

**ADVANCED ASSEMBLY**  
T E C H N O L O G Y

**DOU YEE**  
E N T E R P R I S E S

# DOU YEE ENTERPRISES

The premier total industrial solutions provider in the Asia Pacific region, serving with distinction in the semiconductor, data storage, electronics and biomedical industry since 1982.

We have 45 international branch offices strategically located around the World to give customers the fastest and most accessible products and services.

Our manufacturing plants, located in Singapore, Malaysia (Seremban), China (Suzhou), France and Poland are governed by consistent quality systems with ISO 9001:2015 and ISO 14001:2015 certifications.

You can rely on us for products and services that are comprehensive in range, reliable in quality, accessible in location, and backed up by our many years of experience and expertise.

Dou Yee, your preferred partner in the industrial world.





X-Sinter P200 Series • X-Sinter P100 Series • X-Sinter P50 Series

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FAD 5100S-WH • FAD 2500 • Image MASTER™ 350pcSmart • XCROSS MASTER™ Sx series • Super EXM™ IV • ML-8000X • Super Jet™ MJET-S • AeroJet MJET-A • Measuring Master MPP-1 / MPP-3

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UV LED Type • UV Light Source Type • UV Meter • UV Light Technology • Adhesion/Bond Cure • Seal / Coat

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Spray Coating, Dispensing



