

Product Application brief

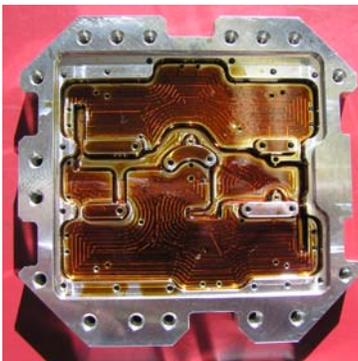
Facts about Flux Removal from precision electronics Chassis

Application

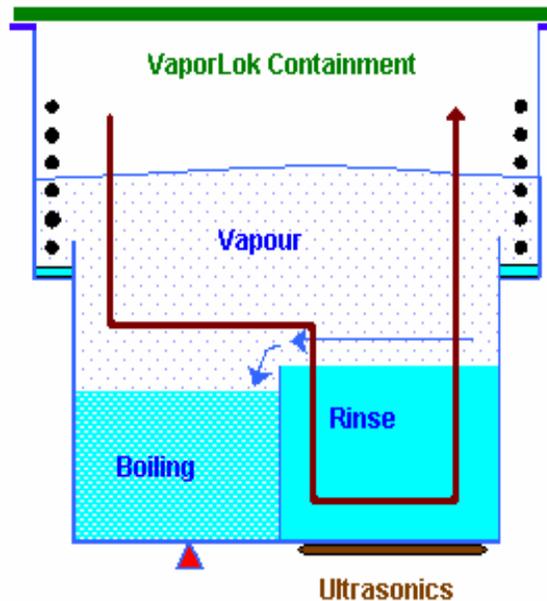
When a world leader in the manufacture of both microwave-electronic and photonic products for commercial and aerospace applications. Robust sonar, seismic & targeting/homing devices, sought to install a near zero emission and on board recycled defluxing system for their Manufacturing. Novaline was asked to investigate alternatives, conduct trials to identify likely candidates and finally propose solutions. After identifying replacement candidates Novaline offered a turnkey package systems which also removed operators from contact with the process timing and chemicals.

The Task

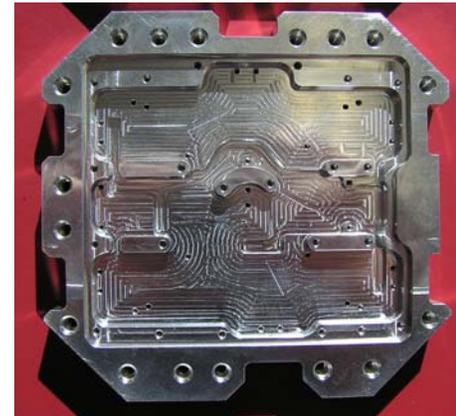
During manufacturing large quantities of flux is deposited during several reflow soldering processes. All flux must be removed interprocess and prior to the next process in these products for the ultra-high data rate, long-haul, fiber optic communications market.



After reflow and Before Defluxing Process



Under Lid Sealed and Near Zero emission Defluxing



After Novaline Defluxing Process

Previous defluxing materials were flammable and not recyclable on site.

Operators

Operator exposure and inconsistencies are eliminated by the equipments underlid, automated sealed processing. Operators place contaminated (Before fig) in a work basket into the solvent free load unload station and close the sealed lid to begin the defluxing process. Parts emerge completely flux free warm (After Fig) ready for further processing.

Operating Costs

Costs associated with Solvent consumption is less than \$0.10 per unit cleaned including all disposal costs.

Previous Method

The previous method was a three step process, which produced inconsistent results and was limited by the volume of parts which could be cleaned in any given working period.

The Equipment

A fully self contained automated defluxing unit custom built by Novaline was chosen with on board ultrasonic agitation to remove all traces of flux.

An automated solvent recycling and reclamation system ensures contaminants are removed and isolated from the immersion (ultrasonic Rinse) tank. Contaminates are reduced to the smallest possible volume and returned to the solvent supplier for reclamation and disposal.

Absolute Repeatability

Previous method caused a build up of contaminants in the initial and subsequent wash/ rinse baths this caused some unreliability with downstream repeatability and long term process repeatability. The Novaline CCT system ensures ALL units are completely devoid of processing contaminants thus increasing productivity and a higher quality more reliable finished product.