



# GLASS WASHING GUIDE

EFFICIENT - RELIABLE - INNOVATIVE





## 1. YOUR EXPERT IN GLASS WASHING



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## 1.1 CAPABILITY MADE IN GERMANY

HOBART is the world's leading commercial warewash equipment manufacturer, with products that have become a byword for top quality and reliability created in close consultation with you, our customer. Apart from tens of thousands of equipment installations and satisfied customers, the Made in Germany label is an unbeatable sign of quality across the range – from compact glasswashers to large-scale flight-type dishwashers.

A clean and shining glass reflects your business in more ways than one – a first impression that will last amongst your customers. This guide to glass washing includes information, tips, and tricks that will help you to bring a shine to your glassware... and your image.

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**HOBART BENEFITS**





## 2. WHY USE A MACHINE TO WASH YOUR GLASSWARE?



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## 2.1 MACHINE-WASHING IS MORE HYGIENIC

Machine-washing removes a significantly larger number of germs than hand-washing, thus reduces health risks for your guests.

- The result depends on temperature, water quality, time and detergent (chemicals). Dishwashers and glasswashers match up these factors to ensure a perfectly hygienic result.
- The German standard „DIN 10511“ defines the hygienic requirements on commercial glasswashers and the wash result.

- After a single day, a dishtowel used in catering has around 150.000 germs.
- Germany's Federal Institute for Risk Assessment (BfR) has determined: „Washing using cold water and disinfectant does not give consumers adequate protection from germs.“
- Washing and polishing by hand increases the risk of infection with noroviruses, salmonella, e-coli and streptococci.

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### YOUR HOBART BENEFIT

HOBART glasswashers fulfil the requirements set by DIN 10511 standard on hygienic results.

## 2.2 | MACHINE-WASHING SAVES YOU ENERGY, WATER AND CHEMICALS

An independent study proved, that machine-washing saves water, chemicals and labour costs as well as the costs of replacing broken glasses and other dishware by around 25% compared to hand-washing.

Machine-washing uses up to 30% less energy than washing by hand.

### 2 | YOUR HOBART BENEFIT

Apart from the effect of using glasswashers in general, HOBART glasswashers give you innovative technology such as effective filtering systems for perfect wash

results and saving even more energy than conventional equipment.

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## WHY?

Each glass needs to be rinsed with hot water. This means: You need more hot water in total – and therefore more energy – than in a specialised glasswasher.

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## YOUR HOBART BENEFIT

HOBART glasswashers with innovative technology such as optimized nozzle geometrics save even more water

and chemicals, cutting your operating costs in the process.





**3. WHAT ARE THE MOST IMPORTANT FACTORS IN WASHING GLASSWARE?**



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## 3.1 | WASHING – A CIRCULAR CONCEPT

Chemical engineer Dr. Herbert Sinner defined the four decisive factors in hygienic dishwashing: temperature, time, chemicals and mechanics. Water quality is also a crucial factor when washing glass.

