



**SMARTSOL**  
TECHNOLOGIES  
AMERICA



## **Solutions Portfolio for the High-Tech Industry**

*Assembly, Automation & Inspection Technologies*

[www.smartsolamerica.com](http://www.smartsolamerica.com)



# SMARTSOL TECHNOLOGIES

SMarTsol Technologies is a company founded in February 2012 in Guadalajara with the objective of offering products of value for our customers.

We are a supplier with the expertise in process analysis and consulting for the High-Tech Industry, including industrial, electronics, automotive, aerospace, metalworking, medical, telecommunications and commercial sectors.

We help our customers to optimize and automate their production processes; our services includes:



Capital Equipment Sales



Technical Support



Distribution



Integration for Automation



Process Analysis & Consultancy



Training

Our facilities in the most strategic locations in Mexico and United States allow us to improve delivery times and provide technical support and customized trainings for our customers:

Demonstration and Distribution Center in Guadalajara, Jalisco

- 3 training rooms
- 1 demo room

Demonstration Center in Ciudad Juarez, Chihuahua

- 1 training room
- 1 demo room

Demonstration Center in Queretaro, Queretaro

- 3 training rooms
- 1 auditorium
- 1 demo room

Demonstration Center in Tijuana, Baja California

- 1 training room
- 1 demo room

AZ Office in Mesa, Arizona

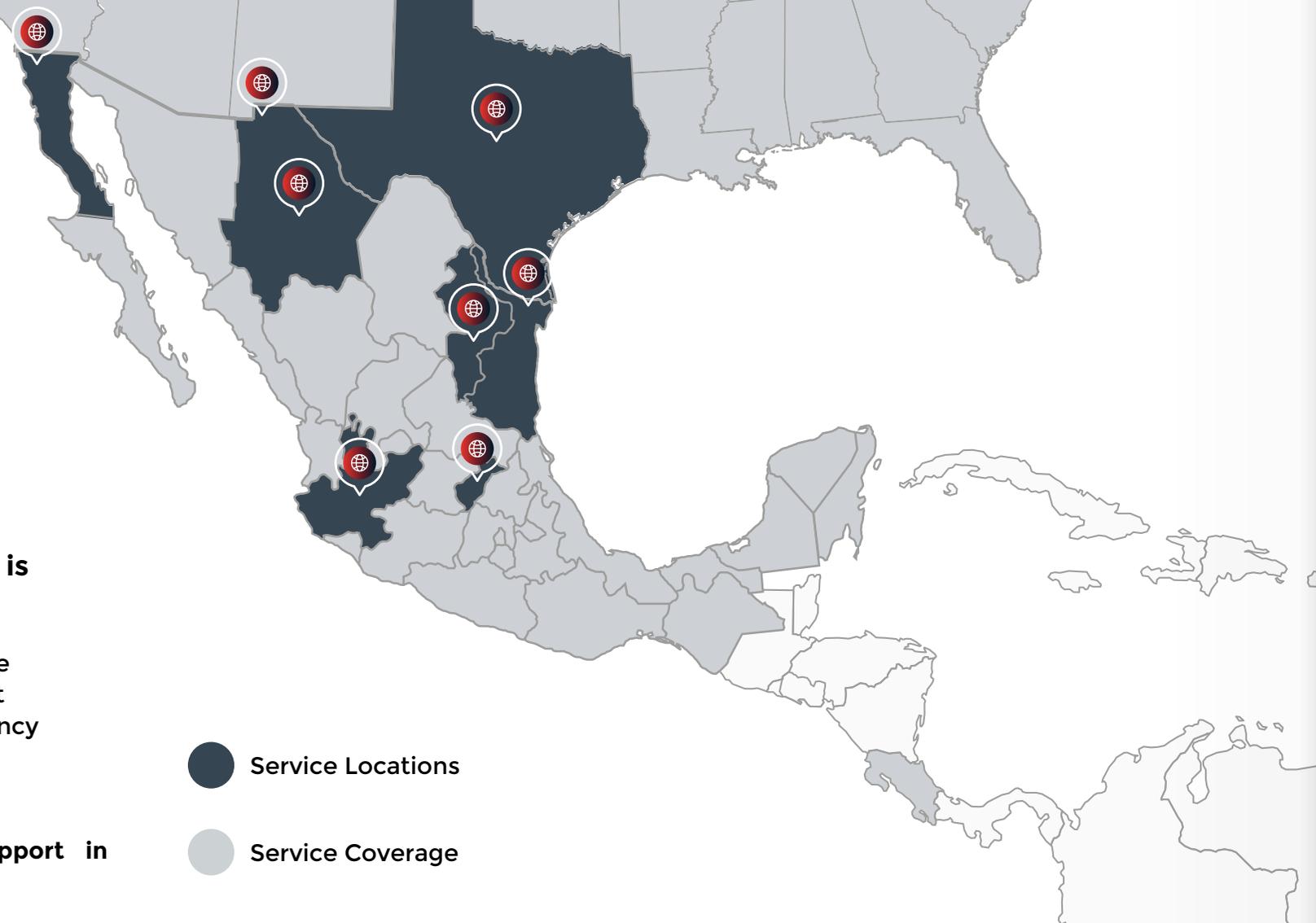
Demonstration Center and Warehouse in El Paso, Texas

Our personalized service has made possible to gain customers and suppliers trust, exceeding their expectations.

Our portfolio includes only premium brands, also we provide all the technical support for our customers including spare parts distribution. SMarTsol team will provide you global best practices of the industry at a local level.



## Field Service Team



### Our service team is specialized in:

- On-site or remote technical support
- Process consultancy
- Training
- Applications

● Service Locations

● Service Coverage

Providing 24/7 support in Mexico and US.



## Placement Solutions.

*Capacity-on-Demand – for maximum manufacturing flexibility.*

ASM offers SMT placement solutions for any type of production. From highly flexible small-sizes manufacturing to high-volume mass production, SIPLACE solutions set benchmarks in performance, accuracy and flexibility, with smart software, placement heads and component feeding systems that can be shared across machine platforms.

### SIPLACE TX

High-volume production with maximum precision in a tiny footprint

The smart factory needs smart machines: the SIPLACE TX is breaking all performance records with its new SIPLACE SpeedStar placement head and new SIPLACE SmartFeeder Xi. The extremely compact and flexible scalable modules of the SIPLACE TX set new standards in many areas:

- Maximum performance



- Maximum floorspace productivity,
- The world's first solution for the high-volume placement of super-small 0201(m) components.

### SIPLACE SX-Series

For highly flexible on-demand production

The solution for EMS providers and OEMs who want maximum speed and flexibility. For quality-oriented SMT production in industries like automotive, telecommunication infrastructure, controls/automation and medical technology.

### SIPLACE X-Series

For demanding high-volume production

The latest generation of our ultimate high-performance platform. The global benchmark solution for high-volume production: mobile phones, tablets.



## Screen Printers for SMT & Semiconductors.

*Always The Right Solution For Your Production.*

Performance, Efficiency, Flexibility, Scalability - DEK printing platforms set standards. Global EMS companies, local OEMs, high-volume producers, quality-oriented contract manufacturers-ASM that put you ahead of the competition.

With their modular design, DEK stencil printers can be adapted to meet your specific requirements, but the basic DEK features will always be there in the form of flexible yet highly efficient printing processes, first-class software, and competent support.

### DEK NeoHorizon Modular and powerful

With their flexible configuration options, DEK Neo Horizon printers are easily adjustable to meet your specific requirements.

