

Removing biological fluids from laboratory glassware

General Description

All cleaning involves one or more processes: direct mechanical energy such as scrubbing or spraying, use of chemicals, heating, and time. Ultrasonic energy, a form of mechanical energy, generates controlled, high-magnitude pressure fluctuations in liquids that produce a consistent, high level of cleanliness in a short amount of time. Ultrasonic cleaning also is able to penetrate minute crevices that conventional methods cannot, and by incorporating digital controls, more consistent, repeatable precision cleaning is possible.

How to Clean Glassware

- Fill the tank with the proper chemistry and program optimal operating temperature.
- Ensure the glassware to be cleaned does not trap any air. If all surfaces are not wetted with liquid, the ultrasonic energy won't be fully effective.
- Activate the ultrasonic energy by turning the system on.
- When the cycle ends, remove the cleaned glassware and ensure it is completely drained and free of all soils.

How to Rinse Glassware

- Rinse with Deionized (DI) water
- Ensure the glassware to be rinsed does not trap any air.
- Dry the part by evaporation, air-drying, or blowing air across the part.



Equipment Recommendation

An appropriately sized Bransonic® Model CPXH is a highly effective tool for cleaning laboratory glassware. Among its capabilities, the Model CPXH offers many features:

- Self-adapting technology for maintaining consistent acoustic energy throughout the bath with varying load sizes.
- High/low power option ensures that more fragile, delicate glassware is not damaged.
- Temperature settings available in Celsius or Fahrenheit.
- Complete programmability of the process steps, allowing for cleaning consistency by all operators with no manual adjustments needed.

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Recommended Glassware Cleaning Process

The chart below indicates recommendations for precision cleaning laboratory glassware using the Branson Model CPXH ultrasonic cleaning unit.

Process Stage	Chemical	Ultrasonic Frequency (kHz)	Handling	Temp. (°F)	Dwell Time (minutes)
WASH	10% Branson OC	40	basket	140	5
RINSE	DI water	N/A	basket	warm	N/A
DRY	filtered compressed air	N/A	manual	ambient	until dry

Through the use of the Model CPXH you are assured of the same level of cleanliness every time, using a preset configuration of the process steps programmed by the engineer. The process requires only that the operator place the glassware to be

cleaned into the bath with a 10% solution of Branson Optical Cleaner (OC), and start the automatic program. There's no need for brushing or manual washing with the Branson CPXH ultrasonic cleaner.

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