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## SSB370 Instructions

### Room Temperature Blackening Solution for Stainless Steel

**Stainless Steel Blackener 370** is an acidic liquid concentrate used full strength or diluted with up to 3 parts **distilled water** to blacken stainless steel at room temperature. It is recommended for color coding parts and blackening engravings on stainless steels. It produces a pleasing dark gray/black finish. No sealer required.

#### Finishing Procedure

1. **Clean:** Parts must be thoroughly cleaned and degreased
2. **Rinse:** Thoroughly rinse using **distilled water**
3. **Activate:** All stainless steel surfaces are passive by nature due to the chromium oxide present on the surface. This oxide must be removed prior to blackening by deoxidizing/activating the surface in one of the following Solutions:
  - a.) For the 300 series alloys, immerse parts for 2 to 5 minutes in a 50% by volume Muriatic Acid solution used at room temperature.
4. **Rinse:** Thoroughly rinse using **distilled water**
5. **Blacken:** Some experimentation should be done with properly prepared parts to determine the optimum concentration of the **SSB370** solution and length of immersion required to produce the desired depth of black. As a starting point, with 300 series alloys, try a 50% by volume solution A 33% or 25% by volume solution should be evaluated with the 400 series alloys. Difficult to blacken surfaces may require the use of **SSB370** at full strength.

**Immersion times should be varied from 2 to 5 minutes maximum.** Very passive surfaces may require further activation to initiate the blackening reaction by having plain steel in contact with the stainless steel parts while immersed in the **SSB370** solution. This can be accomplished by using plain steel hooks or racks to suspend the stainless steel parts in the solution or by including some plain steel wire in the plastic dip baskets or rotating barrels used to contain the stainless steel parts.

6. **Rinse:** Thoroughly rinse using **distilled water**.

#### Solution Replenishment and Maintenance

The SSB370 solution is gradually depleted through use, but may be replenished indefinitely with periodic additions of SSB370 concentrate. The strength of the solution can also be fairly accurately maintained by the immersion time required to produce the desired depth of black. As the time increases, add sufficient concentrate to reduce the time to your established standard. The frequency of additions will depend upon the volume of work processed through the solution. For optimum results, the strength of the solution should be maintained at 85% of its original strength or greater at all times and frequent small additions are recommended.