

**11 06 40**  
**FOOD SERVICE EQUIPMENT**

**PART 1: GENERAL**

**1.01 SUMMARY**

- A. **GENERAL DESCRIPTION:** Food service equipment indicated on the contract drawings including general and supplementary conditions, schedules, equipment list and specifications associated with this section.
- B. **THE GENERAL PROVISIONS** of the Contract including General and Supplementary Conditions, Division 1 General Requirements and instruction to Bidders apply to the Work included in this Division.
- C. **RELATED SECTIONS**
  - 1. Division 1 - General Requirements
  - 2. Division 22 - Plumbing
  - 3. Division 23 - Mechanical
  - 8. Division 26 – Electrical

**1.02 REFERENCES**

- A. National Sanitation Foundation Standards and recommended criteria. Provide each equipment item with NSF 'Seal of Approval'.
- B. Underwriters Laboratories Standards and carry the U and/or cUL label.
- C. ANSI standards for electric powered and gas burning equipment.
- D. National Fire Protection Association Codes
- E. All applicable health codes.
- F. National Electric Code
- G. Americans with Disabilities Act
- H. Food and Drug Administration HACCP Guidelines
- I. American Gas Association

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**1.03 SUBMITTALS**

**A. PRODUCT DATA**

1. Brochures shall be bound in book form in item numerical order. Each product data sheet will be preceded by a type written description indicating the item number, specification, manufacturer, model number, accessories and modifications to meet the intent of the specifications. Provide six sets to the Architect for written approval before ordering equipment. Provide wiring diagram for all equipment as requested by the Architect.

**B. SHOP DRAWINGS**

1. Provide three sets of drawings and one set of reproducible shop drawings of fabricated equipment with details showing all dimensions and all details of construction, installation and relation to adjoining and related work, where same requires cutting, field welding or close fitting, and shall show all reinforcement, anchorage and other work required for complete installation. Drawings shall be drawn to a scale of not less than  $\frac{1}{2}'' = 1'$
2. Mechanical/electrical rough-in drawings will be submitted in item number sequence indicating the utility requirements of each piece of equipment specified herein. These submittals will be accurately drawn to scale and include all necessary dimensions indicating elevations and distances from centerline of columns, walls, etc. The Contractor shall be responsible for determining the exact location of the outlets on walls and floors, where applicable, and not as it exists on the equipment. Allowances shall be made for traps, ells, valves, faucets, tailpieces, etc. Rough-in drawings shall include utility requirements for existing and future equipment indicated in specifications and drawings. Provide three sets of drawings and one set of reproducible shop drawings.
3. Provide itemized equipment schedule including quantities, description, manufacturer, utility requirements and pertinent remarks.
4. NOTE: CUTSHEET SUBMITTALS TO HAVE SPECIFIC ITEMS, VOLTAGES, DETAILS, OPTIONS AND ACCESSORIES CLEARLY OUTLINED HIGHLIGHTED TO MINIMIZE FIELD QUESTIONS FROM SUBCONTRACTORS.

FAILURE TO OUTLINE SPECIFIC ITEMS WILL RESULT IN AUTOMATIC REJECTION OF CUTSHEET SUBMITTALS.

5. Upon approval of all drawings and product data sheets, submit eight sets of all submittals bound in brief form, for final distribution.
6. None of the above to be issued for work in field until all submittals have been stamped accepted.

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C. GENERAL: Submit in accordance with Section 01 33 00 Submittal Procedures.

1. Submittals to be received by consultant no later than 10 working days after award of contract. Shop drawings will be in CAD Release 11 or later format.
2. No Alternates will be allowed after the bid. All requests for alternates will be written and must be received by the Consultant no later than 7 days prior to the bid date.
3. Only Food Service Equipment Contractors may request alternates.

D. SAMPLES

1. Submit samples of all materials required by the Architect. Samples shall be adequate in size and quantity for testing their compliance with these specifications. These are to be submitted and approval obtained before work proceeds. Feet, handles, hardware, etc., shall be submitted with shop drawings if these items are not in accordance with specifications.

