

User Guide for Ultra-Blak ® 404

1.) Clean

Degrease the surface using E-Kleen SR 196, E-Kleen SR 102, or E-Kleen SR 102-E at **150°-180F**. A typical cleaning with any of these products is about **5-10 minutes**.

2.) Rinse

Rinse using a bottom-fed, overflowing cold water rinse.

3.) Blacken

Blacken in boiling (**250°-260°F**) Ultra-Blak 404 solution until a deep black color develops. Immerse **5-20 minutes** depending on mass of parts, type of steel, and condition of the surfaces. Most blackening problems can be traced back to improperly prepared surfaces or an incorrect boiling point.

NOTE: Water will rapidly evaporate from the blackening solution due to the high temperature. If the solution level falls below the desired working level (this should be within about 3-10" of the top of the tank – we refer to this as “free board”), water is *slowly* added until the solution level reaches the desired point, then the Ultra Blak 404 is slowly added to produce the desired boiling point.

4.) Rinse

Rinse using a bottom-fed, overflowing cold water rinse.

NOTE: Transfer time from blackening solution to the rinse water should be as short as possible to avoid development of a red tint off-color on the surface.

5.) Seal

Seal by immersing while still wet from rinse with one of the following:

- *For an oily finish:* E-Tec 501
- *For a dry, non-tacky finish:* E-Tec 510 or E-Tec 504
- *For a hard, dry, clear finish:* E-Tec 520

Be sure to read and understand the Technical Data Sheets and Safety Data Sheets for each of these products before using them. Please see the Ultra-Blak 404 Technical Data Sheet for more detailed processing instructions.