

RFID Feeder Kit

RFID Smart Feeder validation system is reportedly robust and flexible enough for all machine types. Can be retrofitted to existing placement machines. Enables closed-loop feeder and component setup validation; eliminates human errors and reduces changeover time; provides real-time material inventory, traceability and feeder slot scans. Integrates with feeder setup verification software from third-party suppliers to eliminate manual barcode scanning.

Cogiscan, cogiscan.com

Booth 875

Aqueous Batch Cleaner

Model 7883CD batch cleaner removes water-soluble fluxes. Incorporates a rotary selector switch with eight standard programs and one custom program for control. Standard wash recipes have fully adjustable times and temperatures. Features a 106-gpm thermally protected circulation pump and an RS-232 printer port. Washes and dries in one chamber. Includes wash and dry temperatures to 93°C, a built-in adjustable water softener, detergent and neutralizer dispensing system and a HEPA filtration system with adjustable drying.

EMC Global Technologies, emcgti.com

Booth 1268

Multi-Job Placement

Autoplacer pick-and-place system has over 300 feeders to maximize flexibility and reduce or eliminate changeover time. Multiple jobs can be run without stopping to change feeders during production. Reportedly places components from 0201s to 55 x 55 mm at up to 21,600 cph without a fine-pitch placer or chipshooter.

Mimot, mimot.com

Booth 867

Pb-Free Solder Paste

DSP889 is a no-clean, lead-free stencil printing solder paste for high-yield lead-free manufacturing. Claims to provide 10 to 12% higher metal volume than typical lead-containing alloys. Fluxing activity levels reportedly promote thermal stability and prevent thermal degradation when reflowing. Does not require nitrogen. Said to exhibit superior joint strength, wettability, print definition and tack life.

Qualitek International, qualitek.com

Booth 2123

Modular Workstation

Series 8000 modular workstations can be assembled and reconfigured quickly – saving time and money. Can be configured in a variety of heights and lengths, easily converted from single to double sided.

Arlink, arlink.com

Booth 1261



Lead-Free Profiler

SlimKIC 2000-LF profiler and process development tool optimizes the lead-free thermal process. Incorporates up to 12 thermocouples and has both real-time and datalogging options. Comes with a stainless steel thermal shield and thermocouples rated to handle higher pb-free reflow temperatures. Includes a software platform with a built-in library of commonly used materials and their suggested process limits.

KIC, kicthermal.com

Booth 824



Vision Measurement System

Linear motors are said to provide Summit XP with the velocities and accelerations needed to satisfy near-line measurement/inspection requirements. Elements 2.0 software eliminates complexity and long setup times by using CAD data and pre-programmed component libraries. Said to measure 750 pads on five PCBs in 3 min.

View Engineering, vieweng.com

Booth 996



Reel-to-Reel RFID

The Reel-to-Reel RFID system features throughput up to 9000 cph, a 20" wide Web process capability and 12 µm placement repeatability at ±3 Sigma. Offers passive or active designs, direct die pick from wafers to 0.008" and positive displacement dispensing. Is modular, for future expansions. Can place ancillary components, and is capable of tape-and-reel die placement.

Tyco Electronics Automation Group,

automation.tycoelectronics.com

Booth 1023

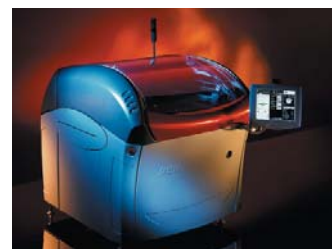


Screen Printer Support

Micron-class high accuracy mass-imaging platform, which includes the Galaxy and Europa configurations, come with intelligent scalable control area networks, Instinctiv user interface and IP-based access to DEK's knowledge servers through on-board 100% print verification technology.

DEK International, dek.com

Booth 2151





Water-Soluble Pb-Free Paste

Indium3.1 water-soluble lead-free solder paste is said to offer excellent wetting and printing for fine-pitch applications, and a long stencil life that virtually eliminates waste. Resultant solder joints are shiny and smooth. Also claims a wide reflow window, slump resistance, low voiding and low foaming.

