



UDS

provides unequalled cooking line
versatility, flexibility & convenience

UTILITY DISTRIBUTION SYSTEM

One connection for all your utility needs

The CaptiveAire Utility Distribution System (UDS) is designed to meet all electrical and plumbing requirements for your kitchen appliances. A two compartment raceway houses the plumbing and electrical connections needed to meet your specific application.



Available Models

- ▶ **UDI:** Island configuration with equipment connections on both sides
- ▶ **UDW:** Wall mounted with equipment connections on one side only

Key Advantages

The Utility Distribution System allows greater flexibility over conventional utility connections and offers a cost-effective way to replace the custom designed wall built by contractors. Additional capacity for new equipment is provided with spare connection points built into the unit. Adding or changing equipment requires minimal effort.

- ▶ **Electrical Riser:** Main power connection is made to the main circuit breaker which has a shunt trip and is mounted in the electrical riser.
- ▶ **Bus bar systems:** Electrical power is fed through the main circuit breaker to the bus bar system in the raceway. Each appliance is fed from the bus bar through individually sized circuit breakers located along the raceway.
- ▶ **Wireway systems:** Electrical power is fed through a main circuit breaker to a distribution panel which contains individual branch breakers. Each appliance is fed from the individual breakers which are wired to each receptacle located along the raceway.
- ▶ **Plumbing Riser:** The plumbing riser houses manual (quarter-turn) shut-off valves for each incoming main supply line located in the UDS. The plumbing manifolds are provided with stub-outs along the raceway for the individual plumbing connections. Each stub-out is equipped with a manual (quarter-turn) shut-off valve.

Product Features

- ▶ **Expandability:** All plumbing manifolds are provided with multiple plumbing stubs for future use. All electrical systems are designed for additional capacity for future expansion or upgrade of connected appliances.
- ▶ **Bus Bar Systems:** Individual circuit breakers mounted on interchangeable plates for ease of service and relocation.
- ▶ **Wireway:** Electrical distribution panel located in the riser is equipped with branch circuit breakers and sized for expansion.
- ▶ **Serviceability and Accessibility:** Lift out doors provide easy access to risers without moving cooking equipment. Removable panels provided along the length of the raceway allow access to either plumbing or electrical compartments.
- ▶ **Electric Outlook and Cord Sets:** All outlets are provided with moisture resistant covers and have been sized per NEMA standards. Each is supplied with a matching cord and plug set if these are not already supplied by the equipment manufacturer. Twist-lock sets are standard with the model UDI. Straight blade sets are standard with the model UDW.
- ▶ **Main Disconnect:** One point disconnect through a main circuit breaker equipped with a 120 VAC rated shunt trip provided in the riser.
- ▶ **Gas Solenoid Valve:** Electrical or Mechanical. Electrical valves provided with a manual reset button.
- ▶ **Shunt Trip:** Provided with each main breaker.
- ▶ **Appliance Protection:** Each electrical outlet connection is protected with an individual circuit breaker.
- ▶ **Dual Convenience Outlets:** Located at each riser with integral ground fault protection.
- ▶ **Fire/Fuel Shutoff:** In compliance with NFPA 96, terminal connection points provided for field wiring to the fire protection system to shut off fuel sources and power in the event of a fire.
- ▶ **CAD:** Customized CAD Drawings Provided

Product Options

- ▶ **Remote Status Indicator Panel:** Lighted panel indicates status of breakers in wireway system.
- ▶ **Electric Outlets & Cord Sets:** Water tight pin and sleeve outlets and cords.
- ▶ **Light & Fan Switches:** located in riser.
- ▶ **Hood Control Panel:** built into riser.
- ▶ **Ground Fault Protection**
- ▶ **Prison Package**
- ▶ **Bumper Strips**
- ▶ **Emergency Kill Switch:** Single point shutdown of electrical power and electrical gas valves.
- ▶ **Swivel Connectors:** for gas equipment.
- ▶ **Plumbing Fixtures:** Pre-plumbed and installed faucets, mixing valves, hose reels.
- ▶ **Cable Restraints:** Available for mobile equipment.
- ▶ **Hinged Doors:** for internal access to risers.
- ▶ **Temperature/Pressure Gauges:** for hot/cold water main.