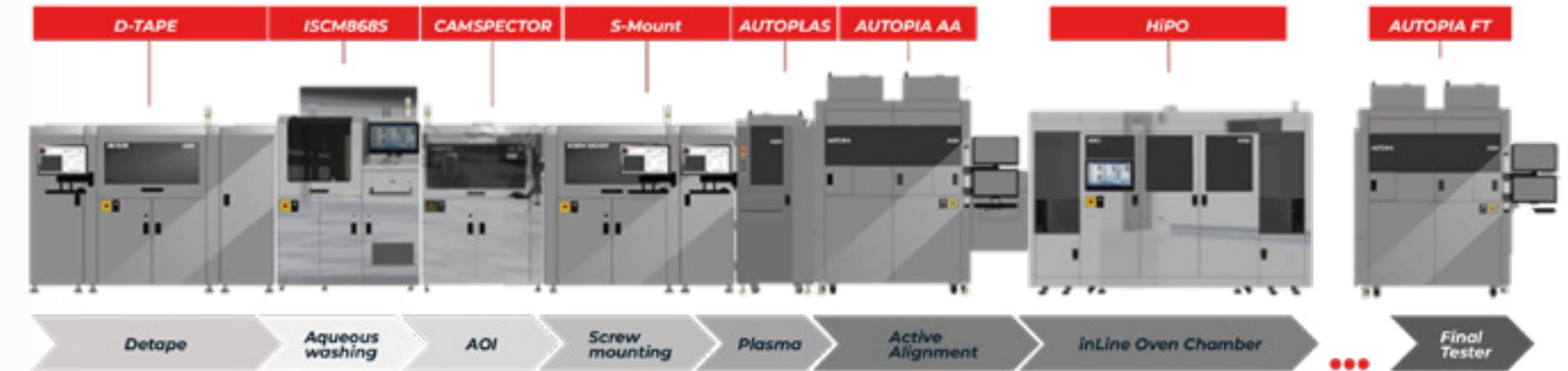
Whether DEK NeoHorizon back-to-back, under stencil cleaning, conveyors, paste roll height control, clamping systems or verification systems - mixing and matching options is quick and easy.

### DEK TQ Maximum performance for high volume production

With a newly developed under stencil cleaning system, its innovative print head with integrated paste height control and a fully automated paste dispenser, the DEK TQ offers maximum performance with best uptime and minimum operator assists. In order to allow a full and seamless integration into your production environment, DEK TQ supports many interfaces and communication standards being used in the smart SMT factory.



## Total solution for Semiconductors Backend Assembly.



ASM Pacific Technology Limited (ASMPT) is a world leader in the supply of semiconductor assembly and packaging equipment and surface mount technology solutions.

ASMPT differentiates itself by leveraging the cutting edge technologies that help you achieve competitive edge and faster time-to-market.

### Solutions

- Advanced Packaging
- Advanced Packaging SMT
- Encapsulation
- Image Sensor

### Applications

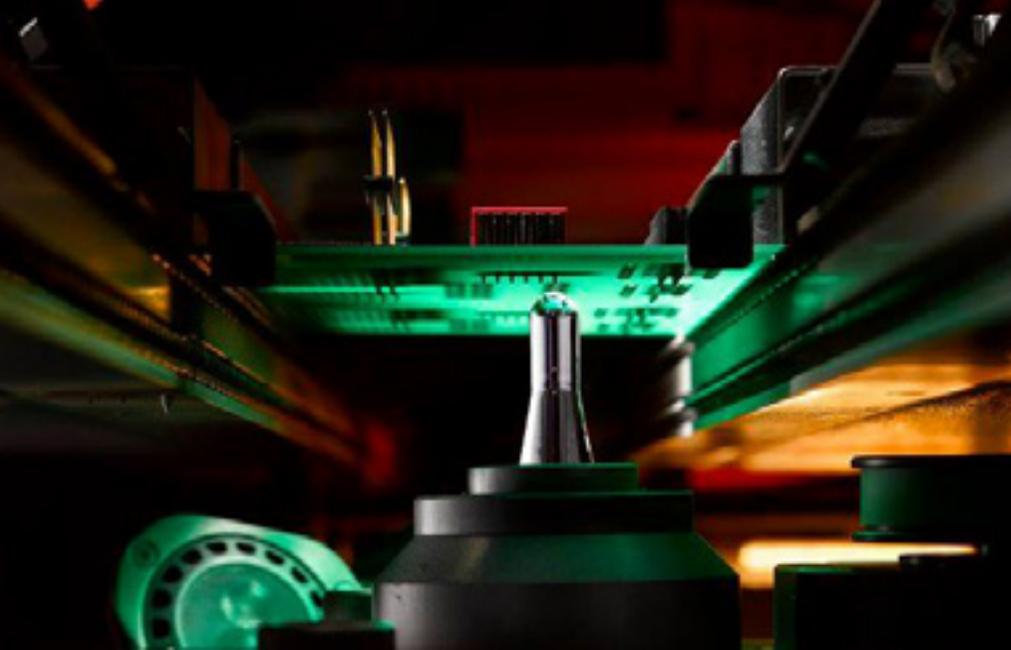
- LED/Opto
- Smart SMT Factory
- Stacked Die
- COB
- Photonics
- MEMs
- Power

### Equipment

- Deposition Process

### • Wafer Separation

- AOI/FOL
- Die Attach
- Wire Bonding
- Encapsulation
- Singulation, Trim & Form
- LED Sorting System
- Test & Finish Handling
- Surface Mount Technology
- Sintering
- CIS Equipment
- Factory Automation



## Nordson SELECT. *Selective Soldering Equipment.*

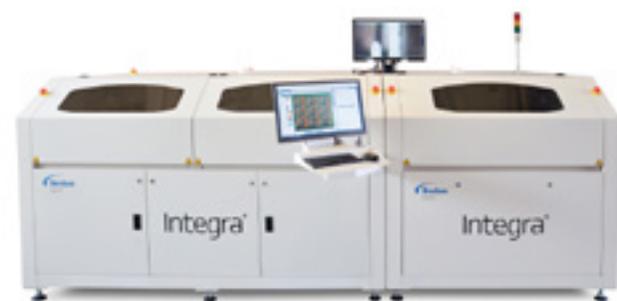
Nordson SELECT understands both the need for high levels of throughput and the ability to adapt the selective soldering process to customer's ever changing requirements. As an example, our parallel or double processing modes enable fluxing and soldering of two printed circuit boards at the same time, effectively doubling throughput.

Nordson SELECT offers a full spectrum of selective soldering solutions, from compact and economical standalone models to multi-station in-line models with uncompromising high performance.

**Integra**  
The Integra is a multi-station selective soldering system designed for high-volume applications with maximum throughput.

The Integra has many unique features, including concurrent fluxing, preheating and soldering for faster processing time and reduced soldering cycle.

Customers can choose between three different variants of the Integra to meet a broad range of selective soldering requirements.



## Nordson YESTECH. *AOI – SPI – ACI - Single & double side.*

Nordson YESTECH is your 1-stop resource for automated optical and electronics inspection systems and equipment (AOI). We offer a comprehensive and versatile line of AOI. Our unique technology, combined with our focus on customer service and satisfaction, makes the Nordson YESTECH line of automated optical inspection systems the best value available today.

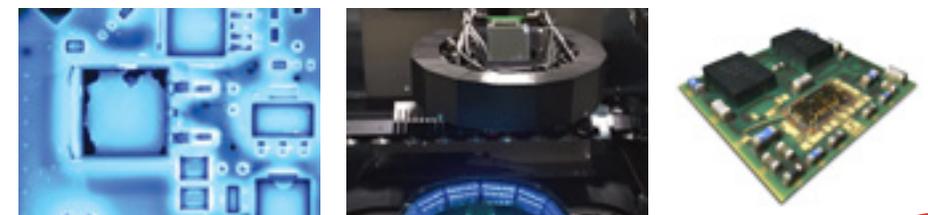
**FX 940 ultra 3D AOI**  
Nordson YESTECH's advanced 3D imaging technology offers high-speed PCB inspection with exceptional defect coverage.

**UV configuration available for FX-940 and FX-942**  
Conformal coatings used by electronic manufacturers contains UV indicators for the purpose of Inspection. Since coatings are transparent, units must be viewed under black light in order to verify coverage and non-coverage.



**LX-1000 AOI**  
The LX-1000 automated optical inspection system offers high-speed PCB assemblies inspection with exceptional defect coverage, inspecting solder joints and verifying correct part assembly, enabling users to improve quality and increase throughput.

