



# K-12 DISHROOM GUIDE

Solutions for K-12 Food Service



[hobartclean.com](http://hobartclean.com)





## WHY YOU NEED A DISHWASHER

### Automated Dishmachine:

- ✓ Reduces water and energy consumption
- ✓ Streamlines labor efforts
- ✓ Guarantees food safety standards with consistently clean and sanitized ware



### Manual Washing:

- ✗ Adds labor-intensive washing
- ✗ Increases water and energy consumption

### Disposables:

- ✗ Contributes significantly to environmental degradation in landfills
- ✗ Incurs long-term costs

Making the switch to an automated dishmachine emerges as not only a money and labor-saving solution but also a conscientious investment in a sustainable future.

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# ANATOMY OF A DISHWASHER

## Introduction to Commercial Dishwashers

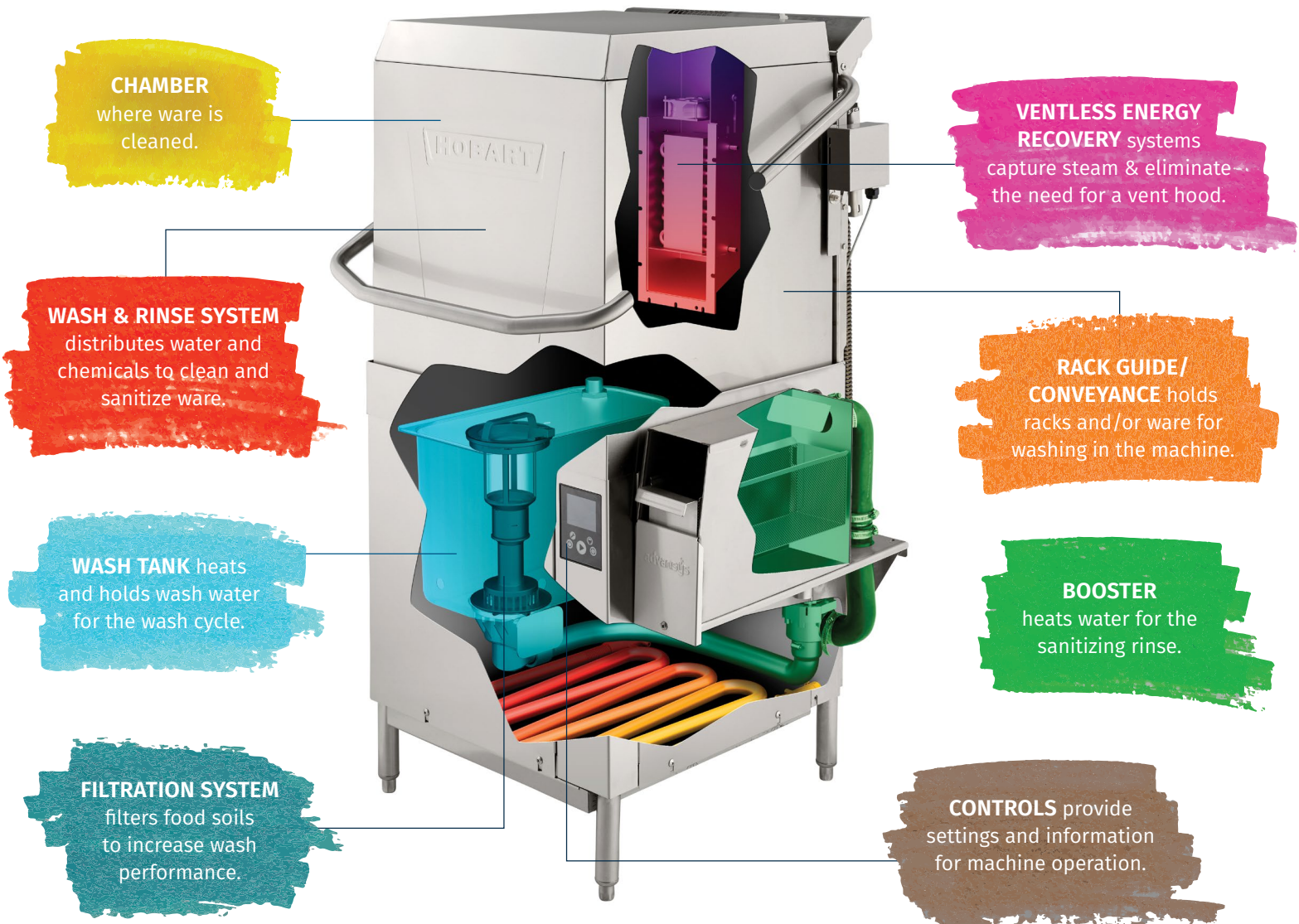
The purchase of a commercial dishwasher can go a long way in improving the efficiency and productivity of your dishroom. Whether you're upgrading from an older machine or making the jump from manual dishwashing, you'll see immediate benefits in terms of labor savings, water usage and energy costs.

