

SMT AUTOMATION SOLAR E VEHICLE



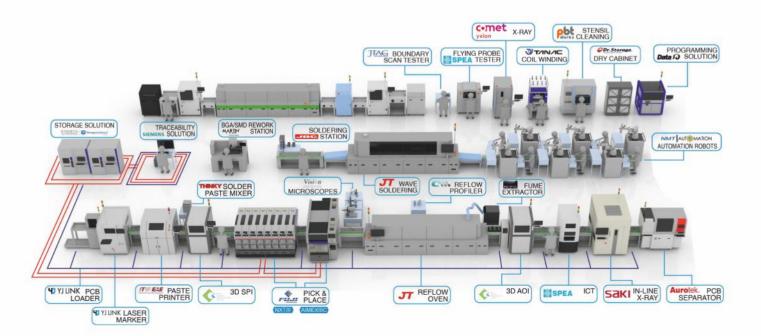




We are India's leading Automation Solution provider for Electronics Manufacturing & Solar Industry. Since our inception in 1999, we have consistently striven to adhere to our high quality standards. Driven by our customer centric corporate philosophy and aided by world-class quality products and efficient after sales and support services, we are acknowledged as the undisputed leaders in our field today with world-class equipment manufacturer partnerships. NMTronics has 12 sales and service locations and offers the most efficient after sales and support systems spread across the country.

No wonder, we are already on the threshold of fulfilling our vision of being "Single Window Solution to the Electronics Manufacturing & Solar Industry in the Indian subcontinent".

- NMTronics remarkably contributed in last 24 years to industry by providing Premium Product Sales & Services in Advanced Technologies in field of SMT, AUTOMATION, SOLAR & EV.
- Tailor made manufacturing solution design and development unit operation started in 2016, narrowing the gaps and providing seamless solutions to Factory Automation.
- Engineering Establishment of over 20,000 sq. ft. in Special Economic Zone [SEZ] for catering to major electronics manufacturers including solar cells manufacturing.
- Strong Service network in India with office at Noida (HQ), New Delhi, Gurugram, Chennai, Bengaluru, Hyderabad, Mumbai, Pune, Sanand, Tirupati, Haridwar, Goa, Cochin & Dhaka.
- Offering a Pool of (200+) highly skilled motivated workforce, working round the clock, empowering our customers business enterprise and spreading happiness with feeling of content in technological ERA.
- Our internal operation comply with ISO9001-2015 QMS guidelines.



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FUJI Corporation - Japan

www.fuji.co.jp

NXTIII/NXTIIIc - Scalable Placement Platform

The NEW NXT III is a highly productive, multi-functional modular placing machine. Built for speed, it features a faster XY robot and tape feeders, as well as a new H24s head that achieves 43,000 chips per hour. The NXT III supports the smallest parts being used 0201 (008004") in mass production with extreme placing accuracy of \pm 25um @ 3 Σ , Cpk \geq 1.00.

- NXTIII Machines built in Head exchange function, supports machine reconfigurability & scalability
- 2. NXTIII runs self-Diagnosis function called Auto & Hybrid Calibration to ensure High Placement Accuracy.
- 3. NXTIII supports Max. Board Handling Capability of 534 x 610mm
- 4. NXTIII supports Component handling of 0201 (008004") to 102 x 102mm (32 x 180mm) with 25.4mm part height and Placement Accuracy of ± 0.015mm @ 3 Sigma, Cpk≥1.00
- 5. Max. Feeder loading capacity of 45 (8mm) slots in M6III module and 20 (8mm) slots in M3III module
- 6. Electronic Intelligent Feeders supports part & production traceability with optional traceability software
- 7. FUJI Intelligent Feeders are self-calibrate type with Auto pickup offset correction Function, Variable pitch, Common Feeder for Paper & Emboss tapes. One 8mm Feeder supports Parts ranging from 01005" to 1210" package type.
- 8. NXTIII supports special applications / Features like PoP, Glue Dispensing, Pressure insertion function, Multi Job Line Balancing, Low Impact Placement up to 50gf, Parts presence check, Panel Warp detection, Head replacement function, Flexible Dual Conveyor Option & Auto Maintenance tools.



NXT III

AIMEXIII/AIMEXIIIc - Flexible High-mix Production

AIMEXIII/IIIc are highly flexible and expandable "one machine solution", Supports High Speed production up to 80,000Cph using 2-Robot Configuration. AIMEX also supports Industry leading Feeder loading capacity of 130(8mm) Tapes, also supports other packages like Trays & Stick Packages.

- 1. AIMEX Platform supports Automatic vision data generation, on-machine editing function helps to ramp up new production and quick response to sudden changes in program using NPI tool.
- 2. AIMEXIII/IIIC supports part handling from 0201 (008004) to 102 x 102 (32 x 180), 38.1mm part height using Different Placement Heads
- 3. AIMEXIII support Max. Conveyance Panel Size up to 1068mm x 710mm as Standard and 1500 x 710mm using Extended Conveyor Option
- 4. LTW2 tray unit can handle 48 tray types and Max. of 96 x JEDEC Trays can be loaded into once single machine
- 5. AIMEX supports Dyna Head which handles parts ranging from 0402 (01005") to 102 x 102mm, H-25.4mm & also Glue Dispensing using Glue Auto Tool using Single placement head
- 6. Built in IPS function helps in inspecting Chip parts for presence check, Tombstone, upside down, missing etc., @ 100% speeds
- 7. LCR Check function and Coplanarity check can be added for high quality inspection



NXTR - Smart Factory Platform

In Order to minimize the gap between plan and reality while maintaining efficient production schedules that include flow of materials need to be implemented and met in actual production.

