

## ADDENDUM NO. 2

Project: WITCC Culinary Arts Project - Phase 2

Issued: June 25, 2014

Bid Date: 10:30 AM, Wednesday, July 2, 2014

This Addendum is issued to all known Construction and Food Service Equipment plan holders before receipt of proposals.

The following shall be included with, and considered a part of, the original contract documents to the same extent as if they were included therein, for the construction of the above mentioned project. The Project Manual and Drawings shall be modified or revised as herein described. Where at variance with the original work, this Addendum shall have precedence.

This Addendum modifies the original Bidding Documents. The Bidder must acknowledge receipt of this Addendum in the space provided on the Proposal Form. Failure to do so may subject bidder to disqualification.

### ARCHITECTURAL ADDENDA ITEMS:

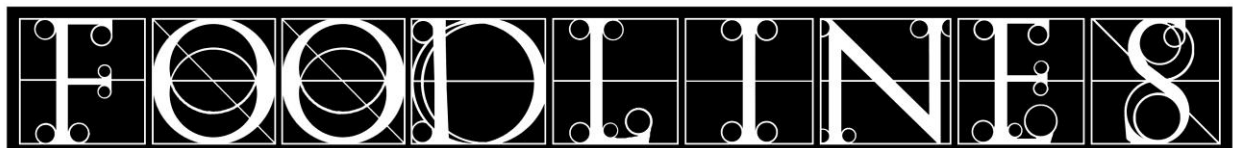
**AD2.1.** Clarification/Revision to Specification Section 09 51 31, Suspended Ceilings, Page 2, Part 2.1.C.2: The USG Compasso system will be installed in Corridor E-101 as detailed. The room number was typed incorrectly in the Specification Book.

**AD2.2.** Revision to Specification Section 11 40 00, Food Service Equipment Plan & Schedule, Items 100 & 101 - Walk-In Cooler & Freezer: An auto-dialing system shall be furnished as a part of the Modularm 75LC alarm systems in the Walk-In Cooler. Refer to Norlake Quote No. NL1499027SO-B. **Alarm display panels must be flush mounted on front of Walk-In Cooler and Freezer.** Note: Auto-Dial system requires a field-connection to a phone line. Phone and data lines shall be furnished and installed by the Owner; FSEC shall coordinate with the Owner as necessary. A separate Enviro-Control Kit shall also be factory-furnished as a part of both walk-ins. Kit is 120-240/60/1.

Acceptable Substitute: Cooper Atkins  
See attached cut sheet

**AD2.3.** Revision to Specification Section 11 40 00, Food Service Equipment Plan and Schedule: Item 312 - Countertop Mixer: Furnish Globe SP5 5-qt. countertop mixer with bowl-lift. Unit shall be 115/60/1, 4 amps. Note: Globe mixer attachment hub is compatible with KitchenAid accessories. Furnish accessories as originally specified:

KPRA Pasta Roller and Cutter Set  
KN256PS Pouring Shield with Wide Chute  
KAICA Ice Cream Maker Attachment  
FGA Food Grinder



Consultants to the Food Service Industry

209 South 9th Street  
Lincoln, Nebraska 68508

www.foodlines.net  
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402.475.1787 Tel.  
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**Qty: 24**  
No approved substitutes  
See attached cut sheet

- AD2.4.** Specification Section 11 40 00, Food Service Equipment Plan and Schedule, Revision to Item 809 – Vacuum Breaker: The new quantity of Item 809 shall be **three**, with the addition of a vacuum breaker at the three-compartment sink, Item 600.
- AD2.5.** Revision to Sheet A101, Reflected Ceiling Plan: The Room Tag “Ex. Cargill Lobby E-101” should be **E-100** as shown on the other floor plans and the Interior Finish Schedule.
- AD2.6.** Revision to Sheet A101, Reflected Ceiling Plan: The General Contractor shall furnish and install **new ceiling tile and grid** in classrooms D215, D216 and D217. Tile shall be U.S. Gypsum ‘Radar ClimaPlus’ #2420 2’ x 4’ x 5/8”, Class A with SLT edge, white. Grid shall be U.S. Gypsum/Donn DXL Series intermediate duty fire-rated grid, 15/16 inch.
- AD2.7.** Clarification to Details 4 and 5/FS1.1: General Contractor shall install reinforcing steel; No. 4 bars @16” c-c each way, centered in the new recessed slab below the Walk-In Cooler and Freezer