**M2 AOI**  
The M2 offers high-speed microelectronic device inspection with exceptional defect coverage. With resolutions down to submicron levels and telecentric optics, the M2 provides complete inspection, all within a footprint less than 1 sq. meter.





## Nordson MATRIX.

*Automatic X-ray inspection system.*

The modular AXI system concept provides the unique capability to use several inspection technologies in one system. Depending on the specific application request, the optimum inspection technique can be selected and/or combined.

### 2D - Transmission

- High-speed inspection technique with up-to 5-6 images/sec. and with best high-resolution capability (II, FPD)
- Transmission is two-dimensional image capturing with a fixed detector position, Movable sample tray and movable X-ray tube (z axis) for different magnifications.

### Slice Filter Technique (SFT)

Matrix patented inspection technique to separate Top and Bottom side for double-sided PCB-assembly applications. High-speed technique using first side image to filter out from double-side image.

### Off-Axis Technology - 2.5D - Oblique View

AXI on programmable angle-shots used for high performance BGA and PTH inspection.

### 3D - SART

3D-Tomosynthesis to generate multiple horizontal slices used for highdense double-sided and multi-chip-modules (MCM, LGA)

X2 Transmission (2D) + SFTTM

X2.5 Transmission (2D) + SFTTM + Off-Axis (2.5D)

X3 Transmission (2D) + SFTTM + Off-Axis (2.5D) + 3D SART



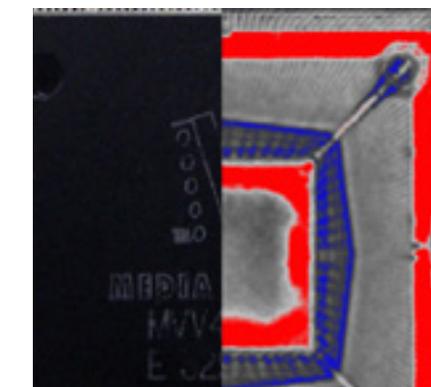
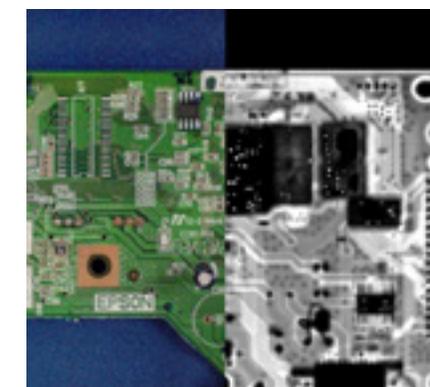
## Nordson SONOSCAN.

*Discover Defects First.*

Sonoscan is the most experienced source in Acoustic Microscopy for non-destructive internal inspection and analysis.



Sonoscan's C-SAM acoustic microscopes are recognized as the benchmark for accuracy, and through our SonoLab® division, you'll benefit from the unmatched expertise of our dedicated acoustic applications engineers. Our engineers represent the leading minds in AMI and regularly receive industry recognition and awards.





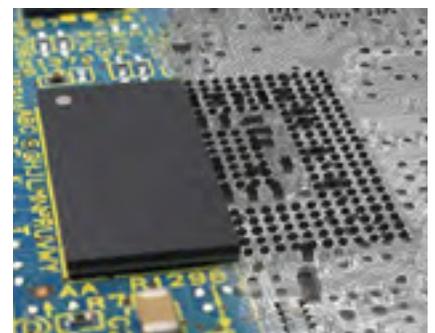
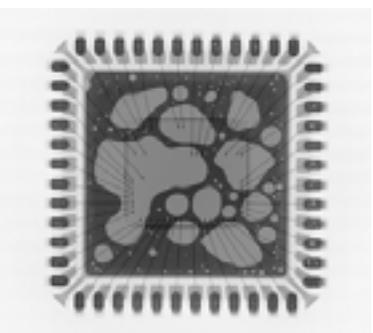
## Nordson DAGE.

*The leaders in X-ray inspection for the electronics industry.*

Nordson DAGE offers the highest feature recognition and resolution X-ray systems not only within failure analysis laboratories but also within the production environment.

### X-Plane System Option

X-Plane technology provides high resolution, high magnification CT functionality anywhere on the board - without cutting the board.



### Computerized Tomography (CT) Option

The Nordson DAGE  $\mu$ CT inspection option provides Computerized Tomography (CT) functionality to complement the 2D X-ray investigations on Nordson DAGE X-ray inspection systems.



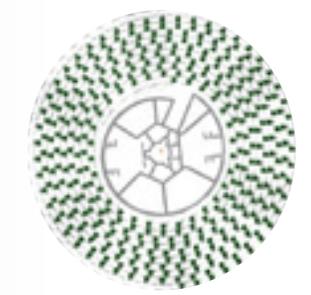
## Nordson DAGE Assure.

*Intelligent, simple and fast component counters.*

The new Dage Assure helps to keep exact parts count in production and storage areas.

### Nordson Dage Assure, parts counting system

- Drastically reduce counting labor
- Eliminate counting mistakes
- More up-time production lines
- Make better use of man power
- Communicate with ERP and MES systems.



### DAGE Assure Flex

Complete reel counting flexibility, DAGE Assure Flex is the complete counting solution for every workflow, from walk up operator loading to inline operator free.

### Fully Automated Storage Solution

DAGE Assure Flex has an integrated conveyor which can feed into a range of existing, high capacity storage system solutions.

Reels are fed through on conveyor for a fast, automatic count.





## Nordson DAGE. Bond Testing.

*Find Every Failure.*



**Series 4000.** Fast set-up, easy to learn, maximum comfort.

- Simple PCBAs and components
- Ergonomic and easy-to-use
- High precision



**4000Plus.** Superior accuracy for complex samples and advanced test types.

- Complex and high density components
- High accuracy and flexibility
- Very high precision



**Automated 4600.** Maximum repeatability for the most demanding applications.

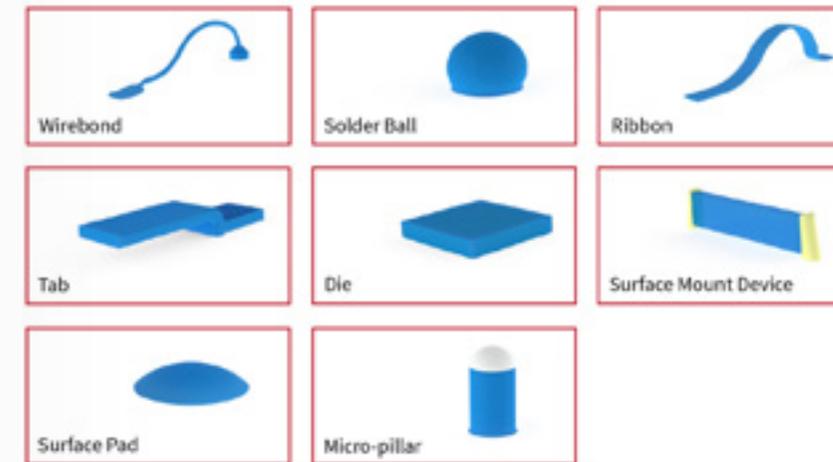
- Highest complexity products
- Maximum repeatability and accountability
- Ultimate precision



**Prospector.** Bend, fatigue, creep testing and more with the advanced micro-materials tester.

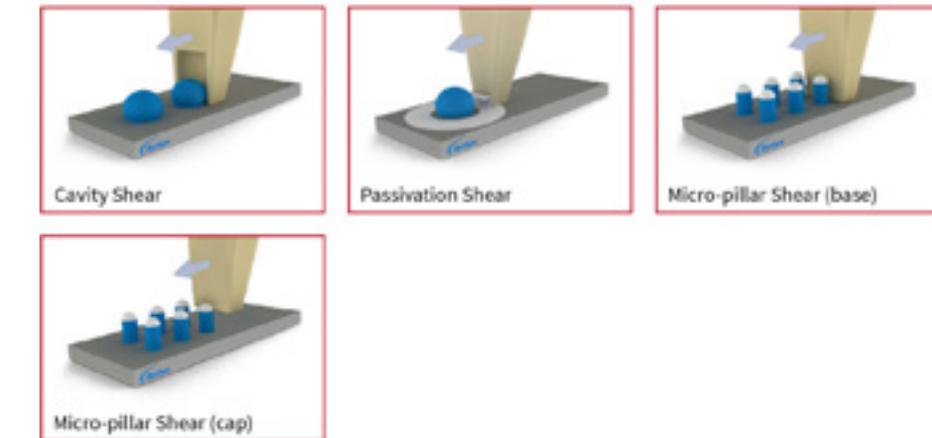
- Entire PCBA
- Find complex and unique failure modes
- Unique test modes

