

PART 1 - GENERAL

1.1 WORK THIS SECTION

- A. General Requirements: Drawings and General Provisions of the Contract, including General and other Conditions and other Division 1 – General Requirements sections, apply to the work specified in this section.
- B. Work includes furnishing and installing all food service equipment as indicated on drawings.
- C. Provide all equipment as scheduled on drawings, listed in schedules and specified, fabricated or purchased.
- D. Provide location for breaker panel and convenient utility access through custom fabricated equipment for connections by Others as required.
- E. General Contractor support work in this section, including blocking and backing plates as required.
- F. General Contractor to coordinate with KEC on removal, storage and protection of existing equipment. KEC to re-install all equipment as shown on plans.
- G. Work Furnished But Not Installed:
 - 1. The following items are furnished loose, in Original Equipment Manufacturer boxes, ready for installation by the appropriate trade only on equipment supplied under this Section.
 - 2. Items under Division 22 are: Sink faucets, sink wastes with 1” minimum tail piece, rinse sprays, mixing faucets, aerators, solenoid valves and brackets. Quick disconnect devices, with restraints, for all mobile equipment.
 - 3. Items under Division 26 are: Solenoid valves, aquastat timers, on/off switches, junction boxes, cover plates, control panels and components needed for mounting on unit such as brackets, threaded stems and lock nuts. Electrical cords and 90-degree angle male plugs for all mobile equipment.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Plumbing and HVAC – Division 22 and 23:
 - 1. Plumbing and ventilation work required in connection with foodservice equipment unless specifically called for in Part 2 – Products, or Part 3 – Execution, of this Section 11400.
 - 2. Rough-in points indicated on Mechanical drawings.
 - 3. Final connecting from roughing-in point to various pieces of equipment requiring such connection.
 - 4. All traps, grease traps, valves, stops, shut-offs and fittings necessary.
 - 5. Necessary flues and/or vents of size and capacity.
 - 6. Reduce pressure positive backflow preventers.
- B. Electrical – Division 26:

1. Electrical work required in connection with foodservice equipment unless specifically called for in Part 2 – Products, or Part 3 – Execution of this Section 11400.
2. Rough-in to points indicated on Electrical drawings.
3. Final connecting from roughing-in point to various pieces of equipment requiring such connections.
4. Lines, switches, safety cutouts, fuse boxes, and other electrical controls, fittings and connections unless specifically called for in these specifications.

1.3 SUBMITTALS

A. Product Data:

1. Product Data brochure to show manufacturer's specifications, diagrams and instructions for manner in which utility connections will be made.
2. Include manufacturer's specification sheets to be accompanied by typewritten or printed sheet listing item number, item's description, quantity, manufacturer's name, address, model number and pertinent notes relative to items being furnished.

B. Shop Drawings:

1. Submit in accordance with Section 01 30 00. Elevation and Plan views to be in ¾ inch equals 1 foot scale.
2. Dimensional data specified left to right x front to back x height (or depth) when facing equipment from operator's side.
3. Clearly indicate materials, components, fasteners, hardware, equipment, finishes, method of installation and assembly, supplementary support of bracing controls and utilities rough-in.
4. Obtain reproducible copies of rough-in and connection drawings from Architect, review and modify as necessary for project conditions. Clearly note all changes and submit with shop drawings.
5. Show location and size of all blocking required for installation of equipment.

- C. Submittal for all kitchen hoods shall include details of seismic bracing coordinated with the architectural and structural design. Bracing shall be designed, stamped and signed by a structural engineer licensed to practice in Oregon.

- D. Deliver all submittal materials for review as one complete package. Partial submittals will not be reviewed.