#### **MECHANICAL AND ELECTRICAL ADDENDA ITEMS:**

- AD2.8.** Sheet E4.1 – Kitchen Equipment Schedule and Panel Schedules: Item K103B shall be renamed K105: See Architectural Partial Plan AD1-3 from Addendum #1 for location. Move receptacle centered on K105. Change amps in the Kitchen Equipment Schedule to 9.7 Amps. Make changes to panel schedule LP3A.
- AD2.9.** Sheet E4.1 – Kitchen Equipment Schedule and Panel Schedules: Add item K106: See Architectural Partial Plan AD1-3 from Addendum #1 for location. Device is rated at 220V single phase, 5.5A, 1 HP motor. Provide NEMA 6-20P flush in wall at location of K106 along with matching cord and plug. Make connections to unit. Connect to panel LP3B, circuits 23, 25 with 2 #12 + ground in ½” conduit. Provide 15/2 circuit breaker for connections. Update Kitchen Equipment and Panel Schedules.
- AD2.10.** Sheet E4.1 – Kitchen Equipment Schedule and Panel Schedules: Provide power connections to the cooler and freezer environmental control boxes mounted on the evaporators for each unit, K100B and K101B. These microprocessor control boxes are multi voltage rated, 120 or 208V. Utilize circuit for the evaporators for power of both the evaporators and new control box. Run power to the evaporators thru the relays of the control boxes as directed by the cooler/freezer supplier for control of the motors.

**APPROVED SUBSTITUTIONS:**

The following are product substitutions which were received at least seven (7) days prior to receipt of bids and shall be considered approved by the Architect. The manufacturers listed herein will be considered approved for bidding, however the proposed product substitution must meet the intent of the specifications and will be subject to shop drawing submittal approval during construction. Bidders shall include in their bid, any changes required in the Work to accommodate such substitutions.

**Section 23 05 48 – Glazing:** VetroTech Keralite Select L (materials) and Quality Glass and Mirror of Omaha, NE (fabricator)

**Section 09 775 50 – Fiberglass Reinforced Plastic Wall Panels:** Panolam FRP

**Section 09 67 23 – Fluid Applied Resinous Flooring:** Anchorbond Anchorthane Flake system

**Section 23 05 45 – Vibration Isolation:** Mason Industries

**Section 23 31 10 – Duct:** Tangent Air

**Section 23 33 00 – Duct Accessories:** Leader Industries

**General Contractor shall acknowledge receipt of this Addendum on the Proposal Form in the space provided.**

**END OF ADDENDUM NO. 2**

Attachments: Food Service Cut Sheets



Second and Elm Streets  
 P.O. Box 248  
 Hudson, Wisconsin 54016  
 800-955-5253  
 715-386-2323  
 715-386-6149 FAX

## Quotation

Quote No. NL1499027SO-B  
 Date : 06/13/2014  
 Page : 1 of 6

Customer	WITCC
Attention	
Project	WITCC
Item Number	
Rep Name	02 - Nor-Lake House Accounts
Rep Number	02
Sales Specialist	

(1) Nor-Lake FINELINE Walk-In Cooler/Freezer Combination (2 compartments)  
 30' 0" long, 9' 0" wide, 8' 7" high.

This full size Nor-Lake walk-in contains 1,913 internal cubic feet to assure maximum storage capacity. Compare to other quotes which may be nominal dimensions which can result in reduced storage space.

### TOTAL WALK-IN PRICE

(1) LAWD150RL4-YH-M Refrigeration system  
 (1) NAWD125RL4-YH-M Refrigeration system  
 Refrigeration is "sized" for holding product only; that is; our calculation is based on product entering at the same temperature as the desired temperature of this walk-in. If you feel that this is insufficient, please advise.

### TOTAL REFRIGERATION PRICE

(1) 150 To 151 Series - Optional Five Year Extended Compressor Warranty  
 (1) 18 Month Labor/Service Warranty  
 (1) 100 To 125 Series - Optional Five Year Extended Compressor Warranty  
 (1) 18 Month Labor/Service Warranty  
 (1) Standard 15 year Walk-in Panel Warranty  
 (1) Standard 1 year Replacement Parts Warranty

### TOTAL WARRANTY PRICE

FREIGHT  
 INSTALLATION  
 GRAND TOTAL QUOTATION PRICE

#### Notes / Clarifications:

Approximate Total Shipping Weight (lbs) 5,996  
 Nor-Lake manufactures with environmentally friendly, CFC free, HFC 245fa polyurethane foam insulation.  
 Prices protected from increase through 12/31/15. Prices void if purchase order, signed quote or print, and release for production are received later than 12/31/15. All shipments FOB Hudson, WI. Based on the ship to address of this product, state sales tax maybe applicable. If applicable, sales tax will be added to the Nor-Lake invoice.  
 Acceptance of an order based on this quotation is subject to credit approval.  
 Please reference this Quotation Number on all correspondence.



