratings

The tables below give the ratings for each model. The ratings include the requirements of the 12 and 21 kW booster heaters when they are in use.

Machines with a single point electrical connection:

66 PRO Electric Tank Heat, 21 kW 70° Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	116	150	150
240/60/3	101	150	150
480/60/3	50	70	70
575/60/3	42	60	60

66 PRO Electric Tank Heat, 12 kW 40° Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	91	125	125
240/60/3	79	100	100
480/60/3	39	50	50
575/60/3	33	45	45

66 PRO Electric Tank Heat, No Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	58	80	80
240/60/3	50	70	70
480/60/3	25	35	35
575/60/3	21	30	30

Machines with a dual point electrical connection:

66 PRO Electric, 21 kW Booster Only			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	59	80	80
240/60/3	51	70	70
480/60/3	26	35	35
575/60/3	22	30	30

66 PRO Electric, 12 kW Booster Only			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	34	45	45
240/60/3	29	40	40
480/60/3	15	20	20
575/60/3	12	15	15

Note:

Machine ships as a single point electrical connection standard. Easily converted to a dual point connection by a qualified electrician.

Champion®

The Dishwashing Machine Specialists

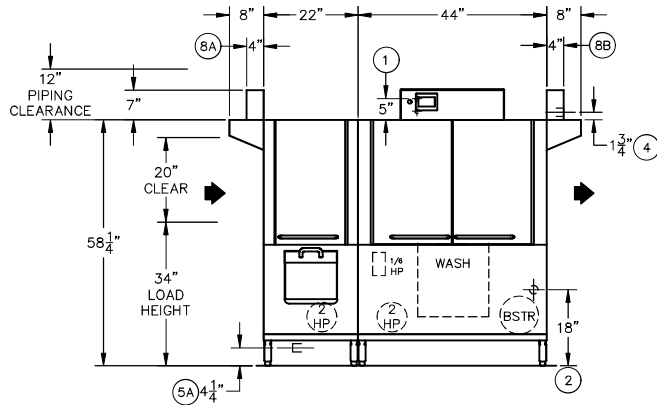
66 PRO Electric

HIGH TEMPERATURE ELECTRIC RACK CONVEYOR

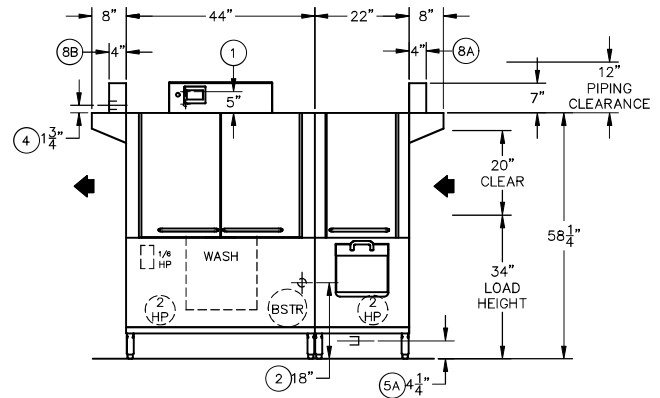
Shipping weight crated: 900 lbs. Dimensions shown in inches

Front View

Left to Right Model

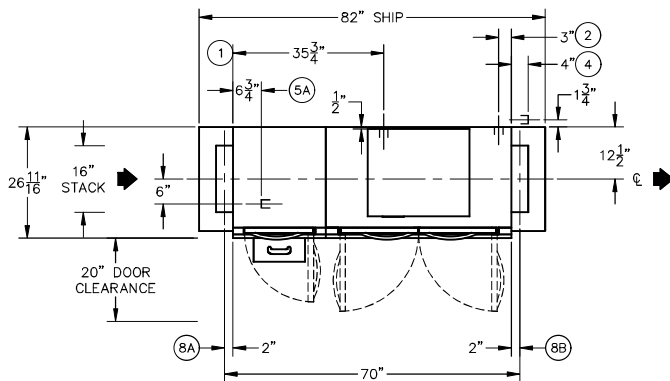


Right to Left Model

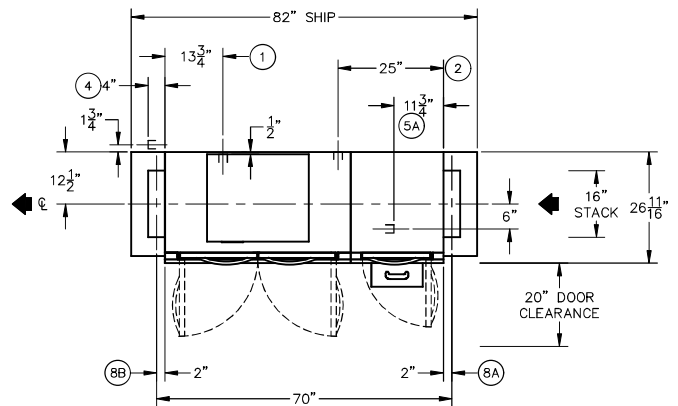


Plan View

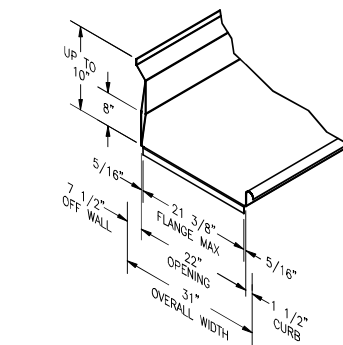
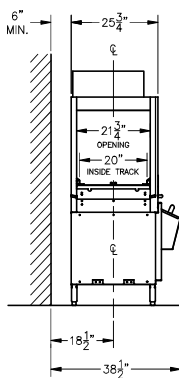
Left to Right Model



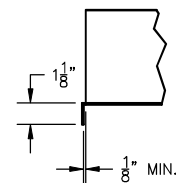
Right to Left Model



End View



Suggested Table Construction



Flange Details

In the USA: 3765 Champion Blvd, Winston-Salem, NC 27105 | Tel: (336) 661-1556 Fax: (336) 661-1979 | www.championindustries.com

In Canada: 2674 N. Service Rd., Jordan Station, Ontario, Canada LORISO | Tel: (905) 562-4195 Fax: (905) 562-4618 | www.championindustries.com/1canada

Rev. 08/2024 Printed in U.S.A.

Due to an ongoing value analysis program at Champion, specifications contained in this catalog are subject to change without notice.

CC 208c

System Components

Media Vessel (Qty.) Size	(2) 8" x 17"
Media Vessel Construction	Fiberglass Wrapped Engineered Plastic
Empty Bed Volume	0.40 ft ³
Media Type	Standard Mesh Resin
Media Volume	0.40 ft ³
Bed Depth	Packed
Free Board	None
Riser Tube	1" CPVC
Distributor	Upper..... 0.012" Slots, Engineered Plastic Basket Lower..... 0.009" Slots, Stainless Steel Flat Plate
Under bedding	None
Regeneration Control	Non-electric Use Meter
Regeneration Type	Countercurrent
Meter Type	0.30 - 25.00 gpm Polypropylene Turbine

Inlet Water Quality

Pressure Range	15 – 125 psi Dynamic Pressure
Temperature Range	35 – 160° F
Temperature (Continuous)	150° F
pH Range	5 – 10 SU
Free Chlorine Cl ₂ (Max.)	2.0 mg/L
Hardness as CaCO ₃ (Max.)	40 gpg

Operating Specs

Flow Range (15 / 30 psig)	10.2 – 15.0 gpm
Flow Configuration	Alternating
Dimensions (Width x Depth x Height)	20" x 22" x 28"
Weight (Operating / Shipping)	220 / 100 lbs.

Connections

Inlet / Outlet Connections	Custom Adapter and Bracket
Drain Connection	0.5" Tube
Brine Line Connection	0.375" Tube (internal)
Overflow Connection	0.5" Tube
Power	None

System Part Numbers

CC 208c, Compact Cabinet Softener, with Wheels	11500A
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Brine Tank Options

Tank Description	CC 208 Cabinet
Tank Height	28"
Tank Footprint	20 x 22"
Material	HDPE
Salt Capacity	100 lbs.

