DUO-A<mark>IRE</mark>

Energy Distribution Systems to meet Your specific requirements

Wall or Island Style, Standard or Customer Designs Available Energy Distribution

Duo-Aire Energy Distribution Systems are modular... Designed for ease of installation and flexibility in use. The One-Point Utility Connection capability enables the system to be used in both New and Retro-Fit applications. The bulk power distribution capability permits additions or changes in equipment without extensive remodeling of the existing building or space.

Relocation of cooking equipment, and the redesign of the commercial/institutional kitchen is now practical when upgrading building facilities. Use of the Duo-Aire E.D.S. allows upgrades in commercial and institutional Kitchens to be accomplished in compliance with all current codes at a cost significantly below standard demolition and replacement costs.

The One Point Utility Connection allows the distribution of required electrical, gas, hot & cold water and steam from overhead lines to the cooking equipment. No longer is it necessary to bring the utilities to the cooking equipment through the floor or a wall. Easily installed overhead utility lines are brought to the E.D.S. tower and the power distribution to the cooking equipment is completed within the unit.

Each E.D.S. unit is furnished with gas, water and electrical outlets approximately 24" on center. These are designed for use with Quick Disconnect fittings that allow for ease of connection and aid in the maintenance and cleaning of the cooking equipment and surrounding area.

The Duo-Aire E.D.S. is available in both Island and wall configurations and is compatible with all commercial kitchen ventilation systems.

All Duo-Aire E.D.S. systems are UL and AGA approved and include the basic safety devices as required by code. Additional controls and options are available.

Ventilation Marketing Services, Inc. d.b.a. Duo-Aire 316 W. Central Avenue, Suite 606 Winter Haven, FL 33880 863-294-2272, fax 863-294-2704 Website: www.duoaire.com

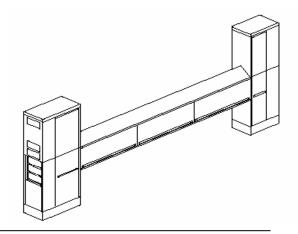


Duo-Aire Utility Raceway Model EID

Utility Distribution System Available for Electrical, Gas, Steam and Kettle/Braising pan Integral Arm Usage

Description:

The E-series Raceway is a bus bar Utility Distribution System comprised of a stainless steel sheet metal housing enclosing electrical and plumbing services that provide connections for individual appliances. Raceways with plumbing services are Listed by Underwriters Laboratories (UL) as Commercial Appliance Outlet Centers. Raceways with only electrical services are Listed by UL as Multi-outlet Assemblies. These raceways are intended primarily for use with cooking batteries, or cooking appliance line-ups, on both sides of the Raceway, or with appliances along one side and an aisle on the other side. Individual Point-of-use connection plates are located on the bottom along the length of the raceway.



Specifications:

Dimensions: Horizontal Chase Width: 12", Height: 18" – 30" plus 6" peaked top, Length: as required. Service Towers Width: 12" Height: Finished Floor to Exhaust Hood or Finished Ceiling, Length" 18" Nominal to 42" Nominal. Intermediate Pedestals Width: 10" Height: Finished Floor to bottom of Horizontal Chase, Length: 10". **Construction:** 300-series Stainless Steel. Removable panels held in place with threaded fasteners. **Electrical Data:** 50 to 1000 amperes. 120/208-240 volt to 480 volts. Single - or three -phase. (600 volt maximum). Water: 150 psig & 140° F (60° C) maximum. Steam: 150 psig & 289° F(143° C) maximum. Gas (Natural gas or LP): 1.25 psig.

Standard Features:

- Point-of-use branch circuit protection with receptacle or flexible liquid tight metal conduit (pigtail) mounted adjacent to Point-of-use branch circuit protection on 5x9" connection plate
- Ground fault circuit interrupter for 15 & 20 amp, 120/1, straight blade receptacles
- Copper hot and cold water supply lines, if required
- Black iron gas supply line, if required
- Black iron steam supply and condensate return lines, if required
- Quarter-turn shut-off valves on all individual connections
- 2" High collar at top of service tower allows + or ½" vertical adjustment to compensate for floor and/or exhaust hood mounting irregularities
- Hinged cover over point-of-use circuit breaker
- Condensate purging system-on race ways with steam supply lines, a strainer and steam trap allows condensate to continuously bleed from the steam supply line. Condensate can be routed to the condensate turn line inside the raceway, or to an open floor drain.