FUJI Smart Factory Platform NXTR is a new platform that is able to link with the integrated production system, Nexim, for efficiently performing a wide range of production

- 1. NXTR is newly built platform to support FUJI Smart Factory Concept with Automatic Feeder exchange using Smart Loader
- 2. Newly developed head design RH20, RH08 & RH02 records 50,000Cph, 24,000Cph & 8,000Cph respectively
- 3. NXTR achieves world class placement speeds using Fuji's unique rotary head technology
- 4. Reliable & Stable Placement can be performed with the help of sensing technology in NXTR
- Can load abundance of parts using specialized Feeders and base buffers
- 6. Supports both Single lane and Dual Lane production in single machine [750 x 610mm Single lane and 750 x 280mm Dual lane mode in One (1) module base, 370 x 610mm Single lane and 370 x 280mm Dual lane mode in Two (2) module base]
- 7. Industry's best placement Accuracy of ± 25um @ 3 sigma, Cpk≥1.00 is supported



NEXIM - FUJI Smart Factory Solution

NEXIM - FUJI's Smart Factory Solution used for handling production programs and also maintains the total product traceability in one single platform. NEXIM not only handles FUJI machines but also handles other equipment manufacturers in SMT line. NEXIM supports Total SMT line management including batch changeover, Visualization of production information and machine operating conditions regardless of time or place. Other than this NEXIM also supports other functions like,

- 1. Supports remote operation of FUJI Mounters
- 2. Supports Close loop Feedback and Feedforward functions based on the information from SPI & AOI systems in SMT line
- 3. Supports Automated parts supply and maintenance
- 4. Supports in providing information required for connecting machines and systems
- 5. Supports production data acquisition and database storage

Plan See Customer of Country of

sTower II - Automated Part Warehouse

sTower II is an automatic part warehouse that has an excellent flexibility. It can store more than just reel parts. It can store various parts like JEDEC Trays, dry packs, thin and fragile tape reels and even loose parts in smart carriers. Three sizes of reel diameters 7", 13" & 15" are supported and the reel width can be from 4 up to 72mm wide. sTower II supports following features like,

- 1. Just in-time part supply through NEXIM integrated production system.
- 2. Storage and checkout of parts possible for up to 5kg, regardless of the reel size
- 3. Possible to link multiple sTowers II for combined use
- 4. Automatic barcode reading both 1D & 2D code possible
- 5. Intuitive interface using large touchscreen for easy operation
- 6. Smart Carrier Option available for storing quantify by combining multiple reels
- 7. Three types of models available for selection like 3000 (940 reels Std/ 2,300 Option), 2500 (782 reels Std. / 1,900 Option) & 2200 (624 reels Std. / 1,500 Option) Option by using SmartCarriers







FUJI Corporation - Japan

www.fuji.co.jp

GPX-C II/CS II/CL - Intelligent Solder Paste Printer

FUJI GPX is a High Speed and High Precision Printer which can print smallest pattern of 0201 Pads. GPX Printer supports Printing of small boards like mobile / Charges / Tablets to Large panel printing (up to 850 x 610mm) like LED / Network / Telecom products. GPX printers Digital look up & down camera system and strong

board clamping mechanism (Top & Side Clamping) supports high accuracy Printing of ± 10 um @ 6 Sigma, Cpk ≥ 2.00 & ± 18 um @ 6 Sigma, Cpk ≥ 2.00 Wet Print Accuracy.

- GPX Printer supports Local Traceability Option helps to verify the Solder, Squeegee, Stencil & Program to prevent mistakes in setting materials & also supports Smart Factory Functions like Auto Program Change, Local Traceability & Board level Traceability includes Printer Parameters recording against each Panel ID using NEXIM & FUJITrax
- 2. GPX supports Top & Edge Clamping of Boards as Standard feature which helps in Accurate Printing
- 3. GPX provide faster Cycle time of 6.0 sec for GPX-CII & GPX-CSII & 10.0 sec for GPX-CL model
- 4. GPXsupports PCB's ranging from 48 x 48mm 610 x 610mm for GPX-CII, 610 x 380mm for GPX-CSII & 80 x 80mm 850 x 610mm for GPX-CL models
- GPX comes with additional features & Options like JAR type Auto Paste Dispenser, Solder Roll Diameter check sensor, Selective Dispensing mechanism, Front side parking Cleaning system, Powerful Vacuum support with built in Vacuum Pump inside Printer.
- 6. Standard features like Close Loop Print Pressure control & 2D PAD coverage inspection system helps to have controlled Printing environment for any critical products



GPX-CII

sFAB-D / sFAB-a - Modular Multi-Purpose Automated Fabrication Equipment

sFAB is Modular & Multi-Purpose Automated Fabrication Machine. SmartFAB used for Automation of manual insertion processes like Radial, Axial & Odd-form parts. SmartFAB helps in replacing the Manual Insertion Process like Component forming, Pallet / PCB Masking, Manual Insertion & Soldering of Manual inserted parts can also be done using SFAB machine. sFAB-A is a Mixed inserter which can insert radial parts, axial parts & Jumper wires in single machine reduces the total area consumption used by three machine types