E. WARRANTY

1. Warranty installed units will be free of defects in material and workmanship for a minimum of one year from date of substantial completion, all work as furnished by FSEC under these specifications. This warranty shall cover replacement of defective material, transportation and labor, but does not include cost of parts and labor caused by the Owner's carelessness or misuse of equipment.
2. Warranty sealed compressor units for five (5) years from date of substantial completion.
3. Owner will contact FSEC for warranty service or repair and shall not be expected to contact any other agency.
4. Owner shall have continued use of defective equipment until replacement is provided.
5. Furnish In accordance with General Requirements, six (6) sets of operating and maintenance manuals and forward same to Architect for transmittal to Owner.
6. For maintenance purposes, provide copy of accepted shop drawings, parts lists, specifications and manufacturer's maintenance bulletins for each piece of equipment.
7. Provide name, address and telephone number of the Kitchen Equipment Contractor, manufacturer's representative, manufacturer and service company for each piece of equipment so that service or spare parts can be readily obtained.
8. Provide an operation video for each piece of equipment that requires mechanical or electrical operation and service. These videos will include the standard format for safe operation, cleaning and regular maintenance.

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**F. PRICING**

1. Submit a separate price for the food service package and supplies and a price for the installation of the equipment which will be performed as a subcontract to the project general contractor.
2. Provide without additional cost to the Owner, all appurtenances and accessories which may not be specified or shown on Drawings but which are required for the proper and safe functioning of equipment.

**1.04 QUALITY ASSURANCE**

**A. QUALIFICATIONS**

1. Manufacturer's qualifications: Firms regularly engaged in the manufacturing of food service equipment of types, capacities and sizes specified in this section, whose products have been in satisfactory use for not less than 5 years.
2. Fabricator's qualifications: Firms with at least 5 years documented experience in the fabrication of work specified in this section. Fabricated items will meet all code and standard requirements.
3. Installer's qualifications: Acceptable to manufacturer, with at least 5 years of successful food service equipment installation experience on projects of similar scope.

**B. PRE-INSTALLATION MEETING**

1. Conduct Preinstallation meeting in accordance with Section 01 31 19 Project Meetings and 01 31 19.33 Preinstallation Meetings.
2. Convene pre-installation meeting one week prior to commencing work of this section.

**1.05 SYSTEM DESCRIPTION**

- A. EXTENT OF WORK** - As identified in the drawings, schedules and specifications as it relates to this section.

**1.06 OWNER'S INSTRUCTIONS AND MAINTENANCE**

- A.** Refer to Section 01 77 00 Closeout Procedures and Section 01 77 19 Closeout Requirements.

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**PART 2: PRODUCTS**

**2.01 MATERIALS / EQUIPMENT**

**A. PRODUCTS**

1. **SCHEDULE:** See Part 4 - Schedule of Product Descriptions
2. **MECHANICAL REQUIREMENTS:** Refer to Division 23 for required drain traps, steam traps, atmospheric vents, valves, pipes and pipe fittings, ductwork and other materials necessary to complete mechanical hook-up which is not included in section 11 06 40. Roof penetrations for refrigeration conduit must be coordinated with Roofing Contractor prior to roofing installation. Surfaces adjacent to exhaust hoods and cooking equipment must comply with NFPA 96 General Requirements. Connection of equipment to utilities not included in Section 11 06 40.
3. **ELECTRICAL REQUIREMENTS:** Refer to Division 26 for wiring, disconnects, and other materials necessary to complete electrical hook-up which is not included in Section 11 06 40. Roof penetrations for refrigeration conduit/wiring must be coordinated with Roofing Contractor prior to roofing installation. Connection of equipment to utilities not included in Section 11 06 40.
4. **CUSTOM FABRICATION STANDARDS**
  - a. **Stainless Steel:** Where specified, it shall be Austenitic 18-8, Type 302 #4 commercial finish with a content of 17 percent to 19 percent chrome, 7 to 9 percent nickel with a maximum carbon content of 9 to 11%.
  - b. **Galvanized Iron:** Where called for, it shall be galvanized on an 8 percent copper bearing alloy sheet, with an approved hot pure zinc galvanizing. Where galvanized iron has been welded, all seams shall be cleaned and scale removed and finished with a prime coat of aluminum paint. Galvanized iron shall be one of the following: Armco, Toncan, Keystone Copper Bearing.
  - c. **Field Joints / Welding:** Field joints shall be located for practical construction with sizes convenient for shipping and entry into building spaces. All field joints shall be fully (continuous) welded with same type metal, ground smooth and polished to the original finish of the metal.
  - d. **Sound Deadening undercoat:** Underside of all custom fabricated stainless steel table tops shall be coated with 1/8" thick water-proof mastic material, non-asphaltic base.
  - e. **Legs, Bracing and Feet:** Legs and cross bracing shall be constructed of not less than 1-5/8" o.d. stainless steel tubing, cold drawn, annealed and pickled, spaced not more than 6'-0" on center. Tops shall be braced below with a minimum of 2 each inverted type stainless steel welded hat channels. Stainless steel bullet feet shall have a minimum adjustment of 1-1/2" without the use of tools and be fully sealed.

