

Soldering And Aqueous Cleaning Considerations For Base-Plated Products

BASE-PLATED SOLDERING

SynQor base-plated units are designed for Wave Solder or Selective Solder Processing as a means for attachment to the customer parent board assembly. Reflow solder processes (Convection, IR, Vapor Phase) can expose the base-plated converter to temperatures which exceed the melting point of the solder used to assemble the unit which can cause internal damage beneath the base-plate. SynQor does not approve the use of Reflow solder processes for base-plated units.

AQUEOUS CLEANING

Many of SynQor's base-plated units have been assembled onto customer boards using production lines that include in-line De-Ionized (DI) water aqueous cleaning processes similar to the that outlined below:

- DI-water is used (no saponifiers)
- 86 Max PSI spray pressure
- 4 minute cleaning cycle at 140° F
- 4 minute drying cycle at 160° F Forced Hot Air

Although the supplier of the cleaning systems may vary (Electrovert, Soltec, etc.), the basic processes are similar from one system to another.

SynQor has not experienced field return failures or feedback from these customers related to compromised performance or reliability that was a result of the DI-water aqueous cleaning process used during the customer's assembly process (over 50k units in the past five years from one particular customer).

SynQor approves this process for the cleaning of our base-plated modules.



Base-Plated Half-Brick Top View



Base-Plated Half-Brick Bottom View