1.4 QUALITY ASSURANCE

- A. Qualified Bidders:
1. Bargreen Ellingson
 2. Curtis Restaurant Equipment
 3. Smith & Green/ Northstar
 4. Other Bidders, meeting qualifications in next paragraph, shall be reviewed by Foodservice Consultant in conjunction with Architect prior to submission of bid by General Contractor.
- B. Qualification of Fabricator/Installer:
1. Fabricator/installer maintains personnel and facilities totally engaged in design, fabrication and provision of foodservice equipment of type and size specified on this project.
 2. Installation of foodservice equipment performed only by personnel thoroughly familiar and trained to the manufacture's recommended method of installation.
 3. Provide a least one person who shall be thoroughly trained and experienced in the skills required. This person shall be completely familiar with the requirements of this work and who shall personally direct all installation performed under this Section of these Specifications.
- C. Code and Regulatory Compliance: Regulations, Reference and Standards: Comply with the following applicable codes and ordinances, regulations, references, specifications and standards, in effect thirty (30) days prior to bid due date:
1. 2012 International Plumbing Code (includes 2009 IPSDC)
 2. 2012 International Building Code.
 3. 2012 International Mechanical Code.
 4. 2012 International Fire Code.
 5. 2012 International Fuel Gas Code.
 6. 2012 International Energy Conservation Code.
 7. National Science Foundation (NSF).
 8. Underwriter's Laboratories, Inc. (UL).
 9. State of Oregon Health Codes, Chapter 333, Administrative Rules.
- D. Class 1, grease-laden vapor style, exhaust hoods to conform to National Fire Protection Association INC, (NFPA) Standard 96, be recognized by Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO), have and display fully Underwriter's Laboratories (UL) compliance label.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Product Control:
1. Do not deliver material or assemblies to Site until installation spaces are ready to receive installation.
 2. Wrap and crate finished components and assemblies at factory to prevent damage or marring of assemblies or surfaces during shipping and handling.

3. Deliver all equipment in one piece, when impractical deliver in largest sections and field assemble as continuous unit without obvious joints, by butt-welding and through-bolting.
4. Deliver all items with protective covering and protect work of other trades on project.
5. Cover and protect work form damage through times of construction until inspected and accepted.
6. Coordinate work with other trades and provide necessary layouts. Plumbing and electrical items furnished, but not installed, boxed and clearly identified for location and use.

1.6 PROJECT CONDITIONS

- A. Kitchen Equipment Contractor will be responsible for changes in rough-ins or utilities resulting from kitchen equipment deviations or substitutions.

1.7 SUBSTITUTES

- A. Substitutes apply to this Section only as indicated under Section 11400 Equipment Schedule and I the instruction to Bidders Section to the specifications documents.
- B. All substitute requests will be reviewed for quality comparisons to the specific item specified, appropriate to the project conditions and operational intent of the Owner.

1.8 WARRANTY

- A. Warrant the work of this Section, including refrigeration systems, for one year from date of Substantial Completion of Project against defect in materials and workmanship under normal use and service.
- B. Repair or replace defective work at no additional cost to the Owner.
- C. Provide five year extended warranty on all refrigeration system compressors.
- D. Owner's existing equipment will be retained in, as is condition and protected from any construction damage. Warranty will not apply.

1.9 OPERATIONAL AND MAINTENANCE DATA

- A. Assemble and deliver, to the Owner, at the time of start up, binders containing the following information, indexed and cataloged on each item of equipment. Provide binders in quantity as indicated under previous sections of these specifications.
 1. Serial number in quantity specified.
 2. Service and maintenance literature from Manufacturer.
 3. Warranty certificates with copy of warranty card properly filled out.

4. Manufacturer's service agency for authorized warranty work.
5. Workman's warranty and agent for all custom fabricated equipment.
6. Start-Up Log, dated and signed including any notes, by Original Equipment Manufacturer certified representatives and Owner's representative.
7. Field inspection report on all Class 1 hoods and fire protection systems from the Original Equipment Manufacturer certified representative.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Other manufacturer's products of equal or greater quality than those specified in this Section may be used. Submit request for substitution approval before the bid in accordance with Section 01631, Product Substitutions.

