

**INSTRUMENT STAINS**

Color	Cause of Stain	What to do
Orange-Brown to Reddish stain (looks like rust)	<p>Do eraser test, if stain rubs off and no pitting exists, problem is most likely from:</p> <ul style="list-style-type: none"> <li>• Detergent residue on towels or High Alkaline &gt;8 pH detergent is being used leaving a phosphate surface deposit</li> <li>• Dried blood</li> <li>• Iodine or Betadine residue</li> </ul>	<ul style="list-style-type: none"> <li>• Change to Neutral pH detergent. Recommend Miltex Surgical Instrument Cleaner.</li> <li>• Check pH of towels with litmus to verify if detergent residues are present.</li> <li>• Rinse the instruments in warm water for at least 30 seconds</li> <li>• Use a stain remover on both the instruments and autoclaves</li> <li>• If problem persists, consider changing to distilled or demineralized water. Particularly if local water supply is high in Iron or other minerals.</li> </ul>
Black, Brown & Pitting	<p>Subjected to an Acidic Low &lt;6 pH substance such as:</p> <ul style="list-style-type: none"> <li>• Low pH detergent residues on instrument surface or from towels</li> <li>• Exposed to other chemical compounds from "cold soaking"</li> <li>• Exposure to Bleach</li> </ul>	<ul style="list-style-type: none"> <li>• Change to Neutral pH detergent. Recommend Miltex Surgical Instrument Cleaner.</li> <li>• Check pH of towels with litmus to verify if detergent residues are present.</li> <li>• Eliminate exposure to chemicals or bleach</li> <li>• Rinse thoroughly and consider using distilled or demineralized water. Particularly if local water supply is high in Iron or other minerals.</li> <li>• Use stain remover on both the instruments and autoclaves</li> <li>• Eliminate any use of bleach.</li> <li>• If pitting remains, send instrument back to manufacturer for evaluation.</li> </ul>
Rainbow or Multi-Color	<ul style="list-style-type: none"> <li>• Heat compromised, tensile strength is compromised</li> </ul>	<ul style="list-style-type: none"> <li>• Check the autoclave for proper temperature</li> </ul>
Bluish-Green Bluish-Black	<ul style="list-style-type: none"> <li>• Cross contamination between dissimilar metals</li> </ul>	<ul style="list-style-type: none"> <li>• Separate instruments by type before cleaning or autoclaving</li> </ul>
Bluish-Gray (w/possible pitting)	<ul style="list-style-type: none"> <li>• Improper preparation of cold sterilization solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Follow solution manufacturer's directions closely, particularly temp. &amp; soak times.</li> <li>• Use distilled or demineralized water</li> <li>• Change solution per mfg's instructions</li> </ul>
Rust	<ul style="list-style-type: none"> <li>• Sterilizing instruments of dissimilar metals in the same cycle.</li> <li>• Chemicals in detergents or excess amounts of Iron or other minerals from local water supply.</li> <li>• New Instruments may be slightly magnetized during the manufacturing process.</li> </ul>	<ul style="list-style-type: none"> <li>• Separate instruments by metal types prior to sterilization.</li> <li>• Use neutral pH detergents and change to distilled or demineralized water. Particularly if local water supply is known to contain Iron or other minerals.</li> <li>• Wipe off as much residue leaving shiny metal underneath. Use a stain remover on both the instruments and autoclaves.</li> <li>• After several autoclaving sequences, the instruments lose their magnetic property</li> </ul>
Spotting Light or Dark colored	<ul style="list-style-type: none"> <li>• Slow evaporation of water drops with mineral content</li> <li>• Instrument wraps &amp; towels may contain detergent residue.</li> </ul>	<ul style="list-style-type: none"> <li>• Eliminate water droplets and moisture by adhering to autoclave manufacturer's operating instructions.</li> <li>• Use Miltex Stain Remover on both the instruments and autoclaves</li> <li>• Change to distilled or demineralized water. Particularly if local water supply is known to contain Iron or other minerals.</li> <li>• Thoroughly wash &amp; rinse wraps &amp; towels with a neutral pH detergent.</li> </ul>



\*+H834RPRGUD0\$\*