SMT PCBA Solutions



SMT PCBA Solutions  
Immersion, WaveSolder



Odd Shape Component  
Auto Insertion



SMD Tower Storage



Collaborative Robots



Loader, Unloader  
Conveyor Systems



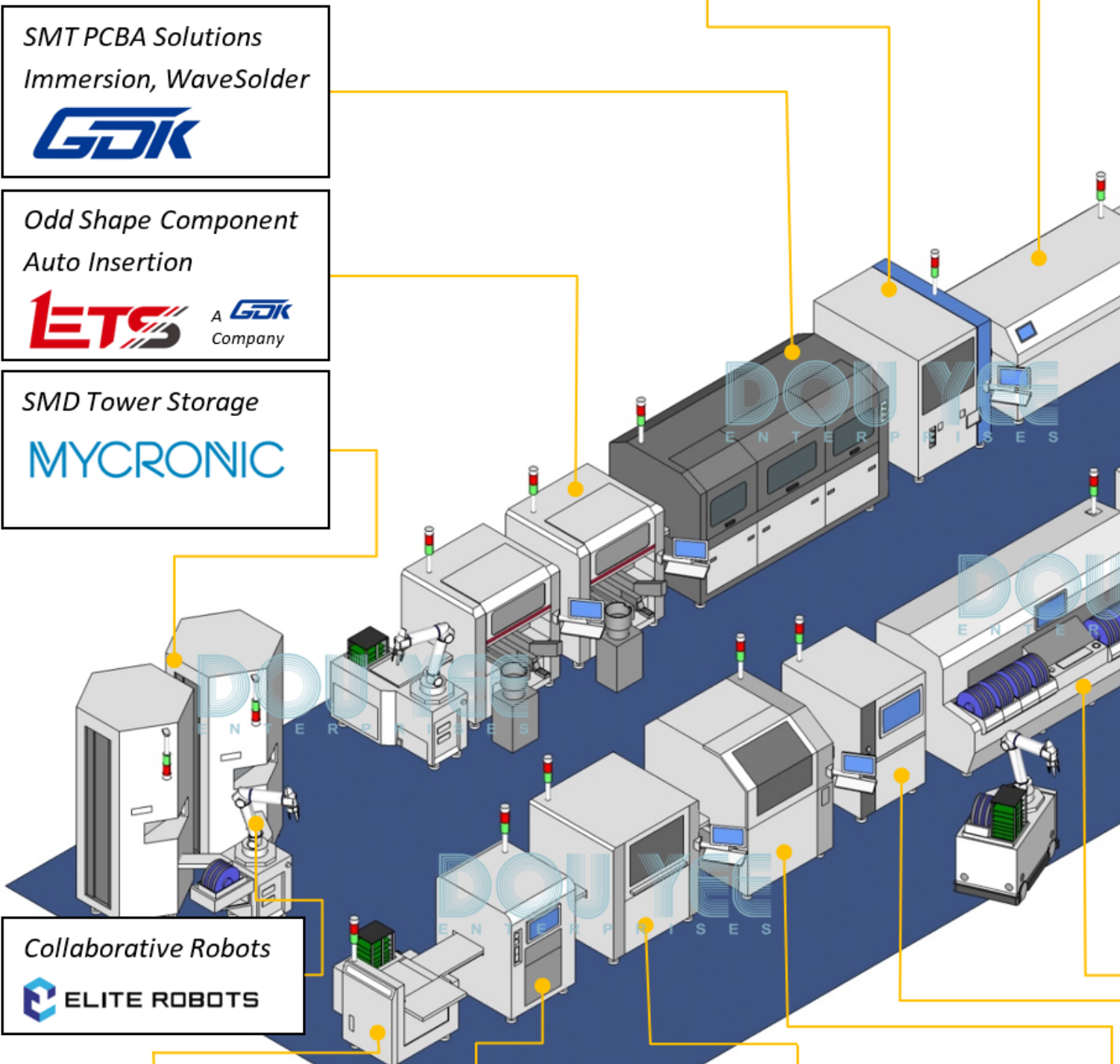
Laser Marker,  
Laser Board Cutting



Stencil Printer



Solder Paste



ons

Rework Systems



Stencil Cleaning  
PCB Cleaning, Defluxing



Cleaning Solution



Auto Optical X-Ray Insp



Vacuum Reflow Oven  
Vertical, Cube Oven



Automatic Optical Insp



Compo Tape Splicing



Pick & Place



e Jet Printer



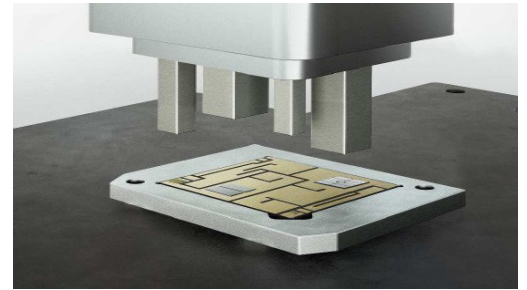
Solder Paste Inspection



## OUR PARTNERS

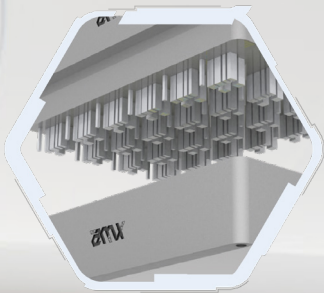


# X-Sinter P200 Series

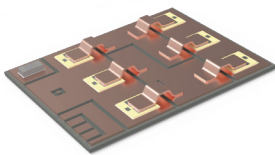


## Patented State-of-the-art Fully Automatic Sintering Press

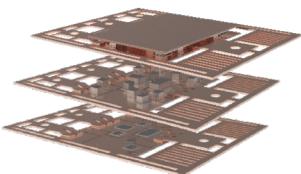
- ▶ Full Inline unit
- ▶ MicroPunch system [AMX Patented]
- ▶ Large Sintering area 350mm x 270mm
- ▶ High Sintering Force up to 980 KN
- ▶ Oil Free
- ▶ Full inert atmosphere cabinet (N2 or other gases)
- ▶ Built-in O2 analyser, maintained less than 100ppm
- ▶ Load Cell force measurement for Quality control
- ▶ Smallest footprint W1400 x D1600 x H1600 mm
- ▶ Automatic protective film feeding
- ▶ AMX Vision system



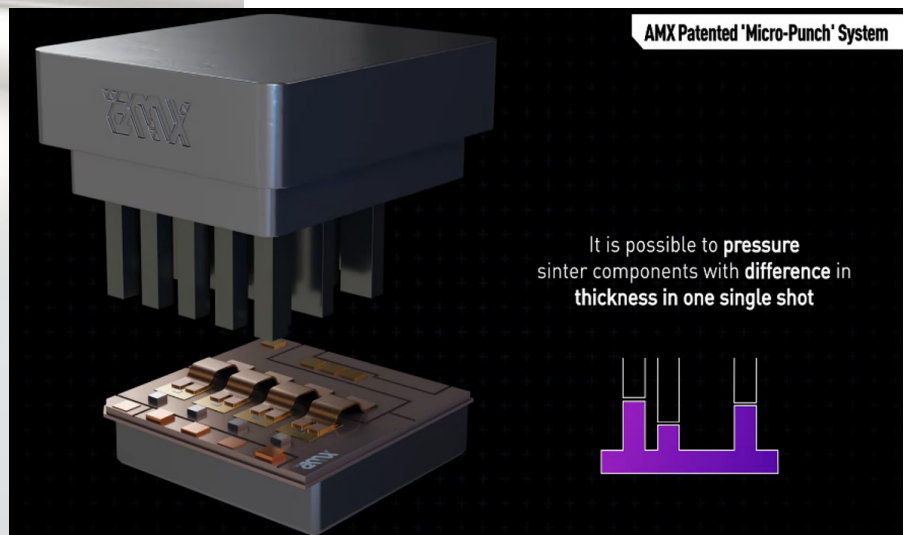
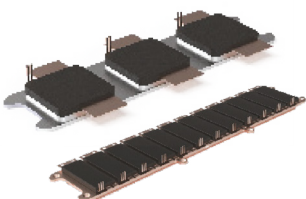
### Die & Clip Sintering



