

E-Prep® Troubleshooting

E-Prep 270 General Maintenance & Troubleshooting

General Maintenance & Processing

- E-Prep 270, as received, is clear to light yellow in color. Upon processing stainless steel the bath will turn green because of dissolved iron, nickel and chromium. This is normal. It is also normal, after extended use, for the bath to form a yellow or green oily layer on top. This layer should be skimmed off the top.
- Rack parts to avoid gas pockets to allow for uniform brightening and also gently rock the parts back and forth and up and down to prevent any streaking. Make sure the parts are submerged in the **E-Prep 270** solution and not in the foam on top.
- Maximum workload is one half square foot per gallon of **E-Prep 270**. Do not overload the bath because it will lead to excessive heat build up and foaming out of the tank. Also leave 4" to 6" of free board for foam blanket.
- Turn the heat down or off and keep the **E-Prep 270** tank covered with a lid when the bath is not used.
- It is critical to maintain **E-Prep 270** bath temperature between 170 and 175°F. The temperature tends to rise during the chemical polishing. Where there is heavy production internal cooling may be needed. Generally not overloading the bath can keep temperature under control.
- During the chemical brightening process, parts can be withdrawn for inspection and as long as they are held in the air for only a short time (so that the foam on the part does not dry) and put back into the solution, then there is no harm. Do not rinse the part while intermittently examining them for brightness.

TROUBLESHOOTING

PROBLEM

CAUSE & CORRECTION

Excessive foaming

Too much work load. Keep it to 1/2 ft² or less per gallon of bath.

Blue areas on work

Slow bath reaction Add 0.5% by volume **E-Prep 270 Booster** + 2.5% **E-Prep 270 Additive**.

PROBLEM

Etching on work, irregular brightening, frosting, etc.

Bath is viscous, thick and dark green

Yellow oily layer on top and streaky work.

No gassing from work, no white foam on top and insufficient brightness

Excessive smut on work

Thick black scum on top of solution

CAUSE & CORRECTION

Poor cleaning and/or descaling. Check to see that parts are clean and free of scale. Also check for proper racking to avoid air pockets.

Bath is near exhaustion because of too much metal build up. Check solution control. Bath may need to be cut or made up new.

Check & adjust bath free acid. Skim off the oily layer.

Too low temperature - check & adjust. Bath low in **E-Prep 270 Booster**. Add 1% by volume at a time and recheck. Repeat if needed.

Bath reactivity too high. Add **E-Prep 270 Additive**, 1 to 2% by volume at a time. Then recheck.

Organic materials and carbon from poor cleaning and scale removal from work. Check and correct cleaning and scale removal solutions and processing.