2.2 MATERIALS

- A. Metals in U.S. standard gauges and material appropriate to condition:
 1. Stainless steel type 304 with #4 finish on exposed surfaces and #2B for concealed surfaces.
 2. Stainless steel tubing to be not less than 16 gauge finished to match stainless steel sheets per ASTM A 554.
 3. Galvanized steel in 14 gauge minimum per ASTM A 527.
 4. Galvannealed steel in 16 gauge minimum per ASTM A 525 prepared for final coatings.
- B. Cabinet Work:
 1. Plywood of 3/4 inch thickness, soft wood, five ply veneer core, construction, with grade markings A_B_INT_DFPA. Wood composition panels prohibited.
 2. Solid lumber selected for grade and quality required for use and service, kiln dried.
 3. Plastic laminate to meet or exceed standards by National Electrical Manufacturer's Associates (NEMA LD3-1988 or latest edition), general purpose and forming grade 1/16 inch thickness for all applications.
- C. Refrigeration:
 1. All refrigeration lines to be refrigerant grade ACR or type "L" copper tubing soldered with silver solder and/or sil-fos (15 percent silver).
 2. Insulate all lines with 1/2 inch thick flexible pipe insulation applied with adhesive. Provide insulating materials approved for use in return air plenum enclosure.
 3. Refrigerant gases will be used that are appropriate to the applied temperature condition, meet applicable codes for use and are handled per the "Code of Good Practice for the Reduction of Emissions of Chlorofluorocarbons" Report EUR 9509 EN.

2.3 COMPONENTS

- A. Hardware: Stainless steel or heavy duty chrome plated brass unless otherwise specified, studded securely to metal bodies, or welded, ground smooth and polished. Unless noted

otherwise, include the following:

1. Drawer: Self-Closing, full extension type, constructed of 18 gauge stainless steel. Angle cradle and front with full-length integral pull with double wall drawer face with rigid insulation. Housing: Rubber bumper stop at each end and closed bottom with front edge flush. Slides: Component Hardware S52 Series of Standard-Keil 1452. Load bearing capacity to be not less than 200 pounds. Thermoplastic Insert Pan: Component Hardware S80 Series or Standard-Keil 1480 Series, Pan to be removable without the use of tools. Dimension: 20"L x 20"W x 5"D.
2. Hinges: Heavy duty, chrome plated brass or die stamped stainless steel concealed hospital type offset butt hinges with concealed fasteners.
3. Adjustable heavy duty foot inserts for round tubing in stainless steel finish typical to Standard-Keil #1012-1001-1144 for 1 5/8 inch round stainless steel tube.
4. Heavy duty leg sockets in stainless steel typical Standard-Keil #1020-0206-1283 for 1 5/8 inch round stainless steel tube.
5. Casters to be by Jarvis Caster Group with fixed or swivel mounting, gray polyurethane wheels, "Posi-Loc" toe brake in sizes and load capacities indicated.
6. Quick disconnect, flexible connections with restraint device for water and gas by Dormont Manufacturing Corp. or Avtec Manufacturing.
7. Electrical cords and male plugs will meet the power needs as specified by the equipment and be supplied with 90 degree angle plug by Hubbell.

2.4 FABRICATION

A. Equipment to be fabricated in gauges as follows:

1. Tops with connecting end splash, back splash or edges to be of 14 gauge stainless steel.
2. Sink bowls to be formed from 14 gauge stainless steel.
3. Wall shelves and bottom shelves to be of 16 gauge stainless steel.
4. Counter backs, ends and drawer enclosures to be of 20 gauge stainless steel.

B. Equipment to be constructed in a strong manner with reinforcing, bracing and welding for rigidity. Top, exterior panels and doors to be of a single sheet sizes as dimensions permit.

1. Tops and under shelves to be braced with 14 gauge galvanized iron "U" or hat channels.
2. Bolts, screws, nuts, washers to be same metal as items fastened. Where dissimilar metals are attached, fasteners will be of the higher grade metal. Spacing to insure suitable fastening and prevent material bulging. Rivets prohibited as fasteners.
3. Equipment surfaces fastened with concealed fasteners to framework or adjacent items. Accessible bolt threads to be capped with acorn nut and lock washer. Surface depressions from weld studs are unacceptable.

C. Welding by A.W.S. Standards heliarc method with welding rod same composition as parts welded. Exposed joints continuously welded to appear as one piece construction.