- 1. Handling a wide range of components SmartFAB can handle following processes like,
- Axial Parts Insertion
- Radial Parts Insertion
- Small & Large Odd Form Component placement
- Jumper insertion requirement
- Special Application viz. Selective Soldering, Power Module Assembly.
- 2. sFAB Machine supports parts in packages like Sticks, Trays, Radial tapes, Axial tapes, Embossed Tapes & also Lose parts handling
- 3. sFAB supports additional features and checks like Lead correction, Tall parts handling, Odd form parts handling, Loose parts handling, Non-stop Tray supply, pivoting horizontal supplied parts for insertion, Parts vision inspection, Polarity check, Height measuring function, complete board traceability & selective soldering of panel.



s-FAB a



Illinois Tool Works Electronic Assembly Equipment - USA

www.itweae.com

ITW EAE is a developer and provider of process equipment used in electronics manufacturing, and is found in premier printed circuit board (PCB) assembly facilities the world over. ITW EAE comprised with industry-leading brands: MPM stencil printing equipment; Camalot Systems fluid dispensers; Electrovert reflow soldering, wave soldering, and curing, and cleaning equipment.

MPM Stencil Printers: Momentum II Series

- MPM Printers Built on a Solid Foundation.
- The Momentum® II can accommodate a wide range of PCB sizes from 609.6 mm x 508 mm (24" x 20") down to is 50.8 mm x 50.8 mm (2" x 2").
- Total System Alignment: ± 11 microns ($\pm 0.0004''$) at 6 sigma Cpk ≥ 2.0
- Wet print accuracy is +/- 17 microns @ 6 Sigma, CPK ≥2.0
- Model dependent Core Cycle time: 11 seconds 6 seconds (excluding printing)
- BTB gives Momentum® II users greater flexibility in line into dual lane output configuration. With an overall smaller footprint.
- Optional: Jar paste dispenser, solder paste roll height and paste temperature monitoring for yield improvement and traceability.
- Open architecture supports Industry 4.0 initiatives & MES communication.

Camalot Systems: Fluid Dispensers

Innovation, performance and flexibility driven specifically toward the needs of the Automotive, Smartphone and Semiconductor markets.

- Rigid frame design
- Small Footprint: 848mm wide
- High Accuracy: ± 35 microns @3sigma High Repeatability ±10 microns @3sigma
- Fast Up to 50% increase in UPH
- Max Dispense Area
- Dual Lane Configuration Available.

Electrovert Reflow, Wave & PCBA Cleaners

- Electrovert Omni Max/ES series oven comes with 5, 7, 10 & 13 Heating zones option.
- Omni Max/ES offers Max. Heating length of 3,855mm for 10 & 2,685mm for 7 zone ovens.
- 100°C (212°F) zone-to-zone segregation to assist in lead-free profiles (at350°C[662°F]).
- Patented ISO Thermal Chamber Technology supports Efficient Heat Transfer, excellent zone to zone segregation.

Vectra Series Wave Machine

- Patented Ultra Fill™ with Flo Lift wave technology to support better hole fill on top side of the PCB.
- Auto lead clearance option standard with all Electrovert WaveMachine
- Non-clogging type Rotary chip wave design for reduced SMT component solder skips
- Patented Servo Jet Fluxer for Selective Fluxing, low maintenance and lower flux consumption

Aquastorm PCBA Cleaner

- Both Inline and Batch type PCBA cleaners available to cater different production needs.
- Patented JIC, VJet & SJet Nozzles provide shigh efficient cleaning
- On Board DI filters for re-polishing of rinse water which reduces DI water consumption.
- Conductivity & resistivity meter helps to control the cleaning process.





CAMALOT



Material and Application table

	63550	68050	Smart	Nanotitot
Underfill		X	×	
UV material	X		X	3.
Poting Encapsulation		×		3.
Sealant	×	- 8		
Dam + Fill	K	X		X (Till only)
SMA	×			3.
Scroer Peste	×	×	X	
TIM		X		
Liquid Crystal	K.		X	
Gasteting	ж	X		
Silver Epory	K	×		
Flut				3.















YOUND TECHNOLOGY KohYoung Technology Inc - Korea

www.kohyoung.com

KOH YOUNG – 3D Solder Paste Inspection

Koh Young the Standard in 3D Measurement & Inspection are the world leaders in 3D SPI & AOI market both in terms of number of machines and technology. Koh Provides solution for both SMT and SEMI Conductor applications.

- KY provides 3D Shadow Free Moire's Interferometry, using Strobed white light and Dual Projection
- KY is # 1 in SPI Market since 2006 with close to 20,000 installations worldwide
- Uses 4M, 8M & 12M Pixel high speed Digital Camera which can be configured with $25\mu m$ / $20\mu m$ / $15\mu m$ & $10\mu m$ XY resolutions based on smallest pad size and inspection speed requirement
- High Speed Inspection Capability up to 56cm²/sec supported @ 25um Pixel resolutions
- Built in Advanced SPC Tools for Real time Process control and analysis
- Height accuracy of 1μm, 0.37μm Z resolution, <10% @ 6 sigma inspection
- capability of Inspecting 008004" pads (Gage R & R with ±50% tolerance)



KOH YOUNG - 3D Automated Optical Inspection

Koh Young Technology offers accurate and fast 3D Measurement capability overcoming the shortcomings and vulnerabilities of conventional 2D AOI systems. Utilizing the proven technology of the 3D SPI, 3D measurement values are used to program and to set inspection conditions.

