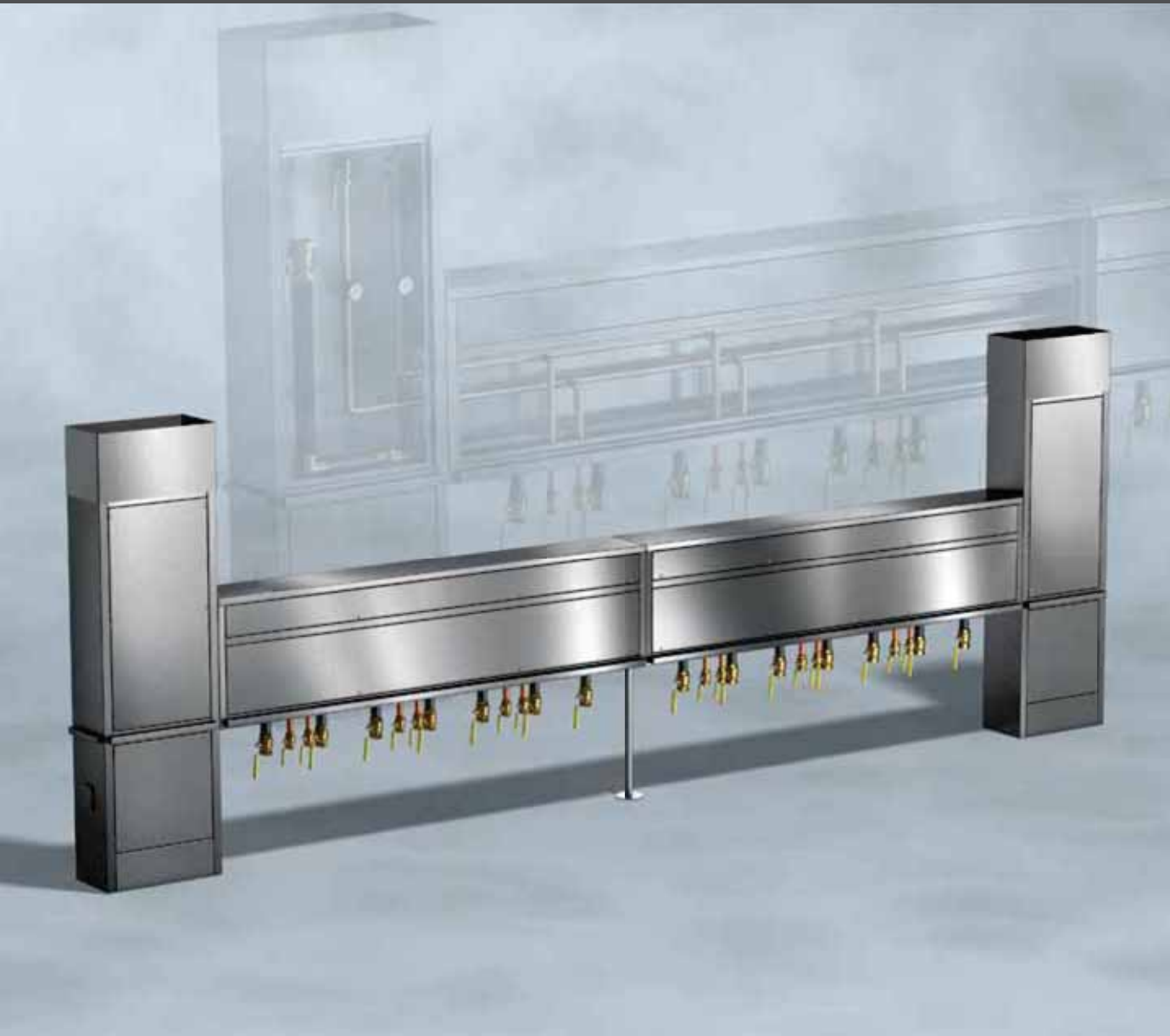


Utility Distribution System UDS Model M

- Flexible
- Convenient
- Economical



 **GREENHECK**
Building Value in Air.

October
2012

FlexConnect™ Utility Distribution System

A pre-engineered delivery system for the cooking equipment's utilities. It eliminates custom designed contractor built walls to bring the utilities to the cooking appliances. To build a contractor wall:

- Engineers and consultants have to work together to design the utilities into the wall, dependent on the cooking line-up.
- Plumbing, electrical and general contractors all have to work together to install the utility wall.