Once you've decided to purchase a new machine, how do you decide which type is right for your operation?

There are many factors that come into play when considering the size and type of dishwasher that will give your operation the best return on investment. From the amount of traffic during meal service to the plumbing and HVAC of your dishroom, each aspect of your dishroom should be considered to help ensure the right size and fit of your new commercial dishwasher.

## What Makes up a Commercial Dishwasher?

Most high-temperature, recirculating commercial dishwashers feature the following anatomy:





# BEST PRACTICES

## BEST PRACTICES FOR RUNNING AN EFFICIENT DISHROOM

A commercial dishmachine is a big investment. But with the right training and procedures in place, school systems can experience increased productivity and improved water and energy use leading to reduced costs. Just as we teach our students the importance of following

instructions, dishroom best practices and guidelines provide the structure for a successful operation. Proper training ensures everyone follows washing procedures for efficiency, food safety compliance, and prolongs the life of your dishwasher.



### TRAINING:

- Basic knowledge of how to operate and clean the equipment.
- The ability to verify correct operation.
- An understanding of what can be washed and sanitized in the dishmachine.
- Knowledge of the proper handling, usage, and storage of chemicals. NOTE: Only use commercial dishwashing chemicals recommended for your machine.



### WASHING PROCEDURES:

- Pre-scrap and rinse dishes thoroughly.
- Create an efficient workflow with a dirty side and clean side to avoid cross-contamination of clean ware.
- Load racks and trays properly with adequate spacing between items so water and chemicals can reach all parts of the ware.
- Make sure adequate chemicals are available to the dishmachine and replace when needed, using proper PPE.
- Allow sufficient space for all items to dry, unstacked.





## EQUIPMENT CLEANING AND MAINTENANCE

Schools are built to last for years, and your equipment can too. Practicing good care and maintenance techniques can help you get the best performance from your dishmachine investment for years to come. A clean dishmachine delivers the wash performance it was designed for. Practice these tips to keep your equipment in top shape.

- Spray down the interior of the machine to clear away any remaining food particles or residue.
- Wipe down the exterior of the machine with stainless-steel polish to protect against corrosion and maintain its appearance.
- Remove the two wash and rinse arms and clean them in soapy water.
- Remove and clean the strainer pan(s) to ensure optimal performance.
- Remove and clean the scrap basket(s) to maintain proper drainage and prevent clogs.
- Remove and clean the curtains to prevent any buildup of grime or debris.
- Spray and wipe down the tank interior to remove any remaining food residue or buildup.
- Run the delime cycle as needed (Delime Notification on Hobart dishwashers let you know when it is time and can reduce the number of times you have to delime).