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5. MILLWORK FABRICATION: Custom equipment fabricator shall provide and install millwork items as indicated in this section in conformance with the Architectural Woodwork Institute standards for “custom grade” work.
- B. MANUFACTURERS: Subject to compliance with requirements, provide custom fabrication products of one of the following or acceptable equivalent.
- |  |  |
|--|--|
| 1. Ace Fabrication<br>2715 Dauphin St.<br>Mobile, AL. 36606                  | 4. Atlanta Custom Fabricators,<br>4381 Industrial Access Rd,<br>Douglasville, GA 30134 |
| 2. American Food Service<br>622 Florence Rd.<br>Savannah, TN. 38372          | 5. Select Stainless<br>405 E. South Main<br>Waxhaw, NC. 28173                          |
| 3. Low-Temp Manufacturing<br>9192 Tara Boulevard<br>Jonesboro, Georgia 30237 | 6. United Fabricators<br>1110 Carnall Street<br>Ft. Smith, Arkansas 72901              |

2.02 FINISHES - See Schedule

2.03 ACCESSORIES - NOT USED

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**PART 3: EXECUTION**

**3.01 EXAMINATION OF SITE**

**C. REFER TO DIVISION 1 for General Requirements**

1. Before submitting prices or beginning work, thoroughly examine the contract documents.
2. No claim for extra compensation will be recognized if difficulties are encountered which examination of site conditions and contract documents prior to executing contract would have revealed.
3. Food Service Equipment Contractor is responsible for verification of and coordination with all dimensions, quantities, finishes, field dimensions and roughing of utilities for the equipment to be installed. Food Service Equipment Contractor is responsible for verifying there are no conflicts between the documents published by the Architect, Engineers and Consultant. Should the Food Service Equipment Contractor fail to verify and coordinate as stated, he shall without cost to owner, make any necessary modifications to the equipment to complete proper installation to the satisfaction of the Architect and Consultant.
4. Inspect all equipment described as "Owners" or "Existing" that is to be reused to verify condition, serviceability and utility requirements.

**3.02 DELIVERY, STORAGE AND HANDLING**

- A. Comply with requirements of Section 01 60 00 Product Requirements, Section 01 65 00 Product Delivery Requirements and Section 01 66 00 Product Storage and Handling Requirements.
- B. Receive food service equipment in factory fabricated containers, inspect for damage and hold in warehouse.
- C. Hold equipment in original containers in a location to provide adequate protection without interfering with other construction operations.
- D. Handle equipment to avoid damage to components, enclosures and finish. Do not install damaged equipment.
- E. Provide all necessary equipment and manpower to receive and handle equipment on job site with deliveries based on project schedule.

**3.03 PREPARATION**

- A. Various items are specified herein by model number, brand name, trade name or name of manufacturer. It is the intent of this specification that the exact product be provided as specified. This requirement is not intended to restrict competition and consideration will be given to other brands that are equal or better in every respect. However, no substitutes or alternates will be acceptable if not submitted in writing and approved by the consultant seven (7) calendar days prior to the bid.

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- B. The decision as to acceptance or rejection of any alternate proposed shall be that of the owner and/or architect or his consultant, and their decision shall be final.
- C. If equivalent products are submitted and accepted, Food Service Equipment Contractor shall be responsible for any costs arising from mechanical changes due to relocation of connections or utility requirements other than those indicated on mechanical drawings and specifications.
- D. Upon acceptance of bid and consummation of contract, Food Service Equipment Contractor shall designate, by letter to the architect, one individual of his organization who shall thereafter act as his representative in all negotiations and instructions given his representative shall be valid and binding on this contractor.