### DSC (Double Side Cooling)

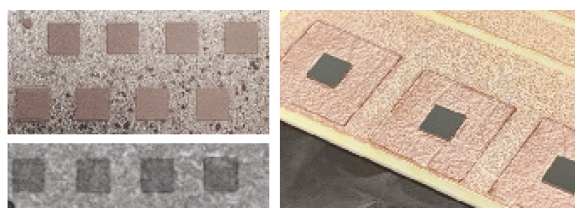


### Package Sintering



AMX Patented 'Micro-Punch' System

It is possible to **pressure** sinter components with **difference** in thickness in one single shot



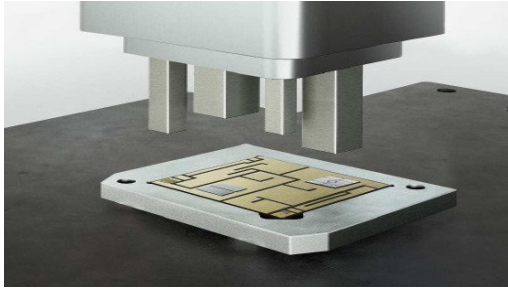
**Figure 8b Copper Paste**

All AMX equipment are ready for Cu pressure sintering  
Source: AMX Automatrix



Scan QR to see *MicroPunch in Action*

## X-Sinter P100 Series



### Patented Micro-Punch Semi Automatic Sintering Press

- ▶ Micro-Punch press tool to reach every single component on the substrate
- ▶ Sinter Multiple Dies with different die thicknesses
- ▶ Max. pressing area: 160mm x 160mm
- ▶ Max. temperature: 350°C
- ▶ Max. clamping force: 160kN
- ▶ Max. Sintering Pressure: 40MPa
- ▶ Controlled Atmosphere: N2, Vacuum, Forming Gas
- ▶ High Precision, Flexible, Accurate Process Control
- ▶ Suitable for R&D, Small, Medium batch Production

## X-Sinter P50 Series

### Manual / Semi Automatic Sintering Press

- ▶ Sinter Dies with different die thicknesses
- ▶ Sinter Wafer and Lamination with P54, P55
- ▶ Max. Press area: 75x75mm (P51) - 300x300mm (P55)
- ▶ Max. temperature: 350°C
- ▶ Max. Preheat temperature: 250°C
- ▶ Max. clamping force: 16kN (P51) - 300kN (P55)
- ▶ Max. Sintering Pressure: 40MPa
- ▶ Controlled Atmosphere: N2, Vacuum, Forming Gas
- ▶ High Precision & Flexibility with Many Options
- ▶ Suitable for R&D, Prototyping, Quality Inspections

*P100 Series*



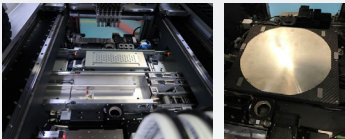
*Semi Auto  
P54,P55*



*Manual  
P51,P52,P53*



# AvantGo Series Die Bonder



**CAPCON Die Bonder is designed for  
Advanced Assembly & Packaging  
Semiconductor backend**

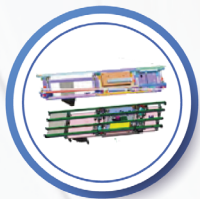
## Innovative solutions for :

- ▶ Flip-Chip,
- ▶ Chip-on-Wafer,
- ▶ Package-on-Package,
- ▶ Stack Die,
- ▶ Panel-Level Die,
- ▶ Multi-Chip Die

## Main Features :

- ▶ Small Footprint
- ▶ Input Options: Wafer, Jedec Tray, 2" Waffle Pak Feeder, Tape Feeder
- ▶ UPH up to 11K Process Dependent
- ▶ Placement Accuracy +/- 5um to +/- 2um configuration
- ▶ Process: Face Up, Face Down capable within a machine
- ▶ 2 x Gantry, up to 12 Bond Heads
- ▶ 2 x Wafer Loaders
- ▶ Bond Area up to 750x700mm capable