- Full 3D Inspection with Coverage with complete 3D algorithms
- The Lowest False call & Fine tuning with 3D Measurement Consistency
- Centralized Library with Realtime Monitoring, Remote control and AI-aided programming support
- Multiline Process control, Multi line optimizer, Integrated SPI & AOI viewer & Machine to Machine connectivity supported
- Automated System calibration & Maintenance
- Solder Fillet Height and Volume inspection as per IPC standards
- Other capabilities include OCV & OCR reading capability, PCB Warp compensation, No PCB color sensitivity & Flexible PCB Inspection
- Can inspect parts from 008004" with full 3D Inspection capabilities up to 25mm Part height
- Koh Young can support Inspection up to 1,500mm / 850mm & 510mm Board lengths



ZENITH ALPHA

8030-2

KOH YOUNG - KY-P3 Solution for Pin Inspection

Koh Young KY-P3 Machine solution used for inspection of Pins that are used in Electronic Industries like Automotive, Telecom, Power Modules & EV product segment. Currently Electronic Industry is planning to adopt the soldering free products especially in Power Transmission applications. We need robust inspection solution of those Pins where in KY-P3 machines provide solution.

- KY-P3 systems support both Single Pin and Multiple Connector pin inspection
- KY-P3 systems comes with batch type, Automated inspection with Single and Dual Lane Conveyors, Integrated Flipper solution, Integrated elevator, High speed solution and also supports DMC, RFID reading solution
- KY Pin inspection also supports EV industry for power modules and IGBT product inspection
- Manual Single pin press fit inspection supported by KY-P3 M1, Connector pin inspection supported by KY-P3 (M2 & M3) Systems
- Automated Single pin press fit inspection supported by KY-P3 (A1) system & Connector pins supported by KY-P3 (A3) system.











YJ Link Co. Ltd. - Korea

www.yjlink.com

Board Handling & Automation System

YJ Link is an established manufacturing industry through their technology of automation and production system for customer satisfaction. YJ Link vision is to have the foot prints across the global with the best quality and affordable pricing with the different series (Y&A Series) of products as per customer requirement.

Y Series – Produced in Vietnam. Modularization, Flexibility, Fastest lead time with best price A-Series – Produces in Korea, for Automation Board Handling System

- Compact design
- Touch Screen Operating screen
- Panasonic PLC Control
- Durable structure with double base plate
- LED Tower light with Alarm
- Steel Wheels standard for easy mobility
- Side covers for standard for better aesthetics



Laser Marking Machine

- YJ Link Lase Marker is used for marking Logos, Letters, Serial numbers (Can mark various types, including 1D, 2D, QR Code and Characters)
- Machine Accuracy of ±0.1mm with Fiducial Recognition Option
- Vision camera is used to Recognize/read codes, Key Marks (Recognize PCB pattern/checking etching spot)
- Barcode Scanner (Cognex, Microscan, etc.) for engraved mark verification
- Internal flipper optional for double side marking
- Built Ionizer for dust remover (Prevent electrostatic damage)
- Head Movement type (space saving), Dual Laser Head (for faster cycle time)
- Uses CO2 Head for marking on Transistor, Ceramic Capacitor, PCB, CCB, Bus Connector, & Co-axial cables.
- Uses Fiber Laser for marking Bearings, Battery packs, USB Connector, Terminal Blocks, Battery, Aluminium, Pincette & IC Package.
- CO2 Laser available 10W & 30W options, Fiber Laser with 12W







SIEMENS

Siemens Industry Software - USA

/www.plm.automation.siemens.com/global/en/products/valor/

Introducing Valor® IoT Manufacturing - Valor MSS

Valor® IoT Manufacturing is a robust, secure IoT device and data acquisition solution for electronics manufacturing, featuring:

- Built-in interfaces to the majority of automated and manual stations on the shop floor
- Advanced machine and process control capabilities
- Highly scalable infrastructure
- Industrial-grade hardware, high performance security and data integrity



Major Product Benefits

- Provides access to all machines and processes on the shop floor
- Maximizes data flow efficiency by normalizing all data collected into a single standardized specification, the Open Manufacturing Language (OML)
- Provides insight into the factory performance with intuitive real-time
- dashboards
- · Increases machine utilization by automatically identifying bottlenecks based
- on predefined KPIs
- REST API and OML SDK provided free of charge
- Enables users to configure all sites ,floors, lines, machines, processes, tools, users, work orders, and BOM revisions from a single portal
- · Routing control & decision making including test pass/fail routing
- Material & process traceability and verification
- Manufacturing intelligence, customizable web-based dashboards & reports display and analysis of performance & utilization KPIs
- Information highway ERP interface
- NEW: Valor® IoT Manufacturing as part of Siemens Opcenter Execution Electronics (formerly known as Camstar™ Electronics Suite)
- Camstar+IoT provide the best in class solution for electronics Valor IoT box serves as the data acquisition layer from the machines. Camstar as the MES system.
- Material Management on top of Camstar, managing the material cross the entire line and production stations
- Valor Manufacturing Analytics on top of Camstar. Provides Business Intelligent and Analytics on the data from Camstar and IoT.



Shenzhen JT Automation Equipment Co., Ltd-China

https://en.jt-ele.com

Reflow Oven & Wave Soldering Systems

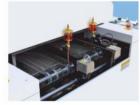
Shenzhen JT Automation Company is no. 1 manufacturer of reflow & wave soldering systems based out of China. JT Equipments are well known for easy operation, lower maintenance & lower Operating cost. The Reflow ovens are available in range of 6, 8 & 10 heating Zones whereas Wave Machines available with 350mm or 450mm Board width compatibility.

