

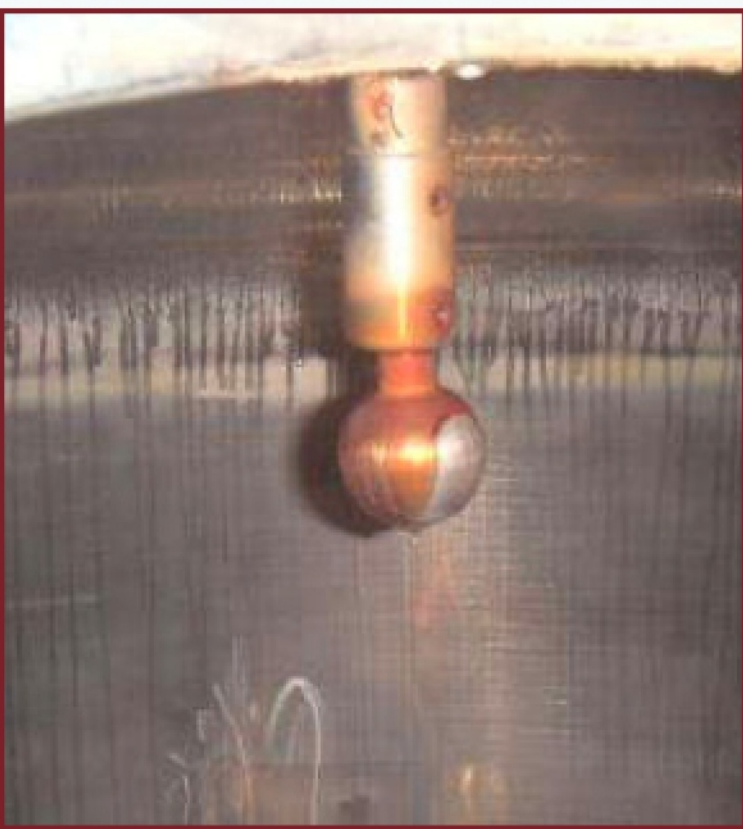
ROUGE



**Winner for Cleaning,
De-Rouging and
Passivation**

Worldwide leader In Citric Acid Passivation





Rouging solutions pvt ltd is representing Stellar Solutions - USA in India, where we are offering environment friendly and non-hazardous cleaning, De-Rouging and passivation solutions for Food, Pharma, Beverages, Dairy, Medical, Semiconductors, Aerospace and Military industries. We have a solution that complies with ASTM A967, AMS 2700 (SAE), and ASTM F86 with different international regulations like FDA, OSHA, EPA, USDA, and other countries' standards.

We are also offering metal detectable patented products made from Natural and Silicone rubber, also, from different type of plastics that will used for Food, Pharma, Dairy and Beverages industries. It will aid in preventing Foreign Particles contamination and ultimately a rejection of products.

WHAT IS ROUGING?

Rouge is a common problem in Food, Pharmaceutical, Beverages, Salt, Semi-Conductor, Medical, Aerospace and Dairy facilities, most often found in high-purity water, Salt, Sugar and clean-steam systems fabricated from austenitic stainless steel.

Rouging is a catch-all expression to describe the discoloration that forms on the stainless steel surfaces; ranging from a pale yellow/orange, through to red/brown and onto a dark violet/black. It is composed predominantly of iron oxides and/or hydroxides.

Rouging of stainless steel is the result of the formation of iron oxide, hydroxide or carbonate either from external sources or from destruction of the passive layer.



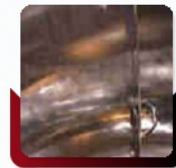
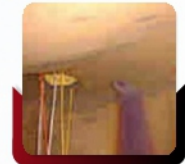
TYPES OF ROUGE

In the absence of any industry standards, rouge is often categorized into three types:

Type 1 rouge is usually a lightly-adhered orange “dust”, generated at an external source – such as the cavitation of pump surfaces – which then migrates through the rest of the system. This is the easiest form of rouge to remove. It can sometimes be simply wiped off, but chemical cleaning and re-passivation will give better results.

Type 2 rouge is formed in-situ on the stainless- steel surface, where the passive layer has broken down. It is usually tightly- adhered and will need chemical cleaning to remove. Type 2 rouge is typically darker and denser than Type 1 and is a deep red/orange color.

Type 3 rouge is a dark violet/black color due to the high content of magnetite (an iron oxide). It is commonly found in hot steam systems and can be very resistant to standard derouging chemicals. More aggressive chemical solutions or mechanical polishing may be required in order to remove it.



WHY CITRISURF..??

- Citrisurf Passivates Stainless Steel by binding (Chelating) to and Removing iron & iron Chloride contaminants following Pickling, polishing, Sandblasting or Grinding during the fabrication.
- Enhances reformation of chrome oxide passive layer.
- Enhances corrosion resistance of stainless steel.
- Easy to Use.
- Safer for Workers.
- Environment Friendly.
- Does not damage Equipment.
- Lower Maintenance Cost.
- Lower Running Cost / Lower Life cycle cost.
- Longer Tank Life.
- Faster Passivation.
- Better Corrosion Protection.
- Higher Chrome / Iron Ratio- 12.7 : 1- Achieved in Semi-Conductor Industries on SS316.
- Can Apply through CIP, Bath Passivation or Gel Application around welds and HAZ (Heat Affected Zone). Applicable to use in ultrasonic baths, hot or cold.
- Essential for applications in high corrosion environment.
- Use for final cleaning & also maintenance procedures for corrosion removal or after mechanical polishing or electropolishing polishing.
- Consumption at 7-10m2/Kg with a contact time of 20-30 Minutes.
- Nontoxic Citrisurf chemistry preferable to nitric acid and yields higher and thicker chromium levels on surface.



Advantage over Nitric Acid based Solutions

Property	Nitric Acid	Citrisurf
Safety	Very hazardous	Very safe to use as directed
Air Breathing	Emits toxic gases	No toxic gases emitted
Ease of use	Bulky safety equipment and extreme care required	Minimum of safety equipment and caution in use
Passivation	Excellent passivation of most grades of stainless	Excellent passivation of nearly all grades of stainless
Cost	Low cost raw material; high cost maintenance and waste disposal. High cost of safety and ventilation system	Lower overall cost to use due to lower maintenance and waste disposal costs; longer lasting solutions and lower concentration necessary
Environment	Environmentally hazardous	Environmentally friendly
Speed	20 minutes to several hours required	4-20 minutes typical, depends on process and grade
Temperature	Elevated temperature required for many grades	Room temperature satisfactory for many grades. Elevated temperature improves speed and performance
Maintenance	Regular solution replacement required with removal of hazardous waste.	Solutions lasts much longer and most operations have no hazardous waste to remove at all
Iron Oxide removal	Removes iron oxide slowly	Readily removes iron oxide
Equipment	Long-term degradation of tanks and area equipment is expected	No deleterious effects on recommended tanks and equipment, or corrosion of equipment in area
Flexibility in use	Must control time/temperature carefully and danger of NO _x emissions is always present	No hazard of leaving product in the tank too long for most products, no hazardous emissions even with poor grades of stainless steel parts.

Please call to our expert for further details, they will guide you further.

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