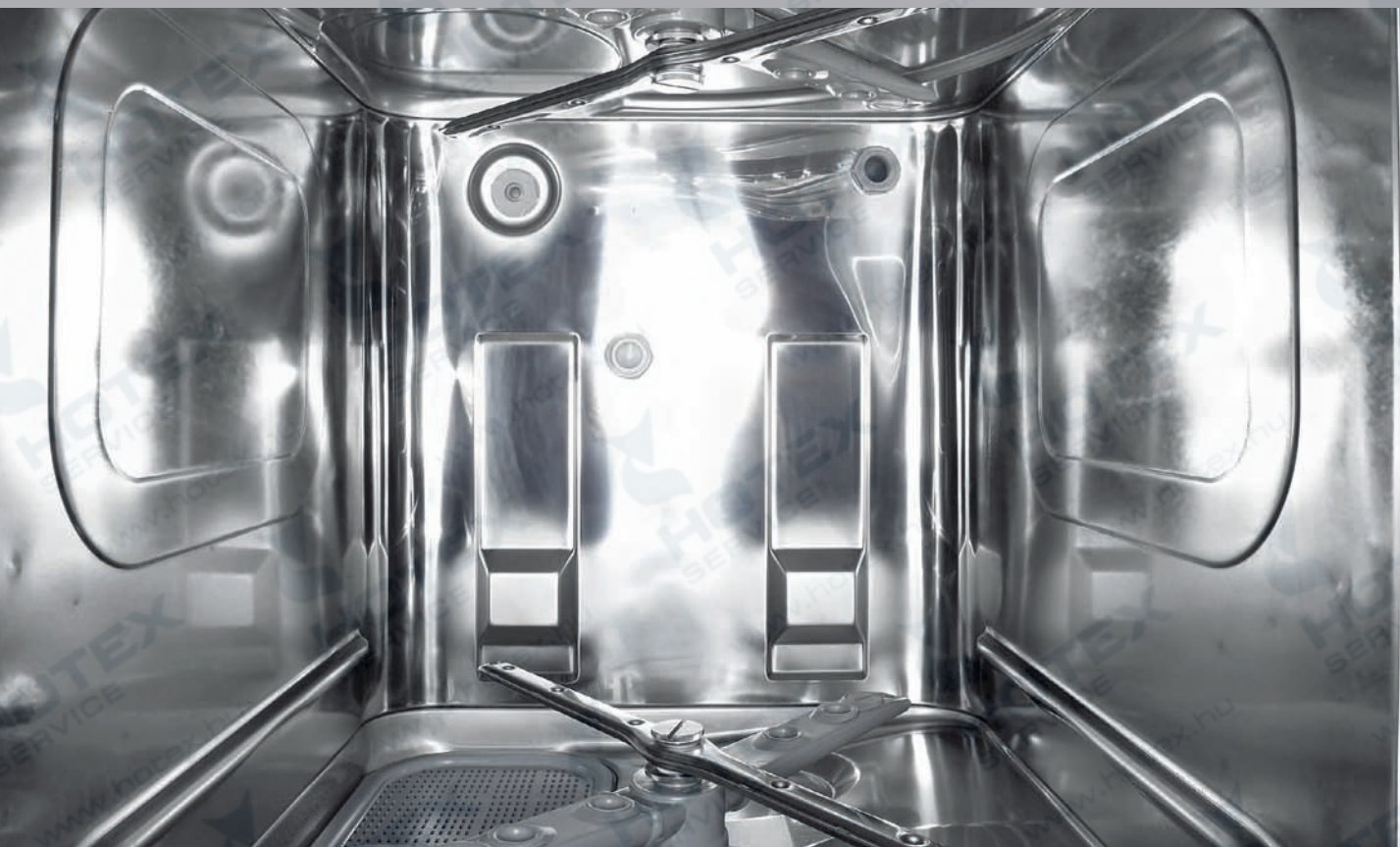
These factors are presented as a circle to emphasize that one factor may compensate for another. As an example, you can reduce the amount of chemicals by increasing temperature. Naturally, there are limits to this, as temperatures set too high could break glasses.

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### YOUR HOBART BENEFIT

HOBART glasswashers optimize the individual factors in the circle in order to reach a perfect and hygienic wash result.

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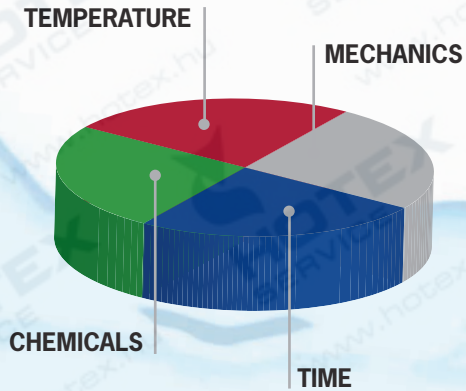


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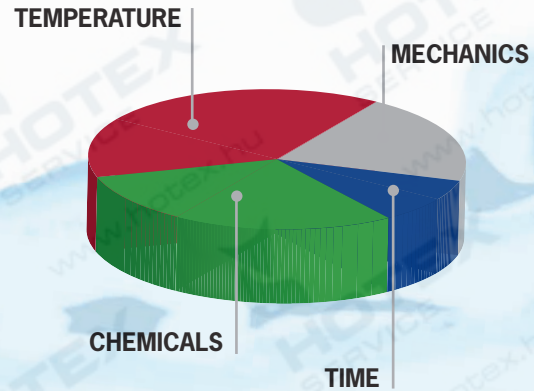
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## 3.1 WASHING - A CIRCULAR CONCEPT

WASHING FACTORS



WASHING FACTORS IN HOBART GLASSWASHERS





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## 3.2 | THE RIGHT TEMPERATURES

The ideal glass-washing temperature is around 55°C for washing, and 60-70°C for rinsing.