1. Directionally grind and polish all welds to match factory finish, smooth, without depressions or metal discolorations.
2. Finished equipment gauge thickness will not vary more than five percent from U.S. standard gauges.
3. Brake bends, sheared edges will not mar uniform appearance of the material, texture at bend or edge burrs polished to smooth uniform condition.

D. Cabinet work

1. Equipment to be constructed in a strong manner with reinforcing and bracing for strength. Flat surface construction of single panels as dimensions permit.
2. Joinery by dado, rabbet, tongue and groove, splined, half-lapped glued and nailed or tight joint fastened.
3. Polyvinyl or white liquid glue on all plywood and wood joints, securely clamped during curing process, joints wiped clean of excess glue.
4. Bond plastic laminate to surfaces and edges, subject to prolonged heat, by pressure and/or heat cure method utilizing a modified urea formaldehyde adhesive. Pressure sensitive contact adhesives used on all remaining plastic laminate surfaces. Adhesives approved by manufacturer of plastic laminate specified.
5. Plastic laminate edge banding to be overlapped by adjoining surface laminate. Vertical surface laminate applied before horizontal surface laminate.
6. Trim all exposed plastic laminate edges with twenty-five degree bevel bit. Inside corners, or cut-outs, on continuous plastic laminate surface to have 1/8 inch minimum corner radius and smooth edges to eliminate stress cracking.
7. Single thickness plywood panels, integrally unsupported, to be backed with plastic laminate of equal thickness and similarity to face laminate.
8. Exposed plywood surfaces in cabinet interior to be covered with plastic laminate cabinet liner in color complimentary to exterior plastic laminate.

2.5 UTILITY SERVICE REQUIREMENTS

- A. Furnish equipment with access panels and utility channels to allow piping or wiring by Contractor. Coordinate this work to meet utility service requirements.
1. Construct equipment to allow required utility connections to be made or disconnected without damaging or dismantling of equipment.
 2. Electrical outlets, switches and receptacles to be mounted on fabricated equipment ready for wiring and final connections by Contractor.
 3. Special receptacles required to match cord and caps furnished on fabricated or buy out equipment will be provided by the Kitchen Equipment Contractor.
 4. Provide identification labels on all switches furnished with fabricated equipment. Engraved plates, white with black letters, overall size ½ inch x 2 inch will be bonded to equipment and secured with screws.
- B. Locate water inlets at least six inches above positive water level to prevent siphoning of liquids into water system, suitable check valves, vacuum breakers to be provided by the Kitchen Equipment Contractor for installation by Others. Reduced pressure positive back flow preventers when required by code authorities will be supplied under Division 15.
- C. Equipment to operate without objectionable sound or vibrations, correction of objectionable conditions will be the subjective opinion of the Owner and will be performed at no additional cost. Modifications to provide efficient and stable operation of heated and motor operated equipment to be indicated on shop submittals.

2.6 GENERAL APPEARANCE

- A. All fabricated items must retain a uniformity of overall appearance consistent with the quality level specified.
- B. All work to be corrected to the highest quality level if visual appearance indicates inconsistency in the skill level of fabrication.
- C. All defective work to be corrected at no additional cost to the Owner.

2.7 EQUIPMENT SCHEDULE

- A. Refer to Equipment Schedule on Drawings for all equipment under this Section.

Item 1

Description: Heated Pass-Thru Cabinet Qty. (2)

Manufacturer: Continental

Model: DL1WE-SS-PT

Accessories: Include the following:

- a. Pass-Thru Half-doors
- b. Stainless Exterior and Interior
- c. External Digital Thermometer

Furnished: Kitchen Equipment Contractor

Item 2

Description: Fire Suppression System

Manufacturer: Ansul

Model: R-102 Locate system below finished ceiling with connecting pipe and conduit concealed above ceiling.

Accessories: Include the following:

- a. Stainless steel escutcheon plates.
- b. Chrome Appliance Drops.
- c. Install in 140 stainless steel fire protection enclosure cabinet mounted on end of hood.
- d. Auto Shut Off.
- e. 2" Mechanical Gas Valve.
- f. Additional Tank. Test & Permits.

