FOOD SAFETY FACTBOOK

For Dishroom Operations

including Dishmachine Guidance on COVID 19

HOBART

CERTIFIED HOBART CLEAN

BUILDING CONFIDENCE IN YOUR FOOD SAFETY

For a nation and a world dealing with the COVID-19 pandemic, health and safety issues are top of mind. Restaurant operators need to provide a place where people can enjoy a good meal while feeling confident in the safety of the operation. It is imperative that operators follow the health and safety guidelines they always have and communicate to the public the enhanced steps being taken and the level of cleanliness they can expect.

Here at Hobart, we understand that cleanliness and sanitization are integral parts of food safety for every foodservice operation, so we have created this **Food Safety Factbook** focusing on the dishroom to help operators understand the terminology, processes, guidelines and best practices that help ensure a safe and enjoyable dining experience for all customers.

Having good procedures in place, along with well-designed commercial dishwashing equipment that is properly cleaned, maintained and operated, are what help foodservice operations maintain high standards of operation and help deliver a safe and quality dining experience in this new environment.

A COMPLETE WAREWASH FOOD SAFETY PROGRAM CONSISTS OF THREE ESSENTIAL PARTS

IN THIS FACTBOOK YOU'LL LEARN MORE ABOUT

FOOD SAFETY STANDARDS FOR THE DISHROOM

Food safety standards for the dishroom are detailed by two complementary organizations — the Food and Drug Administration (FDA) and NSF International.

The FDA's Food Code provides guidance on everything from proper storage procedures to the installation and operation of warewashing equipment and systems.

NSF has created detailed sanitization standards for equipment to comply with the FDA food code and certifies kitchen and dishroom equipment to those standards.

"COVID-19 is new, but infection control and good hygiene requirements are not," says Paul Medeiros, managing director of NSF International's Consulting and Technical Services group. "NSF has been doing this sort of public health and safety work for 75 years." With their decades of experience, foodservice operators can be assured that following NSF guidelines and using NSF certified equipment can help ensure a safe dining experience.

MAKING WARE SAFE:
SANITIZATION & THE 5-LOG KILL

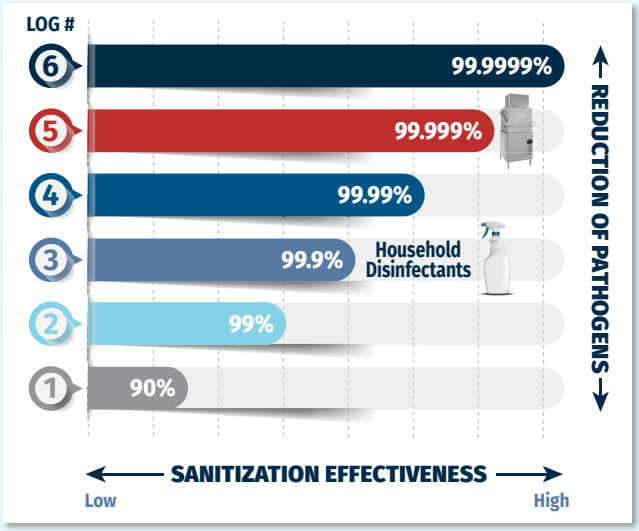
One of the areas where the FDA and NSF have created guidelines and standards for providing clean, safe dishes and food prep equipment is in sanitization. Sanitization kills most pathogens that can lead to food-related illness. Often, people will use the words sanitization and sterilization interchangeably, but it is important to remember these words mean two different things. Sanitizing is defined as reducing the number of microorganisms to a safe level. Sterilization is removing all microorganisms, a practice usually associated with medical equipment in hospitals and operating rooms. **Sanitization of ware is sufficient for common foodservice practices.**

All Hobart dishmachines are NSF certified and will sanitize ware to FDA guidelines and NSF Standard 3 for Commercial Warewashing Equipment when installed properly and correctly maintained and operated.

Commercial warewashing equipment that meets NSF Standard 3 reaches a sanitization effectiveness of 5 logs, known as the 5-log kill. This means that after the application of cumulative heat or chemicals on contact surfaces, there is a reduction of 5 logs, or 99.999%, of representative disease microorganisms of public health importance.

Understanding the 5 Log Kill

- **"Log Reductions" convey how effective a product is at reducing pathogens.** The greater the log reduction the more effective it is at killing bacteria and other pathogens that can cause infections and illness.
- **"Log" is short for logarithm,** a term for a power to which a number can be raised (i.e., 10^3 or 10 x 10 x 10 = 1,000).
- **A "5-log reduction"** on a surface with 100,000 pathogenic microbes would reduce the number of microorganisms by 100,000-fold, or to just one.



