



Stainless Steel Equipment: CARE & MAINTENANCE GUIDE

Stainless steel is a staple in commercial spaces like kitchens, bakeries, and bars—thanks to its durability, easy maintenance, and sleek appearance. Stainless steel equipment (including work tables and sinks) stays in top condition with proper care. This guide breaks down everything you need to know to clean, protect, and repair your equipment for long-lasting use.

1. Understanding Stainless Steel Types

Two common stainless steel series are used in food service, each with unique properties. Knowing the difference helps tailor your care routine:

Series	Key Composition	Core Traits	Best For	Magnetism
300 Series (e.g., 304)	Chromium + Nickel	Superior corrosion resistance; easy to form/fabricate; widely available	Most food service applications (exposed to moisture, frequent cleaning)	Non-magnetic (high austenite content, despite iron presence)
400 Series (e.g., 430)	Chromium only	Lower corrosion resistance than 300 series	Interior-only use (less exposure to harsh conditions)	Magnetic (magnetization strength varies)

*Note: Both series contain 70-80% iron, so they are **susceptible to rust** without proper care.*

Stainless steel's rust resistance comes from a thin chromium oxide layer on its surface. Preserving this layer is critical to avoiding damage.

2. General Cleaning Principles (For Best Results)

Always follow these foundational rules before cleaning—they prevent scratches, water spots, and corrosion:

- Clean when the equipment is **cool to the touch** (avoid cleaning hot surfaces).
- Use **clean, non-gritty water** (dirty or hard water leaves spots/brown stains).
- Rinse with clean water after cleaning to eliminate water marks.
- Dry immediately with disposable wipes or an air blower.
- Clean **with the grain** (stainless steel has visible directional lines—scrub/wipe parallel to them to avoid scratching).
- Use clean gloves or cloths to handle equipment (prevents finger marks and stains).

3. Safe Cleaning Tools & Solutions

3.1 Recommended Tools

Stick to non-abrasive, scratch-free tools:

- Soft cloths or microfiber towels
- Sponges
- Plastic scouring pads (or 3M 200 non-scratch pads for tougher jobs).

3.2 Cleaning Solutions (By Need)

Choose the right solution based on the mess—start with mild options first:

Cleaning Goal	Recommended Solutions	How to Use
Mild stains/loose dirt	Warm, soapy water	Wipe with a soft cloth; rinse and dry to avoid spots
Routine cleaning	Warm soapy water or water-based stainless steel cleaner	Apply with cloth, sponge, or 3M 200 pad; follow with rinsing/drying
Fingerprints/smears	Soapy water, water-based stainless steel cleaner, Formula D, or Bar Keepers Friend	Use 3M 200 pad; leaves a protective barrier film
Stubborn stains/discoloration	Soapy water, water-based stainless steel cleaner, Formula D, or Bar Keepers Friend	Rub <i>with the grain</i> (polish lines) to avoid damage
Grease, fatty acids, blood, or burnt-on food	Soapy water, water-based stainless steel cleaner, Formula D, Bar Keepers Friend, or a degreaser	Apply with cloth, sponge, or 3M 200 pad; ensure full removal to prevent buildup
Sanitization	Ready-to-use sanitizer that won't damage stainless steel	Use as directed—safe for food service equipment

Solvent Note: For tough residues, use chlorine-free solvents like acetone, methyl alcohol, or mineral spirits.

3.3 Products to NEVER Use

These items damage the chromium oxide layer or scratch the surface:

- **Chloride-based cleaners (e.g., bleach):** Cause pinholes in the metal.
- **Sharp objects (e.g., knives, scrapers):** Puncture the surface, leading to rust.
- **Onion/olive juice:** Triggers a galvanic reaction that creates pinholes.
- **Abrasive scouring pads (non-3M):** Scratch the surface, trapping moisture.
- **Hard/gritty water:** Leaves mineral deposits that break down stainless steel over time.

4. Rust Prevention & Removal

4.1 How to Prevent Rust

- **Control the environment:** Avoid high temperatures, humidity, chloride-rich areas (e.g., near salt), oxygen-depleted spaces, or outdoor use (accelerates rust).
- **Avoid scratches:** Indentations trap moisture—use proper tools and handle equipment carefully.
- **Clean regularly:** Wipe down after each use to remove food buildup; polish to preserve the chromium oxide layer.
- **Use alkaline cleaners:** These protect the surface without damaging the metal.

4.2 How to Remove Rust

If rust appears, use this gentle, non-abrasive method:

1. Mix 1 tablespoon of baking soda into 2 cups of water.
2. Dip a toothbrush in the solution and scrub the rust stain (baking soda won't scratch the grain).
3. Rinse the area with a wet paper towel—rust will transfer to the towel.
4. Dry the surface immediately to prevent new rust.

5. Scratch & Dent Repair

Regular wear may cause small scratches or dents—both are easy to fix:

5.1 Fixing Scratches

1. Prep the surface: Clean with water-based stainless steel cleaner or soapy water to remove dirt.

2. Buff the scratch:

Start with a coarse buffing tool (e.g., maroon 3M abrasive pad—3M pads are color-coded for grit). Use a wood block behind the pad for even pressure, and buff with the grain until the scratch fades.

Switch to a less coarse pad (e.g., gray 3M pad) and repeat to smooth the area.

3. Clean up: Wipe the surface with a damp microfiber cloth to remove residue.

5.2 Fixing Dents

Try these methods in order (start with the easiest):

1. Push-out method: Push the dent from behind with firm pressure (use a rubber mallet if needed). If stuck, pour hot water on the dent to loosen the metal, then try again.

2. Plunger method: For dents in the middle of equipment: Cover the area with water (to improve suction), push the plunger down fully, then pull up—suction will lift the dent.

3. Dent remover kit: Use a stainless steel-specific kit (available at hardware stores) for stubborn dents.