Key Specs for RS series Reflow

- Longest heating length of 3,110mm & 3,892mm for 8 & 10zone ovens in its segment
- Either 2 or 3 cooling zones selection option available for different cooling profiles
- Lower power consumption
- Branded PLC & Temperature controller used
- Temperature setting accuracy: ±1°C at no load steady stateMax. PCB width of 460mm
- Conveyor type: Chain + Mesh belt type
- RS-series oven are 'ECO-FRIENDLY-energy saving type'
- Modular design achieve highly uniform thermal performance
- Independently controlled fan speed for each thermal process possibal
- All circuits and components comply with CE safety certification to ensure the overall safety of the machine
- · Auto lubrication system standard
- Thicker and special heat insulation material for external body to reduce heat dissipation
- Highly effective exhaust system for lower N2 consumption
- Optional Dual Conveyance & Dual speed Reflow available

JT (5,00)







Key Specs for WS Series Wave Soldering

- Windows based PC & PLC controlled wave machine
- Temperature control is through PID close loop + SSR.
- Max. PCB width 450mm (Optional 610mm)
- Standard machine comes with standard V-Fingers & heavy duty conveyor system available for handling pallets up to 3kg weight
- Three bottom side preheating zones; Total length:
 1.8m;preheating method: Hot Air Convection
- WS series wave machine solder pot comes with standard Ti2 (Titanium) material
- Solder pot is having 5 years warranty against any leakage.
- Closed loop speed control standard for conveyor
- Different types of fingers available depending on the PCB/pallet to be handled
- Spray fluxer standard, ultrasonic spray fluxer [J-Sonic] available as option for better top side hole fill
- N2 control for solder pot area, solder level sensor, UPS, Wave In-Feed & Out-Feed conveyor optional
- · External spray fluxer using available for selection



WAVE SOLDERING









Inertec GmbH-Germany

www.inertec.de

Selective Soldering System

Inertec started the operation in 1992. Inertec founder owns the patent for the mini-wave selective soldering nozzle. Since its inception several types of selective soldering technologies have been available from Inertec like Miniwave selective soldering and High speed stamp soldering (also patented by Inertec).

- Both In line and Batch type Selective Soldering Systems support either Single or Dual mini wave modules.
- Different Nozzle types available like Wetted and Non-Wetted type for selection.
- Soldering pot can support both Leaded and Lead Free Solder.
- Fluxer module includes Micro Drop type (Auto Servo Axis), SONOTEC / Ultra sonic type or Spray type are available for selection
- Maximum Board Size: 457 x 508mm (Inline Selective), 460 x 460mm (Batch Selective)
- Soldering Angle adjustment possible between 0° or 7°
- 30mm Bottom side Clearance, 150mm Top side Clearance for Cube 460.
- Options available for selection like Bottom & Top Pre-heater, Solder level Sensor, Automatic Wire Feeder and Endoscopic Camera for process inspection.
- Inertec uses Vision camera for teaching the board for accurate soldering.



CUBE IN-LINE



ELS 3.3







Essegi System Service srl - Italy

www.storagesolutions.it/en

Storage Solutions

Storagesolutions, department of Essegi System Service Ltd., established in 2006, is the driver of growth for businesses in the electronic industry. The need to manage the material for electronics production in the most efficient and rapid way, has given rise to need for management of electronic components. With Installed base of more than 500 installations around the world, we help companies to maximize their productivity, increase their margins, reduce human mistakes, save time and space, eliminate waste of components and much more. We offer combination of our intelligent warehouse for the storage of electronic components in climate controlled environment and our powerful ISM software totally integrated with ERP, MES and P&P software and is industry 4.0 ready.





Storage solutions Benefits:

- Increasing of P & P lines production
- P & P setup preparation time saving
- Operators time saving
- Space saving
- Avoid human mistakes
- MSD controlled environment (RH<5%)
- Complete stock control » Maximum efficiency for the orders planning
- Maximum efficiency for productions planning
- Money Saving (fast R.O.I.)













Auto Incoming - NO MORE DATA ENTRY

- 13/18 Mega Pixel Camera combined with the ISM software (or External Camera Station), we can offer the Auto-Incoming
- No more data entry.
- Just printalable with Internal Unique ID and load in the machine
- The camera and software will create a NEW record for your componentby reading the information printed on the lables. Qty - Part Number -Supplier-etc.









Vision Engineering Ltd. - UK www.visioneng.com

Microscopy Solutions - 3D Stereo Optical and Digital Systems 3D Optical Stereo Microscopes - Quality Visual Inspection and Rework

Mantis Family - Ergonomic Low Magnification

- Discrete Magnification Range of: 2x, 4x, 6x, 8x, 10x, 15x, 20x
- MANTIS Family Variants: Mantis Compact, Mantis Elite & Mantis Elite Cam HD
- UV/White light LED illumination/Episcopic illuminator

MANTIS ELITE CAM HD

Lynx Evo-High Productivity Eyepiece-less Stereo Zoom Microscope

- 6x 60x magnification range (240x max) with multipliers
- 360° rotating viewer with 34° inclination
- SmartCam 5 and software (option) for image/video capture
- Long working distance Upto 176mm. Large depth of focus for viewing sample details

Digital Stereo 3D viewer with Zoom

DRV-Z1 is a digital stereo 3D viewer with zoom that brings together the benefits of optical stereo microscopy and digital technology into a single unique system.