YOUR DISHMACHINE & COVID-19

For those in the foodservice industry, the health and safety of employees and customers is a top priority. Understanding the issues and having a clear knowledge of the facts surrounding the COVID-19 virus can go a long way in calming anxiety and maintaining good business practices.

Several companies are making specific claims about their dishmachines neutralizing or killing COVID-19 (the disease caused by novel Coronavirus (SARS-CoV-2)), but to date, **no manufacturer has tested any dishmachine to specifically sanitize ware for COVID-19**. Instead, NSF has stated that compliance with NSF/ANSI standards for commercial food equipment may help with COVID-19 risk mitigation based on currently known information. According to this NSF guidance the SARSCoV-2 virus, which causes COVID-19, is just as susceptible to removal or destruction as other known coronaviruses, and existing evidence suggests foodservice establishments do not need to change current cleaning and sanitizing processes for NSF certified equipment to mitigate the potential risk of COVID-19.

Find more detailed information in the NSF publication,
Food Equipment Standards in a COVID-19 World.

Understanding the Virus

Viruses are not living organisms, unlike bacteria, which is a living organism. Therefore, viruses behave as living organisms only when inside the body of a host organism.

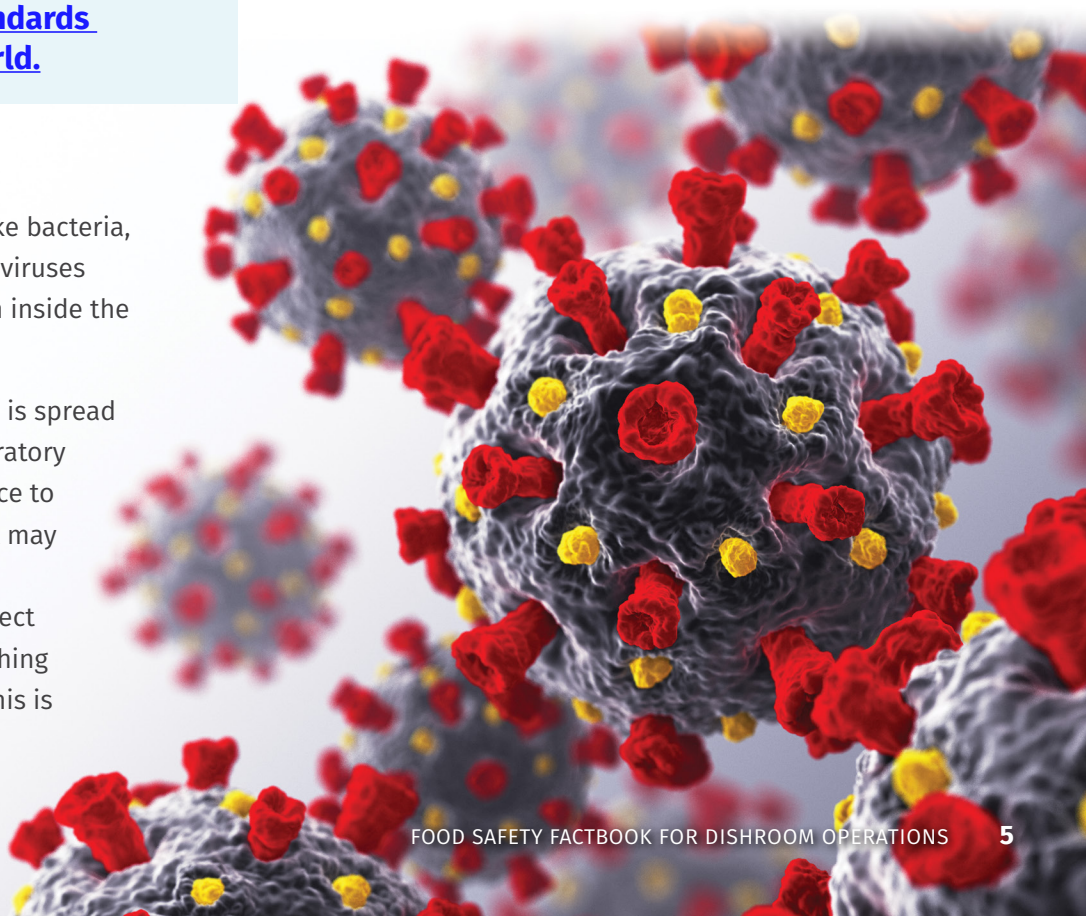
According to the CDC, the coronavirus is spread from person-to-person through respiratory droplets. Currently there is no evidence to support transmission through food. It may be possible that a person could get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes, but this is not thought to be the main way the virus spreads.

