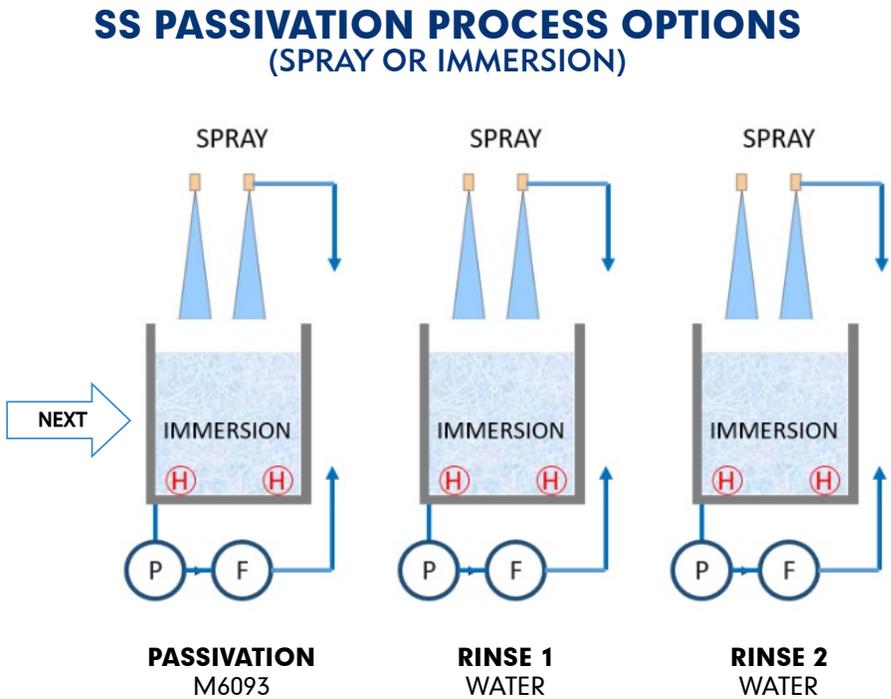
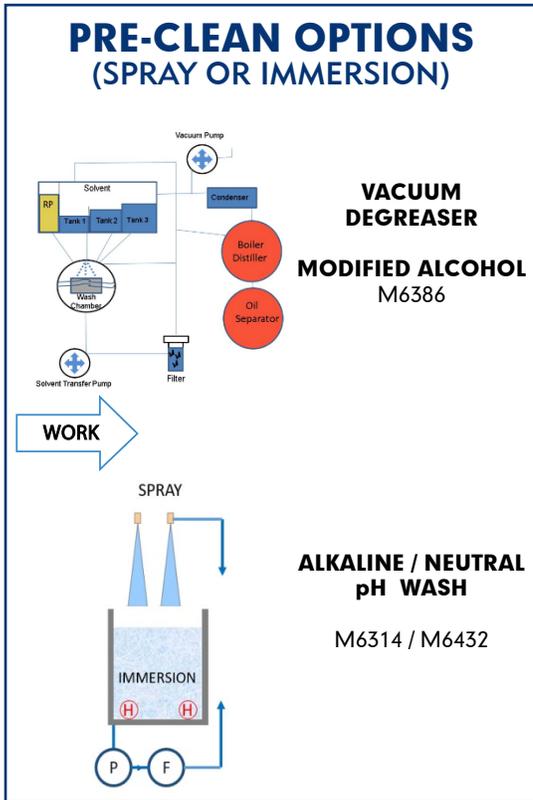


BENEFITS OF STAINLESS STEEL PASSIVATION



BENEFITS OF KYZEN PASSIVATION PRODUCTS

- ✓ Safe and effective replacements for nitric acid passivation
- ✓ Excellent EH&S properties versus nitric acid passivation
- ✓ Designed for all grades of stainless steel, including both 300 and 400 series
- ✓ Effective products for removal of free iron, iron oxide, carbon smut, and oil/coolant
- ✓ Specification Compliant with ASTM A967, A380, and AMS 2700



Note: Parts may be racked for maximum exposure/best results. Exposure time/temperature/concentration/spray pressure must be optimized for cleaning and passivation processes. A typical passivation process is 25% M6093 / 140-150°F (60-65°C) / 5 minutes. Other processes can be used which incorporate concentrations from 5 to 50%, along with varying cycle times and temperatures. Additional rinses may be beneficial based on the process requirements. The final rinse should be with clean water at <200 ppm, or <400 μS (microSiemens).