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Customer WITCC  
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 Sales Specialist

Prepared by: \_\_\_\_\_

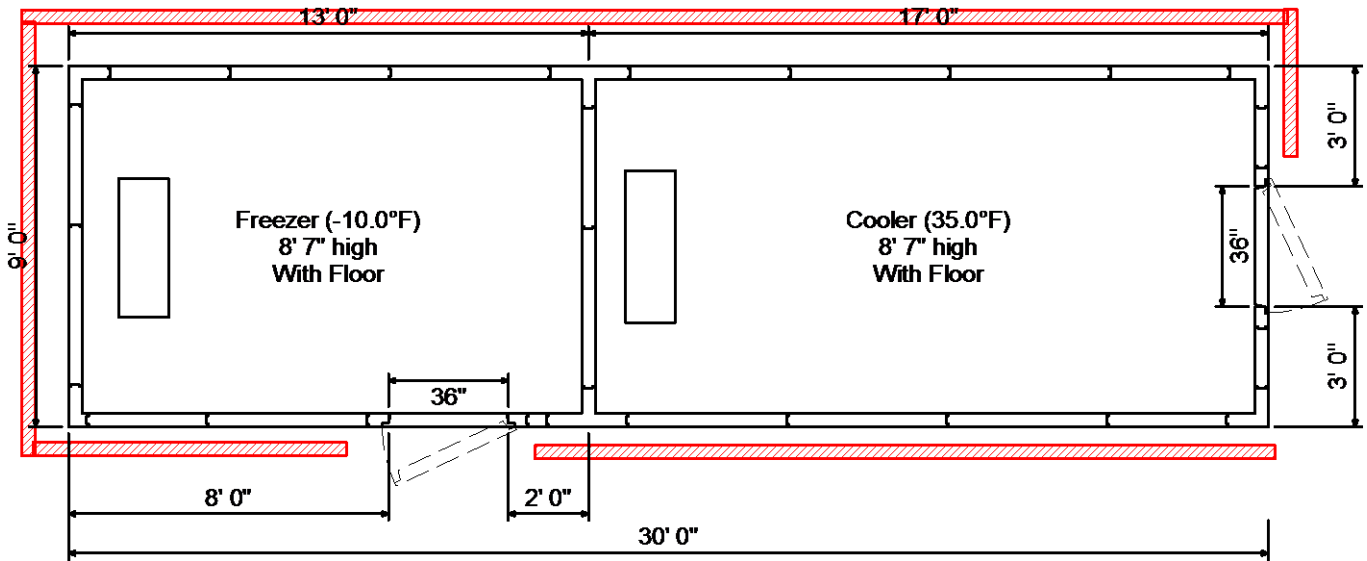
Nor-Lake is registered by UL to ISO 9001-2008. California State Contractor License #940932.

(1) Nor-Lake FINELINE Walk-In Cooler/Freezer Combination (2 compartments)

30' 0" long, 9' 0" wide, 8' 7" high.

**Finishes:**

- 26 Gauge Embossed White Steel - Interior wall, Interior ceiling
- 26 Gauge Corrosion Resistant Stucco Embossed Coated Steel - Exterior wall
- 22 Gauge Embossed Stainless Steel - Exposed wall, Interior door frame, Exterior door frame, Interior door, Exterior door
- 26 Gauge Smooth Galvanized - Ceiling topside, Floor bottomside
- 1/8 Diamond Aluminum - Interior floor





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### Freezer (-10.0°F) Details:

- (1) 36" X 78" Walk-In Door right-hand swing  
Includes door closer, cam lift hinges (one spring loaded), NL9800 deadbolt key/padlock handle with inside release, magnetic gasket, heater wire, double sweep gasket, vapor proof light and NL508 combination digital thermometer and switch w/pilot light.
- (1) 48" High, Exterior 1/8" Aluminum Diamond Tread, Door And Frame Mounted Kickplates (Includes Extra Hinge).
- (1) 48" High, Interior 1/8" Aluminum Diamond Tread, Door And Frame Mounted Kickplates (Includes Extra Hinge).
- (1) 36" Wide Door Strip Curtain, 78" High Maximum, Shipped Loose and Field Installed
- (1) No Light on Door Section
- (1) Door Through Panel Electrical; All Conduit Concealed Inside The Door Frame, Hole Pre-Drilled Through Ceiling And Field Installed Ceiling Mounted Junction Box With Conduit Provided.
- (1) Modularm 75LC High/Low Digital Alarm And Light Management System Installed In Door Panel With Digital Readout-Sounds On Rise Or Fall Of Temperature (In Lieu Of Standard NL508 Combination Digital Thermometer And Switch With Pilot Light)
- (1) Inside Panic Alarm (IP-1) For Use With Modularm 75LC. Installed On Interior Door Frame
- (1) Modularm 75LC Auto Dialer

### Sq. Ft. Of 1/2" CDX Plywood Subfloor for Freezer (-10.0°F)

- (1) Heated Air Vent For 4" Thick Panel (Installed In Wall Or Corner Panel)
- (1) 48" Fluorescent, Vapor-Proof, Freezer Light Fixture With T5 Bulbs And Low Temperature Electronic Ballast (Shipped Loose)
- (1) Through Panel Electrical; All Conduit Concealed Inside The Wall Panel, Hole Pre-Drilled Through Ceiling And Field Installed Ceiling Mounted Junction Box With Conduit Provided.

