

# Electrovert®

# Aquastorm® 50

The Aquastorm  
50 batch cleaning  
system offers in-line  
technologies in a  
batch footprint.



## Matching Footprint to Application

Today's challenges for PCB manufacturers hinges on high density, increased complexity, and miniaturization. Manufacturers that currently clean with a batch-type cleaner are looking for a solution to increase cleaning capability without moving to an in-line cleaner. The Aquastorm 50 batch cleaner utilizes technologies that are common to the Aquastorm 100 and 200 in-line cleaners and offered in a batch footprint.

## Patent Pending Fluid Delivery System

The objective of a mechanical fluid delivery system is to clean under difficult, low stand-off components by maximizing the physical energy delivered at the surface of the area to be cleaned. The Aquastorm 50 wash fluid delivery system utilizes multiple jet impact cleaning (JIC) sprays that create a web of omni-directional dynamic energy to remove flux residue. The web (or storm) of mechanical fluid energy that is created delivers the dynamic energy required to achieve higher product reliability by effectively removing flux residues under the low stand-off components.



## Intelligent Rinse Control

The Intelligent Rinse Control feature guarantees desired conductivity of rinse water through continuous monitoring and control of the rinse process while maximizing water conservation. Each cycle can be user defined by cleanliness of rinse water (board cleanliness of 1  $\mu$ S) or by the number of cycles.

## Patented Torrid Zone® Drying

The Torrid Zone drying that has set the industry benchmark for drying on in-line cleaners is a standard feature on the Aquastorm 50. Our patented convection drying technologies for cleaning applications delivers a controlled dynamic process that effectively removes moisture from the PCB. Typical performance includes drying complex assemblies to within .1g of prewash weight. A benefit of Torrid Zone drying is that completely dry PCB's can go straight to test after cleaning.

 **Speedline**  
technologies  
**Electrovert**

#### WORLD HEADQUARTERS

16 Forge Park, Franklin, MA 02038, USA  
Tel: +1 (508) 520-0083  
Fax: +1 (508) 520-2288  
info@speedlinetech.com

www.speedlinetech.com

#### MANUFACTURING AND CUSTOMER SUPPORT FACILITIES

ACCEL/ELECTROVERT  
1629 Old South 5  
Camdenton, MO 65020, USA  
Tel: +1 (573) 346-3341  
Fax: +1 (573) 346-5554

CAMALOT/MPM  
16 Forge Park, Franklin, MA 02038, USA  
Tel: +1 (508) 520-0083  
Fax: +1 (508) 520-2288

ITW Speedline Equipment (Suzhou) Co., Ltd.  
Blk F, Export Processing Zone  
200 Su Hong Middle Road  
Suzhou Industrial Park  
Jiangsu, P.R. China 215021  
Tel: +86 (512) 6258-8850  
Fax: +86 (512) 6258-8860

#### SALES AND CUSTOMER SUPPORT OFFICES MEXICO

Carretera Base Aerea #5850  
Km. 5, Edificio 21  
Zapopan, Jalisco, México  
Tel: +52 (33) 33-65-6511  
Fax: +52 (33) 38-18-9019

#### EUROPEAN OFFICE

Im Gefierth 14  
D-63303 Dreieich, Germany  
Tel: +49 (0) 6103-8320  
Fax: +49 (0) 6103-832-299

#### ASIA/PACIFIC

500 Chai Chee Lane  
Singapore 469024  
Tel: +65-6286-6635  
Fax: +65-6593-0175

© 2014 Speedline Technologies. All rights reserved.

Aquastorm, Torrid Zone, Speedline, Electrovert, Accel, Camalot, MPM, and Protect are trademarks of Speedline Technologies or its affiliates and subsidiaries. Windows is a registered trademark of Microsoft Corporation.

12/14

 **Speedline**  
technologies

**Electrovert**

An ITW company

## Durable Design

The brand name of Electrovert holds the reputation of having the 'longest product life cycle' within the Electronic Equipment Manufacturers' industry. The reputation holds true for the Aquastorm 50. While typical batch cleaners are modified versions of residential dishwashers, the Aquastorm 50 utilizes field-proven technologies that are common across the Aquastorm in-line cleaners. The fluid delivery designs, pump designs, and drying technologies are shared across the Aquastorm in-line series. The software GUI (Graphical User Interface) and electrical I/O system are common across all Electrovert product lines. These designs are field proven in demanding production environments yet provide commonality across multiple Electrovert platforms.



## Advanced User Interface

The software has an advanced user interface that utilizes a 21" touch screen PC with Windows® 7 operating system. All machine operation parameters are easily viewed to optimize the machine and process controls. The software GUI is common across all Electrovert cleaning, wave, and reflow product lines. The benefit is that all machine operations, controls, set-up, drop-down menus, and timer functionalities are similar and easy to use.



## World Wide Support

The employees of Electrovert are dedicated to providing world class service and support to our global partners. With facilities in the USA, Mexico, Europe, Asia and an extensive network of service, applications, and process engineers, Electrovert is positioned to support our customer's requirements. All Electrovert cleaning, wave, and reflow equipment are designed and built in Camdenton, Missouri USA.

### AQUASTORM 50 SPECIFICATIONS

Machine Dimensions (DxWxH)	969 mm (38.1 in) x 1527 mm (60.1 in) x 1826 mm (71.9 in)
Cleaning Dimensions	508 mm (20 in) x 381 mm (15 in) maximum board size in standard basket
Exhaust Requirements	(Qty 1) 101 mm (4 in) static port (no vacuum or exhaust blower required)
Standard Utility Requirements	480 VAC, 3 phase, 60Hz, 40 Amps 380 VAC, 3 phase, 50Hz, 47 Amps 230 VAC, 3 phase, 60Hz, 81 Amps
Drain Plumbing Requirements	(Qty 1) 1-1/2 in MNPT
Supply Water Requirements	(Qty 1) 1/2 in MNPT of 15.1 l/min (4 gpm) at 50 psi with 49 °C (120 °F) deionized water
Air Supply Requirements	379-586 kPa (55-85 psi) at 28 SCFM (intermittent)

### ABOUT SPEEDLINE TECHNOLOGIES

Speedline Technologies, a division of Illinois Tools Works, Inc. (NYSE: ITW), is the global leader in process knowledge, services and manufacture of capital equipment used in the printed circuit board assembly and semiconductor industries. Based in Franklin, Massachusetts, USA, with Electrovert manufacturing based in Camdenton, Missouri, the company markets four best-in-class brands: ACCEL microelectronics cleaning equipment; CAMALOT dispensing systems; ELECTROVERT wave soldering, reflow soldering and curing, and cleaning equipment; and MPM stencil and screen printing systems. For more information about Speedline Technologies visit [www.speedlinetech.com](http://www.speedlinetech.com).

Speedline Technologies maintains an ongoing program of product improvement that may affect design and/or price. We reserve the right to make these changes without prior notice or liability.