Furnished: Owner Furnished Contractor Installed

Item 3

Description: Type 1 Exhaust Hood

Manufacturer: Avtec

Model: Custom, Refer to drawing sheets for details and specification. EXHAUST DUCT WORK, SUPPLY AIR AND EXHAUST FAN FURNISHED BY DIVISION 23

Accessories: Include the following:

- a. 140 stainless steel Fire Protection Enclosure cabinet mounted on left end.
- b. Stainless steel ceiling enclosure panels with no exposed fasteners.
- c. Remote wall switches for lights and fans.
- d. Test & Permits
- e. Engineered Structural drawings by KEC as required.

Furnished: Kitchen Equipment Contractor

Item 4

SECTION 11 4000
FOODSERVICE EQUIPMENT

11 4000 -9

Description: Range
Manufacturer: Garland
Model: GFE24-4L GFE Starfire Pro Series Restaurant Range, gas, 24", (4) 26,000 BTU open burners, cast iron top & ring grates, electric pilot ignition, space saver oven, 3 position rack guides, (1) oven rack, stainless steel front, sides, plate rail and 10" low profile back guard, 6" stainless steel legs with adjustable feet, 136,000 BTU
Accessories: Include the following:
a. Electric pilot ignition.
b. Space saver oven.
c. Stainless steel front, sides.
d. 6" stainless steel legs with adjustable feet.
e. 48" Quick disconnect with (2) 90 degree swivels with restraint cable.
Furnished: Kitchen Equipment Contractor

Item 5

Description: One (1) New Steamer by KEC & One Existing Boiler-less Convection Steamer by Owner
Manufacturer: ACS
Model: SS-208-12-3
Accessories: Include the following:
a. KEC to coordinated installing the existing steamer on a new stand with the new steamer. Install assemble complete.
Furnished: Kitchen Equipment Contractor

Item 6

Description: Equipment Stand
Manufacturer: ACS
Model: DE-Stand CA Custom
Accessories: Include the following:
a. Double steamer stand 16 gauge 304 Stainless on small casters with locking brakes.
Furnished: Kitchen Equipment Contractor

Item 7

Description: Existing Tilting Skillet with pan fill faucet and lid.
Manufacturer: Cleveland
Model: SGL-30
Accessories: Include the following:
a. 36" Quick disconnect with (2) 90 degree swivels with restraint cable.
Furnished: Owner Furnished Contractor Installed

Item 8

Description: Existing Countertop Conveyor Oven
Manufacturer: Lincoln
Model: 1116-000-U
Accessories: Include the following:
a. 48" Quick disconnect with (2) 90 degree swivels with restraint cable.
Furnished: Owner Furnished Contractor Installed

Item 8 .1

Description: Existing Mobile Equipment Stand
Manufacturer: Fabricator
Model: Custom 16 gauge 304 Stainless on 6" casters (2) Locking, reinforced with welded undershelf. Measuring 30"x30"x27"H

Model:
Furnished: Owner Furnished Contractor Installed

Item 9
Description: Existing Stacked Convection Ovens Qty. (2)
Manufacturer: Vulcan
Model: SG44C
Accessories: Include the following:
a. 48" Quick disconnect with (2) 90 degree swivels with restraint cable.
Furnished: Owner Furnished Contractor Installed

Item 10
Description: Condensate Hood
Manufacturer: Avtec
Model: Custom, Refer to drawing sheets for details and specification. EXHAUST DUCT WORK, SUPPLY AIR AND EXHAUST FAN FURNISHED BY DIVISION 23
Furnished: Kitchen Equipment Contractor

Item 11
Description: End Cap Qty. (4)
Manufacturer: Pacific Stainless
Model: Custom Stainless
Accessories: Include the following:
a. Refer to drawing sheets for details. Install in configuration as shown on plan.
Furnished: Kitchen Equipment Contractor

Item 12
Description: Stainless Steel Wall Flashing
Manufacturer: Pacific Stainless
Model: Custom Fabricate 20 gauge Stainless Steel, Number 4 Finish Wall Flashing directly above base tile on wall and terminating at ceiling height for length of hood. Flashing shall run the full length of hood and extend 18" beyond to pass-thru opening. Install with no exposed fasteners in interlocking sections of equal length with vertical breaks every 6".
Accessories: Include the following:
a. Refer to drawing sheets for details. Install in configuration as shown on plan.
Furnished: Kitchen Equipment Contractor

