



#### **Surface Mount**

DEX Horizon 01iX Printers	Auto screen printer with vision
PRINTEK II	Full automation screen printer with vision
ASSEMBLEON EMERALD	High speed flexible Component placer, 10mil with BGA,QFN,LGA
ASSEMBLEON MG-5	High speed flexible Component placer, 10mil with BGA,QFN,LGA
ASM SX2 SMD Machines	SMT Component placement solution for high-mix electronics production
Ersa Hotflow 3/20-H	Reflow Oven with top/bottom 10 heat zones/ 4 cool zones
Omrom VP9000 SPI	3D Solder Paste Inspection with 4 projectors and one coaxial camera
Omrom VT-S10 AOI	Enhanced-3d AOI combining MDCMD colorhighlight illumination and image processing in 25 mg pixel
Omrom VT-X750 3D CT AXI	CTAutomated X-Ray inspection, with 3um capable of dividing a single solder point into hundreds of cross-sections
Glennbrook Jewel Box 70T X-ray	Crystal-X imaging plus a 10-micron MicroTech™ X-ray source provide magnification
System	from 7X to 2000X, with resolution of 100 line pairs/mm

### Through Hole

Kurtz Ersa 4/55 Selective Solder	High speed / dual pot selective solder
Pillarhouse JADE MKII	High speed selective solder
Pillarhouse Orissa single pot	High speed selective solder
selective solder machine	
TE P-360 Tab Inserter	High speed press fit tab inserter
UNIVERSAL #6241F	High Speed Axial Inserter 22k per hour
UNIVERSAL #6380XT	Radial 8XT Inserter with board error correction 24k per hour
Ersa PowerFlow Air	High-performance wave soldering system with flexible soldering bath technology
3-APS	Radial lead cutters
APS	Large axial lead form and bend machine
2-HEPCO MODEL 1500-1	Loose radial fed formers
2-HEPCO MODEL 1700-2	Radial taped component former

#### Wire

Schleuniger 9380	Cut and strip wire machine
Schleuniger 5200 Coaxstrip	Precision coax strip machine
CARPENTER #74C	Coax swing blade cut and strip machine
EUBANKS #4700	Automatic wire cut and strip machine

# Inspection & Test

3-GRIEVES	Circuit board baking oven
MANTIS #TS-4	Stereo dynascope 65x mag
ECD Reflow Profiler OPTIMIZER	Reflow profile verification tool
MV-3 AOI SYSTEM	Automated Optical Inspection
MV-6 3D AOI System	3D Automated Optical Inspection
Glenbrook X-Ray	Jewel box 70T 2000X diopler
X-Pac ASG-SD2500	X-PAQ <sup>™</sup> Precision Fastening System
Mirtec MV-3 AOI System	Automated Optical Inspection System

## **Cleaning & Chemistries**

Electrovert AS 100 CI	Dual Hurricane Jet, S Jet & JIC/V Jet Wash, Kyzen Chemical Isolation, 5 micron Filters with Torrid zone dry
Kyzen Aquanox A4626	Next Generation Aqueous Cleaning Solution
Kyzen Cybersolv 141-X	Precision cleaner blend of organic solovents
Kyzen E563-J	Ready-to-use solution for removing raw solder paste from stencils
Kyzen Cybersolv C8882	Understencil Wipe/Stencil Cleaning Solvent





#### **Coating & Glue Application**

SCS 5 Axis Conformal Coater and Silicom Applicator	Dispense system precisely applies 100% solids, solvent-based and water-based coatings, such as photoresists, acrylics, urethanes, epoxies, silicone, adhesives, RTVs, and solder masks
Dispensing Liquid 2 part epoxy dispenser	Dispense any type of 2 part material with precision amounts
5-EFD	Mask and glue dispensers
LOCTITIE PRECISION CA DISPENSER	Precision CA glue dispenser dispensers

#### **Solders & Fluxes**

SMT	Alpha NC1 SMT Lead	Cookson Electronics Assembly Material's ALPHA OM-5100, is a low residue,
	Paste	no-clean solder paste designed to maximize SMT line yields.
SMT	Alpha OM-338T- No-	ALPHA OM-338-T is a no-clean solder paste designed for a broad range of
	Clean Paste	applications.
SMT	Alpha EP-7275 SMT Glue	Epibond® epoxy surface mount adhesives are formulated to meet the exacting
		performance and quality requirements of printed circuit board manufacturers.
Wave Solder	Alpha SacX 307 Wave Bar	ALPHA Vaculoy SACX0307 is an alloy suitable for use as a replacement for
	Solder	Sn63 alloy in the wave solder process.
Wave Solder	Alpha Hi-Flo Leaded	HiFlo solder is manufactured with virgin metals process through Alpha's
	Wave Bar Solder	proprietary viscosity and dross lowering treatments which create the purest,
		lowest drossing, highest fluidity solder.
Hand Solder	Alpha Tele Core No-clean	A low residue core solder designed for no-clean soldering applications that
	Wire Solder	must meet all appropriate Bellcore specifications.
Flux	Alpha EF-2210 VOC Free	Alpha EF-2210 is VOC-Free, halide-free, rosin/resin-free, low solids no-clean
	No-Clean Flux	flux which provides the highest activity of any VOC-free Bellcore SIR compliant
		flux for defect-free soldering.
Flux	Alpha EF-8000 Flux	ALPHA EF-8000 is a rosin-containing flux designed to provide the attributes of
		excellent solderability and reliability in general and high-density boards in the
		eutectic tin/lead processes.
Flux	Alpha OM-338 Paste Flux	No-Clean flux used in the placement and reflow of lead-free solder processes

#### Welding & Fastening

BRANSON 8400 ULTRASONIC	High speed 8 Position rotary table welder
WELDER	
RF	Plastic welder

#### **Supporting Tools**

ASYS Insignum 4000	Precision PCB laser marker
NTG-4A	High speed depanelizer
HR Count X-Ray Reel Count	Cycle time of x-ray counting and barcode scanning for a single reel is below 9
System	seconds.
MIR200 Mobil Industrial Robot	Custom ESD shelving units ride on top of the MiR200 for easy transportation of kits
	and consumables around the shop.
SRS	Solder recycle system
5-USM	Eye letting machines

#### **Supporting Software**

Max/ERP	Tracking and inventory software
Aegis Software	Paperless process control software, tracking & machine talking
PROTEL & Altium	PCB layout software
ASCI II Converter Aegis	Converter Quality Control software