

# Warewasher Buying Guide



## Selecting the right warewasher

### Machine Selection Chart

Use the chart below to determine which type of warewasher meets your requirements.

Meals/hour	Washer type	Max racks/hour
Up to 100	Undercounter	35
100-500	Door-type	125
500-2000	Conveyor	450
2000+	Flight-type	1000+

### Warewasher Types



#### Door Type

- Also known as pass-through, pull-down hood or stationary-rack
- Require dish tables for most efficient cleaning process
- Can be field converted to corner configuration
- Rack usually need to be purchased separately
- Meals per hour: **100-500**
- Maximum racks per hour: **125**



#### Undercounter

- Resemble residential dishwashers
- Single pull down door for loading and unloading one or two racks
- Racks are usually included
- Rack usually need to be purchased separately
- Meals per hour: **Up to 100**
- Maximum racks per hour: **35**



#### Conveyor

- Racks pulled through each stage of wash cycle on chain conveyor
- Come with one to three tanks and varying features
- Some models have variable conveyor speeds for different load requirements
- Put anything in them
- Meals per hour: **500-2000**
- Maximum racks per hour: **450**



### Flight-Type

- Also known as rackless or belt conveyor Largest warewashers in the industry
- Dishes placed directly onto conveyor
- Have dedicated tanks to contain each stage of wash cycle
- Put anything in them
- Meals per hour: **2000+**
- Maximum racks per hour: **1000+**

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## What do I need to know about dishracks?

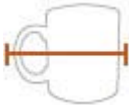


### Measuring your glasses

When purchasing glassracks, glass size dictates compartment dimensions and number.



Measure stemmed glasses at their largest diameter. Most of these glasses are wider at the base.



Measure mugs to the handle tip.



Measure your tallest glass from top to bottom.

## There are several different types of dishracks available to fit your needs



### Peg Rack

- Also known as plate rack
- Used for plate and tray washing
- Pegs hold items in vertical position
- Maximum space utilization and dishwashing efficiency



#### Base Rack

- Also called open rack
- For pots, pans and other items that do not conveniently fit on peg rack



#### Flatware Rack

- Similar to base rack
- Tighter bottom lattice configuration prevents flatware from falling through



#### Tray Rack

- Also known as open sided
- Has pegs similar to plate rack
- For washing larger trays that don't fit standard peg racks
- For door type washer, make sure interior dimensions will accommodate rack and trays



#### Dish Crate

- Full height sides allow crates to be stacked and stored easily
- Dishes are balanced on their ends as with peg racks for cleaning ease



#### Flatware Basket

- Half rack size
- Separate compartments for presorting flatware
- Offer easy transportation, washing and storage

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## High and Low Temperature Washers

Warewashing is the process of cleaning and sanitizing soiled dishes using chemical and mechanical action, temperature and time. All warewashers use chemical detergents as part of the chemical action, but there are two different methods for sanitizing dishes during the final rinse stage – high temperature and low temperature.

### Sanitation

**High temperature machines** come with a built-in booster heater that raises your water to the proper temperature and boosters deliver either a 40°F or 70°F rise to incoming final rinse water, and do not require the use of chemicals. Dishes are flash dried which reduces bacterial growth.

**Low temperature machines** utilize chemical sanitizer during the final rinse stage removing the need for a boost in hot water temperature.

**Advantage: High Temperature Washers**

### Energy and Water Consumption

**High temperature machines** consume less gallons per rack which saves on water bills. They have a shorter wash cycle and can wash more racks per hour, as well as a decrease in the amount of pooled water on dish room.

**Low temperature machines** use a lower water temperature which may lower machine costs. A booster heater is not required for proper sanitizing since this machine uses chemicals.

**Advantage: High Temperature Washers**

### Cleaning Effectiveness

**High temperature machines** dissolve greases and lipsticks which may increase efficiency since items do not have to be cleaned multiple times.

**Low temperature machines** may not always dissolve greases and lipstick, creating need to rewash many dishes.

**Advantage: High Temperature Washers**

### Use of Chemicals

**High temperature machines** do not require the use of chemicals for sanitization.

**Low temperature machines** require sanitizer for disinfecting dishes. Improper chemical concentration will not sanitize dishes if too low or may become toxic if too high. Chlorine sanitizer may corrode pipes, etch glass and leave a chlorine taste on ware.