Regeneration Specifications

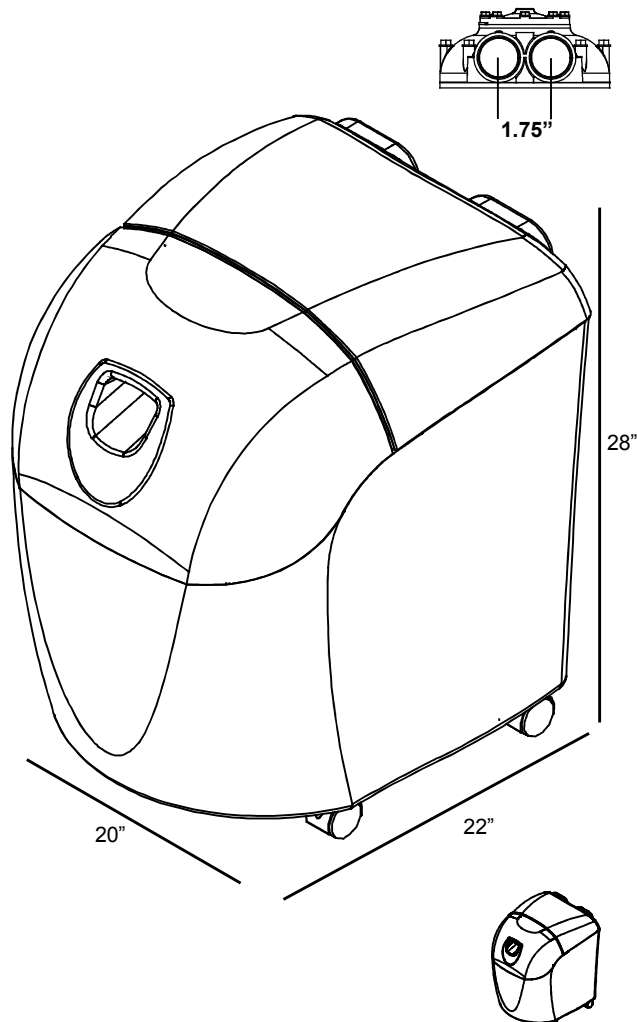
Regeneration Volume	14 gallons
Regeneration Time	11 minutes
Backwash Flow Control	1.40 gpm
Brine Refill Flow Control	0.40 gpm

Setting	Capacity	Efficiency	Dosing	Meter Disc
1.0 lbs.	3,865 grains	3,865 gr./lb.	2.5 lbs./ft ³	
1.4 lbs.	5,326 grains	3,804 gr./lb.	3.5 lbs./ft ³	

Gallons/Regeneration:
Flow during regeneration (@ 15 psig):

Disc Selection (Compensated Hardness*)							
1	2	3	4	5	6	7	8
4	9	14	19	23	27	30	35
5	11	17	22	27	32	35	40
732	366	244	183	146	122	105	92
10.2	10.2	10.2	10.2	10.2	8.3	6.7	5.5

*Compensated hardness in gpg = Hardness + (3 x Fe in mg/L)



Operating Profile

Softener shall remove hardness to less than 1/2 gpg when operated in accordance with the operating instructions. The system shall include two tanks. This duplex configuration shall operate with one tank on-line during service. During regeneration cycles, one tank shall provide water to service and to the regenerating tank. A water meter shall initiate system regeneration. The water meter shall measure the processed volume and be adjustable. Service flow shall be downflow and regeneration flow shall be upflow.

Regeneration Control Valve

The regeneration control valve shall be top mounted (top of media tank), and manufactured from non-corrosive materials. Control valve shall not weigh more than four pounds. Control valve shall provide service and regeneration control for two media tanks. Inlet and outlet ports shall accept a quick connect, double O-ring sealed adapter. Interconnection between tanks shall be made through the regeneration valve with a quick connect adapter. Control valve shall operate using a minimum inlet pressure of 15 psi. Pressure shall be used to drive all valve functions. No electric hook-up shall be required. Control valve shall incorporate four operational cycles including; service, brine draw, slow rinse, and a combined fast rinse and brine refill. Service cycle shall operate in a downflow direction. The brine cycle shall flow upflow, opposite the service flow, providing a countercurrent regeneration. Control valve shall contain a fixed orifice eductor nozzle and self-adjusting backwash flow control. The control valve will prevent the by-pass of hard water to service during the regeneration cycle.

Media Tanks

The tanks shall be designed for a maximum working pressure of 125 psi and hydrostatically tested at 300 psi. Tanks shall be made of engineered plastic with a 2.5 in. threaded top opening. Each tank shall be NSF approved. Upper distribution system shall be of a slot design. Lower distribution system shall be of a flat plate design. Distributors will provide even flow of regeneration water and the collection of processed water.

Conditioning Media

Each softener shall include standard mesh resin having a minimum exchange capacity of 30,000 grains/ft³ when regenerated with 15.0 lbs/ft³. The media shall be solid, of a proper particle size and shall contain no plates, shells, agglomerates or other shapes, which might interfere with the normal function of the water softener.

Brine System

A combination salt storage and brine production tank shall be manufactured of corrosion resistant, plastic. The brine tank shall have a chamber to house the brine valve assembly. The brine float assembly shall allow for adjustable salt settings and shall provide for a shutoff to the brine refill. The brine tank shall include a safety overflow connection to be plumbed to a suitable drain.

DETAILED WRITTEN SPECIFICATIONS
JOB NAME: QUAKERTOWN SENIOR HIGH SCHOOL
LOCATION: QUAKERTOWN, PA

Champion Model 86 PRO rack conveyor washer

1. DESCRIPTION

- a. Rack conveyor, dual-tank warewasher consisting of prewash, power wash, and power rinse tanks
- b. Energy Star Rated.
- c. The rinse system shall not consume any more than 100 gallons of fresh water an hour using 0.28 gallons of final rinse water per rack.
- d. Shall be a minimum of 348 racks per hour.
- e. Fully automatic, constructed of heavy-gauge stainless steel, with stainless steel angle frame to form rigid support for machine components.
- f. Shall have top mounted controls with single point electrical connection, all electrical components including booster heater inter-wired and inter-plumbed.
- g. HMI display with change water function, cleaning and operation instructions multi-lingual.
- h. A programmable dwell feature, with automatic rack centering in the center of the wash zone, for higher soiled racks.
- i. Tanks and hoods are water-tight single unit construction.
- j. Doors
 - i. Fully insulated, 180° opening, hinge access doors.
 - ii. No gaskets are required to seal the doors.
 - iii. The machine will have insulated hinged access doors, providing access to the interior of the machine.
 - iv. The doors will slide into place, creating a tight seal.
 - v. Doors are leak-proof, insulated HINGED, and allow easy access for cleaning.
 - vi. Doors shall have safety switches to stop the conveyor if the door is opened in operation.
- k. Perforated stainless steel refuse screens and pump intake strainers shall be easily removed for cleaning.
- l. Pumps have motor overload protection and are mounted directly on the frame with service from the front of the machine.
- m. Shall have "energy sentinel" switch to activate pump motors only when racks enter machine.
- n. Upper and lower arm assemblies shall be one piece cast stainless steel.
- o. Rinse water shall be 180°F.
- p. The built-in booster shall be nested beneath the wash tank. The booster is not to exceed 21KW for 70°F rise.
- q. The "power on" switch shall automatically fill the tanks and turn on tank heaters and booster heater.
- r. Wash temperatures are thermister controlled with electric heating elements, and shall have low water protection.

- s. Rack conveyor shall be progressive dual pawl bar, anti-jam conveyor drive system with almost constant forward movement through the machine and a standard 20 ¾" chamber to accept 20" x 20" racks and 18" x 26" sheet pans through vertical opening.
- t. Shall have stainless steel enclosure panels on front and sides, stainless steel base and feet.
- u. Includes 1 peg and 1 flat dish rack.
- v. DIMENSIONS: 86" (L) X 25" (W) X 58 ½ " (H).

2. UTILITY REQUIREMENTS

- a. Electrical
 - i. 480 volt/60 Hz/3 phase,
 - ii. Dual point electric connection
- b. Hot Water line sizes (inches): 1/2"
- c. Incoming water temp: 110°F;
- d. Ventilation
 - i. Load end: 200 CFM @ ¼" static pressure
 - ii. Unload end: 400 CFM @ ¼" static pressure
- e. Direction of operation: left to right

3. SPECIAL FEATURES TO INCLUDE:

- a. Direction of operation: Right to Left
- b. 2nd year warranty parts & labor
- c. Built-in 21KW electric booster heater
- d. 100 GPH water saving booster heater, 70 degree rise
- e. Prodigy series HMI display with multiple programmable features
- f. PROgressive drive for more consistent results
- g. Proportional final rinse for greater consistency
- h. Electric booster nested under the tank for optimal heat exchange
- i. Automatic drain valves
- j. Single piece hood design
- k. Single piece fully stainless steel wash arm manifolds
- l. Automatic de-lime function

4. OPTIONAL EQUIPMENT TO BE INCLUDED:

- a. PRO 90B unloader
- b. Built-in 21KW water saving booster heater, 70° rise
- c. Cc208c water softener
- d. Shock arrestor
- e. Table Limit Switch (whisker style)
- f. (1) short vent cowl & (1) extended vent cowl w/ 15" stacks

5. AGENCY APPROVALS

- a. NSF
- b. UL

6. INSTALLATION

- a. Installation scope of work:
 - i. Perform a pre-installation site visit once an order placed.
 - ii. Receive the following equipment at our warehouse:
 - 1. Champion warewasher,

