



PRODUCT OVERVIEW

PCB Cleaning

The most suitable cleaning agents for the removal of solder pastes and/or fluxes after soldering.

Our Technical Centers in Europe, America and Asia are at your disposal to help you to determine the most suitable PCB cleaner for your application:

- ▶ World's largest selection of spray-in-air, ultrasonic or spray-under-immersion machines - inline and batch systems - from leading equipment manufacturers.
- ▶ Individual and uncommitted advice by local ZESTRON process engineers.
- ▶ Inspection of cleaning results according to international standards within one day.

To conduct free-of-charge cleaning trials, please contact us at: techsupport@zestron.com.

Process	Contamination	Fluxes & Solder Pastes after Soldering		Area of Specific Application
		Lead-based	Lead-free	
Water-based	Spray-under-Immersion	VIGON® A 200		Aerospace, Military, Medical Engineering
		VIGON® A 250		Mild formulation for longer exposure times
	Ultrasonic	VIGON® US		For components with low standoff
		VIGON® A 200		Aerospace, Military, Medical Engineering
	Spray-in-Air (inline & batch)	VIGON® A 201		All-round-product
		VIGON® N 600		pH-neutral: for material-mix
		VIGON® PE 180		pH-neutral, PCBs, Hybrids & Power Electronics
		VIGON® PE 190A		PCBs, Hybrids & Power Electronics
		ATRON® AC 205		For components with low standoff
		ATRON® AC 207		For sensitive metal surfaces
VIGON® N 640		Efficient processability in specific machines		
Spray-in-Air (batch)	VIGON® A 250		For sensitive metal surfaces	
	ZESTRON® FA+		All-round-product	
Solvent-based	Ultrasonic (semi-aqueous)	ZESTRON® FA+		All-round-product
	Spray-under-Immersion (semi-aqueous)	ZESTRON® VD		
	1-Chamber Vacuum with Vapor Rinse	ZESTRON® CO 150		For water and pH-sensitive parts
	Co-Solvent with Vapor Rinse	VIGON® EFM		
	Manual Cleaning	VIGON® EFM		Rework / Repair



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The following cleaning media are recommended for the removal of solder pastes and/or flux residues from electronic assemblies.

All cleaning agents meet the following industry standards:

- ▶ IPC 610 Visual Cleanliness
- ▶ J-STD 001 Total Cleanliness
- ▶ IPC-TM 650 and DIN 32513
- ▶ J-STD 003 Solderability



Water-based; Spray-In-Air, Ultrasonic or Spray-Under-Immersion Equipment

Cleaners based on MPC®-Technology

VIGON® A 200

- ▶ Removes all types of flux residues in spray-in-air (inline & batch) and dip tank (with ultrasonic or spray-under-immersion) applications

VIGON® US

- ▶ Removes all types of flux residues in ultrasonic and spray-under-immersion applications

VIGON® A 201

- ▶ Removes all types of flux residues in spray-in-air applications (inline & batch), even under low-standoff-components
- ▶ Shiny solder joints without use of additives

VIGON® A 250

- ▶ Provides shiny solder joints
- ▶ Mild formulation for long exposure times

VIGON® N 600

- ▶ pH-neutral, therefore especially suitable for sensitive materials

VIGON® PE 180

- ▶ pH-neutral, for PCBs, Hybrids & Power Electronics
- ▶ Good rinseability

VIGON® PE 190A

- ▶ For PCBs, Hybrids & Power Electronics
- ▶ Excellent deoxidation of heavily oxidized & stained copper

VIGON® N 640

- ▶ Excellent processability in specific spray-in-air batch machines
- ▶ Good on hard to remove solder pastes

Cleaners based on FAST®-Technology

ATRON® AC 205

- ▶ Flux removal in very short contact times
- ▶ Low application concentration

ATRON® AC 207

- ▶ Especially suitable for sensitive metal surfaces



Solvent-based; Closed Loop Process with Vapor Rinse

ZESTRON® VD

- ▶ Suitable for water- and pH-sensitive parts
- ▶ Excellent distillation capacity, suitable for one-chamber systems with vapor rinsing under vacuum

ZESTRON® CO 150

- ▶ Co-Solvent for HFE-processes
- ▶ Provides a water-free cleaning process with fast and residue-free drying



Semi-aqueous; Ultrasonic or Spray-Under-Immersion Equipment

ZESTRON® FA+

- ▶ Excellent material compatibility with metal surfaces
- ▶ Can be used in facilities without explosion protection
- ▶ EMPF Phase II tested and MIL approved
- ▶ In the ESA "List of Declared Materials"



Manual cleaning

VIGON® EFM

- ▶ Removes all types of rosin-based flux residues. Fast and residue-free drying. Available as aerosol can for manual application and in bulk.

MPC® Technology:

- ▶ No flash point
- ▶ High bath loading capacity
- ▶ Unrivalled bath life
- ▶ Low maintenance costs
- ▶ Closed loop process possible
- ▶ Leaves no residues on surfaces and/or in the cleaning equipment

FAST® Technology:

- ▶ New generation of surfactants
- ▶ High residue bonding capacity
- ▶ No flash point
- ▶ Excellent rinse capability
- ▶ Specifically developed for spray-in-air applications
- ▶ Closed loop process possible