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Optional accessories:

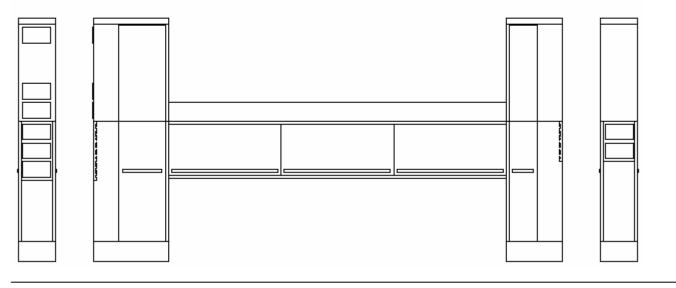
- Ground fault equipment protection
- Main electrical service circuit breaker with shunt trip
- Remote status indicator lights dual-colored LED indicates whether point-of-use branch circuit breaker is on (green) or off (red)
- Dual-colored circuit breaker indicator light (LED) on individual point-of-use connection plates
- Quick-disconnect fittings for individual gas connections
- Quick-disconnect fittings for individual water connections in addition to quarter-turn shut-off valves for movable appliances
- □ Vent light switch in service tower
- Vent light switch with circuit breaker in service tower(s)
- Duplex convenience outlet in service tower(s)
- $\hfill\square$ Ventilation system control panel
- 24-Hour timer for remotely located, motorized shut-off valve on steam supply
- Gas delay reset (GDRI)
- 120V AC fire-fuel shut-off solenoid valve(s) for gas supply. 1 ½" And smaller located in service tower(s) (2" and larger are remotely located)

- Fire-fuel shunt trip on individual pointof-use circuit breakers
- Temperature/pressure gauge at water incoming service location
- Gas delay reset (GDRIIB)
- $\hfill\square$ 24V DC gas solenoid in lieu of 120V AC
- Security package (includes):
 exposed fasteners to be tamperresistant, pin-in-head torx-head shipped loose and installed in field
 hinged doors equipped with eye for customer-supplied padlock
- Stainless steel "clean steam" supply and return lines
- Dormer or tower mounted faucet or pot filler
- Dormer mounted point-of-use connection plate
- Individual branch circuit protection (circuit breakers) located on 5x9" connection plates in control tower at end of raceway. Receptacles or pigtail located on 5x9" connection plates located along the length of the raceway. Vertical tower mounted bus bar distribution.
- Filtered water system

Kettle/Braising Pan Arm accessories

- Manual water filling stations-single or double jointed swing faucet, or pot filler. Hot water, cold water, or mixed water available. ¹/₂" or ³/₄" NPT connections
- Electronic water meter-includes switch to allow unregulated water flow
- Manual steam control
- □ Electric steam control
- Electric cook/off/chill control
- Cooking timer

Front, Top & Side Views

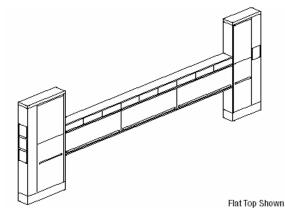


Utility Raceway Model MID

Utility Distribution System Available for Electrical, Gas, Steam and Kettle/Braising pan Integral Arm Usage

Description:

The M-series Raceway is a Utility Distribution System comprised of a stainless steel sheet metal housing enclosing cable bus electrical system and plumbing services that provide connections for individual appliances. Raceways with plumbing services are Listed by Underwriters Laboratories (UL) as Commercial Appliance Outlet Centers. Raceways with only electrical services are Listed by UL as Multi-outlet Assemblies. These raceways are intended primarily for use with cooking batteries, or cooking appliance line-ups, on both sides of the Raceway, or with appliances along one side and an aisle on the other side. Individual Point-of-use connection plates are located near the top along the length of the raceway.