### Test Components

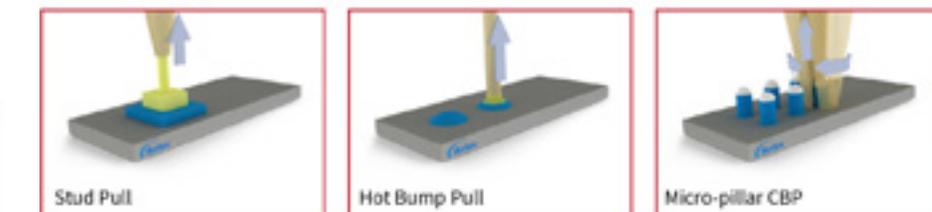


### Advanced Tests

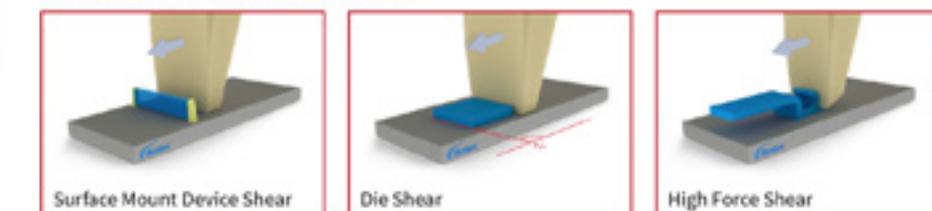
Variable heights and dimensions.



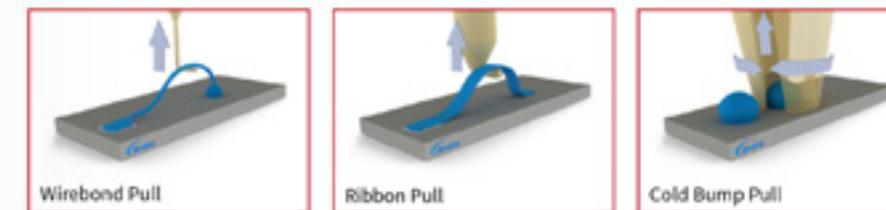
For difficult to grip or small dimensions.



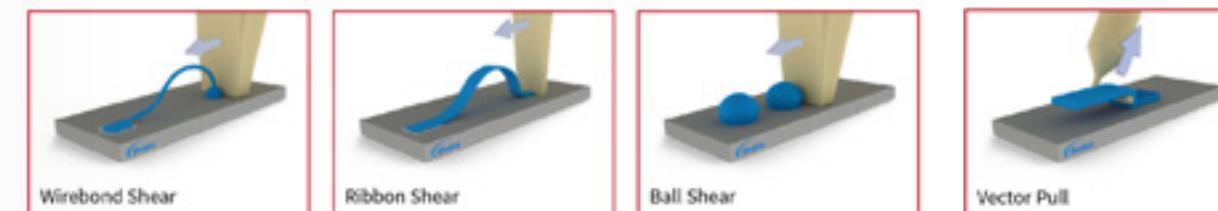
Larger components and higher forces.

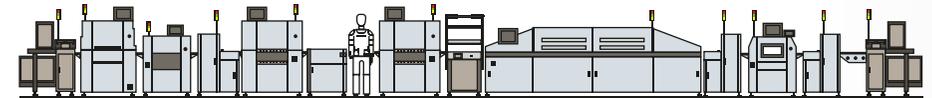


### Standard Pull Tests



### Standard Shear Tests





## Board handling & Automation.

- SMEMA Interface
- Auto and/or manual width adjustment
- Touch screen and/or button type operation
- Buzzer, SMEMA Interface LED Display

- Compact Design
- Durable Structure ESD cover (optional)
- Available in several sizes (width and length)
- Customized automation equipment.

MAGAZINE TYPE	L	W	R	MAX. PCB SIZE		MIN. PCB SIZE	
				L	W	L	W
S(097)	355	320	570	330	250	50	50
Y(096)	460	400	575	440	330	50	65
L(093)	535	460	570	530	375	50	60
XL(100)	535	530	575	530	460	50	100
2XL(101)	620	530	575	610	460	50	100
SW(099)	620	320	575	600	236	50	60



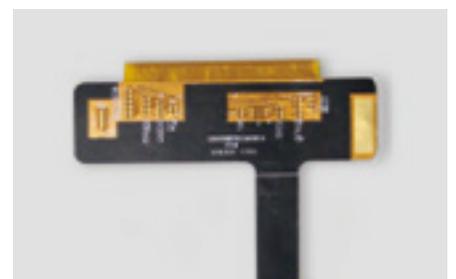
## Laser Solutions for marking and cutting.

### Laser Cutting Machine and Laser Marking Machine

- PCB
- Flex Circuits
- Metals
- Plastics
- And other materials

### Type of Lasers:

- Fiber
- Co2
- Green
- UV





**Pyramax™**

## Reflow Ovens & Custom Furnaces.

*The Power of Performance*

### Leader in In-Line Thermal Processing

BTU's reflow ovens feature closed loop convection giving them the industry's best uniformity and repeatability.

### The World's Best Performing Reflow Ovens.

BTU's Pyramax family of high-throughput convection reflow ovens is widely recognized as the global standard of excellence for both printed circuit board solder reflow and for semiconductor packaging. With exclusive closed loop convection control and process temperatures up to 400°C. For the most demanding applications Pyramax can provide O2 levels as low as 2ppm above source in the peak reflow zone.

### Pyramax Vacuum.

The Pyramax Vacuum reflow oven has been designed with the requirements of large EMS/high-volume automotive customers in mind. The unit is configured with 10 zones of closed-loop convection heating and a maximum production width of 457 x 457mm (18 x 18 inches) inches under vacuum operation. Nitrogen atmosphere capable, the Pyramax Vacuum reflow oven offers a maximum process temperature of 350° C.

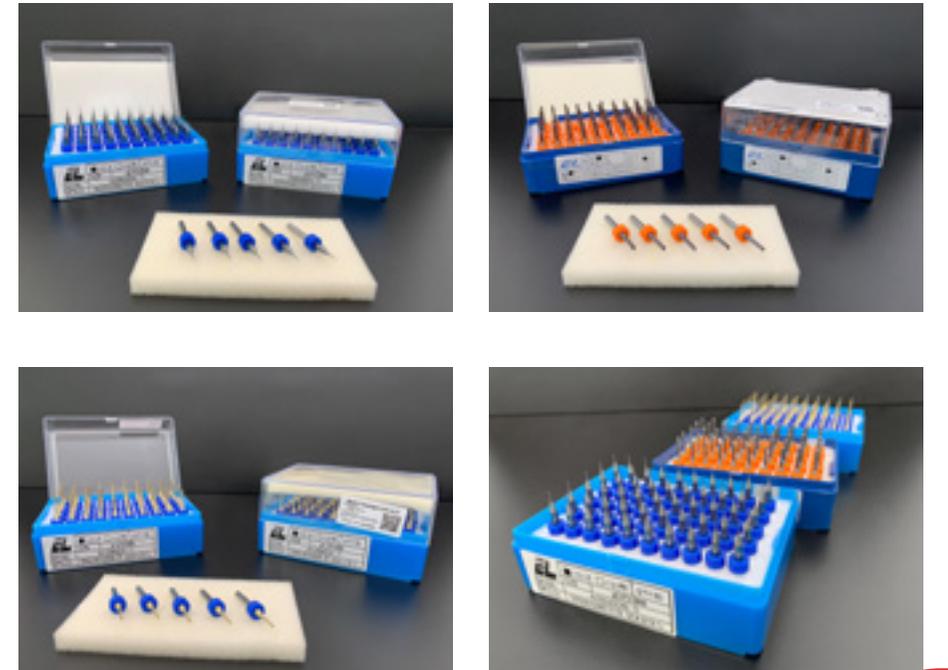


## Leader on Routers Machines.

*Best in Class Speed and High Precision.*



Variety of Machine configurations and capacity to handle from small up to big boards.