Item 13
Description: Service Counter
Manufacturer: Eagle
Model: Custom Fabrication # RO3333 **Field verify all measurements prior to fabrication in coordination with the General Contractor.** Fabricate Counter top of 14 gauge stainless steel. Provide cut-outs in top for items 15 & 16, see cut sheets for details. Reinforce top. Fabricate open base as detailed and construct of 20 gauge stainless steel with 14 gauge 6" high raised base and toe kick on both sides. Refer to drawings for details.
Accessories: Include the following:
a. Interlock and level with item 18.
b. Utility chase with outlet boxes for items 14, 15 & 16.
c. KEC coordinate under counter mount of item 17 Breath Guard.
d. 10" Apron with holes cut to accommodate item 15 & 16 controls.
e. 12" Stainless Steel V-ridge solid tray slide mounted on brackets evenly spaced.
f. See drawings for specifications and details.

SECTION 11 4000
FOODSERVICE EQUIPMENT

11 4000 -11

Furnished: Kitchen Equipment Contractor

Item 14

Description: Merchandise Warmers Qty. (2)

Manufacturer: Hatco

Model: GR2DS-30D

Accessories: Include the following:

- a. Design Color Warm Red
- b. Optional sneeze guard.
- c. Optional sign holder.
- d. NEMA L-1420P Plug

Furnished: Kitchen Equipment Contractor

Item 15

Description: Drop-in Heated Stone Shelves Qty. (2)

Manufacturer: Hatco

Model: GRSSB-2418

Accessories: Include the following:

- a. Remote apron mounted control.
- b. Silicone seal.

Furnished: Kitchen Equipment Contractor

Item 16

Description: Drop-in Heated Wells Qty. (2)

Manufacturer: Hatco

Model: HWBI-2M

Accessories: Include the following:

- a. Remote apron mounted control.
- b. Plug drain.

Furnished: Kitchen Equipment Contractor

Item 17

Description: Breath Guards Qty. (2)

Manufacturer: BSI

Model: ZG9945

Accessories: Include the following:

- a. Below counter heavy duty mounts.
- b. 3/8" glass with radius corners
- c. Black powder coat posts
- d. KEC coordinate installation in service counter.

Furnished: Kitchen Equipment Contractor

Item 18

Description: Service Counter

Manufacturer: Eagle

Model: Custom Fabrication #RO3333 **Field verify all measurements prior to fabrication in coordination with the General Contractor.** Fabricate Counter top of 14 gauge stainless steel. Provide cut-out in top for items 19, see cut sheet for details. Reinforce top. Fabricate open base as detailed and construct of 20 gauge stainless steel with 14 gauge 6" high raised base and toe kick on both sides. Refer to drawings for details.

Accessories: Include the following:

- a. Interlock and level with items 13 & 21

- b. Utility chase with outlet box for item 19.
- c. NOTE: 16 ½" tall opening required for Pull-out refrigeration. See cut sheet of item 19 for details.
- d. Perforated front panel to help dissipate compressor heat.
- e. 10" Apron
- f. KEC verify ventilation requirements for refrigeration are coordinated with fabricator. See cut sheet for details.
- g. 12" Stainless Steel V-ridge solid tray slide mounted on brackets evenly spaced
- h. See drawings for specifications and details.

Furnished: Kitchen Equipment Contractor

Item 19

Description: Drop-in Refrigerated Case

Manufacturer: Structural Concepts

Model: DOS4837R

Accessories: Include the following:

- a. Cord and Plug
- b. Hinged rear door.
- c. Clear glass shelves with lighted LED.
- d. Night Curtain retractable, non-locking.
- e. KEC coordinate installation ventilation requirements.