THE STAINLESS STEEL PASSIVATION PROCESS

Passivation, unless otherwise specified, is defined as the chemical treatment of stainless steel with a mild oxidant, such as a citric acid solution, for the purpose of the removal of free iron, or other foreign matter.

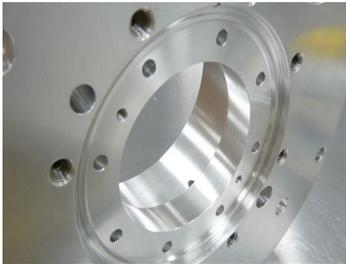
Citric acid passivation treatment of stainless steel is intended to improve the corrosion resistance of parts made from stainless steels of all types.

The formation of the protective passive film on a stainless steel, also called passivation, will occur spontaneously in air when the stainless steel surface is free of oxide, free iron, and other contaminants. After passivation with this process, parts are rinsed in clean water, and no further chemical treatment is required.

THE KYZEN "EDGE"

Safe cleaning chemistries are important to companies as they want to ensure that the cleaning fluids being used are safe not only for workers, but also for the environment. KYZEN products continue to meet these needs as our chemistries offer high performance cleaning while remaining eco-friendly.

TYPICAL PASSIVATION APPLICATIONS



Machined



Medical Instruments



Watches/Jewelry



Automotive



Tanks



Fasteners



Aerospace



Pipe/Tubing

TYPICAL PASSIVATION SYSTEMS



Passivate/Rinse/Rinse/Dry



Clean/Rinse/Passivate/Rinse/Rinse/Dry

APPLICATION LAB SERVICES

The KYZEN technical team is composed of seasoned, professional cleaning experts. Our unmatched technical resources are used by and available to our customers and partners to identify and/or verify required cleaning processes for their individual needs. This ensures that the results meet expectations without interrupting your production lines. Our goal is to make your process the best it can be!



WHAT WE OFFER

KYZEN's METALNOX® products are specifically formulated for removing tough soils and cleaning metal parts used in the Metal Finishing, Industrial and Tooling industries. All of the products described below are low foam and can be used in both immersion and spray passivation equipment. Be sure to contact us if you have any questions about our products. We are always happy to help.

BEST PERFORMING PRODUCTS

METALNOX® M6093

M6093 is a citric acid formulation designed to remove free iron and iron oxide during the passivation of stainless steel. M6093 contains no mineral acids, and, offers many worker-safety advantages. M6093 complies with ASTM specifications for stainless steel passivation.

METALNOX® M6095

M6095 is a passivation formulation based on mild organic acids and chelation. M6095 is designed to remove free iron and iron oxide from stainless steel and other ferrous metals. With a near – neutral pH (6.1), M6095 is safe for lower chromium grades of stainless steel such as austenitic 400 grades.

METALNOX® M6094

M6094 is a citric acid formulation, plus added detergent, for applications where cleaning and passivation are required in the same process. M6094 is designed to remove free iron and iron oxide during the passivation of stainless steel. M6094 contains no mineral acids, and, offers many worker safety advantages. M6094 complies with ASTM specifications for stainless steel passivation.

METALNOX® M6432

M6432 is a neutral pH cleaning chemistry designed to be effective on a variety of industrial soils including oil, grease, light oxides and buffing compounds. This product is an excellent choice for pre-cleaning prior to passivation. It is a highly effective cleaner, and is safe for people and the environment.

ADDITIONAL PRODUCTS FOR CONSIDERATION (BASED ON APPLICATION)

METALNOX® M6386

M6386 is a modified alcohol-based solvent cleaning blend designed to clean a wide range of polar and non-polar oils as well as coolants, from steel, brass, aluminum and all other metals. This safe solvent is designed for vacuum degreasing systems.

KYZEN® CP90SA

CP90SA is a long-term corrosion protection product proven effective in preventing rust or oxidation on all ferrous parts in the most humid environment, even during ocean freight shipment. Excellent for protecting mild steel and 400 series grades of stainless steel.

METALNOX® M6314

M6314 is a safe, all purpose aqueous cleaner for spray and immersion systems specifically designed to clean a broad range of both water soluble and insoluble oils. M6314 is a very low solids product and is often used without a rinse, even prior to coating.

WORLDWIDE ENVIRONMENTALLY RESPONSIBLE CLEANING TECHNOLOGIES

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