**SMARTSOL**  
TECHNOLOGIES

## Automation and Dispensing Robots.

### Precision Assembly.

#### Features:

- High speed: max jetting speed 500 points/S
- High precision: min dispensing amount 0.1nl
- Min dispensing dot: Dia 0.1 mm
- Min dispensing line width: 0.15 mm
- Closed loop weighing system offsets
- Inline design and iron casting structure
- Non-contact auto laser measuring height
- CCD auto vision system
- Auto nozzle cleaning



Cleaning Calibrating System



Twin Rail



Piezoelectric Valve



Jet Valve



Auger Valve



Pneumatic Micro Injection



Heating Controller



Wire Feeding Device



Pressure Sensor



Visual Inspection



Displacement measurement sensor



Tip Position Corrective Device



Nitrogen Concentration Analyzer



Nitrogen Generator



Fume Extractor



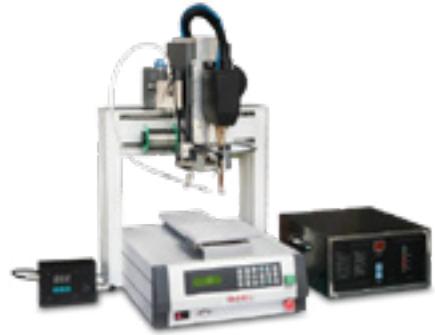
Tip Cleaner



## Automation & Soldering Systems.



## Automation, Hotbar, Screwing and Resistance Welding.



Resistance Welding



**Hotbar Robot**  
Automatic loading and unloading  
Closed-loop control for pressure and temperature



Hotbar Soldering Robot



Air-Blowing Type Screwing Robot

## Smart Soldering Critical Rework ESD Control Fume Exhaust.



Hand identification and auto start-stop



Ergonomic Soldering Iron



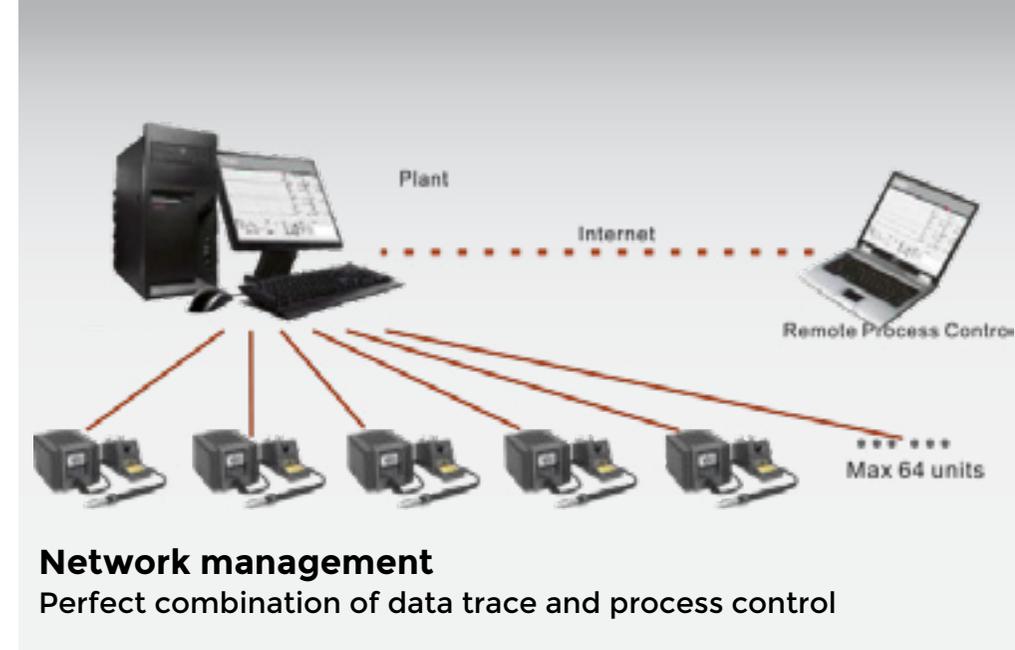
Plug-Type soldering tip



Plug-Type heating element



Fume Extractor



Rework Station

- Soft Hot Air
- Balanced Heat
- Smart Power
- Constant Flow
- Zone Heating
- Auto Identification
- Touch Switch
- Pre-set Temperature
- Power-off Protection
- ESD 检测
- ESD Test
- Auto Sleeping
- Low Power Consumption
- Auto Shutdown
- Auto Shutdown
- °C/°F Interchangeable



## Worldwide Environmentally Responsible Cleaning Technologies.

### Metalnox

METALNOX products are Solvent and Aqueous precision cleaning metal finishing chemistries specifically formulated for removing tough soils and cleaning metal parts used in the Metal Finishing, Industrial and Tooling industries.

### Ionox

Ionox products are semi-aqueous and solvent cleaning chemistries designed to remove tough soils from electronic assembly and advanced packaging products.

### Cybersolv

Cybersolv products are specially formulated for superior performance in benchtop, stencil and maintenance cleaning. Whether for rework, oven cleaning or stencil cleaning Cybersolv will outperform anything in its class.

### Aquanox

Aquanox line of chemistries are concentrated aqueous cleaning chemistries designed for the Electronic Assembly, Aerospace and Automotive industries. Each product in the line has been specially formulated for a variety of cleaning processes and purposes such as cleaning circuit boards and printed circuit board cleaning.



## Specialists in Cleaning Processes.

*Batch cleaner.*



### CompaCLEAN

CompaCLEAN provides the type of cleaning that many are accustomed to while minimizing the shadow effect by a unique linear tangent of spray technology. PCBs are loaded just like plates into a typical kitchen dishwasher.

### MiniSWASH

Budget machine for small and medium manufacturers. Can handle stencil, squeegee and misprinted PCB cleaning all in one system. Ideal solution for smaller capacity automated cleaning.

### SuperSWASH

PCBs are loaded on the dedicated frames. Operators load and unload many PCBs in one single operation. This minimizes downtime to zero and provides comfortable time for reload.

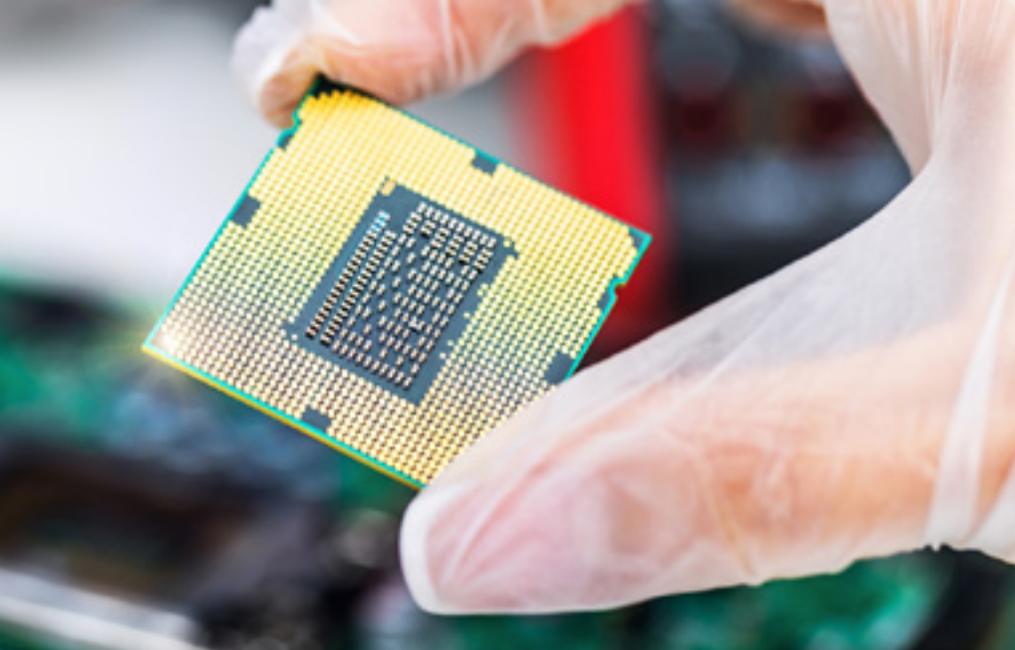
### HyperSWASH

High-End solution for customers looking for high quality cleaning and high throughput with focus on data management and automation. The most efficient machine with minimum human interaction.