(1) LAWD150RL4-YH-M -10° F Operation, Low Temperature, Air Cooled, R-404A, Defrost Timer, Remote Fast-Trak INDOOR Refrigeration System, Pre-Assembled, Pre-Piped, With Hand Valves For Field Piping, Welded Hermetic, Low Profile Unit Cooler, Meets CEC Requirements, 208/230-1-60 Electrical. Condensing Unit Rack Overall Size Is 26.75 Inches Wide, 35 Inches Long And 19 Inches High. Unit Cooler Overall Size Is 15 Inches Wide, 41.5 Inches Long And 15.25 Inches High. Condensing Unit, 208/230-1-60 Electrical Requirements Are 26.1 Minimum Circuit AMPS And 45 Maximum Fuse Size. Unit Cooler, 208/230-1-60 Electrical Requirements Are 7.0 Minimum Circuit AMPS And 15 Maximum Fuse Size. 3.8 EER Rating ( system capacity 5988 BTU's/hour at 90.0°F ambient temperature. )

Calculated load for Freezer (-10.0°F) is 4919 BTU's/hour calculated from 90 °F ambient temperature, 70 °F floor temperature, 37 minutes open door time per 24 hrs for(1) 36" X 78" walk-indoor opening into 90 °F ambient, 1.5 Watts per square foot lighting operating 10 hours per day, 0.0585 occupants working 10 hours per day. All calculations are based on data supplied by ASHRAE publications.

(1) Enviro-Control Kit,120-240/60/1, Includes Electronic Demand Defrost Controller, Sensors, And Electronic Expansion Valve (REQUIRES 12 DAY LEAD TIME). Includes 1 Controller Per Unit Cooler. NOTE: Components Removed From Conventional System Are Temperature Control, Thermal Expansion Valve, Defrost Timer, Head Pressure Control, And Liquid Line Solenoid On Unit Cooler(s) Only.

(1) 150 To 151 Series - Optional Five Year Extended Compressor Warranty

(1) 18 Month Labor/Service Warranty

Refrigeration is "sized" for holding product only; that is; our calculation is based on product entering at the same temperature as the desired temperature of this walk-in. If you feel that this is insufficient, please advise.

### Cooler (35.0°F) Details:

- (1) 36" X 78" Walk-In Door right-hand swing



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- Includes door closer, cam lift hinges (one spring loaded), NL9800 deadbolt key/padlock handle with inside release, magnetic gasket, heater wire, double sweep gasket, vapor proof light and NL508 combination digital thermometer and switch w/pilot light.
- (1) 48" High, Exterior 1/8" Aluminum Diamond Tread, Door And Frame Mounted Kickplates (Includes Extra Hinge).
  - (1) 48" High, Interior 1/8" Aluminum Diamond Tread, Door And Frame Mounted Kickplates (Includes Extra Hinge).
  - (1) 36" Wide Door Strip Curtain, 78" High Maximum, Shipped Loose and Field Installed
  - (1) No Light on Door Section
  - (1) Door Through Panel Electrical; All Conduit Concealed Inside The Door Frame, Hole Pre-Drilled Through Ceiling And Field Installed Ceiling Mounted Junction Box With Conduit Provided.
  - (1) Modularm 75LC High/Low Digital Alarm And Light Management System Installed In Door Panel With Digital Readout-Sounds On Rise Or Fall Of Temperature (In Lieu Of Standard NL508 Combination Digital Thermometer And Switch With Pilot Light)
  - (1) Inside Panic Alarm (IP-1) For Use With Modularm 75LC. Installed On Interior Door Frame
  - (1) Modularm 75LC Auto Dialer

Sq. Ft. Of 1/2" CDX Plywood Subfloor for Cooler (35.0°F)

- (2) 48" Fluorescent, Vapor-Proof, Freezer Light Fixture With T5 Bulbs And Low Temperature Electronic Ballast (Shipped Loose)
- (1) Through Panel Electrical; All Conduit Concealed Inside The Wall Panel, Hole Pre-Drilled Through Ceiling And Field Installed Ceiling Mounted Junction Box With Conduit Provided.