The Facts about Sanitization

Whether in the midst of a pandemic or not, it is always important to serve food on clean surfaces. **All Hobart commercial dishwashers are certified to NSF standard 3 for Commercial Warewashing Equipment.** This means that after the application of cumulative heat or chemicals on contact surfaces, there is a reduction of 5 logs, or 99.999%, of representative disease microorganisms of public health importance.

One thing to remember when considering the 5-log kill; since viruses are not considered microorganisms, it cannot be said that any NSF certified commercial dishwasher will consistently kill the SAR-CoV-2 virus. However, this does not mean that a commercial dishwasher is not capable of neutralizing the virus, only that it has never been tested for the specific pathogen. Also remember that sanitization in the dishroom is a complete process that includes pre-scrapping, pre-rinsing, drying and employee hygiene.

For the latest information on COVID-19 disease and the SAR-CoV-2 virus, please refer to the CDC coronavirus web page.



BUSTING COMMON MYTHS ABOUT SANITIZATION

Here are some common misconceptions from around the industry when it comes to understanding sanitization and what it means.

MYTH Sanitization is a one-step process.	FACT The Food and Drug Administration defines the process of sanitization as three steps: 1) washing to clean off food soil; 2) rinsing to remove detergent and any remaining soil; 3) the application of either a chemical sanitizing agent, or using a machine that reaches minimum defined temperatures in the wash and rinse cycles to achieve sanitization.
MYTH Sanitized dishes can be wiped dry and then stacked, as long as it's done promptly after washing.	FACT Once dishes are sanitized, they should always be allowed to air dry and then stacked and put away. Wiping a sanitized dish with a cloth runs the risk of introducing a source of contamination onto the dish.
MYTH With today's commercial dishwashers, prescraping is not necessary.	FACT While dishmachines do a better job cleaning than ever before, prescraping is still an integral part of the dishwashing process to ensure proper sanitization after dishes are rinsed. However, you can still reduce prescrapping time up to 20% with Hobart's exclusive ASR system.
MYTH Manual washing is just as reliable as automated dishwashing.	FACT Commercial dishwashers are designed to maintain uniform dosing of chemicals and maintenance of water temperature, for consistent cleaning and sanitization on each cycle. Three-compartment sinks rely on operators, who may fail to maintain chemical levels and water temperatures. Learn more about manual washing risks on page 9.

BEST PRACTICES FOR THE DISHROOM

Knowing the standards and understanding the facts are just the first steps in maintaining proper food safety operations in the dishroom. From there, food safety depends on having effective procedures in place. "The best practice is to have a process and policies and clear expectations for people working in that area," says Alan Risher, Sales Development Manager for Hobart's Warewashing Division. "Make sure those practices and policies are well communicated and staff have time to learn them."

Training

It's important to provide operators with the appropriate training on equipment and procedures. Hobart provides a variety of equipment training resources, including videos and wall charts linked from QR codes on the dishmachine, and training for operator behaviors and procedures is available through ServSafe, which has developed a certification exam. The person in charge of food safety at the facility should be a certified food safety manager, and training should be made available to all employees on a regular basis to make sure food safety protocols are top of mind.

Equipment Maintenance

Making sure your equipment is in proper working order is just as important as following personal safety and hygiene protocols. Be sure to train employees to use the equipment properly and recognize when there's a problem. Regular maintenance and cleaning of the dishroom and dishmachine keeps the machine running efficiently and helps ensure it provides the level of cleaning and sanitization it was designed for. Follow Hobart's recommended guidelines for cleaning and routine maintenance found in the wall charts and manuals to keep your machine running at peak performance.

Dishroom Procedures & Behaviors

Once trained, employees should have clear guidelines to follow in order to maintain a high level of food safety within the dishroom. These best practices should include:

- ❑ **Operating equipment properly following ServSafe and HACCP guidelines during dishwashing procedures.**
- ❑ **Verifying your dishmachines are operating at the required wash and rinse temperatures and with the appropriate detergents and sanitizers.**
- ❑ **Ensuring adequate detergent is delivered to the wash tank as needed.**
- ❑ **Recognizing when equipment isn't working correctly and addressing the issues or alerting of the right person.**
- ❑ **Regularly cleaning and disinfection of high-touch nonfood contact surfaces such as handles, knobs and control panels to help reduce contamination.**
- ❑ **Maintaining good personal hygiene, including covering your mouth and nose with a tissue when sneezing or coughing, then throwing the tissue away and washing your hands.**
- ❑ **Having all employees avoid touching their mouth, eyes or nose.**
- ❑ **Enforcing strict handwashing practices, making sure to wash hands for at least 20 seconds with warm water and soap.**
- ❑ **Encouraging employees to stay at home when sick.**
- ❑ **Understanding what can be sanitized through the dishmachine, including serving ware and food preparation equipment.**

DISHWASHING OPTIONS FOR YOUR OPERATION

Warewash Requirements

The FDA Food Code provides specific guidelines for temperature, detergents, sanitizer and drying when washing ware with an automated dishmachine or 3-compartment sink. When these guidelines are followed, operators can have confidence their dishes and food preparation equipment are sanitized and ready for use.

AUTOMATED DISHMACHINES

- Must be able to **automatically dispense** detergent & sanitizer.
- **Minimum wash tank temperatures** for high temperature sanitization range from 150° – 165 °F (depending on machine type).
- Minimum wash tank temperature for chemical sanitizing machines is 120°F.
- **Minimum final rinse temperature** for high temperature sanitization is 180°F.
- After cleaning and sanitizing, ware must **air-dry.**

Dishmachines automate all of these steps, providing consistent, reliable cleaning and sanitization of all your ware.

3-COMPARTMENT SINKS

- **One sink each for washing, rinsing and sanitizing,** and they must be large enough to submerge the largest equipment.
- Wash sinks require **detergent and 110°F minimum** temperature.
- Ware must be **fully submerged in a chemical sanitizer** sink for 7-30 seconds minimum, depending on the type of chemical.
- After cleaning and sanitizing ware must **air-dry**.

Manual washing relies on operators to complete each step thoroughly and in order, which may lead to inconsistent and incomplete sanitization of ware.

MANUAL WASHING RISKS

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 & the washing or rinsing steps

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

Staff incorrectly follow the wash, rinse & sanitization procedure

OUT OF ORDER

Use of an automated dishmachine provides clear advantages to food safety in the dishroom including:

- Consistent wash and rinse temperature
- Consistent dosing of detergent and sanitizer
- Complete sanitization of all ware
- High-temperature sanitization with fast drying

Other benefits of automated dishmachines include less water consumption, better efficiency and productivity, lower operating costs and the use of less space for dishroom operations.

A Hobart study of manual vs. automated dishwashing found lapses in procedures & compliance with 3 compartment sinks. Our study compared locations from the same restaurant chain, where one used an automated Hobart dishmachine and the other used a 3-compartment sink.

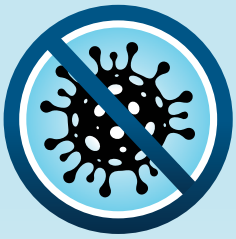
DOWNLOAD AND READ OUR CASE STUDY:

Automated vs. Manual Dishwashing: Improving Productivity & Compliance

HOBART'S FOOD SAFETY TECHNOLOGY

Hobart commercial dishwashers are designed and tested to provide unmatched confidence in your dishroom's food safety performance. In addition to being NSF certified, Hobart dishmachines come with an industry exclusive set of food safety features designed to improve wash performance, operator behaviors and cleaning and maintenance, as well as provide sanitization assurance.

SANITIZATION ASSURANCE



It's important that all of your ware is consistently sanitized, every time, on every cycle.

- **Undertemp Lockouts** prevent staff form running the dishmachine below the NSF compliant wash & rinse temperature (AM16SCB, AM16).
- **Sense-A-Temp™ Rinse Temperature Assurance** helps ensure rinse water always reaches the sanitizing temperature of 180°F, as set by NSF for sanitization (LX*e*, AM16, AMTL, PW).
- **Double Wall Door** retains heat in the dishmachine for more consistent maintenance of NSF wash temperatures (LX*e*, AM16, AMTL, CL*e*N, FT).
- **Empty Chemical Lockouts** prevent staff from running the machine without detergent or sanitizer (AM16SCB, AM16).
- **Rinse Protection** provides 20" between the wash and rinse arms, plus an added curtain, to separate the wash & rinse zones, helping prevent contamination from wash water (CL*e*N).
- **Opti-Rinse** provides maximum coverage of 180°F rinse water over the entire rack for optimal sanitization of ware (CL*e*N).
- **Low Wash & Rinse Temperature Alerts** (Programmable) let operators know if temperatures are below the NSF 180°F sanitizing rinse temp or below the NSF 160°F wash temp (CL*e*N).
- **High Temperature & Chemical Sanitizing** (High temp available on all models, chemical sanitizing available on LX*e*C, AM16, AMTL, and CL*e*N).