## 1 SELECTING A COMMERCIAL DISHWASHER

Selecting the right commercial dishwasher for your school not only depends on the number of students you're serving but also the type of ware you're washing, the total volume you have to wash, and how quickly you need to have it cleaned. The following are the most common types of dishmachines for K-12 food service operations:

### UNDER COUNTER DISHMACHINE Low to Moderate Volume; Minimal Space

Great for most teacher's lounges, pre-K/daycare, and home ec classrooms. This very versatile machine fits under tabling and counters. Although compact, has two-level washing capabilities.

### RACK CONVEYOR DISHMACHINE High Volume

The perfect size for most middle schools and high schools that have a larger volume of ware to clean, including reusable ware and prepware.

25-75 students



Any Size School



300-1,000 students



**MOST POPULAR**  
(Like Pizza Day)





# A DISHWASHER

ol



50-300 students



1,500+ students



## POT, PAN & UTENSIL WASHER

### Lots of Trays and Prepware

A good option for satellite schools that mostly clean sheet pans coming from a central kitchen, or as a supplementary dishwasher to door/conveyor style machines when a three-compartment sink is still in use. Accommodates 10 or 20 sheet pans per cycle.

## DOOR TYPE DISHWASHER

### Moderate Volume

Great for most elementary schools, this machine comes in a corner or straight-thru configuration. It easily fits into tight spaces and can be integrated with your three-compartment sink. Get the tall height model to wash 6 sheet pans at once.

## FLIGHT TYPE (RACKLESS CONVEYOR) DISHWASHER

### Very High Volume

Excellent for large facilities that use centralized cafeterias for multiple buildings, washing up to 15,000 dishes per hour.



2

## PREPARING FOR YOUR DISHWASHER

As you research and prepare to install a new commercial dishwasher, it's important to think beyond the equipment itself and consider your facility and local building codes and plan accordingly for the new equipment. Always refer to the product specification sheets available at [www.HobartCorp.com](http://www.HobartCorp.com) for the power, drain and water line requirements for your machine, and make sure you use

licensed contractors when any changes or upgrades are required. Most Hobart dishwashers are designed to fit into existing utilities and tabling footprints when you're replacing an old machine.

There are also other factors to take into consideration that can be addressed by special Hobart technologies.

# 3

## CHOOSING BETWEEN HIGH TEMPERATURE OR CHEMICAL SANITIZING DISHWASHER

**Sanitization** /sa-nə-tə-zā-shən/:  
Reducing the number of microorganisms on ware surfaces to a safe level, typically through the use of heat or chemicals utilizing commercial warewashing equipment, to prevent the spread of disease and ensure food safety.

Among the many different considerations in choosing a commercial dishwasher, operators must weigh the options of high temperature or chemical sanitizing machines. High temperature dishwashers sanitize ware with hot water, using minimum temperatures for wash water of 150- 160°F, and 180°F for rinse water. Low temperature dishwashers sanitize ware with a chemical sanitizer, using minimum temperatures for wash water and rinse water that is the same at 120-140°F. When choosing your dishmachine you will need to decide if a high temperature or chemical sanitization commercial dishwasher is the best choice.

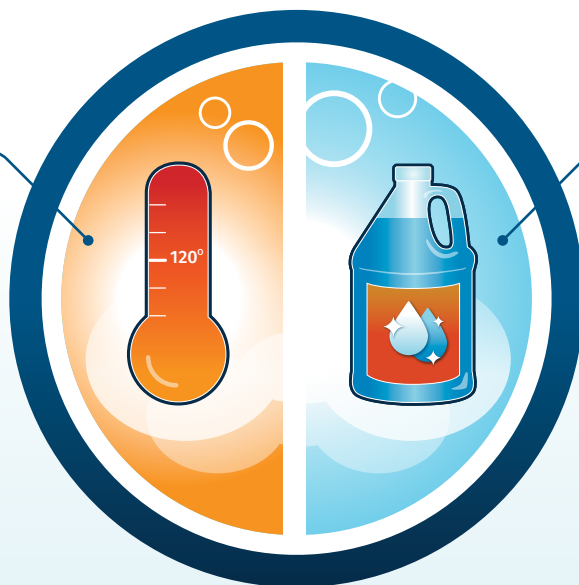
### HIGH TEMPERATURE

#### Pros

- ✓ Removes pizza grease, chicken nugget batter, etc. better than low temp
- ✓ No chemical/bleach sanitizer residue - fresh water rinse
- ✓ Easier on machine and items being washed (less caustic)
- ✓ Lower chemical costs