(1) NAWD125RL4-YH-M 35° F Operation, High Temperature, Air Cooled, R-404A, "Off Cycle" Timer, Remote Fast-Trak INDOOR Refrigeration System, Pre-Assembled, Pre-Piped, With Hand Valves For Field Piping, Welded Hermetic , Low Profile Unit Cooler, Meets CEC Requirements, 208/230-1-60 Electrical. Condensing Unit Rack Overall Size Is 26.75 Inches Wide, 35 Inches Long And 19 Inches High. Unit Cooler Overall Size Is 15 Inches Wide, 45.5 Inches Long And 15.25 Inches High. Condensing Unit, 208/230-1-60 Electrical Requirements Are 10.7 Minimum Circuit AMPS And 20 Maximum Fuse Size. Unit Cooler, 115-1-60 Electrical Requirements Are 2 Minimum Circuit AMPS And 15 Maximum Fuse Size. 5.77 EER Rating ( system capacity 8750 BTU's/hour at 90.0°F ambient temperature. )

Calculated load for Cooler (35.0°F) is 7614 BTU's/hour calculated from 90 °F ambient temperature, 70 °F floor temperature, 75 minutes open door time per 24 hrs for(1) 36" X 78" walk-indoor opening into 90 °F ambient, 1.5 Watts per square foot lighting operating 8 hours per day, 0.0765 occupants working 8 hours per day. All calculations are based on data supplied by ASHRAE publications.

(1) Enviro-Control Kit,120-240/60/1, Includes Electronic Demand Defrost Controller, Sensors, And Electronic Expansion Valve (REQUIRES 12 DAY LEAD TIME). Includes 1 Controller Per Unit Cooler. NOTE: Components Removed From Conventional System Are Temperature Control, Thermal Expansion Valve, Defrost Timer, Head Pressure Control, And Liquid Line Solenoid On Unit Cooler(s) Only.

(1) 100 To 125 Series - Optional Five Year Extended Compressor Warranty

(1) 18 Month Labor/Service Warranty

Refrigeration is "sized" for holding product only; that is; our calculation is based on product entering at the same temperature as the desired temperature of this walk-in. If you feel that this is insufficient, please advise.

Other Walk-In Accessories:

- (4) Lin. Ft. Of Wall Plate, 48" High, 1/8 Aluminum Diamond Treadplate, Shipped Loose and Field Installed
- (2) New Age 9787-C Aluminum Cove Base, 8' Length (Shipped Loose For Field Installation)
- (4) 3" x 3" x 10' Angle Trim Strips 22 Gauge Embossed Stainless Steel
- (1) Set of Removable Closure Panels 1' 5" high x 11' 5" long 22 Gauge Embossed Stainless Steel
- (1) Type 304 stainless steel finish

With floor walk-in recessed in 4" pit.



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With floor walk-in recessed in 4" pit.

Construction Approvals: NSF Approved, cULus and CSA Electrical, UL Flame Spread-25 and ULC Flame Spread-50 in accordance with ASTM E-84. To comply with the US Energy Independence & Security Act of 2007, all walk-in doors opening into the ambient (indoors or outdoors) are required to have a method for minimizing infiltration when the doors are open. All Nor-Lake walk-in doors will include a spring hinge to comply with this standard by 1-1-09, however; to further minimize infiltration, Nor-Lake recommends the use of a strip curtain or strip door for all exterior doors.

Quotation is subject to change upon receipt of detailed specifications and/or refrigeration load information. Refrigeration sizing is based on maximum line runs of 100 feet per system. NOTE: Walk-Ins sold into the state of California may require structural engineered drawings for seismic review. If required, Nor-Lake can provide the required drawings and structural support. Please contact Nor-Lake for lead time and pricing to meet this requirement.

This walk-in has been quoted with incomplete specifications. Nor-Lake, Inc. is not responsible for any discrepancies between this quote and the copy of the complete specifications until the complete specification has been received and reviewed by Nor-Lake

Verify all dimensions prior to order

Closure panels quoted to 10' ceiling height, please verify prior to order

Drain Line And Heater Tape Not Provided

Utility penetrations and escutcheon plates are by others. Not included in this quotation.

