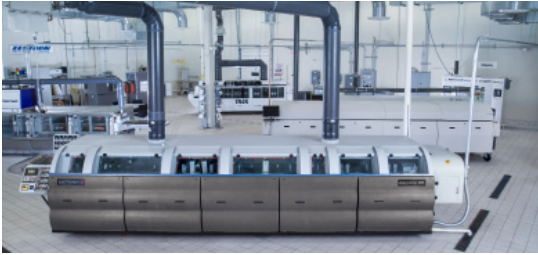


Cleaning Processes for Flux and Solder Paste Removal



The following cleaning trials were conducted at ZESTRON's Technical Center in collaboration with INDIUM Corporation on conventional boards. Prior to recommendation, the board cleanliness level was successfully assessed in accordance with the following standards:

- IPC A-610E
- J-STD-001E
- IPC-TM-650

Flux Removal in Aqueous Cleaning Processes:

BATCH CLEANING PROCESS					
Cleaning Agent	Concentration	Wash Cycle Time	Cleaning Temp.	Rinsing Agent	Drying
ATRON® AC 207	15% - 20%	15 min	140°F	DI-water	Circulating Air
VIGON® N 600	15% - 20%	15 min	140°F	DI-water	Circulating Air

Batch cleaning processes are renowned for their small footprint and are mostly recommended for high mix / low volume production.

ULTRASONIC CLEANING PROCESS					
Cleaning Agent	Concentration	Wash Cycle Time	Cleaning Temp.	Rinsing Agent	Drying
ATRON® AC 207	15% - 20%	20 min	140°F - 150°F	DI-water	Circulating Air
VIGON® N 600	15% - 20%	15 min	140°F - 150°F	DI-water	Circulating Air
ZESTRON® FA+	100%	15 min	130°F	DI-water	Circulating Air

Ultrasonic cleaning processes are most effective with hard substrates such as ceramics. The high bath loading capacity of ATRON® AC 207, VIGON® N 600 and ZESTRON® FA+ compared to surfactant-based cleaners ensures an extended bath life and a very cost-effective process.

Application recommendations are intended to serve as a guideline only. For additional cleaning process recommendations or to request a free cleaning trial, please contact ZESTRON.