Custom built utility walls are built for a specific cooking line-up and require hours of coordination to be built in the field. If that line-up changes, the electrical and plumbing have to be changed to accommodate for the new line-up.

With FlexConnect™, just send Greenheck the cooking equipment utility information and you will receive the flexibility your kitchen deserves.

Flexibility - Plumbing

- With FlexConnect™, Greenheck provides 3/4 inch hot and cold water drops every 24 inches, and alternating 3/4 and 1 1/4 inch gas drops every 12 inches. The owner might not need all of these drops immediately, but if changes to the cooking line are made due to menu or staff preferences, FlexConnect™ has the extra utility drops designed into the system. This built in flexibility allows you to change equipment as needed throughout the restaurant's life; without costly repiping charges. Move equipment as needed, anytime, anywhere without the headache.

Since plumbing is difficult to do in the field and electrical comparatively easy, the Base UDS or Receptacle Only will be the most economical and functional. The majority of the plumbing will be factory installed and there is adequate room for the electrician to run wiring from receptacles to remote breakers to simplify control circuit wiring.

With a contractor built wall, changes to the cooking line become cost prohibitive and difficult with wall penetrations and multiple trade involvement.



Convenience

- With FlexConnect™ disconnects and outlets allow the cooking equipment to be easily moved for cleanup and inspections. Convenience duplex outlets are placed in every riser, providing you with the flexibility to use other electrical equipment.

With a contractor built wall, outlets are often inaccessible, and utility outlets are difficult to clean around, often trapping dirt and grease.



Drop Quantity

Greenheck designed it's FlexConnect UDS with too many drops. The extra drops are there in case equipment is changed or moved providing you with more than enough water and or gas for any equipment line-up. These extra drops reduce the amount of factory labor thus reducing the end cost to the customer.

Relocation

- The UDS is considered a piece of equipment; therefore when the customer's lease has ended, the UDS can be removed from the premises for use in another location.

A contractor built wall is a leasehold improvement. If a move is made to another location, another wall must be built.

Clean

- FlexConnect™ is manufactured of 16 gauge 300 Series stainless steel to provide you with superior strength.

With a contractor built wall typically being built out of drywall and wood studs, moisture can cause health risks in the kitchen.

Tax Benefit

- A UDS is classified as a kitchen appliance with a 7 year depreciation life.

A contractor built wall has a depreciation life of 31 years.

Codes

- UDS systems have been pretested and approved as a code compliant appliance. Installation and inspection are quickly completed.

A contractor built wall must be inspected and approved by the appropriate code authorities, often resulting in delays and changes.

Greenheck FlexConnect™ Utility Distribution Systems

Constructed 12 inches wide with a minimum length of 8 ft. and unlimited maximum length (in 1 ft. increments).

Units are built of 16 gauge type 300 Series stainless steel, and are available in wall or island style.