#### Cons

- ✗ Larger electrical requirement



### CHEMICAL SANITIZATION

#### Pros

- ✓ Requires less power (no booster heater)
- ✓ Lower power requirement

#### Cons

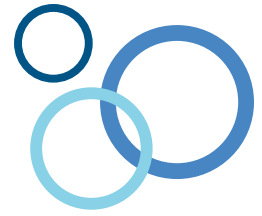
- ✗ High chemical cost
- ✗ Strong chemicals are hard on the dishwasher
- ✗ Chemical smell and residue





# 4

## DISHWASHING TECHNOLOGIES THAT GIVE YOUR DISHROOM A BOOST



Commercial dishwashers excel at swiftly handling piles of ware, and the following add-on technologies can help lower installation and operating costs, reduce labor time, boost efficiency, and increase productivity, and conserve water and energy for enhanced sustainability.



**AUTOMATIC SOIL REMOVAL (ASR)**  
removes heavy food soil to reduce labor on prescrapping and water changes, saving time, labor and resources.



**VENTLESS ENERGY RECOVERY**  
recycles steam and heat, eliminating the need for a costly vent hood and direct venting, greatly simplifying installation.



**DRAIN WATER ENERGY RECOVERY (DWER)** recycles heat to save up to 20% on energy costs and drains water to reduce tempering requirements by 90%.

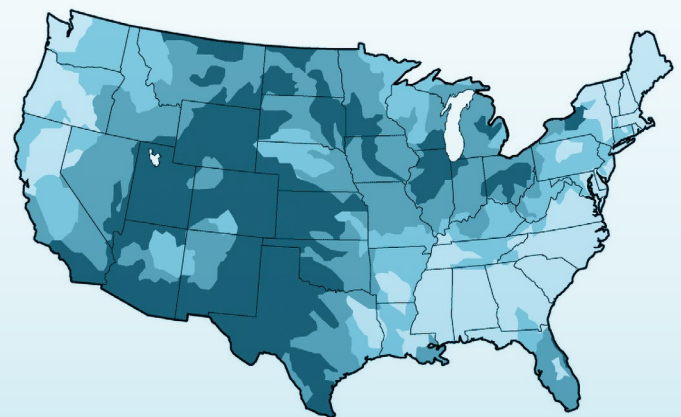
### Protecting Your Machine from Hard Water

Water is classified as hard or soft based on mineral content, primarily calcium. To ensure optimal dishmachine performance, maintain appropriate water hardness. Hobart Service can assess hardness and recommends 3 grains. High hardness may necessitate a softener. Unchecked hard water can lead to issues like corrosion, reduced efficiency, and spotting on dishware.

Regular deliming is crucial to remove scale buildup. Hobart's **Complete Delime™ with Booster Guard™** simplifies the deliming process, enhancing machine performance. Auto Dispensing doses delimer automatically, ensuring safe handling of chemicals. Booster Guard injects delimer into the booster, prolonging machine life.



### WATER HARDNESS AREA IN THE UNITED STATES



- SLIGHTLY HARD WATER
- MODERATELY HARD WATER
- HARD WATER
- VERY HARD WATER



# CHOOSING DISPOSABLE OR REUSABLE WARE

## REUSABLES VS DISPOSABLES

Switching all or even part of your ware program to reusables can have a significant impact on cost savings and the environment. Operators worry that kids who are used to throwing everything away will accidentally put items in the trash, but school systems that implement programs with volunteers and plenty of educational materials find sorting becomes second nature to the students.