2. PRO 90B unloader, and
3. Water softener
- iii. Deliver and bring into the building the above-mentioned equipment to the job site
- iv. Remove and dispose of existing rack conveyor washer, unloader, external booster heater, and all packing material
- v. Uncrate and set in place the above-mentioned equipment
- vi. Perform final hookups within 5' to properly sized utilities including water, electric, and drain lines for the above-mentioned equipment
- vii. Reuse existing ventilation duct work to tie into Champion vent cowls
- viii. Move clean/unload table away from wall and provide flanged feet at end of table
- ix. Install stainless steel trim to close opening between the table and the wall
- x. Field modify existing clean dish table if needed to accommodate the new unloader,
- xi. Supply (2) 40 lbs. bags of softening salt
- xii. Startup and calibrate the above-mentioned equipment to factory specifications
- xiii. Installation to occur during NORMAL working hours (Monday – Friday; 7 AM – 5 PM)
- xiv. Install to reflect non prevailing wage / nonunion labor rates
- xv. Optional price for PREVAILING wage / non union labor rates
- xvi. Any required permits are to be supplied by Quakertown School District
- xvii. Any required upgrades to accommodate the new equipment, not outlined in this scope of work, are to be completed by Quakertown School District
- xviii. The quote does not include any unforeseen price increases, labor and materials, upgrades, which may be required should problems arise.
- xix. General Notes:
 1. Quakertown School District to provide electrical wire whip(s) and properly sized electrical breaker(s)
 2. Not responsible for existing walls / floor conditions or repairs. All cleaning, repairs and/or painting by OTHERS
 3. Removal of existing soap equipment will be removed by kitchen equipment contractor and left on site. Installation of new or existing soap equipment is by the chemical company.
 4. Any equipment not supplied by seller will not be connected to new machine unless noted in this scope of work.
 5. Owner to provide a clear pathway from receiving area to permanent location for removal and delivery of equipment.

Champion®

The Dishwashing Machine Specialists

PROJECT: _____

ITEM # _____ QTY: _____

MODEL # _____

AIA # _____ SIS # _____

86 PRO Electric

HIGH TEMPERATURE 2-TANK ELECTRIC RACK CONVEYOR



Rendered image is for general visual representation only. Please refer to specifications for the latest detailed product information.



STANDARD FEATURES

- **64" Single Tank + 22" Prewash**
- **Perpetual Rack Advance System**
with digital jam monitoring, and mechanical drive protection
- **Automated Delime Function**
with user-customizable alert intervals
- **348 Racks Per Hour**
- **.28 Gallons/Rack With Energy Sentinel** (idle pump shut-off)
- **Advanced Touchscreen Display**
intuitive condition alerts, with user friendly cleaning and operation visual guidance, multi-lingual
- **Enhanced Visual On-board Diagnostics**
quickly identify machine faults for rapid resolution and less downtime
- **Automatic Tank Fill**
- **Programmable Machine Dwell**
pauses rack in wash zone for extended cleaning, NSF Certified Pot & Pan Mode
- **Automatic Drain Valve**
- **Single-Piece Hood Design**
- **Single-Piece Scrap Screen**
more robust and faster cleaning
- **Single-Piece Stainless Steel Upper And Lower Wash Arm Manifolds**
- **20" Standard Vertical Clearance**
accommodates 18" x 26" sheet pans
- **Fully Insulated Doors**
open a full 180° for unrestricted cleaning access
- **All Stainless Steel Heavy Gauge Construction**
including base, legs and feet
- **Enclosure Panels** (front and sides)
- **2 HP Pump Motors** with stainless steel impellers
- **Factory Authorized Start-Up**
- **Vent Fan Control**
- **Made in America**

SPECIFIER STATEMENT

Specified unit will be Champion model 86 PRO Series 2-tank high temperature rack conveyor dishwashing machine. Features top mounted prodigy HMI user interface controls with proactive maintenance software, proportional rinse, using only 100 GPH, optional built-in 21kW booster, progressive anti-jam drive system, energy sentinel (idle pump shut-off), 348 racks per hour, single-piece hood design, single-piece stainless steel upper & lower wash arms manifolds, full 180° opening leak proof insulated hinged access doors.

1 Year parts and labor warranty.

In the USA:
3765 Champion Blvd, Winston-Salem, NC 27105
Tel: (336) 661-1556 Fax: (336) 661-1979
www.championindustries.com

In Canada:
2674 N. Service Rd., Jordan Station, Ontario, Canada L0R1S0
Tel: (905) 562-4195 Fax: (905) 562-4618
www.championindustries.com/1canada

ACCESSORIES

- ☐ Drain water tempering kit (unmounted)
- ☐ Table limit switch, unmounted (recommended on all rack conveyor installations) (unmounted)
 - o WHISKER STYLE
 - o BUTTON STYLE
- ☐ Vent cowl, stainless steel with 7" stacks & locking dampers
- ☐ Extended vent cowl, with 7" stacks, locking dampers & external curtain
- ☐ Flanged feet (unmounted)
- ☐ Water hammer kit (unmounted)
- ☐ Chemical pump kit (detergent and rinse aid, mounted and interwired)
- ☐ Water pressure regulating valve (unmounted; standard with booster)
- ☐ ION scale prevention device (unmounted)
- ☐ Water softening system (manufactured, warrantied and serviced by Kinetico)
- ☐ Dish racks:
 - o PEG RACK
 - o FLAT RACK
 - o SHEET PAN RACK
- ☐ Splash shields
- ☐ Cantilever sideloader (without hood) for 90° load operation
 - o 24" SIDELOAD
 - o 30" SIDELOAD (ACCEPTS SHEET PANS)
- ☐ Model PRO-90B unloader (90° corner conveyor table)
- ☐ Model PRO-90B loader (90° corner conveyor table)
- ☐ Model RCT 64 or RCT 84 roller conveyor table (see factory for custom length)
- ☐ Stainless steel rear enclosure panels
- ☐ Correctional package (contact factory)

OPTIONS

- ☐ 33" Blower dryer – electric
- ☐ Booster heaters (completely interplumbed, controls are interwired)
 - o 40°F RISE (BUILT-IN) (FIELD CONVERTED)
 - o 70°F RISE (BUILT-IN)
- ☐ Direct link connectivity solution
- ☐ Direct link plus+ connectivity solution

**Cantilever
Sideloader**
(no hood)



PRO-90B
90° Corner Conveyor
table loader and
unloader available



Model RCT 64 or RCT 84
Roller conveyor table



UTILITIES

1	Electrical Connections A Machine electrical connection B Booster electrical connection
2	Hot Water Machine with built-in booster Main connection 3/4" NPT 110° incoming water
4	Hot Water Machine with no booster Main water connection 3/4" NPT 180° incoming water
5A	Drain Connection 1-1/4" NPT Drain Max Flow Rate (g/min) 15
8	Vents A Stack connection – load end 150 CFM @ 1/4" static pressure B Stack connection – unload end 400 CFM @ 1/4" static pressure

Warning: Plumbing and electrical connections should be made by qualified personnel who will observe all the applicable plumbing, sanitary, and safety codes and the National Electrical Code.

Note: Water Hammer Arrestor (meeting ASSE-1010 standard or equivalent) to be supplied (by others) in common water supply line at service connection.

Plumbing Notes: Because of the variation in house-supplied steam and water pressures, steam and water pressure regulating valves (PRVs) may be needed. (Water PRV is standard on machines with booster.) The PRVs can either be purchased from Champion or obtained locally.

Water hardness of 3 grains/US Gal (0.83 Imp Gal) – 5.3 Mg/L or less

Venting Notes: Fabricated duct size: 3-7/8" x 15-7/8" (outside dimensions)

Optional Drain Tempering: 1/2" NPT cold water connection required. 1/2" NPT drain connection from back flow preventer to house drain. (FIELD INSTALLED and PLUMBED).

SPECIFICATIONS

Capacity	
Racks per hr (NSF rated)	348
Wash tank (US gal.)	17
Power rinse tank (US gal.)	17
Prewash tank (US gal.)	9
Conveyor speed (ft/min)	9.6
Conveyor speed Pot/Pan Mode (ft/min) (only one rack at a time in pot/pan)	4.6
Motor Horsepower	
Drive	1/6
Prewash	2
Wash	2
Power Rinse	2
Water Consumption	
US Gal. per hr (max. use)	100
US Gal. per rack	.28
Heating	
Tank Heat, electric (kW)	15
Power rinse, electric (kW)	10
Electric booster (built-in) (kW supplied for 40°F rise)	12
Electric booster (built-in) (kW supplied for 70°F rise)	21
Booster heaters completely inter plumbed, controls are interwired.	
Venting	
Load end (minimum CFM)	150
Unload end (minimum CFM)	400
Standard 20"x 20" Rack Complement	
Peg	1
Flat	1

Two Tank PRO Rack Machine and Booster Ratings

The tables below give the ratings for each model. The ratings include the requirements of the 12 and 21 kW booster heaters when they are in use.