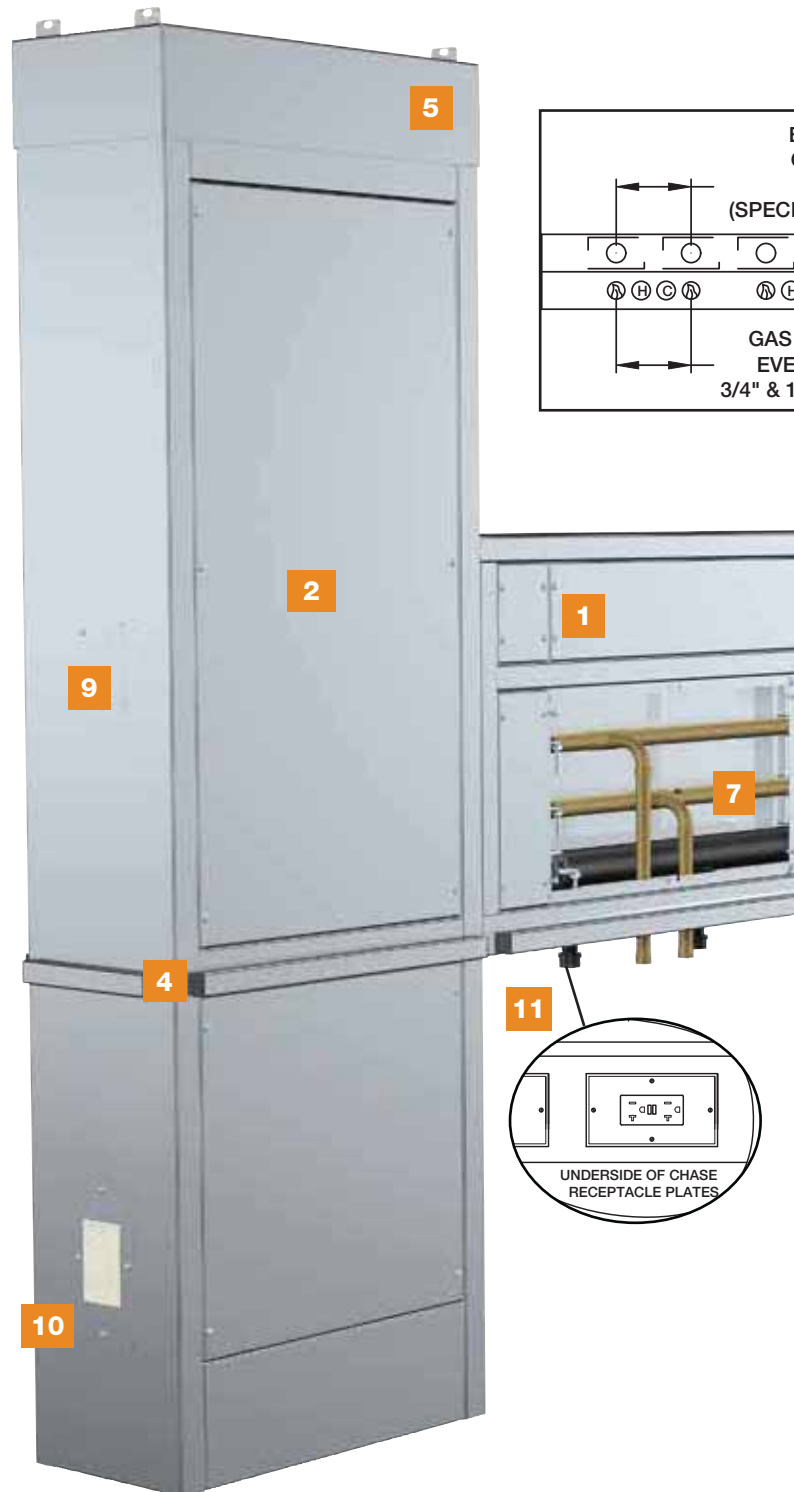
FlexConnect™ systems are thoroughly tested, UL Listed to Std. UL 891, and comply with all other applicable codes and standards.

- 1 Utility Chase** - stainless steel housing for plumbing and electrical components. Chase is 25 inches tall, and 27 inches above the floor. Chase sections are available in 1-inch increments 4 ft. thru 12 ft. (combine them to make longer lengths).
- 2 Utility Riser** - for incoming field connections to plumbing and electrical. Risers are 24 inches wide, riser height is 6 ft. 6 in. to 7 ft. tall with adjustable collar(s).
- 3 Removable Panels** - allows access to internal UDS components.
- 4 Bumper Guards** - running the full length, protect the UDS and appliances from damage as appliances are moved for cleaning.
- 5 Riser Collar** - adjustable, fills in the space from the UDS to the hood.
- 6 Support Pedestal** - adjustable, is located at every chase field joint. Any unit over 16 feet will have a pedestal.