Indium Corp. of America, indium.com

Booth 635

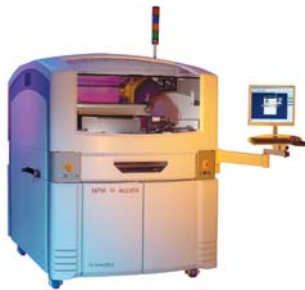


Pb-Free Rework

7500 Intruder series of split vision machines is suitable for lead-free soldering applications. Delivers up to 2100 W of reflow energy, includes a split vision alignment and placement system with computer generated thermocouple programmability. Also safe for eutectic solders and board designs.

APE, apecorp.com

Booth 2087



Stencil Printing 'in Parallel'

MPM Accela printer has an operator interface with parallel processing. Permits reported 20 to 30% raw throughput gains. Backed by 11 patent applications, developed for low cost per board. Reduces setup, changeover and consumable downtime (from 20 min. to five); features tool-free hardware interfaces and easy service, support and upgrade capability.

Speedline Technologies, speedlinetech.com

Booth 1227



Post-Reflow AOI

VSS-3EL post-reflow AOI features OCR, pattern matching and color inspection, as well as complete solder inspection. Made by Samsung Electronics.

ASC International, ascinternational.com

Booth 2066



X-Ray Inspection

Jewel Box 70-T provides real-time x-ray inspection with large transparent windows on four sides. The windows, along with built-in five-axis positioner, permit positioning and viewing inspected objects from any angle, visually and by x-ray. Four-micron focal spot x-ray tube delivers magnification up to 500X. MXRA x-ray camera images plastics and ceramics.

Glenbrook Technologies, glenbrooktech.com

Booth 1263

High-Mix Pick-and-Place

FLX2010 SMD pick-and-place has 190 feeders, permitting feeder changeover during operation. Said to place 5900 components per hour, including advanced components, condensators up to 15 mm, large connectors and BGAs with 50 mm side length. Features laser and vision centering systems. Feeder management system automatically recognizes feeders and pickup height. LEDs show feeder status. Machine programming can be prepared offline during production. Can be expanded to a two- or three-module production line with up to 480 feeders for up to 15,000 cph.

Essemtec AG, essemtec.com

Booth 823

Small IC Feeders

Small IC feeders provide fast, error-free feeding of small IC packages, eliminating mold flash interlock. The only component out of the tube is the component at the pick point. Component is covered as it leaves the tube and enters the nest, so it cannot turn over, stand on end or be lost from the nest. Small and lightweight, individual feeders are less than 15 mm wide, requiring only one feeder slot on most placement machines. Dual feeders available.

Component Express Corp., c-express.com

Booth 1077

Small Sized AOI

Supra M AOI has full solder joint inspection and measurement capabilities in a small footprint. One large format digital camera and a high precision linear x/y stage come standard. Permits a configurable field of view depending on the application. Resolution adjustable from 15 to 22 $\mu\text{m}/\text{pixel}$. CAD-driven, library-based programming.

Machine Vision Products Inc., visionpro.com

Booth 2184

Parts Traceability Tool

TraceXpert enables real-time production monitoring, SMT machine-performance level enhancement and traceability to single components. Provides a standard enterprise-wide solution for mixed-vendor assembly lines. Real-time machine interfaces.

Valor Computerized Systems, valor.com

Booth 815

X-Ray Auto-Inspection

VJE X2500 fully automated x-ray inspection system provides high-contrast resolution at high viewing angles. Features integrated motion control, image measurement analysis and on-screen board representation for easy maneuvering.

VJ ElectroniX, vjt.com

Booth 2463

No-Clean, Pb-Free Paste

EnviroMark 909 lead-free, soft-residue, no-clean solder paste is reportedly capable of printing downtimes up to 60 min. with speeds up to 6 in./sec. Said to exhibit continual printability for small apertures such as 0201s and 0.016" pitch devices. Features solderability in air or nitrogen to numerous surface metallizations such as NiAu, immersion Sn and immersion Ag; 12 hr. stencil life; 8 hr. tack life; and soft post-reflow residues.