Universal cleaning solutions for:





## Solder Solutions.

*Leading global manufacturer of assembly materials for the electronics industry.*

AIM's complete line of solder pastes has been developed to deliver robust performance, ease of use and cost effectiveness. AIM halogen-free, lead-free solder pastes resolve difficult issues including QFN voiding, low area ratio printing, and high reliability requirements for LED, automotive, and military applications.

Available in no-clean, water-soluble, and RMA formulations for printing, dispensing, and jetting applications.

AIM's Liquid Fluxes and Paste Fluxes are available in a variety of formulations and packaging. The no-clean, water-soluble and rosin-based chemistries of AIM's fluxes offer a broad range of benefits proven to perform well in a variety of applications.

AIM's Solid and Cored Wire Solders are available in a variety of alloys, diameters, flux core percentages and spool sizes

designed to suit all soldering applications. AIM cored wire solders are produced in a proprietary method that guarantees a void-free flux core. Available in no clean, water soluble and rosin-based chemistries.

AIM offers a broad range of alloys for SMT, wave soldering, hand soldering, and various applications.



## Thermal Assembly Machines and Systems.

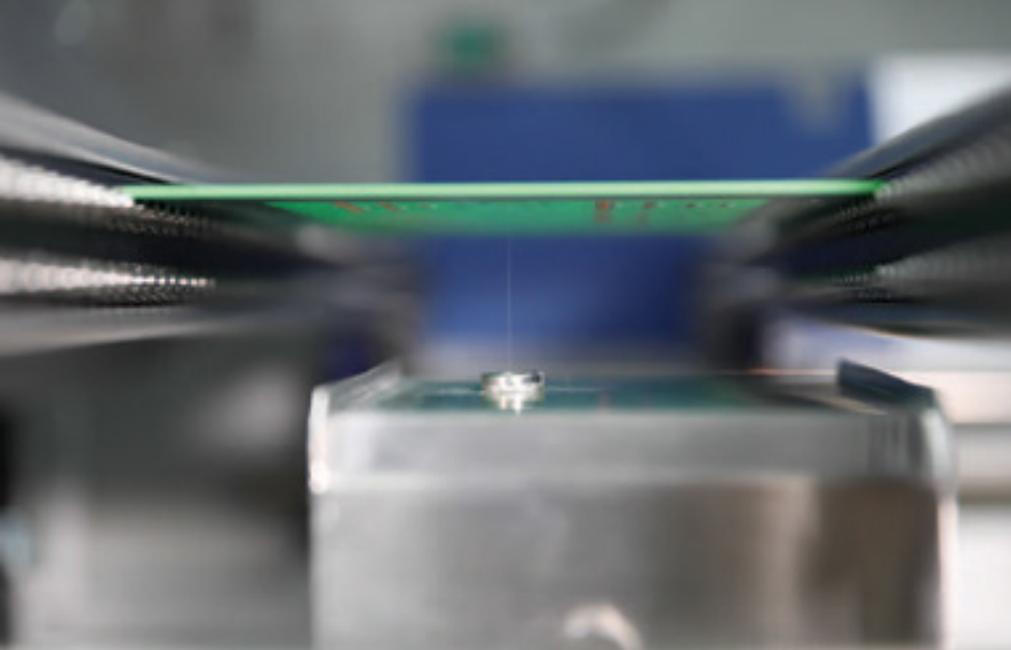
*High-Volume, High-Precision.*



### Heat Staking Applications

- Attaching Metal Grilles and Screens to Plastic Frames
- Automotive Panel Heat Staking
- Automotive Dash Mat Heat Staking
- Cell Phones Assembly Machines
- Heat Staking of Antennas in Hand held Devices
- Heat Staking Procedures and Processes
- Heatstake and Heatseal News and Information
- Heatstaking Process Information
- Manufacturing Using Plastic Heat
- Staking Processes.





## Selective Fluxing Machine.

The ability to program points, lines, multi-lines, areas allows the engineer to decide how much flux/pressure is required for certain solder joints up to complete areas. This capability opens up the process window without risking excess of flux residues. Thanks to the XY-movement speed up to 1,500 mm/s, the cycle time will be up to the standard required for wave soldering mass production users.

### ICSF-SELECT

The ICSF-Select offers a Total Flux Process control needed for today's more demanding and complicated soldering requirements, especially lead-free processes.

- Environmental friendly
- Up to 95% less flux usage
- Less maintenance chemicals

- Longer life of PCB carriers/pallets
- Reduction in flux fumes
- Solderability Performance.

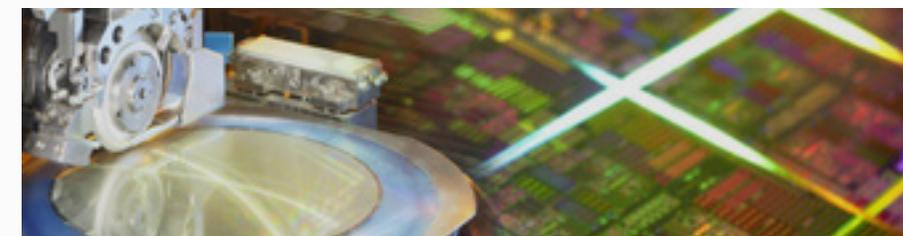


- For wave soldering
- For selective soldering
- For alcohol based fluxes
- For water based fluxes
- For rosin based fluxes



## Dicing equipment and accessories.

- Improve your process stability and accuracy
- Lower production cost and save energy
- Customized solutions for your specific needs
- Gain a long lasting partnership and commitment



### 7120 / 7130 SERIES

2" and 4" spindle dicing systems deliver a high level of affordability and flexibility. With different models to choose from, each optimized for a specific range of applications.



**967 Auto Wafer Mounter**  
For quality, hands-free mounting of workpieces on tapes.



**977 Wafer Cleaner**  
Designed for after-dicing work-piece cleaning and drying.



## Moisture Sensitive Device (MSD) Handling Specialist.

### Super Dry storage solutions you can count on:

- Protect productivity and avoid costly defects
- Safeguard your MSDs in accordance with IPC/JEDEC J-Std-033C handling standards.

Constantly redefining the capability of humidity reduction technology for industries, including electronics.

The **SDB series of cabinets** have been designed as low cost entry-level storage cabinets. User-friendly operation and compact construction guarantee safe medium to long term storage with low humidity control of less than 5% RH.

The **SD series of dry cabinets** comprises a wide range of models. Advanced design with chrome steel standard shelves and reliable drying units, these cabinets offer maximum protection for medium to longterm storage.

### SDB SERIES

- U-4001 series dryer:** Air drying to below 2% RH. Regeneration: static (timer-controlled)
- Control:** No integrated control. Display of climate data through hygrometer
- Sensor:** Standalone battery operated humidity measurement device, accuracy +/- 5% RH. Offset configuration
- Convection:** Forced air circulation through integrated fan
- Performance:** 30 min recovery time after door opening to below 5% RH
- Documentation:** External data logger optional

### SD SERIES

- U-2000 series dryer:** Air drying to below 2% RH. Regeneration: static (timer-controlled)
- Control:** Humidity and temperature display with parameter value input; humidity and door monitoring functions
- Sensor:** Integrated sensor, accuracy +/- 3% RH. Offset configuration
- Climate control:** Optional heating up to 40°C. Forced air circulation through integrated fan
- Performance:** 30 min recovery time after door opening to below 5% RH
- Documentation:** External data logger optional



## The best Optics Solutions suppliers.



### S Series Stereo/ S-FLEX.LED.



Featuring a Magnification Range from 6.7x up to 45x. Systems come standard on a "Flex" Articulated arm with table clamp and Led Ring Light with intensity control. All are easily upgraded and reconfigurable through additional stands, available lighting, and interchangeable eyepieces and auxiliary lenses.

