

The DwellMax and DwellMax Plus are patented process solutions that address the challenges of lead-free wave soldering and soldering of thick, high thermal mass circuit boards.



How can I solder more boards each day?
How can I reduce my wave solder defect rate?

We have the answers!

**The DwellMax
and
DwellMax Plus**



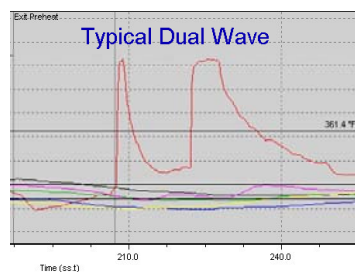
Patented Wave Solder Nozzle Technology

The DwellMax wave solder nozzle is an innovative process solution to the challenges of lead-free soldering. Lead-free alloys perform differently than tin/lead alloys, typically having a higher viscosity and slower wetting times.

What does this mean to you? This causes solder defects, such as bridging, opens, and insufficient PTH fill. The DwellMax nozzle was developed with one of our customers to eliminate the problems associated with lead-free soldering by increasing the vertical solder pressure and increasing the length of time over the chip and main nozzles. The DwellMax reduces the thermal drop and time delay between the two soldering nozzles.

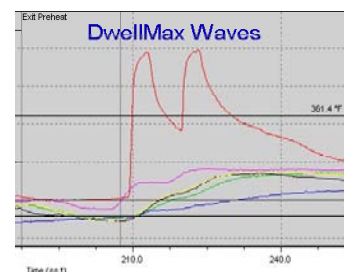


With conventional wave solder technology, thick multi-layer and/or high thermal mass circuit boards are often plagued with high cost from low yields, slow production speeds, rework costs, and the collateral damage that comes with a rework loop. The wide wave design of the DwellMax alleviates these problems and provides better PTH fill at significantly faster conveyor speeds.



Typical Dual Wave

- 230° F temperature drop
- 10 second gap between waves



DwellMax Waves

- 100° F temperature drop
- 5 second gap between waves

WORLD HEADQUARTERS

16 Forge Park, Franklin, MA 02038
Tel: (508) 520-0083
Fax: (508) 520-2288

www.speedlinetech.com

MANUFACTURING FACILITIES

ACCEL/ELECTROVERT
3879 South State Highway 5
Camdenton, MO 65020
Tel: (573) 346-3341
Fax: (573) 346-5554

CAMALOT/MPM

16 Forge Park, Franklin, MA 02038
Tel: (508) 520-0083
Fax: (508) 520-2288

SALES AND CUSTOMER SUPPORT OFFICES MEXICO

Carretera Base Aerea #5850
Km. 5, Edificio 11
Zapopan, Jalisco, Mexico
Tel: +52 (3) 818-9017
Fax: +52 (3) 818-9816

EUROPE

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

ASIA/PACIFIC

Speedline Technologies Asia Pte Ltd
132 Joo Seng Road, #03-01 Uniplus Bldg
Singapore 368358
Tel: +65-6286-6635
Fax: +65-6289-9411

© 2010 Speedline Technologies. All rights reserved.

DwellMax, DwellMax Plus, Electra, 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.

002 04/10



Do You Wish to Save Money?

The cost of solder continues to rise every year - both leaded and lead-free. Would you be interested if we could show you how to reduce your dross production by 60% or more, and save 30% or more on your solder expenditures?



Do You Want to Reduce Your Wave Solder Defect Rate?

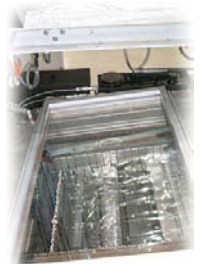
As oxygen contacts the solder, the surface tension of the solder decreases, inhibiting the beneficial capillary action for through-hole soldering. With the DwellMax Plus, the inert atmosphere allows for consistent solder flow, and lowers your defect rate. Bridges, insufficient solder, and open solder defects are significantly reduced by as much as 55% according to customer data.

Do You Want to Increase Your Wave Solder Production Time?

The DwellMax Plus soldering waves and inert atmosphere allow for longer production times as dedrossing is required only two times per week instead of three times per day! This equates to five to six hours of additional production time in a six-day work week. Also consider how many operators are idle during solder pot dedrossing.

The DwellMax Plus is Your Answer!

The DwellMax Plus incorporates a nitrogen hood over the DwellMax soldering nozzles. This reduces dross generation, minimizes maintenance time, and requires 75% less flux usage. In extensive testing, the DwellMax Plus achieved a 55% reduction in solder wave defects, and decreased maintenance intervals. With reduced dross generation, lower flux usage, lower solder usage, minimized maintenance, and less rework, cost savings with the DwellMax Plus typically provide ROI payback of twelve to eighteen months.



Customer Data

- Dross reduction of 83% - 600 lbs of dross/month/machine reduced to 100 lbs
- Defect rate reduction of 55% - 3,800 DPMO defect rate reduced to 1,700 DPMO
- Solder usage 37% lower - 800 lbs of solder month/machine reduced to 500 lbs
- Flux usage 75% lower

DWELLMAX SPECIFICATIONS

Available in process widths of 20" (508 mm) and 24" (610 mm)

Grade 1 titanium construction for lead-free applications

Maximum wave height = 1/2" (13 mm)

Combined dual wave contact length of 5.5" (140 mm)

50 ppm of O₂ in tunnel with 22.6 m³/min (800-1200 SCFH of N₂) supplied

Windows®-based software with integrated process parameters and data logging capability

Compatible with FloLift™ Technology

ABOUT SPEEDLINE TECHNOLOGIES

Speedline Technologies is the global leader in process knowledge and expertise for the PCB assembly and semiconductor industries. Based in Franklin, Massachusetts, U.S.A., the company markets five best-in-class brands — Accel microelectronics cleaning equipment; Camalot dispensing systems; Electrovert wave soldering, reflow soldering, and cleaning equipment; MPM stencil and screen printing systems; and Protect global services, support, and training solutions. For more information, visit us at 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.