Machines with a Dual point electrical connection:

86 PRO Electric Tank Heat, 21 kW Booster Only			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	59	80	80
240/60/3	51	70	70
480/60/3	26	35	35
575/60/3	22	30	30

86 PRO Electric Tank Heat, 12 kW Booster Only			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	34	45	45
240/60/3	29	40	40
480/60/3	15	20	20
575/60/3	12	15	15

86 PRO Electric Tank Heat, No Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	98	125	125
240/60/3	85	110	110
480/60/3	42	60	60
575/60/3	33	45	45

Machines with a Single point electrical connection:

86 PRO Electric Tank Heat, 21 kW 70°F Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	n/a	n/a	n/a
240/60/3	136	175	175
480/60/3	68	90	90
575/60/3	55	70	70

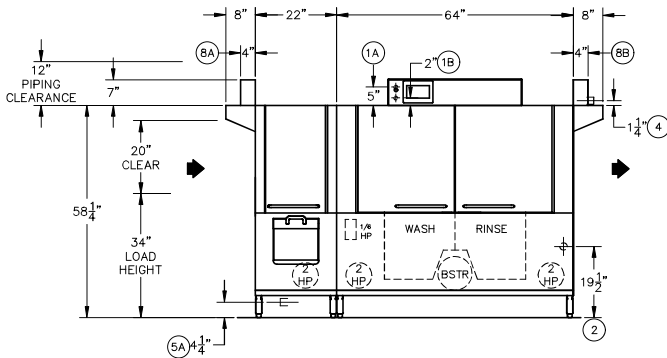
86 PRO Electric Tank Heat, 12 kW 40°F Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	132	175	175
240/60/3	114	150	150
480/60/3	57	80	80
575/60/3	45	60	60

Note:

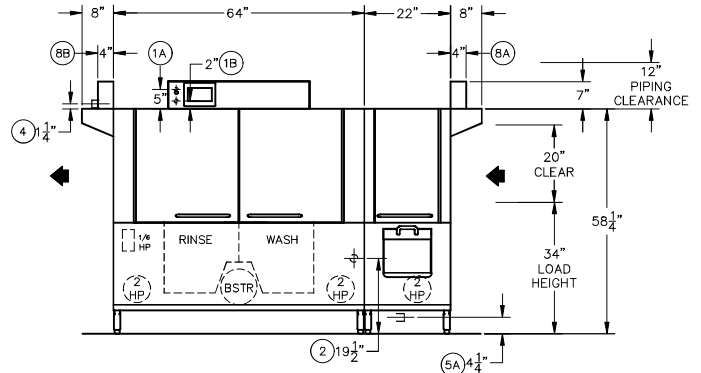
Machine ships as a dual point electrical connection standard. Easily converted to a single point connection by a qualified electrician (except as show in above tables).

Front View

Left to Right Model

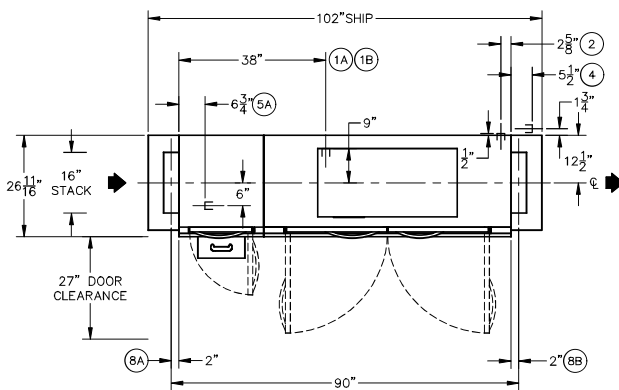


Right to Left Model

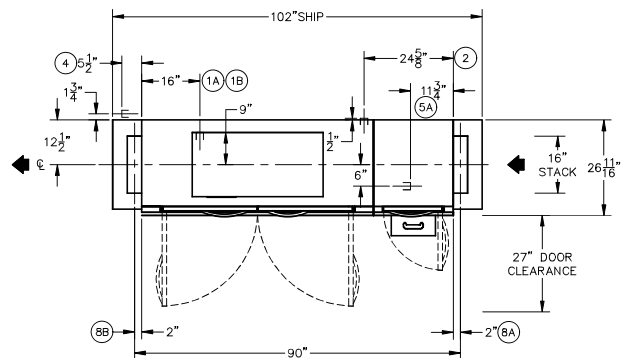


Plan View

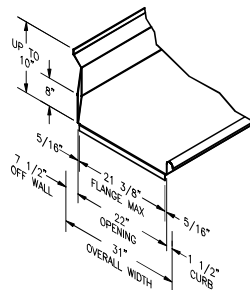
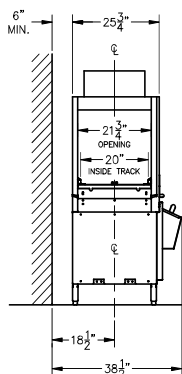
Left to Right Model



Right to Left Model

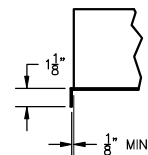


End View



Suggested Table Construction

Flange Details



In the USA: 3765 Champion Blvd, Winston-Salem, NC 27105 | Tel: (336) 661-1556 Fax: (336) 661-1979 | www.championindustries.com

In Canada: 2674 N. Service Rd., Jordan Station, Ontario, Canada L0R1S0 | Tel: (905) 562-4195 Fax: (905) 562-4618 | www.championindustries.com/1canada

Rev. 08/2024 Printed in U.S.A.

Due to an ongoing value analysis program at Champion, specifications contained in this catalog are subject to change without notice.

CC 208c

System Components

Media Vessel (Qty.) Size	(2) 8" x 17"
Media Vessel Construction	Fiberglass Wrapped Engineered Plastic
Empty Bed Volume	0.40 ft ³
Media Type	Standard Mesh Resin
Media Volume	0.40 ft ³
Bed Depth	Packed
Free Board	None
Riser Tube	1" CPVC
Distributor Upper	0.012" Slots, Engineered Plastic Basket
Lower	0.009" Slots, Stainless Steel Flat Plate
Under bedding	None
Regeneration Control	Non-electric Use Meter
Regeneration Type	Countercurrent
Meter Type	0.30 - 25.00 gpm Polypropylene Turbine

Inlet Water Quality

Pressure Range	15 – 125 psi Dynamic Pressure
Temperature Range	35 – 160° F
Temperature (Continuous)	150° F
pH Range	5 – 10 SU
Free Chlorine Cl ₂ (Max.)	2.0 mg/L
Hardness as CaCO ₃ (Max.)	40 gpg

Operating Specs

Flow Range (15 / 30 psig)	10.2 – 15.0 gpm
Flow Configuration	Alternating
Dimensions (Width x Depth x Height)	20" x 22" x 28"
Weight (Operating / Shipping)	220 / 100 lbs.

Connections

Inlet / Outlet Connections	Custom Adapter and Bracket
Drain Connection	0.5" Tube
Brine Line Connection	0.375" Tube (internal)
Overflow Connection	0.5" Tube
Power	None

System Part Numbers

CC 208c, Compact Cabinet Softener, with Wheels	11500A
--	--------

Brine Tank Options

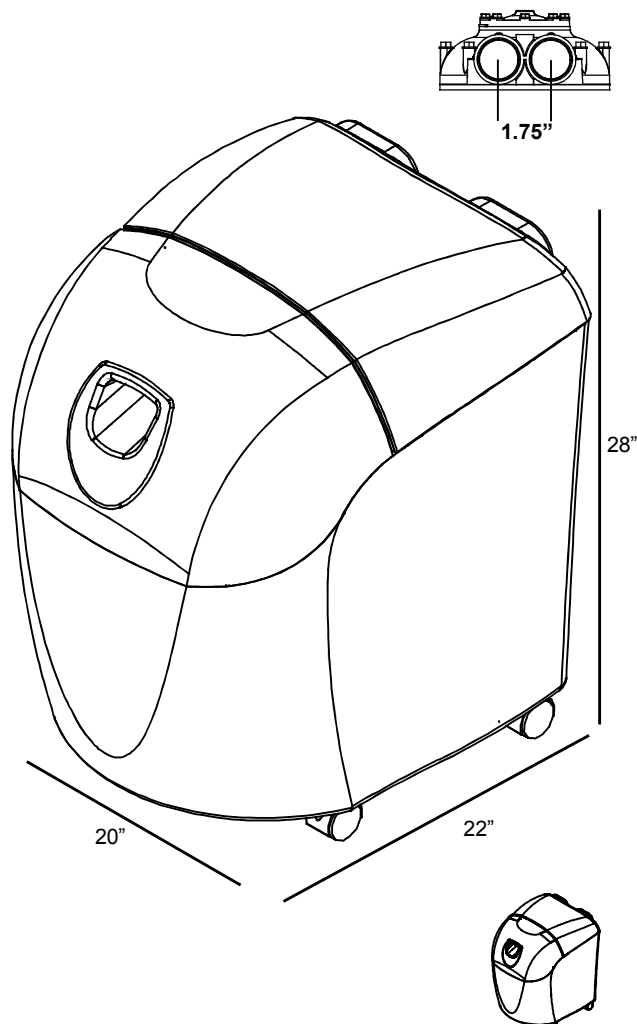
Tank Description	CC 208 Cabinet
Tank Height	28"
Tank Footprint	20 x 22"
Material	HDPE
Salt Capacity	100 lbs.