### Disposables

**Pros:** Cheap initial purchase; No maintenance

**Cons:** Recurring costs; Large amounts of trash; Storage space needed

### Recyclables/Compostables

**Pros:** More environmentally friendly than disposable; No maintenance

**Cons:** 3x cost over plastic disposable; Recurring cost; Added cost of waste disposal; Added labor of sorting

### Reusables

**Pros:** One-time purchase, No waste

**Cons:** Initial investment in ware; Labor needed for warewashing (can be reduced with commercial dishmachine)

### REUSABLE PROGRAM COST CALCULATOR EXAMPLE



School Size	400
Breakfast Program Participation (%)	25%
Lunch Program Participation (%)	50%
School Year Length (days)	180
Number of Kids Served Breakfast	100
Number of Kids Served Lunch	200
Disposable/Compostable Tray Cost	\$0.11
Disposable/Compostable Flatware Cost	\$0.11
Annual Cost for Breakfast Program Disp./Comp.	\$3,960.00
Annual Cost for Lunch Program Disp./Comp.	\$7,920.00
<b>Total Disposable/Compostable Costs</b>	<b>\$11,880.00</b>
Reusable Tray Cost	\$3.79
Reusable Flatware Cost	\$0.27
Additional Purchase Quantity	%30
<b>Initial Investment in Reusable Ware</b>	<b>\$1,055.60</b>
Savings by Switching to Reusables	\$10,824.40
<b>Dishmachine Investment</b>	<b>\$31,033.00</b>
Recommended Dishmachine Type	Door Machine
Simple Payback Period (years)	2.9

Scan here to calculate your own cost comparisons



### RISKS OF MANUAL WASHING

Even with standards in place, there are some risks involved when depending on manual washing in a foodservice operation. Some of the challenges include:

- Maintaining proper wash temperatures
- Following correct wash, rinse & sanitization procedures
- Ensuring consistent & complete sanitization of all ware items
- Proper drying of ware

A Hobart study of manual dishwashing found the following:

**85%** OF WASHING TIME was below the 110°F requirement

**STAFF SOMETIMES SKIP SANITIZATION** and the washing or rinsing steps



Ware was submerged **LESS THAN 30 SECONDS** for the required time in sanitizer







# SUCCESS STORIES

Many schools across the United States have received great benefits from switching to reusable ware and an automated dishwasher for all or part of their program. Here are just a few:

**Palo Alto United School District in California** switched out seven disposable items for reusable ware, including plastic baskets and clamshells and stainless-steel sporks. The program affected 12 schools that served 3,400 students through a central kitchen. The results – a net savings of \$25,000 and prevented more than 8,000 pounds of waste per year.

**In North Carolina, the Chapel Hill-Carrboro City School District** switched from foam trays to compostable fiber. That one move reduced landfill waste by 87%, leading to \$12,000 in waste disposal cost savings.

**Bishop O’Dowd High School in Oakland, California,** switched from single-use plates to reusable baskets. They prevented 3,376 pounds of waste from going to the landfill and saw cost savings of over \$6,000.

The reasons behind switching ware programs vary, from adhering to local or state regulations on waste disposal to cost savings from not purchasing single-use items. But for many, being a good steward of the environment is the deciding factor. As a representative from Palo Alto USD said, “We did it to model the ‘right’ behavior for students.”



**Easily connect with your commercial dishwasher's onboard wi-fi**

To get started, visit [SmartConnect365.com](http://SmartConnect365.com)





## ADDITIONAL RESOURCES



THERE'S CLEAN, AND THEN  
THERE'S HOBART CLEAN.

Learn more at  
[HobartClean.com](https://HobartClean.com)

For more information and detailed help specifying a dishmachine for your operation, contact our team at 888-378-1338.

Check out and download helpful articles and resources at [warewash.hobartcorp.com/reusables](https://warewash.hobartcorp.com/reusables)



For more information about Hobart Commercial Dishwashers, visit [HobartClean.com](https://HobartClean.com)



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