Kester, kester.com

Booth 957

Lead-Free Solder Bath

HC50-32LF2, HC50-39NF, HC50-32KDF2 and TAF40-12F lead-free systems offer drossless wave soldering, a motorless solder bath and 40% less dross than motor-driven systems. Requires 660 lb. initial solder to operate. Offers enhanced preheat capability with a hot air blower, drain heater and pre-heater for no-clean flux. Standalone or for use with other baths. Accommodates a range of fluxes.

Tamura H.A. System, tamura-ha.com

Booth 685

Soldering Station

Version PRO-8 in-line soldering station features a 60W diode laser (10,000 hours of useful life), four-axis cartesian robot with Adept controls, vision guidance, air knife and fume extraction on soldering lens, and optional micro camera interfaced into a high-resolution panel. Has a touch panel with adjustable swing arm, enhanced software with intuitive GUI, database management system, real-time process parameter editing and rugged Adept I/O technology and Device Net I/O. Measures from 2 to 20" long and 2 to 18" wide.

Pro-Mation Inc., pro-mation-inc.com

Booth 761

High-Speed Placement

FX-1R high-speed placement machine reportedly delivers 10 to 15% improved actual throughput. Using linear motor and HI-drive mechanism, places a maximum of 33,000 or 25,000 cph. Dual placement head design with four nozzles each on a single x beam permits simultaneous pick and place.

Juki Automation Systems, jas-smt.com

Booth 2164



950 nm Digital X-Ray

XIDAT XD7500 digital x-ray system for PCB assembly has 950-nm feature recognition and oblique angle views of up to 70° for any position 360° around any point of the 18 x 16" inspection area. Inspects interconnections on BGAs and CSPs. Includes a filament-free, maintenance-free x-ray tube.

Dage Precision Industries, dageinc.com

Booth 1201



Lead-Free Paste

S3X58-M406 lead-free solder paste reportedly provides exceptional performance and a wide process window. Features superior tack time, voiding, solder wetting to Cu, Ni and Alloy 42, and post-reflow flux residue properties.

Koki Co. Ltd., ko-ki.co.jp

Booth 1163

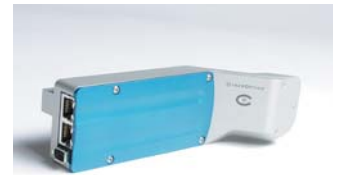


0201 Placement Verification

EPV 5 embedded technology for high-speed, real-time verification of component placements. Provides absence/presence detection and panel deflection measurements at full placement speeds. High-resolution, point-of-placement images detect wrong, stray or misplaced components (including 0201s), inspect solder paste and qualify new nozzles. For Fuji CP6 and CP7 series chipshooters.

CyberOptics Corp., cyberoptics.com

Booth 1313



Digital Dispenser

Champion 6809 servo-driven automated dispensing system features easy-to-use proprietary software, includes a bright, high-contrast color TFT display. Can match application requirements from dots to underfills. Placement accuracy of within 3 µm. Dispenses dot diameters to 0.003" (75 µm) with bead width to 0.003" (75 µm). Volumes are below 0.5 nanoliters. Has a three-axis brushless servo motor drive, x and y axis linear encoders and z-axis rotary encoding. Dispense area is 5.5 x 12", with resolution and repeatability of ±0.00008" (2 µm).

Creative Automation Co., creativedisensing.com

Booth 904



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Product PREVIEW



4-Gantry Placement

Siplace X-Series includes a fine-pitch placer and chipshooter combined with individual workcells. Can be configured with two, three or four gantries. Features a vibration-free 20-nozzle revolving head, vision system with a new illumination technique and new intelligent feeders.

Siemens Logistics and Assembly Systems, siplace.com

Booth 1001



BGA/SMT Rework Tool

Onyx 29 robotic system for lead-free rework and low-volume assembly features seven automated axes; a 19 x 19" four-zone pre-heater with a 6000 W heating element laser-etched throughout the panel; micro-force measurement with live read-out and 10 g resolution; and automated non-contact site cleaning. Has multiple field of view vision with auto-zoom and top/bottom programmable lighting to align parts from 0.25 to 3 mm; automatic pickup/drop-off, force-controlled flux dipping; and dispensing capability for flux, paste and epoxy.