### N Series Stereo/ N-FLXP-PLZ.



The N Series Stereo Binocular Microscope is the best system for a standard inspection task features Mag Range from 7x up to 50x, the N is a standard in the medical industry, with a clear image and an ergonomic body and position, typically used on a articulated post stand with Led Ring Light or Fiber optics.

### S Series Trinoculars



The Best Selling Stereo Trinocular Microscope with a Mag range from 6.7x up to 45x, now also as Thru focus with a HD camera to document all your work, and view these images live on a compact HD screen or on an a 24" HD LED monitor. Using accessories this system can go up to 300X on the video port.

### Macro zoom. Video System.



The #1 recommendation when our customers does not want to continue using a Microscope, but needs to do a general inspection. The Macro zoom series magnify up to 65X (130X with accs) with a HD camera to document all your work, and view these images live on a compact 10" HD screen or on 24" hd LED monitor.



## Best Collaborative Robot. With Built-in Vision System.

TM Robot offer three series of cobot solutions – regular payload, medium-heavy payload, and mobile. These series represent various sizes and payload capacities to match specific tasks and requirements.

### Smart Built-in Vision System.

TM Robot is equipped with a built-in vision system, which integrates into both the hardware and software perfectly, comparing to the add-on vision for robotics that are more time consuming and costly to implement.

### Simple Painless Programming.

Manage the functions and programming of your TM Robots using the TMflow – an innovative, flow-based editing software that allows you to program with simple click-and-drag motions.

With TMflow, you can create your own cobot projects without any coding.

### Safe Force Limiting.

Ensure the safety of your workers and any human who gets too close to or interacts with the TM Robot. These cobots stop immediately when they collide with any object, preventing further injury to both human and machine.



## The Smartest Way to Automate a Process.

Robotiq offers Plug+Play components for collaborative robots that are easy to use. Ideal for basic and advanced robotic applications.

### OPERATE

- High force, payload and precision
- Robust, factory-proven hardware.



### DESIGN

- Plug and Play
- Wide range of applications and components
- Easy to customize.

### INTEGRATE

- Fast installation
- Easy programming
- Programmable stroke, speed, force.





**EasyRobotics**  
- we move your parts

**Automate your Material feeding with a robust and efficient solution.**



**ProFeeder Table**  
Makes it fast and flexible to get started with robot automation. ProFeeder is a compact modular robot cell, prepared for the installation of a robot.



**ProFeeder Light**  
The ProFeeder Light robot cell consists of a basic module with 1 flexible manual removable parts tray designed for handling all types of parts.



**ProFeeder**  
Consists of 1 basic module, 2 movers with 2 flexible part trays. The part trays are automatically centred, and are designed to accommodate all part types.



**ProFeeder X**  
Higher production capacity. Large production - delivered with 2,5 or 10 trays options. Ideally to lower cycle time resulting in fast production.

 **Critical manufacturing**  
an ASM PT company

**Critical Manufacturing MES V8 for Electronics Assembly .**

**The most complete, modular MES for Industry 4.0.**

Electronics manufacturers must improve speed and lower cost to innovate and produce in small lots. This is a major change for processes, people and systems.

**Connectivity**

- Connect to IoT-enabled products and equipment
- Manage and control untethered devices
- Secure physical and digital assets

**Mobile**

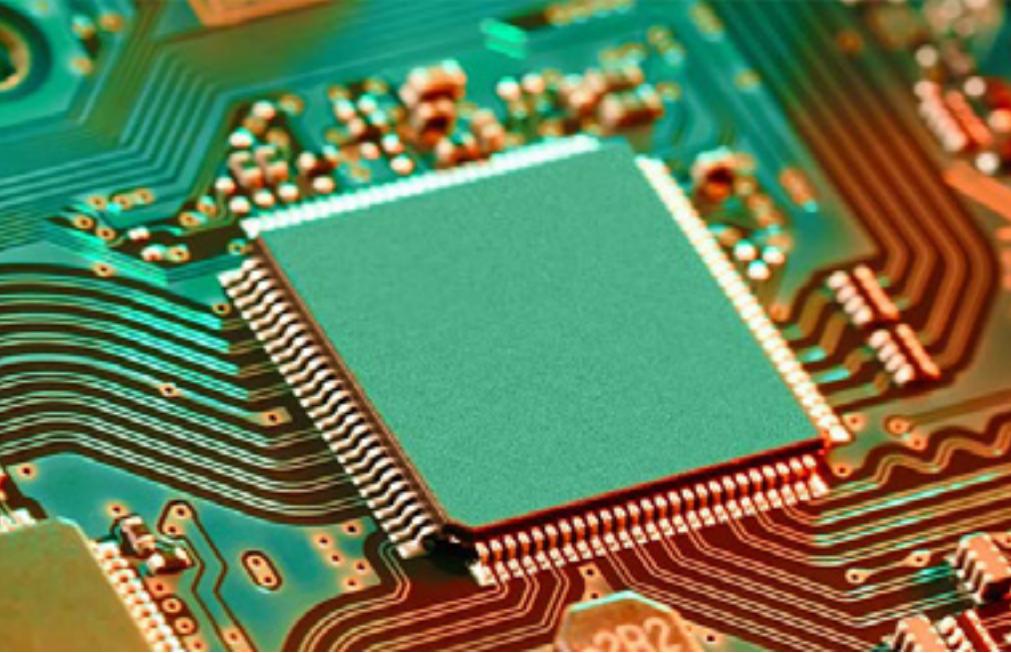
- Work anywhere with complete access to operational data
- Leverage location data effectively
- Use augmented reality for assets and products

**Cloud**

- Leverage hosted infrastructure
- Use up-to-date versions at all times



- Focus on strategy, not IT management
- Advanced Analysis**
  - See real-time plant performance metrics
  - Prevent problems with predictive and prescriptive analytics
  - Feed contextualized data to enterprise big data
- Decentralization**
  - Manage complex distributed plant floor processing from a unified system
  - Record events in context for complete, accurate genealogy
- Vertical Integration**
  - Use dynamic, rule-based workflow engine
  - Integrate seamlessly with equipment, IoT and automation
  - Flow information to and from enterprise systems
- Horizontal Integration**
  - Integrate seamlessly between plants
  - Collaborate dynamically with suppliers
  - Share efficiently and securely with customers.



## Potting, dispensing, curing and more.



**PrecisionCoat VI**  
A total system solution that ensures accuracy, repeatability and high throughput for a wide range of automated material application.



**PrecisionCoat BT**  
Designed for automate time-intensive manual coating and dispensing processes, or to have additional coating capacity in laboratory or production floor.



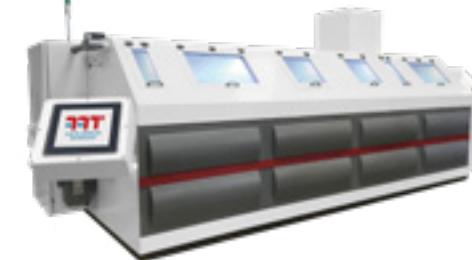
**PrecisionCure UVC**  
PrecisionCureUVC(MUV) curing system provides unmatched flexibility. The Precision UVC (UV Cure) offers full-spectrum UV curing in perfect integration with the SCS PrecisionCoat.



**Ionograph® SMD V**  
Dynamic testing of ionic contamination is a widely approved and followed std. The SCS Ionograph is the industry standard of testing technology.



## The Industry Leader in In-line Cleaners.



Using modern technology, AAT is the industry's premier leader as a specialized manufacturer of Batch Cleaners, In-Line Cleaners, Solvent Cleaners, Stencil Cleaners, and many more.