- 6.1x 93x magnification
- Remote viewing of stereo 3D images in real-time
- Unique 3D without glasses
- 3D VIEW CAPTURE SHARE
- Communication across sites

EVO CAMII - Full HD 1080p Video Microscope

- 30x optical; 12x digital offers 300x optical & UPTO 3600X (DIGITAL)
- 360° rotating viewer with 34° inclination
- Easy Image/Video capture USB, Wireless Transfer, PC Connectivity
- Illumination: Controllable LED ring-light / Sub-Stage / Side Illumination

DRV-Z1



CAM B





Camß-Hand held Digital Magnifier

- Camera resolution: 1280 x 720, JPG
- Magnification 4x to 20x
- Store up to 20,000 photos
- Viewing modes: 4.3" Color display, Black & White & Greyscale

VE CAM 50/80

- Compact full HD digital microscope system for quick and accurate inspection right where you need it.
- Wi-Fi Share
- Touch Screen compatible
- Two views at once
- Video out HDMI
- Image capture format JPEG

MAKROLITE 4K UHD Video Microscope

- The Makrolite 4K digital microscope simplifies your visual inspection, image capture and measurement tasks
- Makrolite 4K provides live, sharp, high-definition video images in Ultra HD
- up to 330x magnification for real-time viewing or record live 4K video
- Fast defect detection Live image overlay comparison
- CAD file import acts as a simple image comparator making it easy to spot faults and pass/fail inspection.







MAKROLITE 4K



DeepFocus 1

Extended Depth of Field

- Digital Microscope with Advanced 3D visualization
- · Extended depth of field up to 69mm
- · Efficient measurement Easy and rapid reporting
- Optimized illumination using controllable lighting
- · DeepFocus has automatic glare control feature
- Featuring MALS Technology™, delivers live, real- time extended depth of focus imaging with depth of focus up to 100x



DEEPFOCUS 1

SX Elite 25/45/45TR

Stereo Binocular & Trinocular Microscopes

- Greenough design with excellent Optical Clarity
- Ideal for a range of requirements like easy image captures, reporting, training and archiving.
- Magnification range 4x-200x
- · Range of Stand configurations
- Up to 220mm working distance
- Optional camera kit with software







Thinky Corporation-Japan

www.thinkymixer.com

Planetary Centrifugal Mixer

Thinky incorporated from Japan in the year 1971, It is the first company to develop stirring bladeless planetary centrifugal mixer. The Centrifugal Mixer: mixes, disperse material uniformly and de-aerates at the same time.

World class manufacturer for Planetary Centrifuge mixing and De-Aeration Technology

Planetary propeller-less Centrifuge Dispersion and De-aeration technology offers mixing solutions for Nano material, Chemical Polymer, Solder paste mixing, Medical/Pharmaceutical, Adhesive/Sealant, Conductive paste, Research/Test Sample, Metals/Slurry and Batteries/Electrode Material.





Models	Revolution/RotationSpeed(RPM)		Max.			Unit Dimensions	
	Mixingmode	De-aerationmode	Processing Volume	Time Setting	Power supply	in mm	Ultimate vacuum
SR500	Revolution: STD mode: STEP1 1000rpm (fixed), STEP2 500rpm (fixed), STEP mode: 0, 200 to 1200rpm (adjustable) Rotation: Approx.1:3	Yes	Witha150ml container: 150ml/500g (net*) 150ml/560g (gross)	Timer setting range: 0 sec. to 30 min. in 1 sec. increments	Single Phase AC 120V/230V+/- 10%,50-60Hz	H380 X W300 X D340mm	N/A
			THINKY MIXER (Vacuum type)	,		S:
ARV-310P	Revolution speed: 0, 200 to 2000 rpm (adjustable) Rotation speed: 0, 1000rpm revolution speed/2	Yes	With a 300ml container: 250ml/250g (net) 250ml/310g (gross)	Timer setting range: 0 sec. to 30 min. in 1 sec. increments	Single Phase AC 100V+/-10%,50- 60Hz	H450 X W555 X D645mm	0.67kPa





BOFA International Ltd.-UK

www.bofa.co.uk

Fume Extraction System For Electronics Manufacturing Process

BOFA offers a wide range of fume extraction systems for people involved in the Laser, Mechanical Engineering,

Electronics, Printing, 3D Printing, Dental, Pharmaceutical and Beauty industry.

BOFA (UK) Ltd was established in April 1987 and has unrivalled expertise in the field of fume extraction and filtration.



V 250

V 300

V 600

V 1000iQ

V250

- · Dual arm Fume extractor
- Airflow rate 180 m³/hr
- Soldering fumes filtration via Pre-filter 96%@2microns and HEPA filters up to 99.997%@0.3 microns
- Both Unit and Bench clamp arms availability



V300

- · Dual arm Fume extractor
- Airflow rate 320 m³/hr
- Soldering fumes filtration via Pre-filter and HEPA filters up to 99.997\@0.3 microns
- · Both Unit and Bench clamp arms availability



V600

- · Centralised Fume extractor
- Airflow rate 350 m³/hr
- Soldering Fumes filtration via Pre-filter 95% @0.9 microns and HEPA filters up to 99.997%@0.3 microns
- Can be connected to 3-4 operators



V1000iQ

- · Centralised Fume extractor
- High volume extraction for hand and machine soldering applications
- Airflow rate 850 m³/hr
- Soldering fumes filtration via Pre-filter 95% @0.9 microns and HEPA filters up to 99.997%@0.3 microns
- AC 230V, Single Phase
- Can be connected to 6-8 operators



V2000iQ

- Centralised Fume extractor
- High volume extraction for hand and machine soldering applications
- Airflow rate 2200 m³/hr
- Soldering fumes filtration via Pre-filter 95% @0.9 microns and HEPA filters up to 99.997%@0.3 microns
- AC 415V / 3Ph / 50Hz
- Can be connected to 15-20 operators

13



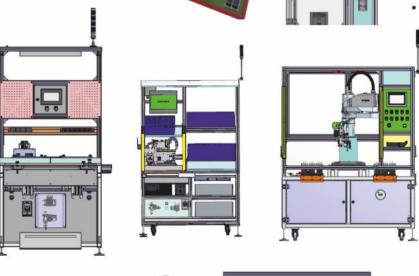


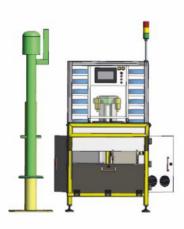


Automation Solution.