HOBART CLEAN WASH PERFORMANCE

Hobart dishmachines provide best-in-class cleaning so food soils are thoroughly removed from ware.

- **NSF Certified Pot & Pan Mode** cleans off tough, heavy food soils and helps ensure fully clean prep ware (All models).
- **Deluxe Strainer System** improves the quality of the wash water for better wash performance on all of your daily ware (LX*e*/LXG*e*, AM16).
- **Automatic Soil Removal** actively pumps food soil from the wash tank to keep wash water cleaner, longer, for better wash performance on all of your daily ware (AM16, CL*e*N, FT).
- **Wash Nozzle Design** provides an even, steady spray to power away food soil and provide full coverage for sanitizing every dish in the rack (all models).
- **X-Shaped Wash Arms** provide 50% more wash coverage over ware to power away even more food soils (AM16, PW).

OPERATOR BEHAVIOR

Training materials & operational safeguards help ensure staff follow correct procedures and deliver clean, safe ware every time they wash.

Undertemp Lockouts help ensure sanitization by preventing staff form running the machine below the correct wash & rinse temperature (AM16SCB, AM16).

Dirty Water Lockout (Programmable) prevents operators from washing with dirty, contaminated water (CL*e*N).

Door Lock helps prevent operators from short cycling the unit and running incomplete sanitization cycles (LX*e*, AM16).

Empty Chemical Lockouts help ensure sanitization by preventing staff from running the machine without detergent or sanitizer (AM16SCB, AM16).

Low Chemical Notification alerts operators when chemicals are low, reminding them to add new chemical to maintain cleaning & sanitization (LX*e*, AM16, PW).

Low Wash & Rinse Temperature Alerts (Programmable) let operators know if temperatures are below the NSF 180°F sanitizing rinse temperature or the NSF 160°F wash temperature (CL*e*N).

Digital Controls w/Temperature Display help operators know that the dishmachine is meeting sanitization guidelines (all models).

Training Materials including wall charts & videos, are easily accessible and support proper care & operation of the dishmachine for reliable cleaning & sanitization (all models).

Remote Monitoring Interact with over 25 dishmachine data points through IoT dashboards to monitor and enhance machine performance, operating procedures, and sanitization compliance (LX*e*, AM, PW, CL*e*N). AM16 and AMTL can also connect with the free Smart Connect app via onboard WiFi.

CLEANING & MAINTENANCE

Regular cleaning and preventative maintenance ensure your dishmachine maintains sanitization and wash performance.

Auto Clean sprays the inside with a short rinse cycle at shutdown to help remove any residual food soil and maintain the dishmachine's performance (LX*e*, AM16, FT).

Dirty Water Lockout (Programmable) prevents operators from washing with dirty, contaminated water (CL*e*N).

Self-Cleaning Wash Arm Nozzles with a debossed design help prevent blockage from food debris (LX*e*, AM16, PW).

Auto Delime/Delime Notification helps provide consistent deliming of the booster & the wash chamber to prevent lime scale buildup that can interfere with washing and sanitization (all models).

Deep Drawn Tank & Smooth Surfaces help with flushing food soils to the strainer basket, reducing food soil build-up within the machine that can interfere with performance (all models).

Delime Lockout prevents operators from overriding the delime notification, helping ensure staff delime the machine at the appropriate intervals (PW).

Wash Water Change Notification reminds the operator when it's time to dump & fill the unit with fresh wash water, which helps maintain wash performance and proper sanitation (PW).

Snap-in/Snap-out Wash & Rinse Arms are user-friendly & allow operators to quickly & easily remove and replace arms for cleaning (LX*e*).

ADDITIONAL RESOURCES

CERTIFIED HOBART CLEAN

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

Learn more at HobartClean.com

CDC: For the latest information on COVID-19 disease and the SAR-CoV-2 virus, please refer to the CDC coronavirus web page

NSF: Food Equipment Standards in a COVID-19 World

NRA: Guidance for Restaurants Reopening

Food Safety Resources

FDA: Best Practices for Retail Food Stores, Restaurants, and Food Pick-Up/Delivery Services During the COVID-19 Pandemic

2017 Food Code

Hobart Blog: Read more about food safety and other dishroom topics

For more information about Hobart Commercial Dishwashers, visit Hobartcorp.com

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