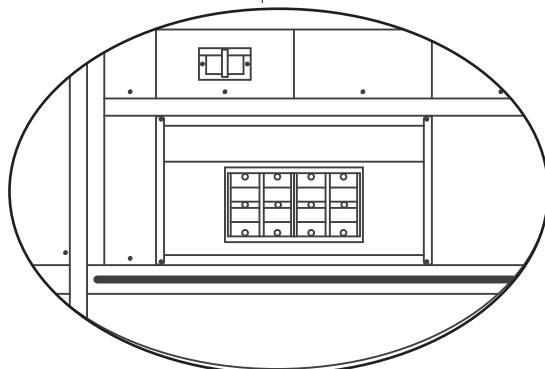
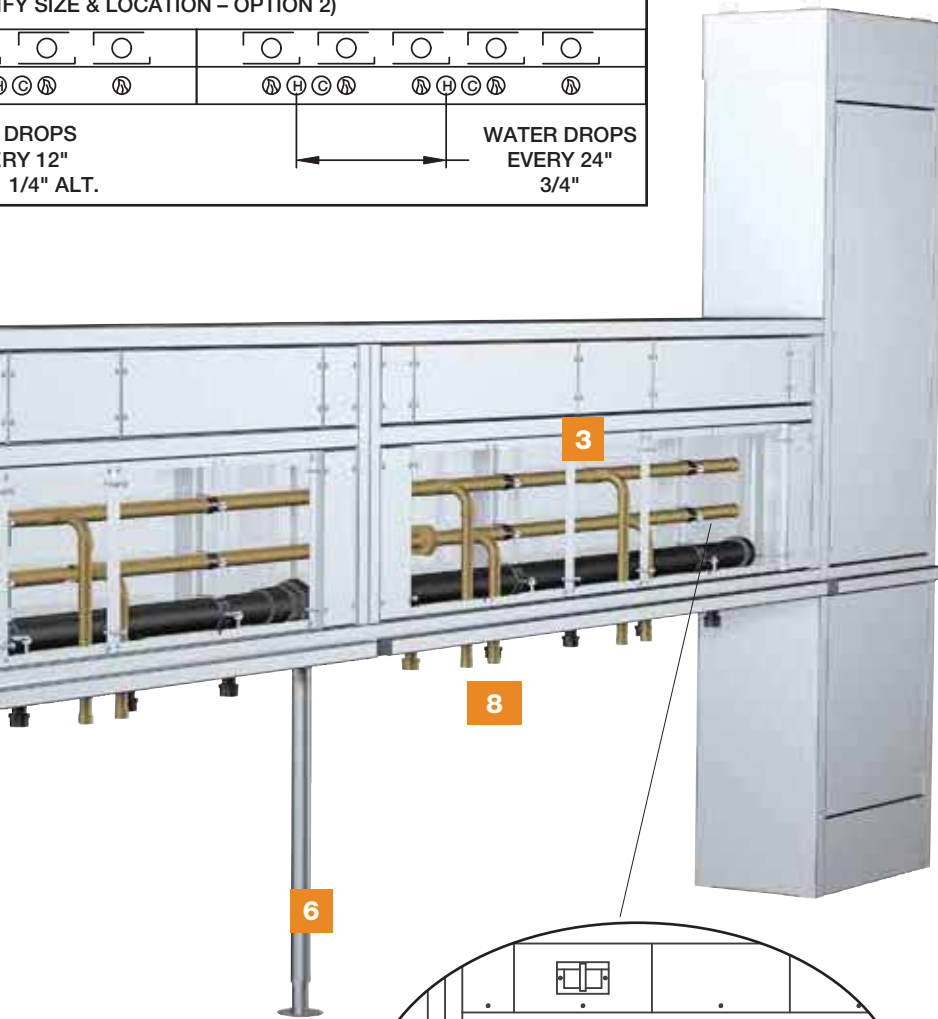
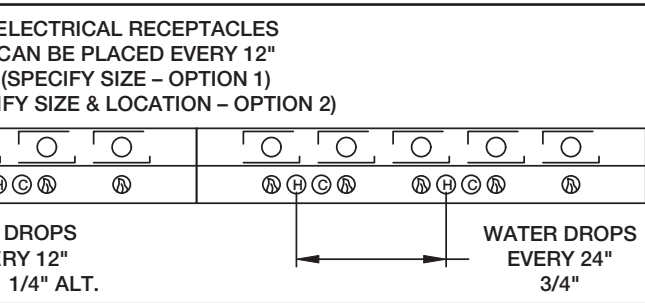


Code Information

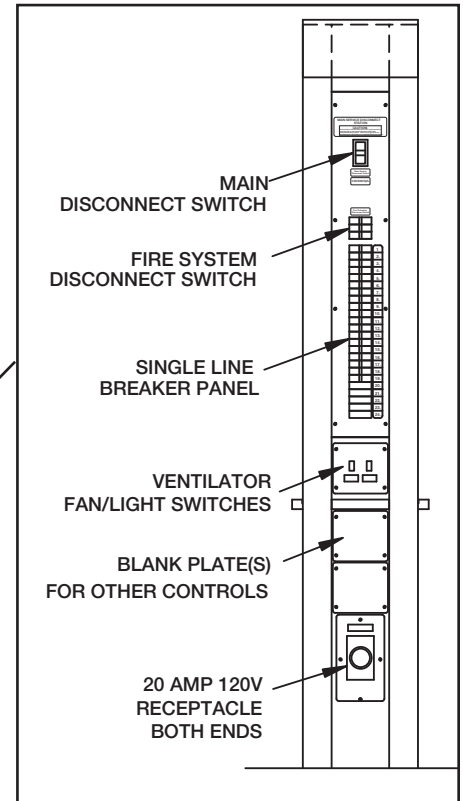
Greenheck Utility Distribution System to be UL Listed, and built in compliance with all applicable codes and standards, including NSF, NFPA 96, NEC, NEMA, Uniform Plumbing Code, ASME, using only UL Listed or recognized components.