## Modular Building Blocks to Meet Process Requirement



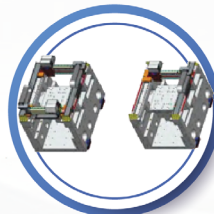
### Material Handling

- Wafer / Substrate / Board
- T&R / Tray / Waffle Pack
- Single / Dual Track



### Vision System

- ULC, Wafer, Bond
- Pre-Post Inspection
- IR Vision



### Flexible Gantry System Motion Control



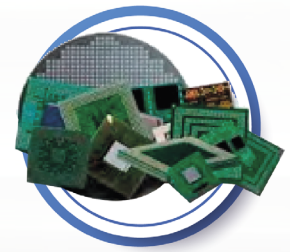
### Automation

- Magazine / Stack
- Boat / Carrier
- EFEM, OHT



### Bond System

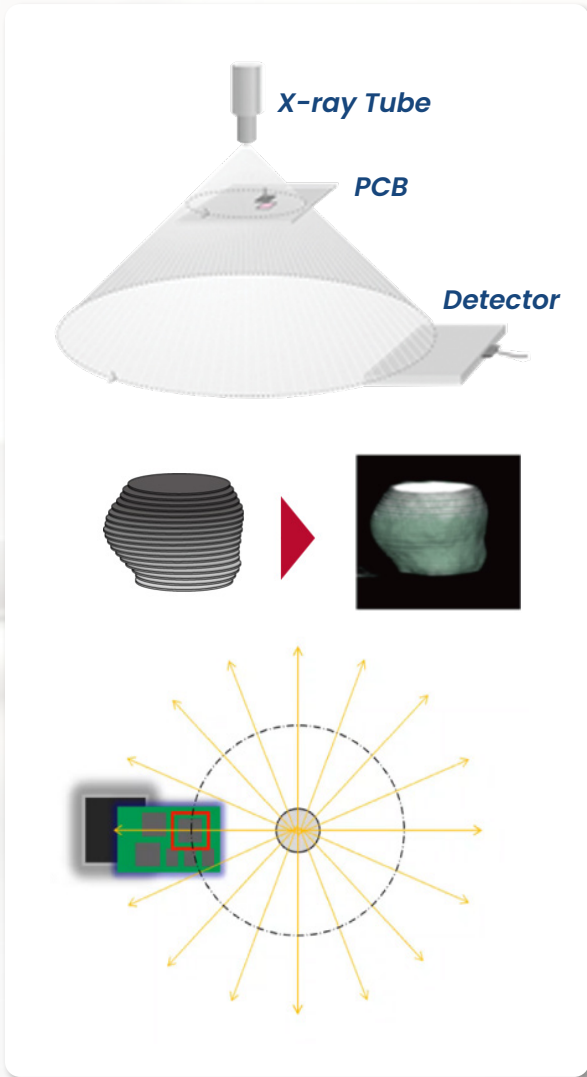
- 6/4/2/1 BH
- Low / High Force
- Heated BH



### Process Flexibility

- Face Up / Face Down / Fluxing
- Small / Big / Thick / Thin Dies
- Temp
- Passives Attach





CAPCON  
SAKI

# 3D AXI 3Xi Series

## Printed circuit board

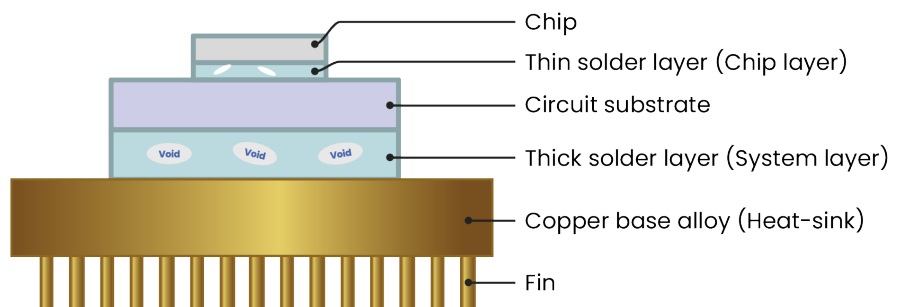
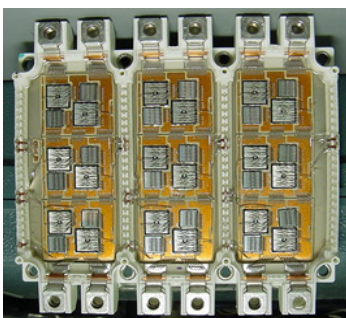
- ▶ Solder ball joint inspection of BGAs
- ▶ Solder joint inspection on the back face of QFNs
- ▶ Solder joint inspection for all parts such as chip, connector, insert parts on PCBs

## Semiconductor

- ▶ High-resolution inspection
- ▶ Void inspection of Laser Through-hole (LTH)
- ▶ Flip-chip bonding inspection
- ▶ Package-on-Package (PoP) soldering inspection

## Power module

- ▶ High power X-ray tube (180kV)
- ▶ Void inspection inside solder joint of Insulated Gate Bipolar Transistor (IGBT) module



# Peel Back Force Tester

GPD's Peel Back Force Tester with FORCEWare™ software is being used to set peel back standards for the entire industry.