**3.04 CONSTRUCTION / INSTALLATION**

**A. Definitions:**

- a. "Owner" means the person or entity identified as the Owner or Operator (and agents thereof) in the Contract Agreement, or Owner's designated agent(s).
  - b. "Contractor" means the person or entity identified as such in the Contract Agreement.
  - c. "Equipment" means all items specified in Part 4.01 of this document as well as all materials, parts, fittings, connectors and other items necessary for a complete installation and proper operation in compliance with manufacturer's instructions and all applicable codes.
  - d. "Install" means performance of all operations connected with installation work including, but not limited to: unloading/unpacking materials and equipment to be installed, assembling equipment, supplying all necessary tools, materials, parts, connectors and fittings necessary for complete installation, cleaning, conditioning, calibrating, testing and readying equipment for proper operation and service.
  - e. Owner Supplied, Contractor Installed (OSCI): Owner/Operator shall supply and deliver to the job site all items of equipment. The Contractor shall then perform all work necessary for installation of said equipment
  - f. Contractor Supplied, Contractor Installed (OSCI): Contractor shall supply and deliver to the job site all items of equipment specified in Part 401 of this document and perform all work necessary for installation of said equipment.
- B. All products, materials and equipment shall be applied, installed, connected, used, cleaned and conditioned in accordance with manufacturer's printed or electronically transmitted instructions (unless specified herein), all applicable government codes, and approved drawings for other contractors to make final electrical, gas, water, waste, ventilation and all utility connections.
  - C. Install units plumb, square, level and free from warp or twist while maintaining dimensional tolerances and alignment with surrounding construction.



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- D. Remove all packing material/straps and install all accessories in preparation for start-up and check-out.
- E. Verify all utility connections have been properly completed.
- F. Manage schedule so as to have all equipment connected and tested not less than five days prior to Owner's scheduled takeover date.

**3.05 FIELD QUALITY CONTROL**

- A. General: Comply with requirements of Section 01 45 00 Quality Control.
- B. After all utility connections have been made by other contractors, The Food Service Equipment Contractor shall conduct final test in presence of Architect, Consultant, Owner and/or their designate to ensure that all equipment is ready for operation as required.
- C. Each item of mechanically or electrically operated equipment shall be started, demonstrated and checked for proper operation by manufacturer's representative. Owner's representatives will be instructed in the proper operation and maintenance of all equipment.
- D. Food Service Equipment Contractor's Representative will be on project site during working hours the first day of complete owner operation to assist as required.
- E. Food Service Equipment Contractor shall provide letter stating the accomplishment of 3.05-C above. Include name of Food Service Equipment Contractor's representative who supervised instruction/demonstration as well as statement that owner's operations personnel thoroughly understand the proper operation and maintenance of all equipment and so signify by signing. Final Inspection of work shall not be contemplated prior to receipt of this documentation by architect/consultant.

**3.06 ADJUSTING, CLEANING AND PROTECTION OF WORK**

- A. Adjusting:
  - 1. Start-up, calibrate, and verify proper operation of all equipment no later than 72 hours prior to demonstration or receiving food product.
- B. Cleaning:
  - 1. Food Service Equipment Contractor shall remove from project site all trash created by equipment installation on a daily basis.
  - 2. Prior to final inspection and owner operation, Food Service Equipment Contractor shall remove all protective coatings, thoroughly clean and service all equipment.

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**3.07 EXISTING ITEMS**

1. In the event that existing equipment is designated on the equipment schedule and/or Specifications, the FSEC shall ensure that any and all such equipment is removed from the original location, cleaned, repaired/modified as required for proper operation, stored and re-installed as dictated by the project schedule.
2. It is the responsibility of the Food Service Equipment Contractor to review all existing equipment prior to submitting a bid to verify equipment condition and utility requirements.
3. Existing equipment will be warranted serviceable for a period of 90 days from substantial project completion.

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**PART 4: SCHEDULES**  
**4.01 EQUIPMENT:**

A. The following schedule lists the equipment by item number which matches the drawings.

**ITEM 001 COMBINATION COOLER/FREEZER**, One set required, to consist of (1) walk-in cooler compartment and (1) walk-in freezer compartment, to be custom manufactured by American Panel Corporation in size, shape and configuration as shown in drawing and corresponding detail. Unit to be constructed of NSF foamed-in-place urethane panels, UL classified with flame spread rating of 20. Interior wall and ceilings finished in 26-gauge white stucco galvanized steel, exterior exposed panels finished in 22-gauge stainless steel (#3 finish), unexposed exterior to be 26 gauge stucco acrylume.

