

CASWELL

The Waterbreak Test

This is THE MOST IMPORTANT SECTION IN THE MANUAL. If your parts aren't perfectly clean before you plate them, then all your plating will be in vain. It will bubble up and/or peel off the metal, and you'll be back to step one. 99% of all failed plating jobs can be traced to insufficient cleaning. So, how do you tell if your parts are clean....you test them using the Waterbreak Test, or as known in the metal finishing industry ASTM-F-22. To pass the test water, applied to the part, will sheet off rather than bead up.

1. Take a cleaned and dried part and set it in a vertical position.
2. Use a spray bottle containing distilled water.
3. Spray the part two to three times from at least 6" away.
4. If the part is clean and free of oily residue, the water spray should sheet off.
5. If some oily residue remains, the water will tend to bead on the part
6. Repeat the cleaning process until the part passes the test.

Alternatively, apply several drops of distilled water to the cleaned surfaces.

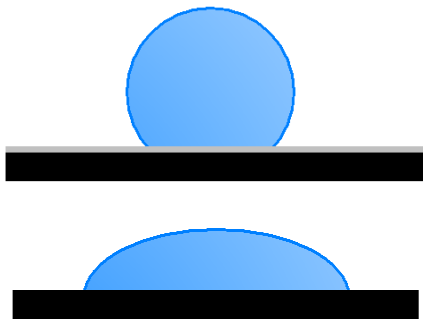
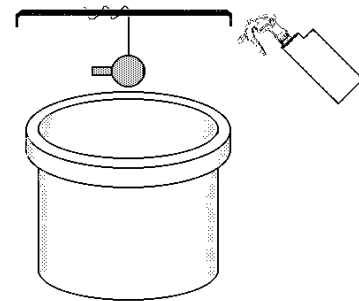
If the surface is inadequately cleaned, the spherical form of the drop is largely retained, and the surface must be cleaned once more.

If the water runs on the treated surface, then wetting has been satisfactory and the part is ready for plating.

RINSING WITH DISTILLED WATER

The part should be raised out of the solution and sprayed liberally with distilled water.

The runoff should be allowed to drain into the tank.



Oil/dirt film makes water bead up

No oil/dirt film allows water to cover part