### WHY?

The higher the temperature, the more effectively detergents work. If the temperature in the machine is set too low, dirt cannot be removed and glassware disinfected properly. Temperatures set too high may corrode or break glasses, while shortening the lifespan of glass decoration.

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### YOUR HOBART BENEFIT

The ECOTHERM heat element you will find in HOBART glasswashers keeps the detergent solution at a constant 55°C, even under constant use. Detergents work at their

highest level of efficiency at this temperature, ensuring ideal washing and drying results on a continuous basis while protecting your glassware.

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## 3.3 | THE RIGHT WASHING TIME

Time is a rare commodity in catering – every minute counts, especially at peak times. A wash cycle of around 60 seconds may be enough to wash a rack of 25 glasses.

### WHY?

Glasswashers coordinate temperature, chemicals, and mechanics to reduce washing times to a minimum.

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### YOUR HOBART BENEFIT

HOBART glasswashers with the rinse system ACCURINSE, integrated dosing technology and FAN wide-angle nozzles give you an ideal wash result in an extremely short time –

and your glassware is ready for use as soon as possible.



## 3.4 | THE RIGHT CHEMICALS

Hygienically clean and gleaming glasses depend on the right detergent and rinse aid in the right doses.

### WHY?

Special detergents for glasses contain active ingredients and components that protect the surface of the glass while optimising the cleaning effect. Both detergent and rinse aid contribute to a perfectly hygienic wash result.

## 7 YOUR HOBART BENEFIT

The integrated detergent dispenser optimise energy consumption by keeping dosage constant, preventing fluctuations. The GENIUS-X<sup>2</sup> fine filter system equipped as standard starts pumping accumulated coarse soil out of the machine after a few seconds. This reduces the

amount of soil in the wash water, and therefore also the amount of water needed to keep the wash water clean and fresh – which reduces detergent consumption.



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## HOBART RECOMMENDS:

- Match your detergent exactly to your rinse aid.
- Observe the dosing instructions – underdosing will worsen your wash result and shorten the life of your glassware; overdosing will not have any positive effect on your wash result, but is more costly and releases more pollution to the environment.
- Have a qualified expert determine the right dose while your machine is being installed.
- Use only chemicals specialised for cleaning glass.
- Acidic and chlorinated cleaning agents may take the shine off your glasses and damage any glass decoration.

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## 3.5 | THE RIGHT MECHANICS

Along with temperature, chemicals and time, mechanics and washing pressure play a key role in the cleaning result.

### WHY?

You will need the right water pressure to lift and wash away residues such as dried fruit pulp and milk foam from the glass surface.

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### YOUR HOBART BENEFIT

HOBART glasswashers are equipped with the ROTOR wash system to spread the detergent at ideal pressure throughout the machine's interior. The patent pending FAN wide-angle nozzles distribute the water at ideal

pressure onto the surface of your glassware. The double washing mechanics and additional upper wash arm also allow you to wash cafeteria dishware and cutlery.

## 3.6 | THE RIGHT WATER QUALITY

The quality of the water used for washing plays a major role in the wash result.

### **WHY?**

A droplet of water consists of various components – minerals and salts, carbonate hardeners, non-carbonate hardeners and so on. Spotless washing requires that no minerals or salts are left behind when

the water runs off the glass surface. These minerals are part of the whole salt content in the water, and are measured in  $\mu\text{S}/\text{cm}$ . Ideally, the water is prepared for washing to reduce or completely eliminate the total salt content. Therefore partial or full demineralisation cartridges are used.



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## HOBART RECOMMENDS

- To ensure spotless glassware, the total mineral content in water should not exceed 100 µs/cm. Depending on your local water supply you may need to fit a partial or full demineralisation cartridge into your water supply to the machine.
- Water-softening units may prevent calcium scale and protect machine components such as the heating element or wash arm. But they do not reduce the mineral concentration in the water, and are of no use in reaching a spotless rinsing result.



#### 4. WHY ISN'T GLASS JUST GLASS?

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## 4.1 | GLASS IS A HIGHLY VERSATILE MATERIAL

Various types of glasses may have different properties, and can react differently to temperature, pressure and chemicals depending on the composition involved.

### WHY?

- The glass surface will either be finely or coarsely pored, depending on its constitution. This has a major influence on the durability of the glass.
- Coarsely pored glass has a larger area for minerals to accumulate in. This may result in glass corrosion, giving you clouded glasses.
- Some glasses such as large-bowled red-wine glasses are often subject to heavy tension, and may shatter if subjected to sudden temperature fluctuations.