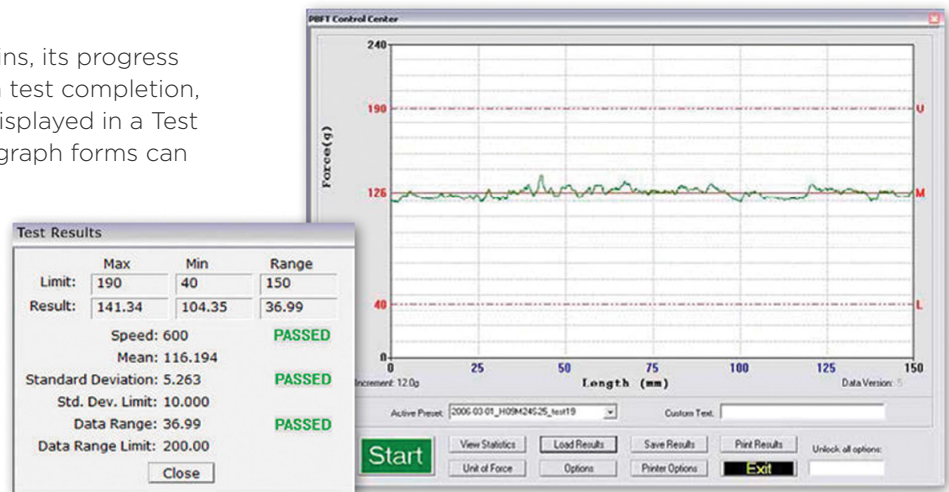
## Control • Information • More Efficient Production

### Test Graph

When a peel back force test begins, its progress displays on the test graph. Upon test completion, specific and summary data are displayed in a Test Results window. Many different graph forms can then be generated.

### Current Results Chart

Displays complete results of test. Results can be saved and reviewed.

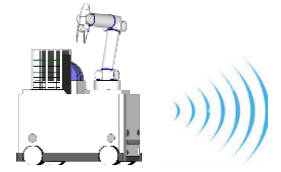


## Specifications

Force Measuring Range	0 – 250 grams
Speed	100 – 600 ± 5 mm/minute in 50 mm increments
Angle	160 – 180 degrees
Accuracy	± 1%
Tape Width	8, 12, 16, 24, 32, 44, & 56 (optional 8 t o 120 mm)
Dimensions	318 H x 737 W x 368mm x 30 kg
AC Input	100 – 240 VAC
PC/Laptop Control	Windows based proprietary FORCEWare™ Software, Data capture, SPC Analysis

# Collaborative Robots

## CS Series



### Top-of-the-line Solution for Advanced Automation

- ▶ Up to 1800mm (1.8m) Radius Working Area!
- ▶ ISO 10218-1 and 13849-1, PLd Cat 3... Safety Standards
- ▶ Over 20 configurable Safety Functions
- ▶ Over 80 adjustable levels of Collision Detection
- ▶ Rich Interconnectivity (IO, RS485,TCP/IP,Modbus,Ethernet...)
- ▶ IP65 Protection Standard (Upgradable to IP68)
- ▶ 12.1" Full Touchscreen Teaching Pendant
- ▶ Intuitive, Easy to Understand, Customizable GUI (Python)


**GPD GLOBAL**
**ELITE ROBOTS**

	CS63	CS66	CS68	CS612	CS616	CS618	CS620	CS625
 <b>PAYLOAD</b>	3 kg	6 kg	8 kg	12 kg	16 kg	18 kg	20 kg	25 kg
 <b>RADIUS</b>	624 mm	914 mm	820 mm	1304 mm	1100 mm	954 mm	1800 mm	1500 mm
 <b>ACCURACY</b>	± 0.02 mm	± 0.03 mm	± 0.03 mm	± 0.05 mm	± 0.05 mm	± 0.05 mm	± 0.1 mm	± 0.08 mm
 <b>MAX TCP SPEED</b>	2.0 m/s	2.8 m/s	2.8 m/s	3.4 m/s	3.4 m/s	3.4 m/s	3.9 m/s	3.3 m/s
 <b>TOOL I/O</b>	12v/24v 3A,2A,1A	12v/24v 3A,2A,1A	12v/24v 3A,2A,1A	12v/24v 3A,2A,1A	12v/24v 3A,2A,1A	12v/24v 3A,2A,1A	<b>T1:</b> 12v/24v 3A,2A,1A <b>T2:</b> 24V, 5A	<b>T1:</b> 12v/24v 3A,2A,1A <b>T2:</b> 24V, 5A

## EC Series

### Excellent Price-Performance, Superb Utility, Flexible Mounting Capabilities

	EC63	EC66	EC68-08	EC616	EC612	EC64-19
 <b>PAYLOAD</b>	3 kg	6 kg	8 kg	16 kg	12 kg	4 kg
 <b>RADIUS</b>	624 mm	914 mm	820 mm	954 mm	1304 mm	1900 mm
 <b>ACCURACY</b>	± 0.02 mm	± 0.03 mm	± 0.03 mm	± 0.03 mm	± 0.05 mm	± 0.1 mm
 <b>MAX TCP SPEED</b>	2.0 m/s	2.8 m/s	2.5 m/s	2.8 m/s	3.2 m/s	4.0 m/s



# MYTower™

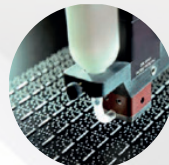
## Automated Intelligent Material Storage & Handling