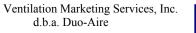


Specifications:

Dimensions: Horizontal Chase Width: 6" [generally for plumbing services less than 2" NPT] or 8" [generally for Plumbing services 2" NPT or greater], Height: 18" – 30" plus 3-6" peaked top, Length: as required. Service Towers Width: 6-12" Height: Finished Floor to Exhaust Hood or Finished Ceiling, Length" 18" Nominal to 42" Nominal. Intermediate Pedestals Width: 5-8" Height: Finished Floor to bottom of Horizontal Chase, Length: 5-8". **Construction:** 300-series Stainless Steel. Removable panels held in place with threaded fasteners. **Electrical Data:** 30 to 150 amperes. 120/208-240 volt to 480 volts. Single - or three -phase. Water: 150 psig & 140° F (60° C) maximum. Gas (Natural gas or LP): 1.25 psig.

Standard Features:

- Point-of-use branch circuit protection with receptacle or flexible liquid tight metal conduit (pigtail) mounted adjacent to Point-of-use branch circuit protection on 4.5x12" connection plate. NOTE: For other voltage configurations, consult factory.
- Ground fault circuit interrupter for 15 & 20 amp, 120/1, straight blade receptacles
- Cable Bus
- Copper hot and cold water supply lines, if required
- Black iron gas supply line, if required
- Black iron steam supply and condensate return lines, if required
- Quarter-turn shut-off valves on all individual connections
- Quarter-turn shut-off valves on main supply valves
- 2" High collar at top of service tower allows + or $-\frac{1}{2}$ " vertical adjustment to compensate for floor and/or exhaust hood mounting irregularities
- Hinged cover over point-of-use circuit breaker



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Duo-Aire

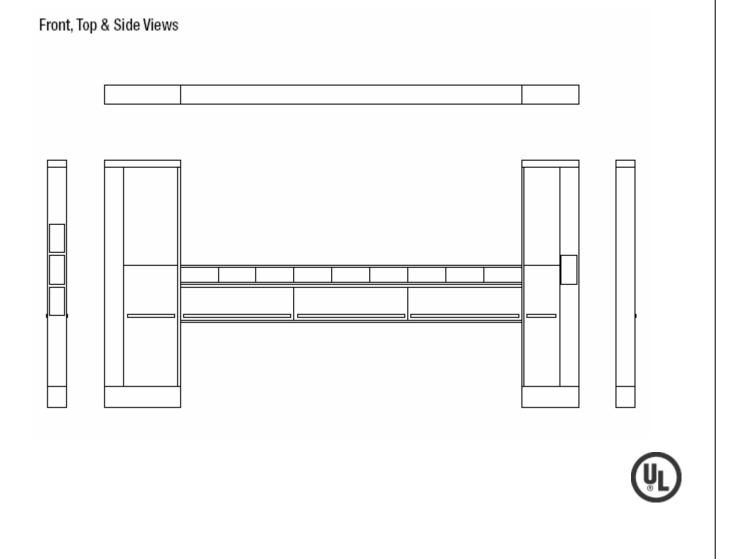
Optional accessories:

- Main electrical service circuit breaker with shunt trip
- Quick-disconnect fittings for individual gas connections in addition to quarter-turn shut-off valves for movable appliances
- Quick-disconnect fittings for individual water connections in addition to quarter-turn shut-off
- Vent light switch in service tower
- Vent light switch with circuit breaker in service tower(s)

- Duplex convenience outlet in service tower(s)
- Gas delay reset (GDRI)
- 120 VAC fire-fuel shut-off solenoid valve(s) for gas supply. 1 ½" And smaller located in service tower(s) (2" and larger are remotely located)
- Temperature/pressure gauge at water incoming service location
- Security package (includes):
 exposed fasteners to be tamperresistant, pin-in-head torx-head

shipped loose and installed in field • hinged doors equipped with eye for customer-supplied padlock

- □ Panel mounted faucet or pot filler
- Flat top in lieu of peaked top on horizontal chase
- Ventilation control panel mounted in tower
- Filtered water system



Model MID