Regeneration Specifications

Regeneration Volume	14 gallons
Regeneration Time	11 minutes
Backwash Flow Control	1.40 gpm
Brine Refill Flow Control	0.40 gpm

Setting	Capacity	Efficiency	Dosing	Meter Disc
1.0 lbs.	3,865 grains	3,865 gr./lb.	2.5 lbs./ft ³	
1.4 lbs.	5,326 grains	3,804 gr./lb.	3.5 lbs./ft ³	

Gallons/Regeneration:
Flow during regeneration (@ 15 psig):



Disc Selection (Compensated Hardness*)							
1	2	3	4	5	6	7	8
4	9	14	19	23	27	30	35
5	11	17	22	27	32	35	40
732	366	244	183	146	122	105	92
10.2	10.2	10.2	10.2	10.2	8.3	6.7	5.5

*Compensated hardness in gpg = Hardness + (3 x Fe in mg/L)

Operating Profile

Softener shall remove hardness to less than 1/2 gpg when operated in accordance with the operating instructions. The system shall include two tanks. This duplex configuration shall operate with one tank on-line during service. During regeneration cycles, one tank shall provide water to service and to the regenerating tank. A water meter shall initiate system regeneration. The water meter shall measure the processed volume and be adjustable. Service flow shall be downflow and regeneration flow shall be upflow.

Regeneration Control Valve

The regeneration control valve shall be top mounted (top of media tank), and manufactured from non-corrosive materials. Control valve shall not weigh more than four pounds. Control valve shall provide service and regeneration control for two media tanks. Inlet and outlet ports shall accept a quick connect, double O-ring sealed adapter. Interconnection between tanks shall be made through the regeneration valve with a quick connect adapter. Control valve shall operate using a minimum inlet pressure of 15 psi. Pressure shall be used to drive all valve functions. No electric hook-up shall be required. Control valve shall incorporate four operational cycles including; service, brine draw, slow rinse, and a combined fast rinse and brine refill. Service cycle shall operate in a downflow direction. The brine cycle shall flow upflow, opposite the service flow, providing a countercurrent regeneration. Control valve shall contain a fixed orifice eductor nozzle and self-adjusting backwash flow control. The control valve will prevent the by-pass of hard water to service during the regeneration cycle.

Media Tanks

The tanks shall be designed for a maximum working pressure of 125 psi and hydrostatically tested at 300 psi. Tanks shall be made of engineered plastic with a 2.5 in. threaded top opening. Each tank shall be NSF approved. Upper distribution system shall be of a slot design. Lower distribution system shall be of a flat plate design. Distributors will provide even flow of regeneration water and the collection of processed water.

Conditioning Media

Each softener shall include standard mesh resin having a minimum exchange capacity of 30,000 grains/ft³ when regenerated with 15.0 lbs/ft³. The media shall be solid, of a proper particle size and shall contain no plates, shells, agglomerates or other shapes, which might interfere with the normal function of the water softener.

Brine System

A combination salt storage and brine production tank shall be manufactured of corrosion resistant, plastic. The brine tank shall have a chamber to house the brine valve assembly. The brine float assembly shall allow for adjustable salt settings and shall provide for a shutoff to the brine refill. The brine tank shall include a safety overflow connection to be plumbed to a suitable drain.

STANDARD FEATURES

- **Patent pending** compact, flexible design
- Fits high volume operations
- Quality stainless steel construction
- Fully-automatic operation
- **Chain conveyor** lifts for easy cleaning **NEW**
- Great solution for turning corners
- Sloped drain conveys water efficiently
- **Quick-connect receptacle** for error proof wiring to dishwasher **NEW**
- Easily handles 18"x26" sheet pans

PRO-90B U 90° UNLOAD TABLE

*Powered Unloader for Champion PRO Series
Rack Conveyor Dishmachines*

POWERED BY **bi·line**
SYSTEMS



PRO-90B
90° Corner Conveyor Table
(PRO Series rack machines only)

*Rendered image is for general visual representation only. Please
refer to specifications for the latest detailed product information.*



SPECIFIER STATEMENT

Specified unit will be Champion Model PRO-90B
90° unload table designed to be mounted to
Champion rack conveyor dishmachines only.
1 year parts and labor warranty.



Champion Industries, Inc.
3765 Champion Blvd, Winston-Salem, NC 27105
Tel: (800) 532-8591 Fax: (336) 661-1979
www.championindustries.com



PRO-90B U

90° UNLOAD TABLE

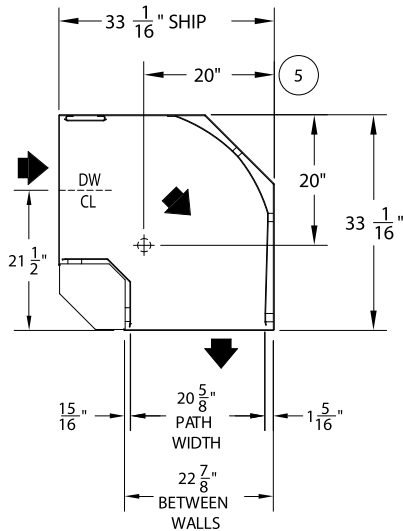
Powered Unloader for Champion PRO Series
Rack Conveyor Dishmachines

POWERED BY **bi-line**
SYSTEMS

Champion[®]
The Dishwashing Machine Specialists

PRO-90B

90° Corner Conveyor Table (PRO Series rack machines only)



PRO-90B Left to Right



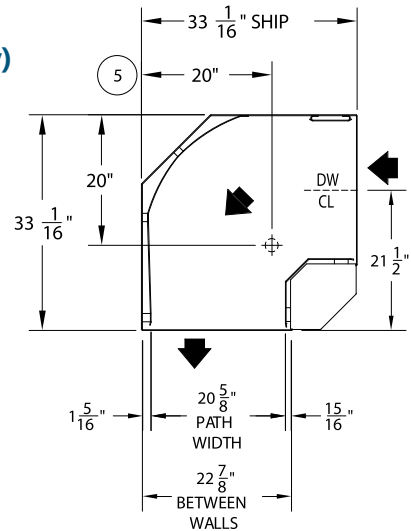
Shipping weight:

300 LBS

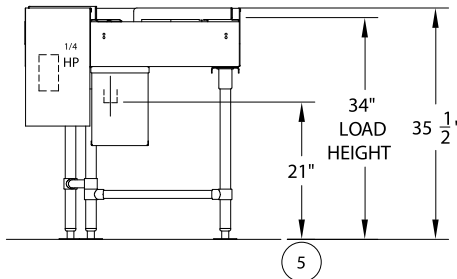
Volume crated:

107 cu. ft.

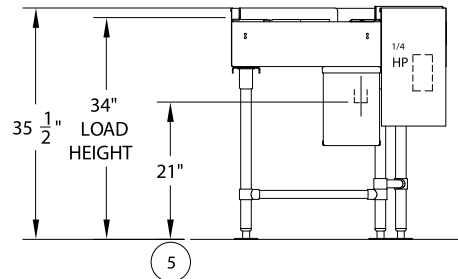
Drain size (5):
1-1/2" O.D.
slip-fit drain



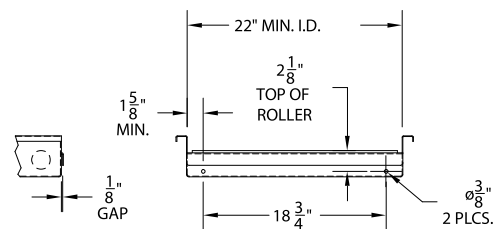
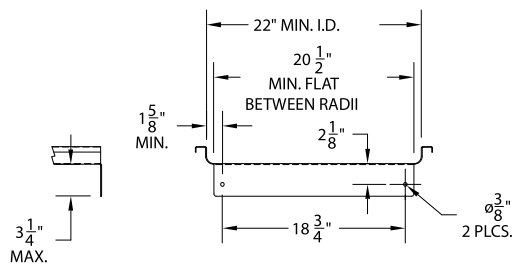
PRO-90B Right to Left



**Typical Clean Table Connection to PRO-90B
(Flat Top Style Table)**



**Typical Clean Table Connection to PRO-90B
(Recommended Roller Style Table)**



Bi-Line Systems In the USA:
3765 Champion Blvd, Winston-Salem, NC 27105
Tel: (800) 532-8591 Fax: (336) 661-1979
bilinesystems.com

Bi-Line Systems In Canada:
2674 N. Service Rd., Jordan Station, Ontario, Canada L0R1S0
Tel: (905) 562-4195 Fax: (905) 562-5422
bilinesystems.com

Due to an ongoing value analysis program at Bi-Line Systems, specifications contained in this catalog are subject to change without notice.