- ▶ Fast storage & retrieval of components
- ▶ Minimize material movements, maximize assembly line utilization
- ▶ Reduce manual labor & retrieval times
- ▶ Minimize floorspace, maximize capacity
- ▶ Flexible placement within production
- ▶ Easy integration with any system
- ▶ Controlled environment and floor life monitoring for MSD components
- ▶ Alarms for material availability
- ▶ Traceability functions
- ▶ Quantity control
- ▶ ERP & MES connectivity
- ▶ MYTower 7+: 1,148 reels (max)
- ▶ MYTower 6x: 2,468 reels (max)



### MYTower Storage

- ▶ 4", 7", 13" and 15" reels
- ▶ 4 - 56 mm reel widths
- ▶ JEDEC trays in tray boxes
- ▶ Smart Box
- ▶ Pallets for reels on Agilis feeder



# MY700™

## Hi-Speed Jet Printing For complex high mix, high-volume or prototyping production environments.

- ▶ Very fast and accurate dispensing
- ▶ Fast changeovers
- ▶ Software driven - no stencils, no cleaning
- ▶ Jet frequency : Up to 1,080, 000 dph
- ▶ MY700JX - Dual Head (Solder Paste and adhesive jetting)
- ▶ MY700JP - Solder Paste jetting
  - Dot vol: 2-35 nl
  - Dot dia: 0.21 mm
- ▶ MY700JD - SMA, adhesives, UV materials and epoxies jetting
  - Dot vol: 5-1000 nl
  - Dot dia: 0.2 mm

# MYPro I™ series 3D AOI

## Faster and sharper processing

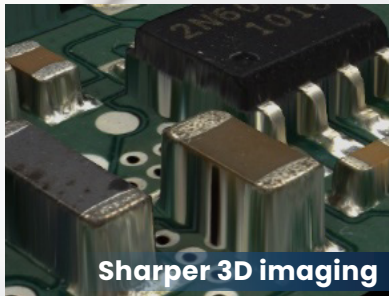
- ▶ AI-assisted inspection software
- ▶ Next generation 3D vision technology
- ▶ Resolution: 3.45um (with sub-pixel)
- ▶ Inspectable package size (min): 008004 (0201 metric)
- ▶ Inspect SMT, THT, Press-fit, Automated Optical Metrology (AOM)
- ▶ High flexibility for high mix, heavyweight board
- ▶ High performance for high productivity



### IRIS

#### 2D + 3D Inspection - Faster. Sharper. Smarter.

- ▶ Accelerating electronics inspection
- ▶ Speed and resolution with zero compromises
- ▶ Smarter computing



# PI™ series 3D SPI

## Accurate solder paste inspection

- ▶ Perfect solder joints made simple
- ▶ Highly accurate SPI data - warp compensation with accurate Z referencing technology
- ▶ Effortless with smart auto-programming functions - ensure high-quality inspection regardless of operator experience
- ▶ Superior repeatability - Multi-frequency, multi-pattern Moiré and patented dual Z-axis motion.
- ▶ Real time process monitoring and Improvement with MYPro Analyze.