Furnished: Kitchen Equipment Contractor

Item 20

Description: Spare Number

Item 21

Description: Service Counter

Manufacturer: Eagle

Model: Custom Fabrication #RO3333 **Field verify all measurements prior to fabrication in coordination with the General Contractor.** Fabricate Counter top of 14 gauge stainless steel. Provide cut-outs in top for items 15 & 16, see cut sheets for details. Reinforce top. Fabricate open base as detailed and construct of 20 gauge stainless steel with 14 gauge 6" high raised base and toe kick on both sides. Refer to drawings for details.

Model:

Accessories: Include the following:

- a. Interlock and level with item 18.
- b. Utility chase with outlet boxes for items 14, 15 & 16.
- c. KEC coordinate under counter mount of item 17 Breath Guard.
- d. 8" Apron with holes cut to accommodate item 15 & 16 controls.
- e. 12" Stainless Steel V-ridge solid tray slide mounted on brackets evenly spaced.
- f. Refer to drawing sheets for details. Install in configuration as shown on plan.
- g. See drawings for specifications and details.

Furnished: Kitchen Equipment Contractor

PART 3 - EXECUTION

3.1 INSTALLATION

A. Preparation:

1. Verify all dimensions with measurements in the field before fabrication.
2. Confirm passage of equipment to installation locations. Advise Architect of anticipated difficulties prior to site delivery of equipment.
3. Verify rough-in location and capacity of utility service connections.

B. Installation:

1. Install, assemble, level and complete work of this Section in accordance with manufacturer's printed instructions.
2. Insure that floor drains are accurately located to drain rough-in.
3. Install refrigeration units in locations indicated and in accordance with approved shop drawings and manufacturer's recommendations.
4. Cut holes, seal or trim for installation of plumbing, electrical by Contractor. Holes to be finished with stainless steel or chrome plated escutcheon plates or plastic grommets as appropriate to match surface with insulation as needed.
5. Install ceiling, wall or closure trim between equipment and building surfaces.
6. Seal recesses in top of curbs, seal joints and services through wall and ceilings to provide moisture and vapor seal using Dow Corning 100 silicone rubber, general purpose aluminum sealant.
7. Installation of walk-in box assemblies to be furnished only by the Original Manufacturer or manufacturer's approved agent.

3.2 CLEANING, TESTING, ADJUSTING AND DEMONSTRATING

A. Cleaning and Adjusting:

1. Remove masking protection from stainless steel and other finished surfaces.
2. Adjust equipment doors to operate smoothly without binding.
3. Polish out, remove or replace damaged equipment surfaces.
4. Shut off equipment, controls and lock doors to prevent operation or access by unauthorized personnel.
5. Leave entire installation clean and free from defects at time of substantial completion.
6. Remove surplus materials, debris and tools from Site.

B. Testing and Demonstrating New Equipment:

1. Test, clean and adjust equipment and apparatus installed to insure performance will meet the intent of these Specifications.
2. Operate refrigeration equipment over a continuous seventy-two hour period and test for a full range of functions.
3. Adjust and retest any refrigeration equipment not meeting requirements.
4. Test all foodservice equipment to meet operational requirements.
5. Adjust and retest any equipment not meeting requirements.
6. Demonstrate, in the presence of the Owner, the operation function and maintenance of each item of equipment. **Include signed log of completed Start-Ups with Operations Manual.**
7. Representatives from authorized service agencies, factory or Original Equipment Supplier will demonstrate initial start-up, operation, clean-up preventative maintenance and safety procedures of their equipment.

8. Class 1 grease hoods and fire protection systems to be reviewed by Original Equipment Manufacturer's authorized representative after substantial completion of installation by the Kitchen Equipment Contractor and General Contractor prior to start-up and final testing. All issues of installation hook-up and operational conditions will be addressed. Any conditions not meeting operational needs will be identified and reviewed with the Kitchen Contractor and/or General Contractor.
9. Start-up, final testing and demonstration of Class 1 grease hoods and fire protection systems to be accomplished by the Original Equipment manufacturer authorized representative prior to start-up and demonstrations of any cooking equipment under this hood. **A field inspection report will be provided as a part of the Owner's equipment manual** and submitted to the General Contractor and the local fire marshal when required by code.

END OF SECTION