7/24

DETAILED WRITTEN SPECIFICATIONS
JOB NAME: STRAYER MIDDLE SCHOOL
LOCATION: QUAKERTOWN, PA

Champion Model 86 PRO rack conveyor washer

1. DESCRIPTION

- a. Rack conveyor, dual-tank warewasher consisting of prewash, power wash, and power rinse tanks
- b. Energy Star Rated.
- c. The rinse system shall not consume any more than 100 gallons of fresh water an hour using 0.28 gallons of final rinse water per rack.
- d. Shall be a minimum of 348 racks per hour.
- e. Fully automatic, constructed of heavy-gauge stainless steel, with stainless steel angle frame to form rigid support for machine components.
- f. Shall have top mounted controls with single point electrical connection, all electrical components including booster heater inter-wired and inter-plumbed.
- g. HMI display with change water function, cleaning and operation instructions multi-lingual.
- h. A programmable dwell feature, with automatic rack centering in the center of the wash zone, for higher soiled racks.
- i. Tanks and hoods are water-tight single unit construction.
- j. Doors
 - i. Fully insulated, 180° opening, hinge access doors.
 - ii. No gaskets are required to seal the doors.
 - iii. The machine will have insulated hinged access doors, providing access to the interior of the machine.
 - iv. The doors will slide into place, creating a tight seal.
 - v. Doors are leak-proof, insulated HINGED, and allow easy access for cleaning.
 - vi. Doors shall have safety switches to stop the conveyor if the door is opened in operation.
- k. Perforated stainless steel refuse screens and pump intake strainers shall be easily removed for cleaning.
- l. Pumps have motor overload protection and are mounted directly on the frame with service from the front of the machine.
- m. Shall have "energy sentinel" switch to activate pump motors only when racks enter machine.
- n. Upper and lower arm assemblies shall be one piece cast stainless steel.
- o. Rinse water shall be 180°F.
- p. The built-in booster shall be nested beneath the wash tank. The booster is not to exceed 21KW for 70°F rise.
- q. The "power on" switch shall automatically fill the tanks and turn on tank heaters and booster heater.
- r. Wash temperatures are thermister controlled with electric heating elements, and shall have low water protection.

- s. Rack conveyor shall be progressive dual pawl bar, anti-jam conveyor drive system with almost constant forward movement through the machine and a standard 20 3/4" chamber to accept 20" x 20" racks and 18" x 26" sheet pans through vertical opening.
- t. Shall have stainless steel enclosure panels on front and sides, stainless steel base and feet.
- u. Includes 1 peg and 1 flat dish rack.
- v. DIMENSIONS: 86" (L) X 25" (W) X 58 1/2" (H).

2. UTILITY REQUIREMENTS

- a. Electrical
 - i. 480 volt/60 Hz/3 phase,
 - ii. Dual point electric connection
- b. Hot Water line sizes (inches): 1/2"
- c. Incoming water temp: 110°F;
- d. Ventilation
 - i. Load end: 200 CFM @ 1/4" static pressure
 - ii. Unload end: 400 CFM @ 1/4" static pressure
- e. Direction of operation: left to right

3. SPECIAL FEATURES TO INCLUDE:

- a. Direction of operation: Left to Right
- b. 2nd year warranty parts & labor
- c. Built-in 21KW electric booster heater
- d. 100 GPH water saving booster heater, 70 degree rise
- e. Prodigy series HMI display with multiple programmable features
- f. PROgressive drive for more consistent results
- g. Proportional final rinse for greater consistency
- h. Electric booster nested under the tank for optimal heat exchange
- i. Automatic drain valves
- j. Single piece hood design
- k. Single piece fully stainless steel wash arm manifolds
- l. Automatic de-lime function

4. OPTIONAL EQUIPMENT TO BE INCLUDED:

- a. Built-in 21KW water saving booster heater, 70° rise
- b. Cc208c water softener
- c. Shock arrestor
- d. Table Limit Switch (whisker style)
- e. (1) extended vent cowl w/ 15" stacks (set)

5. AGENCY APPROVALS

- a. NSF
- b. UL

6. INSTALLATION

- a. Installation scope of work:
 - i. Perform a pre-installation site visit once an order placed.
 - ii. Receive Champion warewasher and water softener at installer's warehouse
 - iii. Deliver and bring into the building the above-mentioned equipment to the job site

- iv. Remove and dispose of existing rack conveyor washer, external booster heater, and all packing material
- v. Uncrate and set in place the above-mentioned equipment
- vi. Perform final hookups within 5' to properly sized utilities including water, electric, and drain lines
- vii. Reuse existing ventilation duct work to tie into Champion vent cowls
- viii. Supply (2) 40 lbs. bags of softening salt
- ix. Startup and calibrate the above-mentioned equipment to factory specifications
- x. Install new water softener and provide two 40 lb. bags of pelletized softening salt (not rock salt)
- xi. Installation to occur during NORMAL working hours (Monday – Friday; 7 AM – 5 PM)
- xii. Install to reflect non prevailing wage / nonunion labor rates
- xiii. Optional price for PREVAILING wage / non union labor rates
- xiv. Any required permits are to be supplied by Quakertown School District
- xv. Any required upgrades to accommodate the new equipment, not outlined in this scope of work, are to be completed by Quakertown School District
- xvi. The quote does not include any unforeseen price increases, labor and materials, upgrades, which may be required should problems arise.
- xvii. General Notes:
 - 1. Quakertown School District advised to upgrade drain from “direct” to “indirect” to meet local codes.
 - 2. Quakertown School District to provide electrical wire whip(s) and properly sized electrical breaker(s)
 - 3. Not responsible for existing walls / floor conditions or repairs. All cleaning, repairs and/or painting by OTHERS
 - 4. Removal of existing soap equipment will be removed by kitchen equipment contractor and left on site. Installation of new or existing soap equipment is by the chemical company.
 - 5. Any equipment not supplied by seller will not be connected to new machine unless noted in this scope of work.
 - 6. Owner to provide a clear pathway from receiving area to permanent location for removal and delivery of equipment.

Champion®

The Dishwashing Machine Specialists

PROJECT: _____

ITEM # _____ QTY: _____

MODEL # _____

AIA # _____ SIS # _____

86 PRO Electric

HIGH TEMPERATURE 2-TANK ELECTRIC RACK CONVEYOR



Rendered image is for general visual representation only. Please refer to specifications for the latest detailed product information.



STANDARD FEATURES

- **64" Single Tank + 22" Prewash**
- **Perpetual Rack Advance System**
with digital jam monitoring, and mechanical drive protection
- **Automated Delime Function**
with user-customizable alert intervals
- **348 Racks Per Hour**
- **.28 Gallons/Rack With Energy Sentinel** (idle pump shut-off)
- **Advanced Touchscreen Display**
intuitive condition alerts, with user friendly cleaning and operation visual guidance, multi-lingual
- **Enhanced Visual On-board Diagnostics**
quickly identify machine faults for rapid resolution and less downtime
- **Automatic Tank Fill**
- **Programmable Machine Dwell**
pauses rack in wash zone for extended cleaning, NSF Certified Pot & Pan Mode
- **Automatic Drain Valve**
- **Single-Piece Hood Design**
- **Single-Piece Scrap Screen**
more robust and faster cleaning
- **Single-Piece Stainless Steel Upper And Lower Wash Arm Manifolds**
- **20" Standard Vertical Clearance**
accommodates 18" x 26" sheet pans
- **Fully Insulated Doors**
open a full 180° for unrestricted cleaning access
- **All Stainless Steel Heavy Gauge Construction**
including base, legs and feet
- **Enclosure Panels** (front and sides)
- **2 HP Pump Motors** with stainless steel impellers
- **Factory Authorized Start-Up**
- **Vent Fan Control**
- **Made in America**

SPECIFIER STATEMENT

Specified unit will be Champion model 86 PRO Series 2-tank high temperature rack conveyor dishwashing machine. Features top mounted prodigy HMI user interface controls with proactive maintenance software, proportional rinse, using only 100 GPH, optional built-in 21kW booster, progressive anti-jam drive system, energy sentinel (idle pump shut-off), 348 racks per hour, single-piece hood design, single-piece stainless steel upper & lower wash arms manifolds, full 180° opening leak proof insulated hinged access doors.