**Panel Board Breaker System
Electrical Option**



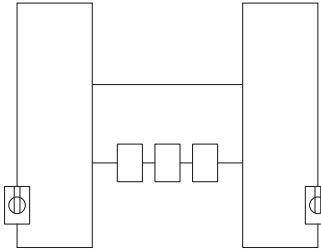
**Point of Use Breaker System
Electrical Option**



- 7 Pipe Manifolds** - to distribute gas, hot and cold water. Gas pipe is 2, 1.5 or 1.25 inches based on service requirements, hot and cold water pipe are 1 inch
- 8 Pipe Stub Outs** - gas, hot and cold water equipment connection. Gas stub outs are placed every 12 inches, hot and cold water every 24 inches
- 9 Hood Light / Fan Switches** to control hood light(s) and exhaust fan.
- 10 Covered Convenience Outlet** for miscellaneous electrical connections - one on each riser.
- 11 Receptacle Mounting Plate** for receptacle outlets, located under the chase.

Greenheck's FlexConnect™ utility distribution systems (UDS) are available in four different options; base, optional receptacles only (Remote breaker), optional complete wiring (Point-of-use breakers or Panel Board), and custom units. Our base and option packages allow for faster leadtimes and better pricing, while our custom program still allows us to meet any customer demand.

Base FlexConnect™ UDS



The **Base** FlexConnect™ UDS has the shortest leadtime and is the most flexible. Plumbing services are located in the chase and include gas, hot and cold water drops. With the base package appliance information is not needed.

The system has a main 2, 1.5 or 1.25 inch gas line based on service requirements with appliance drops located every 12 inches. These drops are capped on the bottom. Hot and cold water piping is 1 or 3/4 inches in diameter and has appliance drops every 24 inches that are capped on the bottom. Light and fan switches and GFCI receptacles in both risers are also provided.

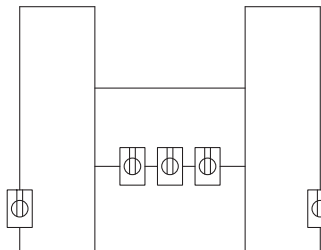
Blank receptacle plates are provided on the raceway. Receptacles and wiring must be provided by others. These plates can be used to mount the receptacles.

The **Base** FlexConnect™ UDS is a good unit for the owner that is looking for a clean, finished looking utility chase. However the **Base** unit does not have the electrical requirements of the kitchen. The electrical contractor must wire the unit according to the equipment's electrical needs.

If you chose a **Base** UDS we need to know the following to properly size the unit for your application: length of the unit, hood hanging height, and the type of unit (wall or island).

Electrical Option: Receptacles Only

FlexConnect™ UDS



FlexConnect™ UDS systems with **Receptacles Only** use the Base FlexConnect and receptacle sizes are required. Light and fan switches and GFCI receptacles in both risers are also provided.

- Receptacles are installed in a relocatable plate on the bottom of the chase - wiring from the receptacles to the remote breaker panel (panel provided by others) must be installed by the electrical contractor. Electrical wiring is not included so the appliance information is not needed.

If you chose a FlexConnect™ UDS with **Receptacles Only** we need to know the following to properly size the unit for your application: length of the unit, hood hanging height, type of unit (wall or island), and the equipment's receptacle sizes.

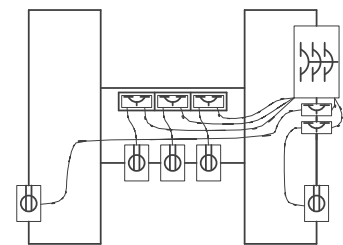
Electrical Option: Internal Service Panel for Appliance Receptacles

FlexConnect™ UDS

FlexConnect™ Utility Distribution Systems are available with **Optional Electrical** either with point-of-use or panelboard system. All features of the base model are included.