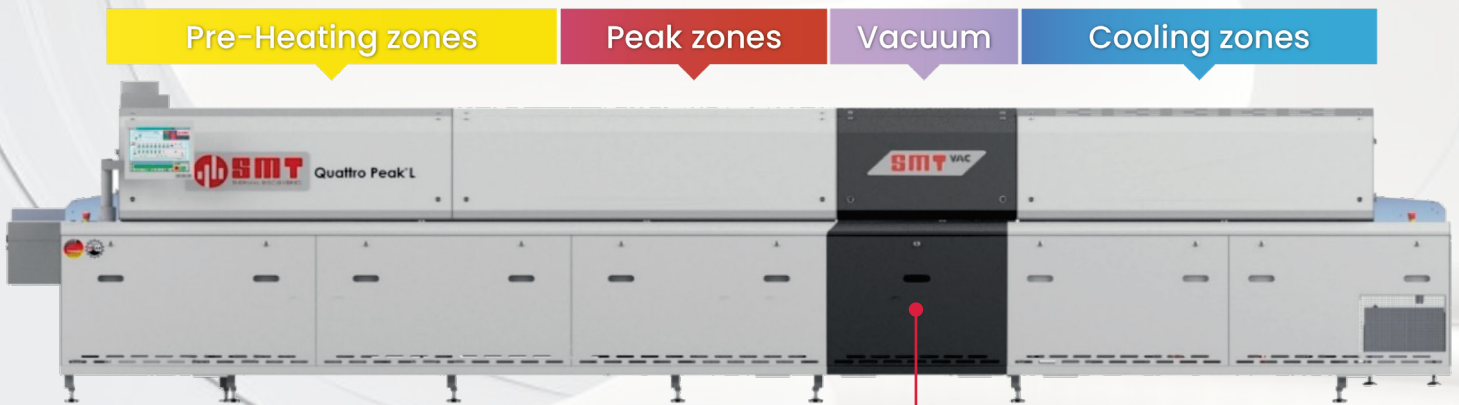


### MyPro Analyze

- ▶ Improves and maximizes first-pass yield

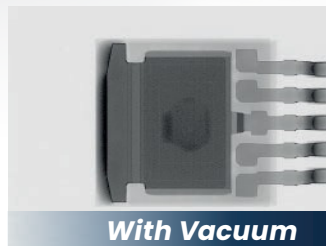
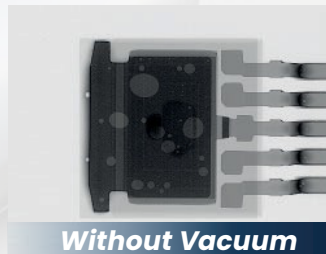


# SMT VACUUM REFLOW OVEN



## Vacuum Chamber

- ▶ Voids will be reduced up to 99%
- ▶ Made of stainless steel
- ▶ Sturdy towards thermal and physical stress
- ▶ Only one sealing in the vacuum chamber
- ▶ Easy, fast maintenance / exchange
- ▶ Easy accessibility due to the mounting point of the hood
- ▶ Available in two sizes: 320 mm length or 450 mm length
- ▶ Process Temperature (Pre-heat/Peak/VAC) :  
Max. 300°C/ 350°C/ 300°C

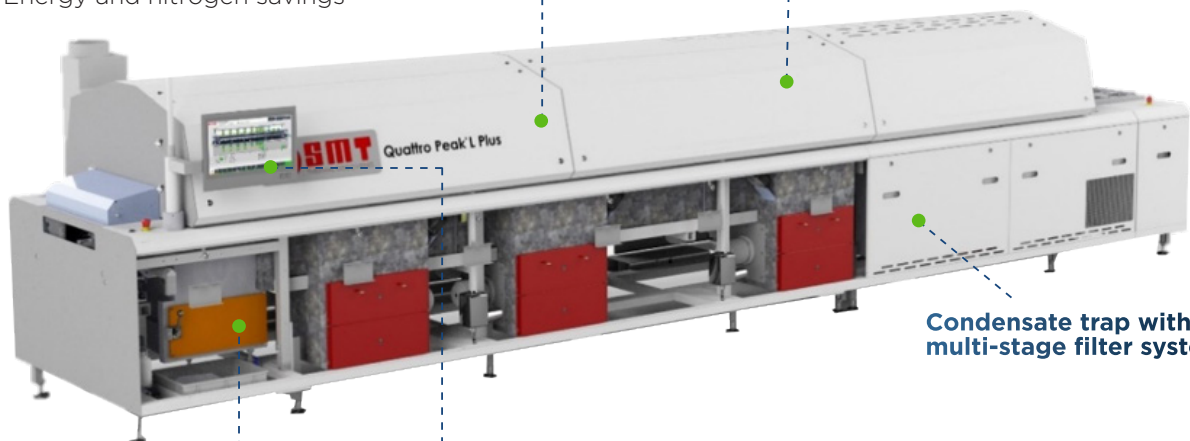


### Key Features

- » Constant process gas flow, adjustable via frequency converter
- » Encapsulated, maintenance-free fan motor, no leak
- » Energy and nitrogen savings

### Precise Nitrogen Control

- » Integrated lambda sensor technology and real-time continuous measurements of residual oxygen
- » Less nitrogen consumption
- » Easy calibration (exchange can be done)



**Infeed  
condensate trap**

### Lowest Operating Costs

- » Lowest energy and media consumption
- » Lowest consumption of spare and wear parts (e.g. rails, chain, fan motors...)

**Condensate trap with  
multi-stage filter system**

# SMT A-Series FORMIC ACID

**A Soldering System for Semiconductor Production & Advance Packaging with Formic Acid Application & High Temperature Setting Option**



SMT

**System covers a variety of set up scenarios:**

**Atmosphere**

- » Formic Acid\* (CH<sub>2</sub>O<sub>2</sub>)
- » Hydrogen\* (H<sub>2</sub>-100%)
- » Nitrogen (N<sub>2</sub>-requirement)

**Temperature**

- » High temperature solder up to 450 ° C\*
- » SAC 305\*
- » Tin-antimony alloy\*