Kickplates are quoted at .125 aluminum diamond tread, in lieu of .100

Closure panels and trim strips are quoted at 22 gauge embossed stainless steel in lieu of 26 gauge



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# Enviro-Control™

## Evaporator Controller Specification Sheet

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### Evaporator Controller (1 per evaporator)

Integrated Refrigeration Evaporator Temperature and Defrost Controller Pre-installed from Manufacturer– Enviro-Control™ or Equal

Evaporator Controller to consist of a microprocessor driven controller and include the following:

- 1) 5 Analog Inputs
  - a) (4) Temperature Sensors
  - b) (1) Pressure Transducer
- 2) 4 Relay Outputs
  - a) 10 Amp (Inductive) Fan Relay
  - b) 20 Amp (Resistive) Defrost Relay
  - c) 3 Amp General Purpose (2 Amp Pilot Duty) Solenoid Relay
  - d) 3 Amp General Purpose (2 Amp Pilot Duty) Auxiliary Relay
- 3) 3 Programmable Digital Inputs
- 4) 1 Ethernet Connection
- 5) 1 Output 0-10V DC
- 6) 1 Electric Expansion Valve Driver for bipolar electric expansion valve

The microprocessor board shall be potted to protect it from moisture and allow it to be located within refrigerated environment.  
Operating Environment -40°F to 140°F

The controller shall operate on 120V or 208V - 240V

The controller shall have a 4 digit alphanumeric, scrolling LED display and operating status lights showing system conditions.

The controller shall have a 6 pushbutton user interface that provides full access to variables and setpoints.

The microprocessor shall have onboard web server allowing system parameters to be monitored remotely utilizing standard TCP/ IP protocols HTML and XML communication. Multiple controllers will have the ability to utilize TCP / IP communication to communicate with each other, providing the ability to sync compressor run/off and defrosts between multiple evaporators.

The controller's microprocessor shall have the option of controlling evaporator fans the following ways:

- 1) Continuously
- 2) Cycle on room temperature and coil temperature
- 3) Cycle on with compressor

The controller's microprocessor shall have the option of selecting between the following defrost type:

- 1) Air
- 2) Electric
- 3) Hot Gas

The controller's microprocessor shall have the option of selecting between defrost control method:

- 1) Demand defrost which initiates defrost on loss of evaporator efficiency and is terminated on temperature (or time if temperature is not achieved).
- 2) Time initiated defrost – terminated by temperature.
- 3) Runtime defrost which initiates defrost based on number of hours of compressor operation

The controller shall include a 7 day rolling graph of the evaporator return air and coil temperatures.

The controller shall have the ability to send alarm notifications via email or text message.

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The controller's microprocessor shall provide system protecting safeguards as follows:

- 1) Compressor over cycle protection
- 2) Fan over cycle protection

The controller's microprocessor shall have the option of selecting between auxiliary relay types:

- 1) Alarm Relay
- 2) 2<sup>nd</sup> compressor relay
- 3) 2<sup>nd</sup> fan relay
- 4) 2<sup>nd</sup> defrost relay
- 5) 2 speed fan control
- 6) Light relay
- 7) Permanent defrost relay

The controller shall have the option of data logging at 10 minute intervals for 31 days the following:

- 1) System Status
- 2) Suction Pressure
- 3) Suction Temperature
- 4) Saturated Temperature
- 5) Superheat
- 6) Valve % open
- 7) Room Temperature
- 8) Coil Temperature
- 9) Compressor Status
- 10) Fan Status
- 11) Defrost Status
- 12) Digital Input Status
- 13) Alarms

### **Pressure Transducer**

Input 0-5VDC

Pressure Range: 0 to 150 psia

Proof Pressure: 450 psi

Burst Pressure: 1500 psi

Operating Temperature: -40°F to 275°F

### **Temperature Sensor**

Operating Range -60°F to 150°F

Stainless steel housing

Moisture resistant package

2K $\Omega$ @77°F

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## **Nor-Lake Enviro Control**

The Nor-Lake Enviro evaporator controller is designed to efficiently control the evaporator coil and complete refrigeration system through the precise control of superheat, evaporator fan cycling and advanced defrost control.

- up to 20% energy savings over existing technology
- up to 86% reduction in defrost cycles over conventional methods - eliminates
- unnecessary defrosts associated with time based alternatives
- payback regularly 24 months or less
- maximizes energy efficiency with less compressor run time resulting from fewer and shorter defrosts
- eliminates ice formation on floors and ceilings
- eliminates excessive temperatures found with conventional defrost cycles
- temperature control of conditioned space to increase product shelf life
- controls evaporator fans, room temperature, EEV, compressor/liquid line solenoid, defrost heaters, multiple alarms
- eliminates need for defrost time clock, room thermostat, and defrost termination device (Klixon®)
- communicates to PC, smart phone or tablet computer allowing control of the system evaporator remotely, wherever internet service is available.
- receive alarm alerts/text message right to your phone, computer, or tablet computer.

The evaporator superheat is maintained through the use of an electronic expansion valve (EEV) that is driven from the Nor-Lake Enviro controller. The controller monitors the evaporator pressure and discharge temperature to maintain the coil superheat across the varying room loads.