### HydroJet® In-line Cleaner

Equipped with a patented displacement drying system which minimizes energy consumption and ionic residues left on boards and provides the fastest drying performance available.

### ExtremeJet® In-line Cleaner

The ExtremeJet ® design is based on proven effective and efficient design developed in our Jet In-line cleaning series. Some standard features include 30% more spray bars than our standard machines and 50% smaller footprint to comparable competitive systems,

### MicroJet® EC In-line Water Cleaner

The Austin American Technology's MicroJet EC® in-line cleaning system includes the current standard of coherent jet technology to clean under tightly spaced components.

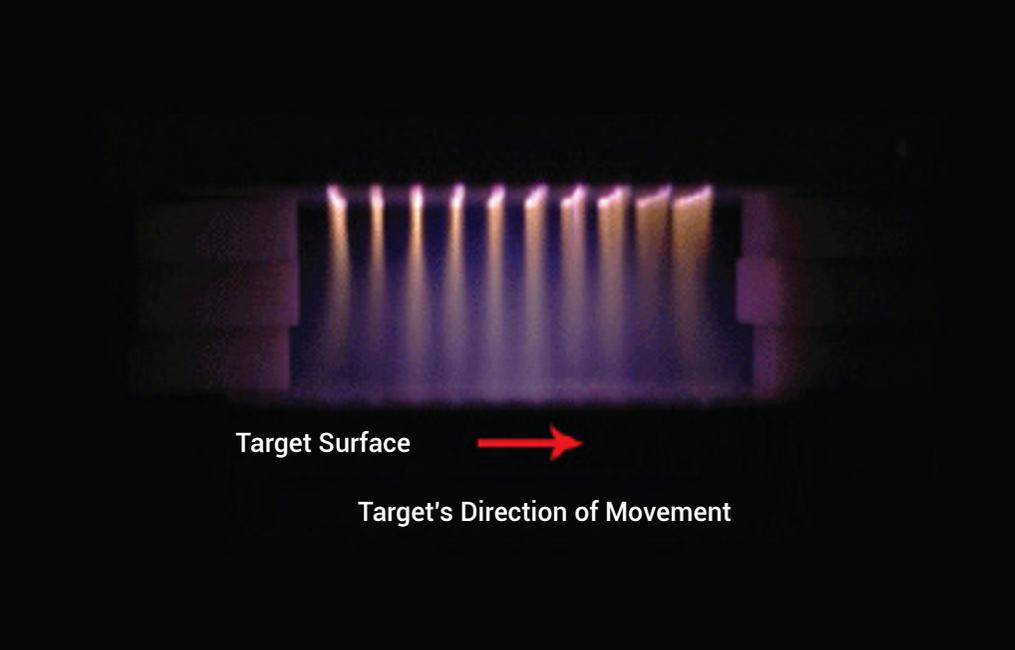
### NanoJet® In-line Cleaner

Rapid and thorough cleaning and drying is accomplished in the NanoJet™ utilizing PED fluid jets for high impact cleaning and patented high velocity displacement drying jets.

### Mega® Series

Austin American Technology's Mega ION® cleaning system is designed for solvent based, high reliability applications requiring product cleanliness verification (IPC ROSE Testing).

It is used for final clean prior to conformal coat, encapsulation or other sealing operations used to protect electronic modules.



## Innovative Solution in the world of PCB Cleaning for removal of ESD & Particles.

Dusts and particles on the object are contaminated by static-electricity. Before cleaning the object, cleaning machine separates particles from the object electrically through anti-static bar, and then specialized high polymer cleaning roller removes dusts and particles.

**One-Sided SMCM. Model: FC-M810-400**

Coated Case	Air-Bar Type	One Sided Type (SMCM)	Flat Belt Type	Caster Leveling Bolt Type	AR/CR Open

**Double-Sided SMCM. Model: FC-M820-400**

Coated Case	Air-Bar Type	Double Sided Type (SMCM)	Flat Belt Type	Caster Leveling Bolt Type	AR/CR Open

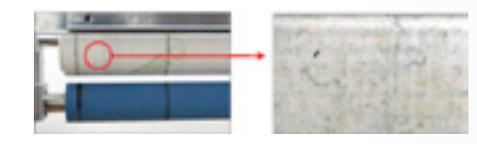
Adhesive roll removes contaminants on the surface of cleaning roller in real-time.



### Performance



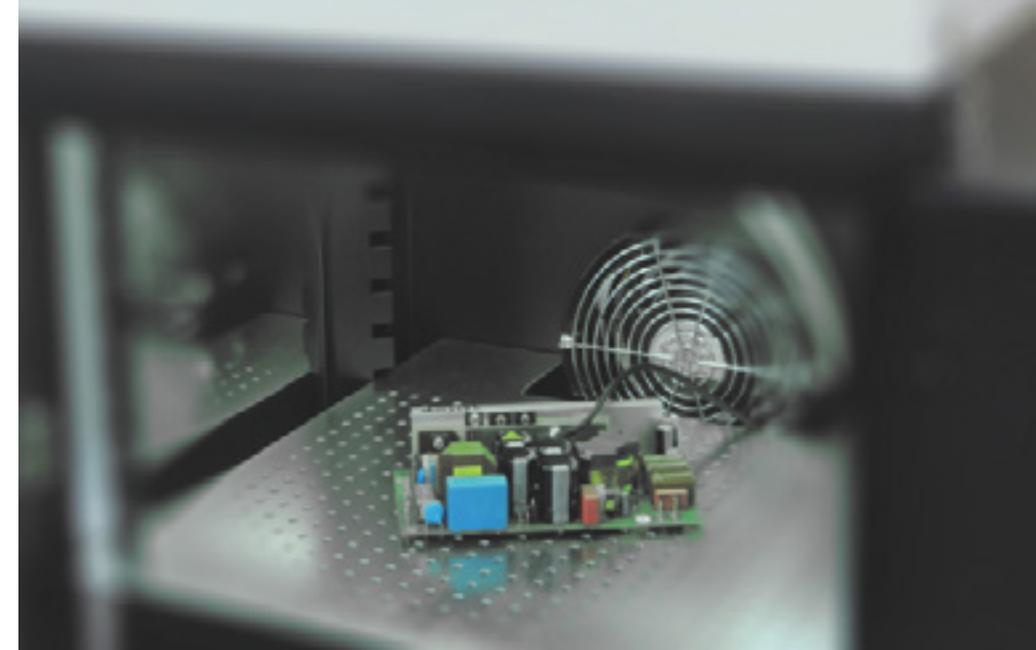
Before Adhesive Roll



After Adhesive Roll



## UV Curing Chambers.



### XLite 500

OPAS XLite 500 UV chamber is designed for curing UV adhesive, UV ink or UV lacquer. The well cooling design decrease the temperature if inside chamber. XLite 500 is very convenient for using on experiment or small scale production.

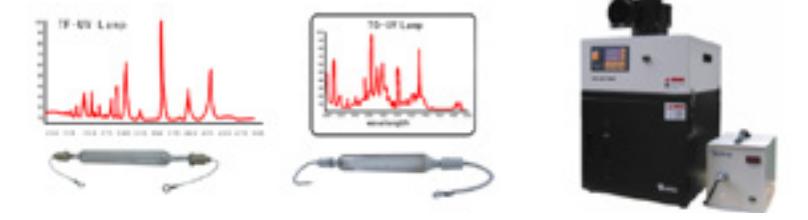
- Compact UV chamber
- Timer set/alarm
- Well cooling design
- Two type lamps changeable
- Lamp life time record



### XLite 600 UV Chamber

Equips an electronic control shutter which blocks the UV light when de curing time is up. It is designed for the curing of UV resin curedn in few seconds. You can change the position of the product by adjusting the plate inside the chamber.

OPAS offer two type of UV lamps: TF lamp is a mercury lamp which has the main wavelength on 365nm and 254nm. TG lamp is a metal halide lamp which has the main wavelength on 365nm and visible light area.





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