White Paper

Cleaning and Maintaining Stainless Steel

Bath Reservoirs, Wetted Components, and Test Tube Racks in Water Baths and Constant Temperature Circulators

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Stainless steel is the material of choice for bath reservoirs, wetted components, and test tube racks in water baths and constant temperature circulators because of its corrosion resistance and durability. Proper cleaning and maintenance preserve that resistance and extend the service life of the equipment. This guide outlines recommended cleaning methods, materials to avoid, and ongoing maintenance practices.

Cleaning Stainless Steel

Cleaning stainless steel is straightforward. Wash with a mild soap or detergent—low-foaming formulas are recommended—and warm water.

If mineral deposits have accumulated, try soaking the affected surface at a slightly elevated temperature (60°C / 140°F). If soaking does not loosen the deposits enough to remove them, use a stainless steel cleaner containing oxalic acid. This may sound harsh, but oxalic acid is a naturally occurring organic compound found in plants.

Wipe or scrub in the direction of the grain to avoid scratching the surface. The grain lines are not always visible. To find them, rub a soft cloth across the surface both horizontally and vertically—you should feel a slight resistance, or “pull,” when rubbing against the grain.

After cleaning, rinse thoroughly with clean water.

> **IMPORTANT**
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> Do not use steel wool or other abrasive scrubbers, or abrasive cleaners. These can scratch the finish of the stainless steel, and small particles can become lodged in the surface, leading to rust. Sponges and plastic scouring pads are good cleaning companions, and soft cloths such as microfiber are gentler on stainless steel.

Maintaining Stainless Steel

Clean stainless steel components often enough to prevent scale and mineral deposits from forming in the first place. Following the cleaning steps above on a regular basis is the most effective way to keep bath reservoirs, wetted components, and test tube racks looking and performing their best over the long term.

This document is provided as general guidance for the care of stainless steel bath reservoirs, wetted components, and test tube racks used with water baths and constant temperature circulators.