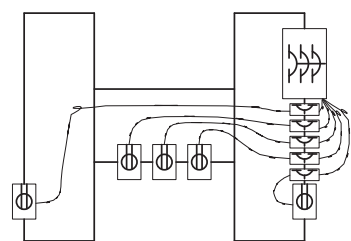
Services are located in separate risers, and all wiring is completed at the factory. Receptacles are installed and wired

If you choose a FlexConnect™ UDS with **point-of-use or panelboard** we need to know the following to properly size and position the unit for your application: the length of the unit, equipment layout and dimensions, equipment utilities, appliance loads and locations, hood hanging height and type of unit.



Point-of-Use Breakers and Wiring

- Point-of-use electrical system has covered branch equipment breakers across the horizontal chase behind the cooking appliance.



Panelboard and Wiring

- Panelboard electrical systems have branch breakers located on the end of the vertical riser. Both systems have the receptacles under the horizontal chase and the main breaker(s) located on the end of the vertical riser.



- Flexible quick disconnect hoses - easily connects and disconnects the appliances to the UDS



- Pressure gauges for water lines - show PSI of water in the main line



- Quarter turn ball valves and fittings - shut off for gas and hot and cold water to each appliance
- Available Sizes
 3/4 in. 1 in.
 1 1/4 in. 2 in. (main valve)



- Cord and plug assemblies (electrical option point-of-use, panelboard or receptacle only) for quick disconnect of electric appliances



- Swivel fittings - keeps the hose from kinking and twisting



- Cable restraints on mobile gas appliances - safety feature that prevents the equipment from moving and disconnecting the gas line



- Fill faucet mounting bracket(s) - faucet provided by others - allows for pot filler to be mounted on the UDS

Emergency Shut-Off Valves



- Gas reset station (with electric gas valve on electrical option point-of-use or panelboard) - electrical reset for the gas valve



- Mechanical gas valves other than the specified size (2 inch), or additional valves

Other Available Options:

- Installed valves / gauges in riser (2 inch maximum gas valve)
- Installed valves and disconnects on plumbing drops
- Prison package
- Door latches in place of screws on main riser(s)

Application and Specification

Provide Greenheck FlexConnect™ UDS Model M as shown on plans and in accordance with the following specification:

The FlexConnect™ Utility Distribution System (UDS) model M shall be either island or wall type. Service risers and horizontal raceway with removable access panels to be constructed of 16 gauge type 300 Series stainless steel. The service risers will be able to accommodate both electrical and/or plumbing. The horizontal raceway will be divided into separate compartments for plumbing and electrical. Flanged foot pedestals are provided at each field joint on the horizontal chase when the unit is 16 ft.-0 inches or longer.

Plumbing: The horizontal plumbing compartment is to include manifolds for gas, hot water, and cold water. The 2, 1.5 or 1.25 inch gas manifold (single or looped) will include welded threadolet connections. The gas connections are spaced 12 inches apart and are alternately sized as 3/4 and 1 1/4 inches every other connection. The 1 inch hot and cold water manifolds will include 3/4 inch plumbing drops every 24 inches along the horizontal raceway. All plumbing drops are capped below the chase, ready for easy connection to any cooking appliance. Optional gas manifold is supplied with (1) 2 inch mechanical emergency shut off gas valve, shipped loose.

Electrical: The base electrical package shall include a covered 120/1 ph. 20 amp convenience outlet located on the end of each service riser. The unit will have light and fan toggle switches located on the end of one service riser. The standard horizontal chase electrical compartment includes space for wiring and equipment receptacles. All receptacles and wiring/conduit is provided by others.

Optional Electrical Package Receptacles Only: Remote Mounted Breaker Panel for Appliance Receptacles shall include a covered 120/1 ph. 20 amp convenience outlet located on each service riser. The unit will have light and fan toggle switches located on one of the service towers. The horizontal chase electrical compartment includes equipment receptacles. All wiring / conduit is provided by others. Equipment receptacles to be placed in the specified location under the horizontal chase by others.

Optional Electrical Package - Point-of-use or Panelboard: Internal Service Panel for Appliance Receptacles shall include an incoming electrical service riser on the right end with a 225 amp main shunt trip breaker. The unit will have individual branch breaker(s) for each equipment receptacle located either on the service riser or horizontal chase directly inline with the equipment receptacle. The unit will have light and fan toggle control switches located on the end of the electrical service riser and a covered 120/1 ph. 20 amp convenience outlet on both service riser ends. Equipment receptacles are fastened in the specified location under the horizontal chase.



Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Specific Greenheck product warranties are located on greenheck.com within the product area tabs and in the Library under Warranties.



Prepared to Support
Green Building Efforts