- Robotic Screwing Systems
- Robotic Dispensing Systems
- Robotic Test Stations
- Robotic Pick and Place Systems
- Product Handling Systems
- FLAT Belt Conveyors
- Edge Belt Conveyors
- Pin Chain Conveyors
- Roller Conveyors
- Product Fixtures Development
- Traceability Solution for Line
- Process Value Innovations
- Data Connectivity to Line Servers
- Product MFG Assembly Lines
- **Engineering Development Services**





























Nide Corporation-China

www.nide-group.com

Motors Winding application

Ningbo Nide Mechanical Equipment Co., Ltd Established in 2007, Nide is a company devoted in the field of electric motors manufacturing, providing one-stop service for its customers. In the international market, Nide is the leading

motor manufacturing machines supplier from China. NIDE provides different kinds of motor manufacturing machinery, including stand along machine, fully-auto complete line for EV Motor stator Rotor and the motor assembly line.

The Range of product includes.

- · Slot insulation paper insertion
- Coil Winding & Inserting
- Coil Forming & Lacing
- Stator Lamination
- Rotor Magnet insertion
- Varnish Apply (Dip & Trickle)
- Testing
- Motor assembly solutions

Also has specialized solutions for HUB motor production & Assembly.

NIDE is also specialized in providing solutions for Alternator stator, Starter motor manufacturing.





Tanac Automation Co., Ltd. - China

www.tanac.com.cn

Motors Winding application

TANAC Established in 1933, are the originators of Winding Machines. Today as a global company, TANAC develops & builds a variety of machines including, winders, soldering & testing stations, Auto Inspection equipments & fully automated line solutions as per customer requirements for the automotive, telecommunications, consumer electronics, lighting & medical applications.

The machine spindle configuration is available in the following ranges: 4S, 6S, 8S, 12S & 16 Spindle Machine, having key features such as:

- AC Servo motors & drives for Spindle & AxesNew Generation G4 Controller with Touch Screen HMI
- Balanced Design provides Compact Structure
- High rigidity, High Precision, High Speed & High Intensity
- Option of Integrating Various Accessories for handling different coils, supported by Precision wire tensioners ranging from abrasion free (Magnetic), Electronic & AC Servo ControlledWire tension Units
- Auto Bobbin load/unload Units
- Online Taping, Skiening and Enamel Scrapping Unit
- Two Wire Handling Unit





KIC International Sales, Inc. - USA

www.kicthermal.com

KIC Thermal Profiling Systems

KIC is the market leader in reflow and thermal process control and smart oven technologies. KIC has achieved this by developing uncomplicated products that acquire and deliver hard to get information in an actionable format allowing users to make better decisions. With optional analytics and machine learning, most decisions are made in real-time, automating manual tasks. This results in consistent quality, reduced cost and a more competitive factory.KIC systems can automate several manual profiling and thermal process control tasks, alleviating a number of production line chores. Our system connects data from every oven to the network, the MES, direct to machines and more. Real-time data over the factory network, data analytics and machine learning are all now possible with our Smart FactoryStarter Kit. The kit includes key smart capabilities such as:

- Process transparency & traceability
- · Flexible production with faster line changeover
- Extreme automation
- · Machine learning
- Energy reduction
- Data connectivity









For precise ranking of profile performance, KIC's software tools use the Process Window Index (PWI). The PWI measures the profile's fit to the process window (process limits) in a mathematical and objective manner by using a single number. The PWI concept provides a powerful tool for quickly evaluating the quality and strength of any thermal process.



Shenzhen KED Optical Electric Technology Co.,Ltd.

www.kedtech.com.cn

Pneumatic Stencil Cleaner

Shenzhen KED Optical Electric Technology Co.,Ltd. was funded in 2007,which integrate R & D design, production, sales and service. KED independent R & D and innovation continues to actively explore and improve the design to ensure equipment reliability and long-term efforts to reduce energy consumption. KED have implemented closed-loop run cleaner technologies to achieve lower consumption of cleaning fluid. KED Tech is at the core of environmental protection and the concept of zero emissions throughout the product design, from the pneumatic power source.

- The operation of machine for cleaning is powered by compressed air and requires no electricity.
- Two rotary jet wands uses low pressured high volume spray for effective stencil cleaning.
- Aluminum Pump, Pneumatic actuators used with 10µm filtration system before cleaning chamber.
- Standard cleaning and drying cycle is 10 minutes
- The smallest effective stencil hole is 0.1mm for BGA and 0.3mm pitch for QFP.
- The Machine is equipped with a cleaning solvent recycle system with 1µm filter, carbon Media, DI resin media and another 1 µm filter before circulating back to the tank. This process significantly extends the life of the cleaning agent. [Solvent consumption 120ml/wash]
- Supports cleaning of stencils of sizes from 6", 24", 29" & 32" etc.