The unit is to have an interior finished height of approximately 8'-6" with 4" insulated floor, floor finish to be 14 gauge galvanized steel insulated floor panels installed in such a way as to allow a top coat of thick set grout and tile as shown on detail drawing.

Floors to have one-way pitch sloped ( $\frac{1}{4}$ " per foot) towards door.

Cooler internal dimensions to be 6' – 11.5" W x 12' - 3" D x 9' – 2.25" H  
Freezer internal dimensions to be 6' – 11.5" W x 12' - 3" D x 9' - 2.25" H  
Overall exterior dimensions to be 12' – 11" W x 14' - 11" D x 9' – 10" H

Stainless steel closure strips are to be provided to cover gaps from walk-in panels to walls and ceilings to seal the joints in a sanitary manner.

Cooler and Freezer compartments each to have (1) 34" W x 77" H flush-mount magnetic in-fitting self-closing pad-lockable doors with cam-rise hinges and brushed hardware, flexible strip curtain, fully programmable walk-in monitoring system, audio/visual temperature alarm & digital thermometer, door frame heater wire, (3) 36" two-lamp LED light fixtures with switch & pilot light.

An adjustable wiper gasket shall be mounted along the bottom edge of door. Lower 36 inches of door and support panels are to be finished both inside and out with high heavy duty  $\frac{3}{16}$ " tread-plate aluminum. Freezer door is to also include integral trace heat. All doors are to include vinyl strip curtains and 14" x 14" heated vision window.

Provide all parts and fittings for complete installation and operation in a corrections environment.

Units to bear a full factory parts and installation warranty.

System to have (1) year parts warranty on pre-assembled refrigeration systems, (5) year compressor warranty, (10) year warranty on panels.

**ITEM 002 COOLER REFRIGERATION**, One required, to be a **1.00 HP** preassembled remote hermetic scroll air cooled refrigeration system set up for operation on 208V-3 (compressor) and **110V-1 (coil)**, 35°F, compressor matched to the respective coil, factory pre-assembled, all controls factory-mounted, electric

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defrost evaporator coil, (1) year labor warranty on pre-assembled refrigeration systems, (5) year compressor warranty.

Unit to include steel mounting base, galvanized weather housing, winter kit, audio-visual alarm system, time clock, factory mounted controls, all refrigeration piping, parts and fittings for a complete installation.

- ITEM 003 FREEZER REFRIGERATION, One required, to be a **2.50 HP** hermetic scroll air cooled refrigeration system set up for operation on 208V-3 (compressor) and **208V-1 (coil)**, -10°F, compressor matched to the respective coil, factory pre-assembled, all controls factory-mounted, electric defrost evaporator coil, (1) year labor warranty on pre-assembled refrigeration systems, (5) year compressor warranty.

Unit to include steel mounting base, galvanized weather housing, winter kit, audio-visual alarm system, time clock, factory mounted controls, all refrigeration piping, parts and fittings for a complete installation.

- ITEM 004 COOLER/FREEZER SHELVING, Future Item(s)  
(Not included in Phase 1).

- ITEM 005 INSULATED COLD FOOD TRANSPORT CARTS, Future Item(s)  
(Not included in Phase 1).

- ITEM 006 DOUBLE DECK CONVECTION OVEN, one required, to be Vulcan model VC66GD, double section, 44,000 BTU/hr each section, bakery depth, set up for operation on natural gas and 110V/1 with 6' cords and plugs, solid state controls, electronic spark igniters, (2) interior lights per section, (5) nickel-plated oven racks per section, stainless steel front, top, sides and doors (with double pane windows). Item to include rack hanger, 1 year limited parts & warranty with K12 School Nutrition 12-month extended warranty.

Item to include Item to include Dormont 1675NPKIT48 Stationary Gas Connector Kit, coated with yellow antimicrobial PVC, (1) full port valve, (2) 90° elbows, NPFS Connector Kit, 225,000 BTU/hr minimum flow capacity, limited lifetime warranty, all parts and fittings for a complete installation.