

ITEM 2D - REFRIGERATION EQUIPMENT

1 - GENERAL

1.1 This section applies to:

- A. Walk in Freezer Condensing Unit as specified in Item 2A.
Summary of Work

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.3 SUMMARY

A. Section Includes:

- 1. Walk-in refrigeration equipment.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include the following:

- 1. Manufacturer's model number.
- 2. Accessories and components that will be included for Project.
- 3. Clearance requirements for access and maintenance.

- B. Shop Drawings: For fabricated equipment. Include plans, elevations, sections, roughing-in dimensions, fabrication details, utility service requirements, and attachments to other work.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings:

- 1. Key equipment using same designations as indicated on Drawings.
- 2. Include plans and elevations; clearance requirements for equipment access and maintenance; details of equipment supports; and utility service characteristics.

- B. Warranty: Samples of special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For foodservice equipment to include in emergency, operation, and maintenance manuals, and include the following:

1. Product Schedule: For each foodservice equipment item, include the following:
 - a. Designation indicated on Drawings.
 - b. Manufacturer's name and model number.
 - c. List of factory-authorized service agencies including addresses and telephone numbers.

1.7 QUALITY ASSURANCE

- A. NSF Standards: Provide equipment that bears NSF Certification Mark or UL Classification Mark certifying compliance with applicable NSF standards.
- B. UL Certification: Provide electric and fuel-burning equipment and components that are evaluated by UL for fire, electric shock, and casualty hazards according to applicable safety standards, and that are UL certified for compliance and labeled for intended use.
- C. Regulatory Requirements: Install equipment to comply with the following:
 1. ASHRAE 15, "Safety Code for Mechanical Refrigeration."

1.8 PROJECT CONDITIONS

- A. **Field Measurements: Verify actual dimensions of construction contiguous with foodservice equipment by field measurements before fabrication. Indicate measurements on Coordination Drawings.**

1.9 COORDINATION

- A. Coordinate foodservice equipment layout and installation with other work, including layout and installation of lighting fixtures, HVAC equipment, and fire-suppression system components.
- B. Coordinate sizes, locations, and requirements of the following:
 1. Overhead equipment supports.
 2. Equipment bases.
 3. Floor depressions.
 4. Insulated floors.
 5. Floor areas with positive slopes to drains.
 6. Roof curbs, equipment supports, and penetrations.

1.10 WARRANTY

- A. Refrigeration Compressor Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace compressors that fail in materials or workmanship within specified warranty period.
 1. Failure includes, but is not limited to, inability to maintain set temperature.

2. Warranty Period: Five Years from date of Substantial Completion with One Year labor.

PART 2 - PRODUCTS

2.1 FABRICATED EQUIPMENT

2.2 WALK-IN REFRIGERATION EQUIPMENT

A. Walk-in Cooler/Freezer Unit:

1. Products: Subject to compliance with requirements, provide the following:
 - a. Bally Refrigerated Boxes
 - b. Refer to Drawing HV-2 for details and specification.

B. Walk-in Cooler/Cooler Unit

1. Products: Subject to compliance with requirements, provide the following:
 - a. Bally Refrigerated Boxes
 - b. Refer to Drawing HV-2 for details and specification.

2.3 MISCELLANEOUS MATERIALS

A. Installation Accessories, General: NSF certified for end-use application indicated.

B. Elastomeric Joint Sealant: ASTM C 920; silicone or urethane. Type S (single component), Grade NS (nonsag), Class 25, Use NT (nontraffic) related to exposure, and Use M, G, A, or O as applicable to joint substrates indicated.

1. Public Health and Safety Requirements:
 - a. Sealant is certified for compliance with NSF standards for end-use application indicated.
 - b. Washed and cured sealant complies with the FDA's regulations for use in areas that come in contact with food.
2. Cylindrical Sealant Backing: ASTM C 1330, Type C, closed-cell polyethylene, in diameter greater than joint width.

2.4 FINISHES

A. Stainless-Steel Finishes:

1. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.

2. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - a. Run grain of directional finishes with long dimension of each piece.
 - b. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
- B. Powder-Coat Finishes: Immediately after cleaning and pretreating, electrostatically apply manufacturer's standard, baked-polymer, thermosetting powder finish. Comply with resin manufacturer's written instructions for application, baking, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install foodservice equipment level and plumb, according to manufacturer's written instructions.
 1. Connect equipment to utilities.
 2. Provide cutouts in equipment, neatly formed, where required to run service lines through equipment to make final connections.
- B. Complete equipment assembly where field assembly is required.
 1. Provide closed butt and contact joints that do not require filler.
 2. Grind field welds on stainless-steel equipment until smooth and polish to match adjacent finish.
- C. Install equipment with access and maintenance clearances that comply with manufacturer's written installation instructions and with requirements of authorities having jurisdiction.
- D. Install closure-trim strips and similar items requiring fasteners in a bed of sealant.
- E. Install joint sealant in joints between equipment and abutting surfaces with continuous joint backing unless otherwise indicated. Produce airtight, watertight, vermin-proof, sanitary joints.

3.2 CLEANING AND PROTECTING

- A. After completing installation of equipment, repair damaged finishes.
- B. Clean and adjust equipment as required to produce ready-for-use condition.
- C. Protect equipment from damage during remainder of the construction period.

3.3 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain foodservice equipment.

MEASUREMENT AND PAYMENT:

See Item 2A. Summary of Work