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### YOUR HOBART BENEFIT

The ideal temperature parameters in HOBART glasswashers are set for washing and rinsing glassware,

preventing temperature fluctuations and washing every type of glassware in the gentlest possible way.

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## 4.2 MOST GLASSES ARE SUITABLE FOR MACHINE WASHING

Glassware is only suitable for machine washing if certain preconditions are met.

### WHY?

According to the German standard DIN 10511, a glass is only suitable for machine washing if it survives 500 machine programme cycles without any visible damage. Glass decoration is more sensitive, and has to undergo at least 250 program cycles without heavy discoloration.

DIN 10511 recommends the following shapes and surfaces for hygienically safe rinsing results:

- Smooth, dense surfaces
- Wide openings
- No thickened rims
- No indentations
- No heavily deepened dips at the base
- Stability when placed upside-down
- Glass mass as low as possible

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### YOUR HOBART BENEFIT

Compared to washing by hand, HOBART glasswashers give glassware more protective conditions, thus

extending the lifetime of sensitive or decorated glassware.

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**5. CAN YOU USE A BEER GLASS RIGHT AFTER WASHING?**



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## 5.1 ONLY IF THE GLASS HAS COOLED DOWN IN THE MACHINE

After conventional washing in a glasswasher the glasses cannot be used straight away.

### WHY?

- The beer glasses will still be warm and need to be cooled down separately.
- Beer only develops its full taste after being poured into a cold glass.

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### YOUR HOBART BENEFIT

HOBART glasswashers are equipped with HOT&COLD rinsing. The COLD rinse cools beer glasses down to allow you to use them again straight away. This gives your beer a steady, finely porous foam and keeps the beer cool

– at its most enjoyable. HOT rinsing improves self-drying in cafeteria dishware. HOT&COLD rinsing can be set for immediate effect at the push of a button without waiting time.



## 6. GENERAL TIPS ON WASHING GLASSWARE



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## 6.1 | WHY DO GLASSES SOMETIMES HAVE AN UNPLEASANT SMELL?

Unpleasant smell in the glass will always put you off your drink. The following tips will help you avoid the problem:

- Do not place glasses upside-down on moist dishtowels.
- Do not store glasses in rooms where the cooking is done.
- Do not store the glasses in closed wooden cupboards.
- Store glasses with the opening facing upwards to help the air inside the glass circulate.
- Make sure you have the detergent and rinse aid correctly dosed. Overdosing may lead to smell formation in glassware.

## 6.2 | HOW DO YOU REACH THE BEST POSSIBLE WASH RESULT?

- Wash glasses immediately after use, before residues can dry on the surface.
- Do not dry or polish glasses by hand. Even supposedly clean kitchen towels may have bacteria and other germs that may give you a less hygienic wash result.
- Use racks with slanted positioning. This prevents water from collecting in the glass, water that might drop onto other glasses as you take the glass out.
- Remove cocktail decorations or remains of drinks before you put the glass onto the rack. Avoid unnecessarily soiling the wash water, which will worsen the final result.
- New glasses are protected by a special protective coating. Remove this coating in a basis cleaning before the first wash. The water will then be able to run off the glass without leaving a residue. Contact your chemicals supplier for a suitable detergent.

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## 6.3 | HOW DO I AVOID BREAKAGE?

- Wash the glasses in the glass racks supplied for the purpose.
- When loading the racks, make sure that the glasses
  - are in a stable position
  - do not touch
  - and cannot clash against one another during the wash.
- Avoid overloading the racks.
- Avoid polishing. Most breakage occurs from hand-polishing.
- Use the glass racks intended for storing and moving glasses.

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## 6.4 | HOW CAN I MAXIMIZE MY MACHINE'S LIFE TIME?

Appropriate cleaning, servicing and sensible operation will help to keep your glasswasher in service for many years while achieving a long-term maintenance of value.

- Consult the operating manual on operating, cleaning and servicing your glasswasher.
- Give your staff full training as to how to prepare the water and use the machine.

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**WE'RE HAPPY TO HELP.**

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## CONTACT OUR SPECIALISTS OR YOUR DEALER ON THE FOLLOWING TOPICS:

- Correct water preparation
- Rack program ideally matched to your glasses
- Training in operating and cleaning your glasswasher

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WAREWASHING

COOKING

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WASTE TREATMENT

SERVICE

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The details given in this leaflet are correct as of 09/2009.  
We reserve the right to technical or design modifications.

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