

SPECIFICATION

ENERGY DISTRIBUTION SYSTEM

Provide Duo-Aire, U.L. Listed Energy Distribution System, Model EDS, as a complete system manufactured in accordance with the latest edition of the National Electric Code (NEC), NEMA, NFPA, Pamphlet No. 96 and No. 54, Uniform Plumbing Code, ASME and OSHA, using only U.L. Listed, AGA and C GA certified components.

System shall be ____ ft. ____ in. long with 12" x 24" cross section and shall be completely pre-wired and pre-plumbed to one final connection point for electric, gas, hot & cold water, as required.

System shall be mounted on floor per drawing. Kitchen hood(s) shall fit between the upright towers when two EDS towers are required.

1. CONSTRUCTION

- A. Modules shall be constructed on 16 and 20 gauge type 304 stainless steel with a #4 mill finish.
- B. Removable plates shall be constructed of 16 gauge stainless steel.

2. ELECTRICAL

- A. Electrical compartment shall be a completely enclosed housing, accessible by removal of stainless steel screws.
- B. Internal electrical main feeder(s) shall be cable buss type (Model M) or buss bar type (Model E) having balanced load and phases and with branch circuit locations directly behind connection plates.
- C. Cable buss or bus bar shall be manufactured from 100% copper and mounted on non-conductive insulators and equipped with connection lugs for main service.
- D. Field joint, if required, shall be connected by attaching cable to insulated terminal.
- E. Branch circuit wiring for each electrical connection shall be phase identified and sized in accordance with circuit breaker rated amperage.
- F. Electrical outlets, with point of use circuit breakers, shall be located every 24" on centerline, as required.
- G. Connection plates shall also be equipped with permanently lettered electrical characteristics.

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3. MAIN ELECTRICAL DISCONNECT

- A. Provide main electrical disconnect, mounted in control tower for 120/208 power and a secondary disconnect for 480/3 phase power, as required.
- B. When multiple disconnects are required, a single emergency kill switch shall be provided on the tower to shut down all electrical service to the EDS.

4. PLUMBING

- A. Plumbing compartment shall be isolated from electrical compartment.
- B. All piping and disconnects in system shall be color-coded. Field joints shall be secured by tightening unions.
- C. All cold water piping, including individual branch pipe connection, shall be hard temper type "L" copper tubing with copper sweat type solder fitting.
- D. All water lines shall be covered with 3/8" thermal closed cell pipe insulation per ASTM-E90-C.
- E. Each plumbing line shall have a pressure regulator located on the main feed line in the tower.
- F. Gas piping shall be black iron pipe with welded threadlets to branch connections and drip tee in service riser.
- G. Main gas line shall have a pressure regulator located in the tower.
- H. Gas and water outlets shall be staggered on 24" centerline intervals, pre-plumbed per mechanical requirements for cooking battery.

5. SHUT-OFF VALVES

- A. Provide quarter turn ball type shut-off valves for all gas and water main incoming services.
- B. Provide quarter turn ball type shut-off valves for gas branch piping to be connected to individual equipment.

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6. FIRE-FUEL SHUT-OFF

- A. Provide Fire-Fuel Shut-Off for (electric, gas) services for individual pieces of equipment per NFPA 96.
- B. Gas solenoid valve shall be equipped with holding circuit delay to eliminate instantaneous power interruptions from causing nuisance pilot outages.
- C. Entire shut-off system shall be enclosed in the system, completely pre-wired and pre-plumbed requiring one final connection by E.C. from 120 volt power source in fire extinguishing system relay or micro-switch (single throw, double pole from contacts when both gas and electric are specified).
- D. Provide manual reset for gas and electrical connections.
- E. Provide individual equipment connections for gas, electric and hot & cold water utilities, flexible plumbing connectors and cord sets, as required per the cooking equipment schedule.