1 Year parts and labor warranty.

In the USA:
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Tel: (336) 661-1556 Fax: (336) 661-1979
www.championindustries.com

In Canada:
2674 N. Service Rd., Jordan Station, Ontario, Canada L0R1S0
Tel: (905) 562-4195 Fax: (905) 562-4618
www.championindustries.com/1canada

ACCESSORIES

- ☐ Drain water tempering kit (unmounted)
- ☐ Table limit switch, unmounted (recommended on all rack conveyor installations) (unmounted)
 - o WHISKER STYLE
 - o BUTTON STYLE
- ☐ Vent cowl, stainless steel with 7" stacks & locking dampers
- ☐ Extended vent cowl, with 7" stacks, locking dampers & external curtain
- ☐ Flanged feet (unmounted)
- ☐ Water hammer kit (unmounted)
- ☐ Chemical pump kit (detergent and rinse aid, mounted and interwired)
- ☐ Water pressure regulating valve (unmounted; standard with booster)
- ☐ ION scale prevention device (unmounted)
- ☐ Water softening system (manufactured, warrantied and serviced by Kinetico)
- ☐ Dish racks:
 - o PEG RACK
 - o FLAT RACK
 - o SHEET PAN RACK
- ☐ Splash shields
- ☐ Cantilever sideloader (without hood) for 90° load operation
 - o 24" SIDELOAD
 - o 30" SIDELOAD (ACCEPTS SHEET PANS)
- ☐ Model PRO-90B unloader (90° corner conveyor table)
- ☐ Model PRO-90B loader (90° corner conveyor table)
- ☐ Model RCT 64 or RCT 84 roller conveyor table (see factory for custom length)
- ☐ Stainless steel rear enclosure panels
- ☐ Correctional package (contact factory)

OPTIONS

- ☐ 33" Blower dryer – electric
- ☐ Booster heaters (completely interplumbed, controls are interwired)
 - o 40°F RISE (BUILT-IN) (FIELD CONVERTED)
 - o 70°F RISE (BUILT-IN)
- ☐ Direct link connectivity solution
- ☐ Direct link plus+ connectivity solution

**Cantilever
Sideloader**
(no hood)



PRO-90B
90° Corner Conveyor
table loader and
unloader available



Model RCT 64 or RCT 84
Roller conveyor table



UTILITIES

1	Electrical Connections A Machine electrical connection B Booster electrical connection
2	Hot Water Machine with built-in booster Main connection 3/4" NPT 110° incoming water
4	Hot Water Machine with no booster Main water connection 3/4" NPT 180° incoming water
5A	Drain Connection 1-1/4" NPT Drain Max Flow Rate (g/min) 15
8	Vents A Stack connection – load end 150 CFM @ 1/4" static pressure B Stack connection – unload end 400 CFM @ 1/4" static pressure

Warning: Plumbing and electrical connections should be made by qualified personnel who will observe all the applicable plumbing, sanitary, and safety codes and the National Electrical Code.

Note: Water Hammer Arrestor (meeting ASSE-1010 standard or equivalent) to be supplied (by others) in common water supply line at service connection.

Plumbing Notes: Because of the variation in house-supplied steam and water pressures, steam and water pressure regulating valves (PRVs) may be needed. (Water PRV is standard on machines with booster.) The PRVs can either be purchased from Champion or obtained locally.

Water hardness of 3 grains/US Gal (0.83 Imp Gal) – 5.3 Mg/L or less

Venting Notes: Fabricated duct size: 3-7/8" x 15-7/8" (outside dimensions)

Optional Drain Tempering: 1/2" NPT cold water connection required. 1/2" NPT drain connection from back flow preventer to house drain. (FIELD INSTALLED and PLUMBED).

SPECIFICATIONS

Capacity	
Racks per hr (NSF rated)	348
Wash tank (US gal.)	17
Power rinse tank (US gal.)	17
Prewash tank (US gal.)	9
Conveyor speed (ft/min)	9.6
Conveyor speed Pot/Pan Mode (ft/min) (only one rack at a time in pot/pan)	4.6
Motor Horsepower	
Drive	1/6
Prewash	2
Wash	2
Power Rinse	2
Water Consumption	
US Gal. per hr (max. use)	100
US Gal. per rack	.28
Heating	
Tank Heat, electric (kW)	15
Power rinse, electric (kW)	10
Electric booster (built-in) (kW supplied for 40°F rise)	12
Electric booster (built-in) (kW supplied for 70°F rise)	21
Booster heaters completely inter plumbed, controls are interwired.	
Venting	
Load end (minimum CFM)	150
Unload end (minimum CFM)	400
Standard 20"x 20" Rack Complement	
Peg	1
Flat	1

Two Tank PRO Rack Machine and Booster Ratings

The tables below give the ratings for each model. The ratings include the requirements of the 12 and 21 kW booster heaters when they are in use.

Machines with a Dual point electrical connection:

86 PRO Electric Tank Heat, 21 kW Booster Only			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	59	80	80
240/60/3	51	70	70
480/60/3	26	35	35
575/60/3	22	30	30

86 PRO Electric Tank Heat, 12 kW Booster Only			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	34	45	45
240/60/3	29	40	40
480/60/3	15	20	20
575/60/3	12	15	15

86 PRO Electric Tank Heat, No Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	98	125	125
240/60/3	85	110	110
480/60/3	42	60	60
575/60/3	33	45	45

Machines with a Single point electrical connection:

86 PRO Electric Tank Heat, 21 kW 70°F Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	n/a	n/a	n/a
240/60/3	136	175	175
480/60/3	68	90	90
575/60/3	55	70	70

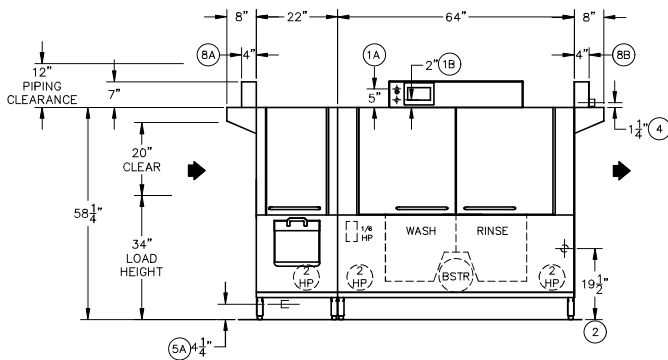
86 PRO Electric Tank Heat, 12 kW 40°F Booster			
Elec. Specs	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
208/60/3	132	175	175
240/60/3	114	150	150
480/60/3	57	80	80
575/60/3	45	60	60

Note:

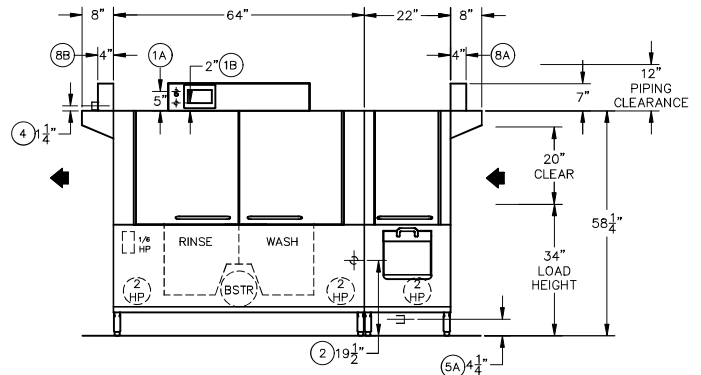
Machine ships as a dual point electrical connection standard. Easily converted to a single point connection by a qualified electrician (except as show in above tables).