Europlasma Europlasma NV-Belgium

www.europlasma.be

Plasma Treatment Equipment

Europlasma offers a wide range of gas plasma surface treatment equipment, from lab scale to industrial application, tailored to the needs of the following markets & applications: Metals, Automotive, Textile & Filteration, Medical, Aeronautics & Aerospace and Electronics. Gas plasma technology is a dry &

environmental friendly technique answering the need of printed circuit board (PCB) as well as the consumer of electronics industry. Europlasma products with plasma technology can suit your specific surface treatment or modification needs (i.e. coating, lamination, metallization, etc.) on your specific material.

Europlasma modify surfaces with low pressure Plasma treatment. Plasma is generated by electro magnetical discharge in a gas at low pressure.

Plasma Process

- Removal of molecular contamination layers from a surface
- Etching of a surface
- Chemical activation of a surface
- Cross linking of a surface
- Polimerization of chemical species on the surface
- Substrates can be plastic, metal or ceramics

Europlasma offers four types of Plasma treatment system depending on application

- Junior Plasma
- Standard size batch systems like Cd300, Cd400, Cd600, Cd1000 & Cd1800
- Roll to roll system
- Custom design



Applications

Etching:

Cleaning: Cleaning of electronic circuitry prior to

> encapsulation, gluing, printing, soldering and wire bonding & cleaning of glass & ceramics Desmearing of PCBs & Descumming of PCBs,

CD/DVD Masters

Surface modification of outer layers Activation:

Anewbest 艾贝特 Shenzhen Aibet Electronic Technology Co., Ltd. - China

www.anewbest.com

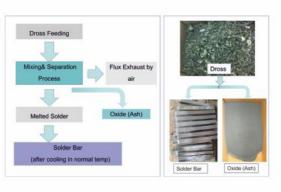
Off-line dross recovery machine

Economic design with small size and easy to transport. manual operate in melted solder output. offline operation without dust.high recovery rate and could work with several wave solderings.

ECON-SD10MS

Item	Parameter		
Mixing motor	1φ 220V 90W		
Capacity of Bottom Tin in Mixing zone			
working Temperature	280°C		
Heating-up time	60MIN		
Daily capacity	150KG		
Dimension	L680*W850*H1050		
Total Power Consumption	4.3KW		
Normal running power	1.5KW		
Control system	PID temperature contro mode		
Power	1φ 220V 50Hz		
Net Weight	Approx.*110kg		







Teamtechnik GmbH - Germany

www.teamtechnik.com

Battery Pack Assembly for Automobile

E-Drive Systems, transmissions, batteries, sensors, pumps, plugs – teamtechnik specializes in assembly and functional testing systems for the automobile industry. 20 years experience, all-round expertise – teamtechnik's customers all over the world value our extremely flexible automation systems. Standardized platforms, with modules that combine with customer-specific applications – that's the hallmark of teamtechnik's flexibility.

Modular EOL Test Benches for E-drives And Vehicle Transmissions



COMPACT DRIVE - the trusted basis

Teamtechnik is among the global leaders in the field of flexible test benches for e-drive systems. Our standardized COMPACT DRIVE testing platform enables us to test a wide variety of product types and variants using the same modules. On this basis we create testing systems, from individual test benches through to fully-automated test fields with additional stations for pre-testing, oil filling and draining.

Proven processes linked with customer requirements

On our COMPACT DRIVE platform, we combine standardized production system modules with customer-specific processes. Examples of this include:

- Electrical tests and calibration
- Function and noise level testing
- · Battery simulation
- Control unit communication and full data tracking
- Supply with oil and cooling water







Battery production technology customized, turnkey assembly and testing solutions

In the field of battery production technology, teamtechnik offers flexible system solutions for manufacturing battery modules and packs, central contacting systems, anodes, and covers for battery housings.

Trusted processes that are used here include:

- · High-speed assembly processes
- Laser and resistance welding
- Thin-foil handling
- Leakage test-
- · Adhesive application
- Data management
- Electrical and visual test procedures
- EOL testing for battery modules and packs

Assembly and Functional Test Systems For Transmission and Engine Parts

Transmission mechatronics

teamtechnik is synonymous with efficient production solutions for transmission mechatronics and valve bodies. We integrate a wide range of different processes in the systems as required.

Compressors

We have already supplied different compressor manufacturer with assembly and testing systems. Depending on the requirements, the automation level is individually adjusted.

Oil Pumps

Taking the purity requirements into account, teamtechnik offers efficient solutions for the production of a variety of oil pumps.

From transmission oil pumps to engine oil pumps with or without electric drive (power on demand).

Steering systems

teamtechnik has proven platforms and processes for the assembly and testing of modern steering systems.



Cell Handling



Soldering

Valves

For 20 years, we have developed and built assembly and functional test systems for many different types of servo-hydraulic proportional, regulating and switching valves.

Braking systems

Boosters and vacuum pumps are examples of brake system components, which are assembled on teamtechnik systems.

Global Reference | Image: Continue of the con

Solar Division

NMTronics started solar business in the year 2009 and since then have established itself as the one of the most trusted technology partner.

Today we are the largest supplier of solar cell & module manufacturing equipment of over 6GW annual capacity.

Robotechnik smart factory solution



Our Solar Partners



Robotechnik is the leading smart factory solution provider for solar cell & SMT industries.



DR Laser laser application equipment manufacturer for solar cells.



Kingenious is a solar cell process equipment manufacturer with know-how of latest cell technologies.



Teamtechnik is a Hi-technology Stringer manufacturer with Worldwide market leadership.

FUJI Corporation

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SMT • AUTOMATION • SOLAR • EV

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2022