The evaporator fans are cycled on and off during the off cycle of the compressor to maintain room temperature and to minimize the accumulation of frost on the evaporator coil. Capable of air temperature control of  $\pm 2^{\circ}$ .

The defrost frequency is based on the performance of the evaporator. The Nor-Lake Enviro control monitors the coil performance and room air temperature to establish the performance profile of the evaporator coil and will only defrost when needed.

The low temperature defrost cycle will consist of a period of time with the compressor off and the evaporator fans running with the defrost heaters off. After the evaporator fans have depleted the stored energy in the evaporator coil the fans will cycle off and the defrost heaters will energize. The control monitors 2 separate locations of the evaporator coil to ensure a complete defrost of the coil. During the defrost cycle the control will pulse the defrost heaters on and off to efficiently clear the coil of frost while controlling the amount of heat and steam released into the room.

The medium temperature defrost cycle is a period of time with compressor off and the evaporator fans running. The control will monitor the evaporator temperature sensors to ensure the coil is free of frost.

The Nor-Lake Enviro evaporator control is preset from the factory for the proper operation of the specified system.

# NORLAKE<sup>®</sup> *Enviro-Control™*

The Enviro-Control™ is a custom-designed option for a Nor-Lake refrigeration system – either a remote condensing unit Split-Pak™ system or a multi-compressor Multi-Pak™ or Dual-Pak™ system with one or more evaporator coils. The Enviro-Control™ system is a highly efficient electronic controller that regulates an electric expansion valve in response to evaporator superheat and return air temperature, featuring demand defrost fan control technology. The controller offers the ultimate installation convenience and energy efficiency.

The Enviro-Control™ features include:

- Demand defrost
- Precise superheat control
- Automatic fan cycling control
- Reduced compressor runtime
- **Field Retrofit Options**
  - Compatible with conventional TXV systems
    - Installation easy and quick without accessing pressurized refrigeration system
  - Add advanced technology controller with demand defrost and fan control to existing systems



***Nor-Lake Refrigeration Systems are designed and built in our manufacturing facility specifically to meet our customer's walk-in needs and applications.***



## **Benefits**

- 20% energy savings over existing technology
- Reduction in defrost cycles over conventional methods
  - Eliminates unnecessary defrosts associated with time based alternatives
- Maximizes energy efficiency with less compressor run time resulting in fewer and shorter defrosts
- Eliminates ice formation on floors and ceilings
- Password protected
- Controls evaporator fans, room temperature, EEV, compressor/liquid line solenoid, defrost heaters and multiple alarms
- Eliminates need for defrost time clock, room thermostat and defrost termination device (Klixon)
- Communicates to PC, smart phone or tablet computer allowing control of the evaporator remotely, wherever Internet service is available
- Receive alarm alerts/text messages/emails right to your phone, computer or tablet computer

# NORLAKE<sup>®</sup> *Enviro-Control*<sup>™</sup>

## Energy Saving Option for Walk-In Refrigeration

### System Functions

- Pre-programmed settings for common industry applications
- Controls room temperature and defrost
- Modulating EEV for Advanced Superheat Control
- Digitally displays status data such as temperature, error codes and alarms
- Programmable settings
- Maintains factory settings after power loss
- Operating voltage: 115 to 230 volts
- Built-in web server with RJ-45 connection
- Remote system operation display via ethernet or Internet connection
- Remote logging software continually via Ethernet connection

### Alarms with Remote Location Notification Available

- Pressure Sensor
- Suction Temp Sensor
- Air Temp Sensor
- Coil Temp Sensor
- Aux Temp Sensor
- High Superheat
- Low Superheat
- High Air Temp
- Low Air Temp
- Excess Defrost
- Defrost Termination
- Door Switch
- Communication Error



### Factory-Mounted Components

- Controller and three-digit LED display
- Three temperature sensors
- Electric expansion valve
- Pressure transducer

### Typical Environments

- Walk-in coolers and freezers
- Meat prep rooms
- Refrigerated warehouses
- Blast freezers

### Mechanical Parts Eliminated

- Room thermostat
- Defrost timer
- Thermostatic expansion valve
- Defrost termination/fan delay thermostat
- Head pressure control valve
- Liquid line solenoid valve



**Ability to Monitor and Control System From Your PC, Smartphone or Tablet Computer**

*Field Retrofit Options*



**NORLAKE<sup>®</sup>**

Nor-Lake, Incorporated  
727 Second Street  
Hudson, Wisconsin 54016  
800-955-5253  
715-386-6149 FAX  
www.norlake.com  
Revision Date: 10/12