Front View

Left to Right Model

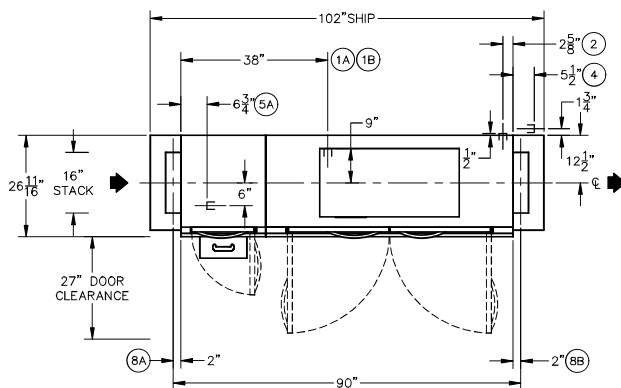


Right to Left Model

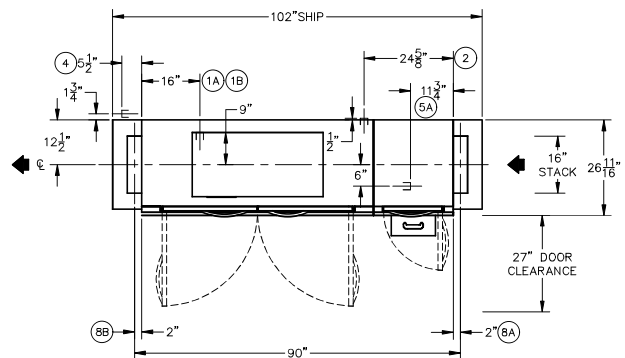


Plan View

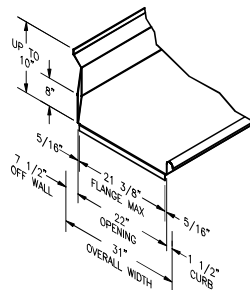
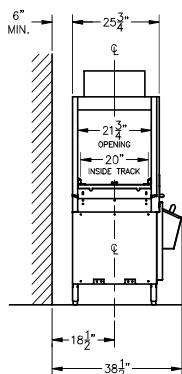
Left to Right Model



Right to Left Model

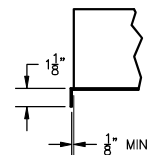


End View



Suggested Table Construction

Flange Details



In the USA: 3765 Champion Blvd, Winston-Salem, NC 27105 | Tel: (336) 661-1556 Fax: (336) 661-1979 | www.championindustries.com

In Canada: 2674 N. Service Rd., Jordan Station, Ontario, Canada L0R1S0 | Tel: (905) 562-4195 Fax: (905) 562-4618 | www.championindustries.com/1canada

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Due to an ongoing value analysis program at Champion, specifications contained in this catalog are subject to change without notice.

CC 208c

System Components

Media Vessel (Qty.) Size	(2) 8" x 17"
Media Vessel Construction	Fiberglass Wrapped Engineered Plastic
Empty Bed Volume	0.40 ft ³
Media Type	Standard Mesh Resin
Media Volume	0.40 ft ³
Bed Depth	Packed
Free Board	None
Riser Tube	1" CPVC
Distributor	Upper..... 0.012" Slots, Engineered Plastic Basket Lower..... 0.009" Slots, Stainless Steel Flat Plate
Under bedding	None
Regeneration Control	Non-electric Use Meter
Regeneration Type	Countercurrent
Meter Type	0.30 - 25.00 gpm Polypropylene Turbine

Inlet Water Quality

Pressure Range	15 – 125 psi Dynamic Pressure
Temperature Range	35 – 160° F
Temperature (Continuous)	150° F
pH Range	5 – 10 SU
Free Chlorine Cl ₂ (Max.)	2.0 mg/L
Hardness as CaCO ₃ (Max.)	40 gpg

Operating Specs

Flow Range (15 / 30 psig)	10.2 – 15.0 gpm
Flow Configuration	Alternating
Dimensions (Width x Depth x Height)	20" x 22" x 28"
Weight (Operating / Shipping)	220 / 100 lbs.

Connections

Inlet / Outlet Connections	Custom Adapter and Bracket
Drain Connection	0.5" Tube
Brine Line Connection	0.375" Tube (internal)
Overflow Connection	0.5" Tube
Power	None

System Part Numbers

CC 208c, Compact Cabinet Softener, with Wheels	11500A
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Brine Tank Options

Tank Description	CC 208 Cabinet
Tank Height	28"
Tank Footprint	20 x 22"
Material	HDPE
Salt Capacity	100 lbs.

Regeneration Specifications

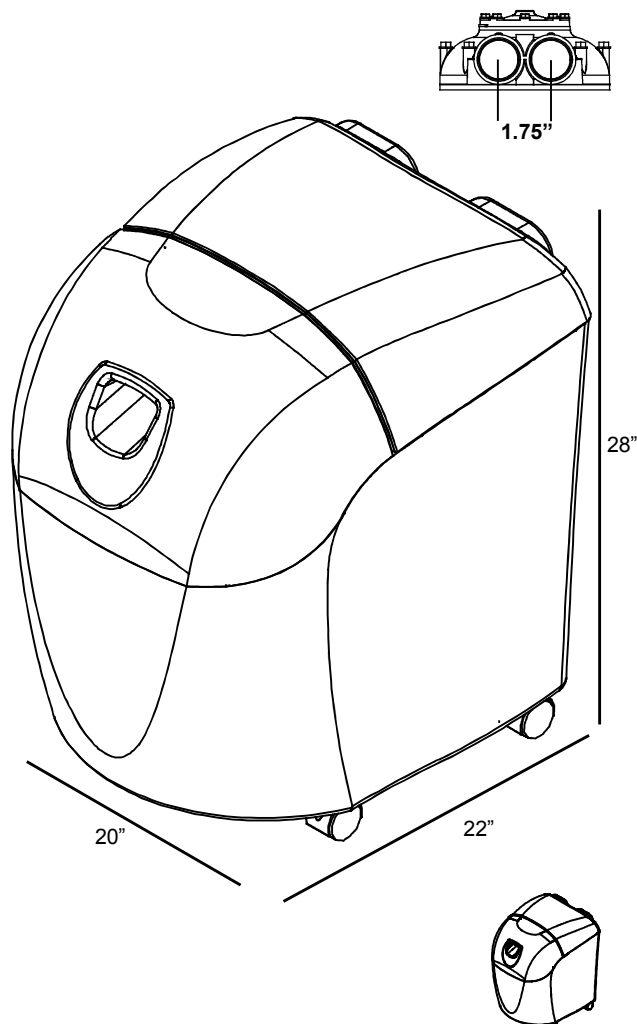
Regeneration Volume	14 gallons
Regeneration Time	11 minutes
Backwash Flow Control	1.40 gpm
Brine Refill Flow Control	0.40 gpm

Setting	Capacity	Efficiency	Dosing	Meter Disc
1.0 lbs.	3,865 grains	3,865 gr./lb.	2.5 lbs./ft ³	
1.4 lbs.	5,326 grains	3,804 gr./lb.	3.5 lbs./ft ³	

Gallons/Regeneration:
Flow during regeneration (@ 15 psig):

Disc Selection (Compensated Hardness*)							
1	2	3	4	5	6	7	8
4	9	14	19	23	27	30	35
5	11	17	22	27	32	35	40
732	366	244	183	146	122	105	92
10.2	10.2	10.2	10.2	10.2	8.3	6.7	5.5

*Compensated hardness in gpg = Hardness + (3 x Fe in mg/L)



Operating Profile

Softener shall remove hardness to less than 1/2 gpg when operated in accordance with the operating instructions. The system shall include two tanks. This duplex configuration shall operate with one tank on-line during service. During regeneration cycles, one tank shall provide water to service and to the regenerating tank. A water meter shall initiate system regeneration. The water meter shall measure the processed volume and be adjustable. Service flow shall be downflow and regeneration flow shall be upflow.

Regeneration Control Valve

The regeneration control valve shall be top mounted (top of media tank), and manufactured from non-corrosive materials. Control valve shall not weigh more than four pounds. Control valve shall provide service and regeneration control for two media tanks. Inlet and outlet ports shall accept a quick connect, double O-ring sealed adapter. Interconnection between tanks shall be made through the regeneration valve with a quick connect adapter. Control valve shall operate using a minimum inlet pressure of 15 psi. Pressure shall be used to drive all valve functions. No electric hook-up shall be required. Control valve shall incorporate four operational cycles including; service, brine draw, slow rinse, and a combined fast rinse and brine refill. Service cycle shall operate in a downflow direction. The brine cycle shall flow upflow, opposite the service flow, providing a countercurrent regeneration. Control valve shall contain a fixed orifice eductor nozzle and self-adjusting backwash flow control. The control valve will prevent the by-pass of hard water to service during the regeneration cycle.

Media Tanks

The tanks shall be designed for a maximum working pressure of 125 psi and hydrostatically tested at 300 psi. Tanks shall be made of engineered plastic with a 2.5 in. threaded top opening. Each tank shall be NSF approved. Upper distribution system shall be of a slot design. Lower distribution system shall be of a flat plate design. Distributors will provide even flow of regeneration water and the collection of processed water.

Conditioning Media

Each softener shall include standard mesh resin having a minimum exchange capacity of 30,000 grains/ft³ when regenerated with 15.0 lbs/ft³. The media shall be solid, of a proper particle size and shall contain no plates, shells, agglomerates or other shapes, which might interfere with the normal function of the water softener.

Brine System

A combination salt storage and brine production tank shall be manufactured of corrosion resistant, plastic. The brine tank shall have a chamber to house the brine valve assembly. The brine float assembly shall allow for adjustable salt settings and shall provide for a shutoff to the brine refill. The brine tank shall include a safety overflow connection to be plumbed to a suitable drain.