traceCLEAN

Automated Acid Steam Cleaning System

MILESTONE
HELPING CHEMISTS

ENVIRONMENTAL

LOWER DETECTION LIMITS
FOR TRACE METALS ANALYSIS
THROUGH EFFICIENT CLEANING

ADVANCED CLEANING TO ENSURE HIGH-QUALITY TRACE METALS ANALYSIS

In environmental metals analysis, having clean glassware, system components, and digestion vessels is of paramount importance. This makes the cleaning process a pivotal step in the trace metals analysis workflow. It directly impacts data quality and blank values and therefore, the ability to have confidence in the data. At the same time, it is often a tedious, risky, and time-consuming step. Typical cleaning procedures involve either acid baths, acid rinsing into sinks, or a microwave method to clean digestion vessels, glassware, and ICP accessories. These approaches limit productivity, effectiveness, and efficiency. The acid steam cleaning process of the Milestone traceCLEAN ensures no cross contamination, leads to lower blanks, and improves your detection limits, without compromising throughput, all with improved safety.

- SUPERIOR CLEANING EFFICIENCY
- FULLY AUTOMATED & SAFE
- IMPROVED WORKFLOW
- SUITABLE FOR MANY COMPONENTS

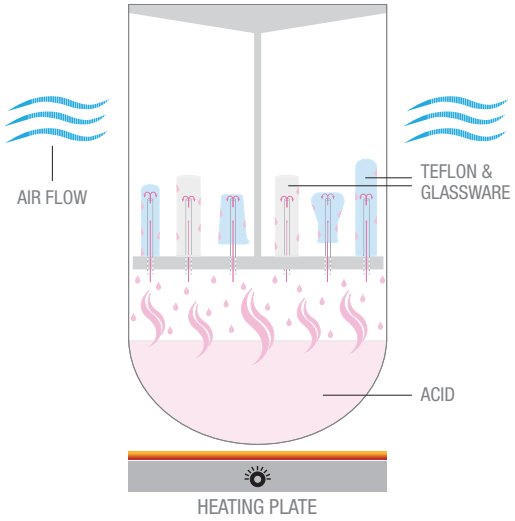
MAXIMIZED
CLEANING EFFICIENCY FOR HIGHER PRODUCTIVITY

SUPERIOR CLEANING EFFICIENCY

Traditional cleaning methods involving acid baths or soaks require several hours and occupy valuable space in a fume hood, all while the items to be cleaned are sitting in a potentially contaminated acid solution. The traceCLEAN process ensures greater cleaning efficiency through freshly distilled hot vapors of nitric acid that leach metal contaminants from the items to be cleaned.

IMPROVED WORKFLOW

Using a microwave system to clean digestion vessels occupies the system during the process and requires a significant amount of labor, creating an unnecessary bottleneck. The automated cleaning process with traceCLEAN takes about one to two hours, enhancing the overall lab workflow. Digestion vessels, ICP accessories, volumetric flasks, and other glassware can be cleaned, even multiple times during a day.



traceCLEAN, automatic acid steam cleaning scheme

FULLY AUTOMATED & SAFE

traceCLEAN operation is very straightforward: place the items to be cleaned in traceCLEAN, using the rotating design of the holder, which simplifies the introduction and removal of all items. Select the program or create a new one and press “Start” on the touch screen terminal.

FLEXIBLE TO MEET ALL YOUR NEEDS

traceCLEAN can be set up using multiple configurations, allowing the cleaning of volumetric glassware, ICP and ICP-MS components, digestion vessels, and any other nitric acid-compatible labware. Note: The system is specifically designed to be used with nitric acid.

SIMPLE TO MAINTAIN AND USE

The traceCLEAN system operates using approximately 700 mL of reagent grade nitric acid in its reservoir. During the steam cleaning technique used in the traceCLEAN, ultra-high purity acid steam is generated and refluxes inside the vessels to be cleaned. The acid then condenses as the system cools and can be used repeatedly for approximately 3 months before replacement. Acid replacement is automated and virgin nitric acid is pumped into the traceCLEAN reservoir for the cleaning process.

CAT401ENVEN-001 • 2024-02

MILESTONE
HELPING CHEMISTS

MILESTONE Srl - Via Fatebenefratelli, 1/5 - 24010 Sorisole (BG) - Italy
Tel: +39 035 573857 - Fax: +39 035 575498
www.milestonesrl.com - email: analytical@milestonesrl.com

MILESTONE INC. - 25 Controls Drive - Shelton, CT 06484 - USA
Tel: (203) 925-4240 - Toll-free: (866) 995-5100 - Fax: (203) 925-4241
www.milestonesci.com - email: mwave@milestonesci.com

MILESTONE GENERAL K.K. - KSP, 3-2-1, Sakado - Takatsu-Ku,
Kawasaki 213-0012 - Japan - Tel: +81 (0)44 850 3811 - Fax: +81 (0)44 819 3036
www.milestone-general.com - email: info@milestone-general.com

MLS GmbH - Auenweg 37 D-88299 Leutkirch im Allgau - Germany
Tel: +49 (0)7561 9818-0 - Fax: +49 (0)7561 9818-12
www.mls-mikrowellen.de - email: mws@mls-mikrowellen.de