Electrical

Bus Bar Systems: The electrical raceway shall be a four (4) conductor copper bus bar system having balanced load and phases and shall be completely isolated from the plumbing supply manifolds. Point of use circuit breakers shall be mounted on connection plates which are located on the peaked top of the raceway and protected by a water proof stainless steel hinged cover. The breakers shall be easily accessible to the operator. The connection plates shall be easily interchangeable with spare blank plates which shall be provided for future expansion or changes. A main circuit breaker with a built-in 120 VAC rated shunt trip shall be furnished in the electrical riser and require a single point incoming connection. Terminal block connections shall be provided for field interconnection between the shunt trip and the fire protection system for power shut-off in the event of a fire.



Wireway Systems: The electrical system shall consist of a main circuit breaker which feeds power to a distribution panel located in the electrical riser containing individual branch breakers. Each appliance is fed from the individual breakers which are wired to each receptacle located along the raceway and shall be completely isolated from the plumbing supply manifolds. The main circuit breaker shall be equipped with a built-in 120 VAC rated shunt trip and shall be located in the electrical riser requiring a single point incoming connection. Terminal block connections shall be provided for field interconnection between the shunt trip and the fire protection system for power shut-off

in the event of a fire. All outlets shall be equipped with grounding type receptacles having specific NEMA polarized configurations and located on the under side (Model UDI) or front side (Model UDW) of the raceway at each equipment location. Outlets are matched to the cord and plug sets supplied with equipment. On the Model UDI, twist lock cord and plug sets are provided for equipment supplied without cords. On the Model UDW, straight blade cord and plug sets are provided for equipment supplied without cords.

Main Circuit Breaker:

15 to 600 Ampere, 1 or 3 phase
120, 208, or 480 VAC System

Branch Circuit Breaker: 15 to 100 Ampere, 1 or 3 phase
120, 208, or 408 VAC System

Plumbing

The plumbing compartment shall be completely isolated from the electrical with all piping labeled. Hot and cold water and steam supply and return manifolds shall be insulated. All incoming service connections shall be provided with 1/4 shut-off valve. Each branch connection shall be provided with 1/4 shut-off valve, color coded, and located at each equipment location. Color coded quick disconnect hoses are provided for connection to equipment. Hot and cold water piping, including branch connections, shall be type "L" copper tubing. All fittings will be copper sweat soldered (95-5 type). Gas and steam piping, including branch connections, shall be threaded black iron. There shall be a drip tee on the incoming gas end. The gas manifold shall be furnished with either an electrical or mechanical gas valve which shall be field interlocked with the fire protection system to shut off fuel sources in the event of a fire. Electrical gas valves shall be furnished with a manual gas reset button located in the UDS riser. Gas manifolds are sized for an inlet pressure of 7" WC for natural gas or 11" WC for LP. All plumbing components are UL, AGA and MA approved.



Gas

Manifold (single or looped): 3/4" to 3" IPS
1/4 turn manual shut-off valve on manifold
Quick disconnect hoses: 1/4" to 1-1/4", up to 6' long
Quick disconnect fittings: 1/4" to 1-1/4" with 1/4 shut-off valves

Hot & Cold Water

Manifold: 3/4" to 1" IPS
1/4 turn manual shut-off valve on manifold
Quick disconnect hoses: 1/4" to 1", up to 6' long
Quick disconnect fittings: 1/4" to 1" with 1/4 shut-off valves
Steam Supply/Steam Return
Steam Manifold: 3/4" to 3" IPS
Condensate Return Manifold: 3/4" to 2" IPS
1/4 turn manual valves on manifolds
Quick disconnect hoses: 1/4" to 1-1/4", up to 6' long
Quick disconnect fittings: 1/4" to 1-1/4" with 1/4 shut-off valves

Compressed Air

Manifold: 1/2" to 3/4" IPS
1/4 turn manual shut-off valve on manifold
Quick disconnect hoses: 1/4" to 1/2", up to 6' long
Quick disconnect fittings: 1/4" to 1/2" with 1/4 shut-off valves

Certifications

The UDS Model has been certified by ITS. This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. and Canadian products safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued performance.

Model UDS is ETL Listed under file number 3054803-001 and complies with UL891 Standards and CSA C22.2, No. 31-M89 Standards.