Air-Vac Engineering, air-vac-eng.com

Booth 921



X-Ray Platform

Cougar VXP is a basic platform for further equipment and accessory implementation. Initial configuration includes a micro-focus x-ray tube up to 160 kV, true x-ray intensity control, standard 4-axes manipulator, real-time image processing and a real-time image chain with 4" image intensifier and flat-screen monitor.

Feinfocus, feinfocus.com

Booth 809

Digital Dispenser/Controller

DX-300 digital dispenser/controller is for accurate, repeatable bead or dot dispensing applications. Offers two operating pressure ranges and 10 programmable memories for frequently used dispensing cycle timing. Provides fluid control for high and low viscosity fluids. Is stackable.

Techcon Systems, techconsystems.com

Booth 2415

Modular Placement

AdVantis platform is configurable for flexible fine pitch, IC or high-speed chip placement up to 30,000 cph. Modular platform design maximizes flexibility, value and reliability. Offers a multitude of head and feeding options for NPI and first article build, high-mix/low-volume and high-volume applications.

Universal Instruments Corp., uic.com

Booth 343

Motorized Lift

BlissLift is completely motorized and features rechargeable batteries. Ergonomic design reduces the time to move heavier PCBs or chasses. Said to reduce damage. Can go from the conveyor line height to 20 or more programmable height positions on a cart or burn-in rack with a push of a button. Raises or lowers automatically to correct position. Offers interchangeable batteries and an offline charger.

Bliss Industries, blissindustries.com

Booth 357

No-Clean, SAC Alloys

ROL1 no-clean solder paste and SAC305 and SAC405 lead-free pastes are said to be J-STD-001 compliant. Visit the Website for a 250 g sample.

Shenmao Technology, smtsolderpaste.com

Booth 1177

Stencil Cleaner

SonicOne is a fully automatic, ultrasonic, non-hazardous, environmentally safe paste/adhesive removal system. Provides wash, rinse and dry functions at the touch of a button. Removes rosin, water-soluble and no-clean pastes, as well as all SMT adhesives. Compatible with numerous environmentally friendly chemistries. Equipped with an internal wash-solution recycler and wash-solution heater. Has a wash solution and rinse solution filtration system for direct-to-drain operation. All functions are programmable and recallable.

Aqueous Technologies,
aqueoustech.com

Booth 1069

Device Programmer

37M10K2 fine-pitch automated device programmer combines high-speed flash programming with support for more than 19,000 devices, including flash, microcontrollers, FPGAs and PLDs. Programmable in 15 to 20 sec. Programs devices with densities up to 4 Gb. Incorporates USB 2.0 standard bus. Achieves throughput of up to 950 devices/hr. Has a small footprint and programs at 0.24 s/Mb. Features full-time vision centering with no throughput penalty.

BP Microsystems, bpmicro.com

Booth 1035

Mid-Volume SMD Placement

AX platform is for mid- to high-volume, high-mix parts placement. CCD component alignment allows optimal chip placement. Places a range of components, can be optimized for each new production batch without reconfiguration. Handles chips from 01005 to IC packages (QFP, BGA and CSP), with dimensions up to 45 x 45 mm. Offers volume flexibility through per-robot expansion. Provides minimum output of 30k cph, expandable to 110k cph.

Assembléon, assembleon.com

Booth 1085

Lead-Free Solder Paste

Multicore LF320 Pb-free solder paste requires a minimum peak reflow temperature of 229°C, and offers a safety margin when reflowing temperature-sensitive components. Print speed range is 25 to 100 mms⁻¹ (6" s⁻¹) and an abandon time of up to 2 hrs. Formulated to resist slump and solder balling.

Henkel Technologies, henkel.com

Booth 1213



Performance Measurement

CmController Compact5 is a mobile product and service offering third party, objective evaluation methodology. Special vision algorithms, accurate glass plates and components permit independent measurement of Cp and Cpk indices on production equipment. Reportedly validates all brands and models of SMT printers, dispensers, placement and semiconductor gear. Provides statistical specification-based results on machine quality performance.

CeTaQ Americas, cetaq-americas.com

Booth 257