**Advantage: High Temperature Washers**

### Safety

**High temperature machines**, specifically undercounter units, may create steam and can damage countertops. High temperature water may injure the operator, and if water pressure is too high the final rinse water can vaporize.

**Low temperature machines** create less steam and heat and are therefore safer for operators and their surroundings.

**Advantage: Low Temperature Washers**

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## What else do I need to know or buy?



### Chemical test strips

- Strips of paper that change color to correspond with chemical/water concentration
- Health codes require that test strips be on hand and used regularly with chemical sanitizing dishwashers



### Dish Tables

- Placed in-line with door-type or conveyor machines
- Allow dishrack loading and unloading ease
- NSF approved dishtables have raised-rolled edges, seamless welds and backsplash



### Ventilation

- Steam released by warewashers can turn a poorly ventilated dishroom into a sauna
- A properly installed and functioning exhaust hood over the dishwasher helps maintain comfortable working condition
- A ventilation system that is too powerful can draw too much heat off of the warewasher and reduce its effectiveness
- Some counties and states require the use of a hood over your dishwasher. Please consult your local health codes to see what requirements are in your area.

### How much space do I need?

Meals/hour	Dishroom Area/Sq. Ft.
100	100
400	200-300
800	400-500
1200	600-700
1600	800-900

### Health codes require a manual washing station.



#### Freestanding

These sinks with single or multiple bowls have deep interiors for single or three stage washing. These usually have legs.



#### Countertop Drop-In

These sinks come with single or multiple bowls and are placed inside a countertop cutout.



#### Wall-Mount

These sinks are mounted to the wall with brackets and do not have legs.

### Sinks



**Manual warewashing systems** require a three compartment sink to contain each stage of the wash cycle (**wash, rinse, sanitize**); two drain boards are also required. When selecting compartment sinks remember most health departments require a bowl deep enough to totally submerge your largest pot.



**Prep sinks** are generally used for produce washing (or mop sink depending on usage). **Drainboards** may be required for prep sinks pending regional health codes. A drainboard is an area next to a sink, which is angled slightly to allow water to drip off into the sink.



## Approval

- NSF approved sinks have backsplashes, seamless welds and coved bowl corner
- NSF approved drain boards are seamlessly welded to sink, have raised-rolled edges and a drainage slope between 1/8" – 1/4" per foot towards bowl
- Check local building/health codes for specific regulations

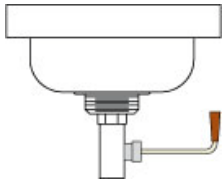
## How many hand sinks should I Buy?

- One hand sink for every 5 employees
- One hand sink for each prep and cooking area
- One hand sink for every 300 sq. ft. of facility space

## Drains - Lever and Twist

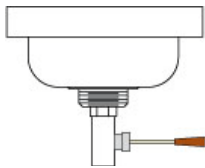


- Lever and twist handle drains are very popular with three compartment sinks. The twist handle is easier to maneuver and most popular.
- These drains allow water evacuation without having to reach into dirty water that may contain knives or other sharp objects.
- Local sewage codes will determine your required drain outlet size, either 1.5" or 2" diameter.



### Twist Drain

- Opens/closes with a twist
- Most popular with three compartment sinks
- Easiest to maneuver



### Lever Drain

- Opens/closes with a push
- Simpler internal mechanism
- Easy water evacuation

## Faucets

Generally speaking, wall mount sinks are compatible with compartment sinks. The type of faucet you need depends on where your water supply is coming from as well as your sink style. Vacuum breaker required on service sink faucets to prevent chemical laden cleaning water.



### Lever Drain

- Opens/closes with a push
- Simpler internal mechanism
- Easy water evacuation



#### **Prerinse Units**

- Can be either deck or wall mounted.
- Wall bracket is important to assure unit isn't damaged during use.



#### **Wall Mounted Faucets**

- Used when water lines running along or coming through wall, mount through sink backsplash.
- Also known as "splash mount".