**ISO 9001:2008**  
Registered to ISO 9001:2008  
File No. 10001816

**Standex**  
Food Service Equipment Group

Project \_\_\_\_\_

Item # \_\_\_\_\_

Quantity \_\_\_\_\_



GLOBE FOOD EQUIPMENT COMPANY

5 Quart Power Mixer

SP5



# SP5 5 Quart Power Mixer

### Model

SP5 - 5 Quart Power Mixer

Color-White with gray top



### Standard Features

- Ten speeds
- Electronic speed and load control
- Durable, NSF Approved, white powder coating
- Rigid cast aluminum body
- Polycarbonate splash cover with ingredient chute
- All stainless steel attachments
- Dual bowl clamps to lock bowl down
- Heavy duty motor, 800 watts
- Gear-driven, high torque transmission and motor
- Permanently lubricated transmission
- Thermal overload protection
- Attachment hub
- Easy action bowl lift
- Six foot cord with plug

### Standard Accessories

- 5 quart polished stainless steel bowl
- Stainless steel flat beater
- Stainless steel wire whip
- Stainless steel spiral dough hook
- Polycarbonate splash cover

### Standard Warranty

- Two-years parts and one-year labor

*Built into each mixer is the quality of workmanship and design synonymous with Globe.*

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_



**GLOBE FOOD EQUIPMENT COMPANY**

[www.globeslicers.com](http://www.globeslicers.com)

2153 Dryden Rd.  
Dayton, OH 45439  
Phone: 937-299-5493  
Phone: 800-347-5423  
Fax: 937-299-4147



# 5 Quart Power Mixer

# SP5

## Specifications

**Motor:** Universal motor, 800 watts, grease packed ball bearing, air cooled, 115/60/1, 4 amps. Electrically controlled thermal overload protection (manual reset).

**Finish:** NSF approved white powder coating.

**Capacity:** 5 quart (5 liter) bowl.

**Transmission:** Heavy duty transmission with precision milled gears that operate the planetary action and provide high torque mixing power. The gears are packed in a long lasting grease, and all shafts are mounted in ball bearings.

**Cord and Plug:** 6 ft. flexible three wire cord with ground plug.

**Standard Equipment:** Standard equipment includes a 5 quart #304 series stainless steel bowl, stainless steel spiral dough hook, stainless steel wire whip, stainless steel flat beater and polycarbonate bowl guard. A sturdy hand lever on the body column raises and lowers the bowl as well as locking in place at the top and bottom positions.

**Electronic Speed and Load Control:** Guarantees consistent kneading and mixing performance.

### Ten Speeds - Agitator Speeds (RPMs):

- 0 = OFF
- 1 = 30 (stir)
- 2 = 50
- 3 = 70
- 4 = 90
- 5 = 105
- 6 = 120
- 7 = 145
- 8 = 165
- 9 = 180
- 10 = 200

**Hub Attachment Speeds (RPMs):**  
50 to 450 RPMs

### Dimensions:

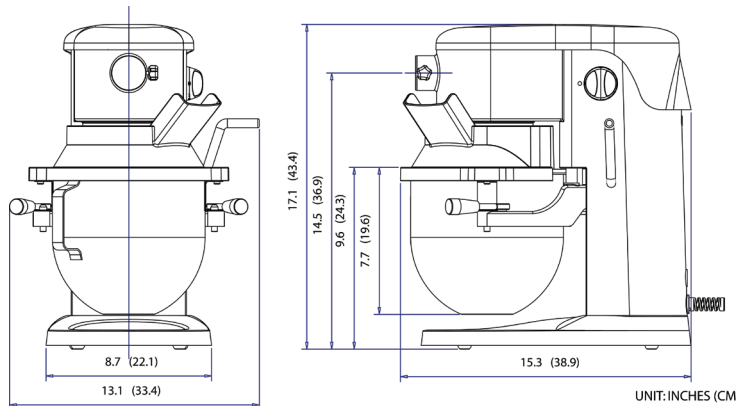
Foot Print = 13.1" x 15.3"  
(33.4cm x 38.9cm)  
Overall Length = 15.3" (38.9cm)  
Overall Width = 13.1" (33.4cm)  
Overall Height = 17.1" (43.3cm)

### Shipping Information:

Freight Class: 85  
Net Weight: 33 lbs (15 kg)  
Shipping Weight: 40 lbs (18 kg)  
Shipping Dimensions:  
15"W x 18.5"D x 20.5"H  
(37cm x 46cm x 52cm)  
Cartons are reinforced for shipping. The weight and dimensions of this reinforced carton are included above and may vary from shipment to shipment.

### Optional Accessories:

**XTABLE** Mixer Table with undershelf (Stainless steel top with galvanized steel undershelf and legs.)  
30"W x 24"D x 24"H  
(76.2cm x 61cm x 61cm)



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Specifications are subject to change without notice.