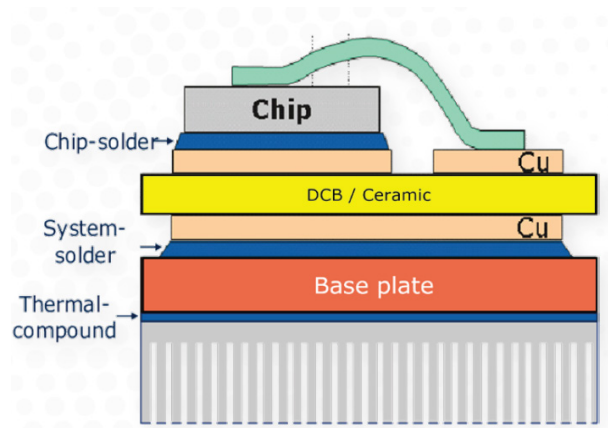
**Process**

- » Vacuum
- » Preforms with Flux\*
- » Preforms without Flux\*

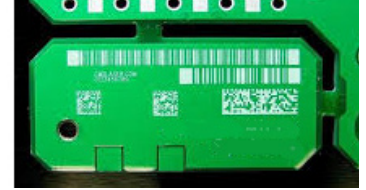
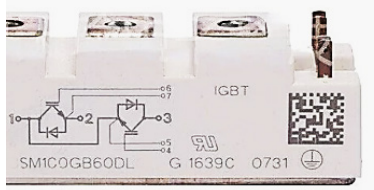
*\*Cannot combined in one category*

## Possible Application

- ▶ IGBT
- ▶ DBC
- ▶ Die Attached
- ▶ Opto Laser
- ▶ Heatsink
- ▶ General Copper Surface
- ▶ Vapour phase substitution
- ▶ Cleaning process



# M2-900 Laser Marking System



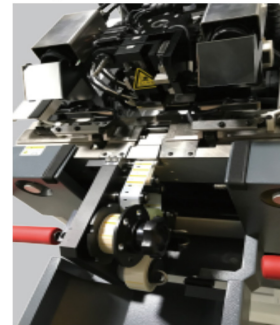
- ▶ 1D, 2D barcodes, text, logos, optical characters
- ▶ 4 types of Laser - CO2, UV, Green, Fiber
- ▶ Top and Bottom and Dual-head Configuration, Dual-Lane
- ▶ Std Dual-Camera Configuration, Simultaneous Reading and Writing
- ▶ Fume Detection
- ▶ Optional Z-Axis for marking different Heights

# Auto Splicing System

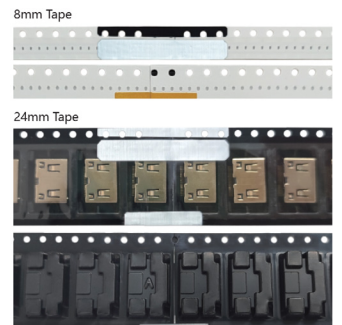


**L-900**

**L-4**



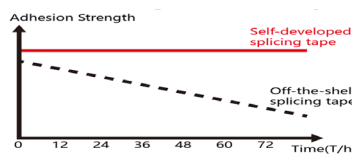
**Proprietary Bond Head**



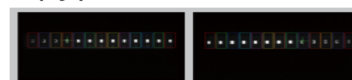
**Auto Splicing and Tape**

- ▶ Support 8mm (L-4), 8-32mm (L-900) Component Tape Width
- ▶ Support component Tape thickness 0.25-1.25mm
- ▶ Support deep pocket up to 4.1mm (L-4) / 9.0mm (L-900)
- ▶ Excellent Splicing FPY up to 98%
- ▶ Standard with intelligent Vision System
- ▶ Standard LCR verification for Capacitors, Resistors
- ▶ Auto adjustment for LCR probe from component size 01005
- ▶ Auto empty pocket detection and pitch verification
- ▶ Continuous operation for up to 16hrs
- ▶ » MES integration via WiFi or Network port

**Adhesion Strength and Durability**



**Empty-pocket detection**

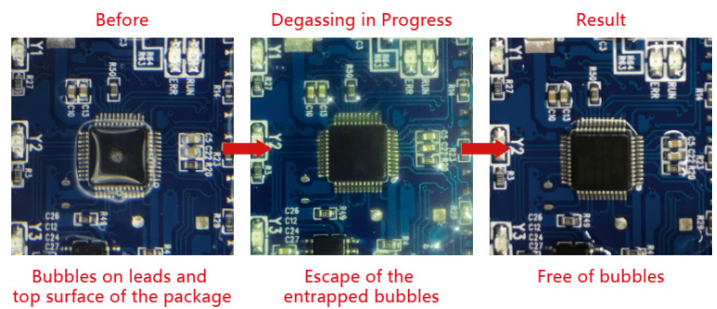




## Vacuum Degassing System (Inline/Offline)



- ▶ Degassing after Potting, Coating, Adhesive Dispensing
- ▶ Inline Configuration for integration to Production line
- ▶ Single lane single chamber
- ▶ Degassing using Vacuum and Heat
- ▶ Adjustable Vacuum Profile
- ▶ Std Maximum PCB Size 450mm x 450mm
- ▶ Easy Operation



## Material Handling Systems



YP-1B101  
Magazine Loader



YP-1B100XL  
Inspection conveyor



YP-1B100  
Auto width conveyor



YP-3A150  
Telescopic door conveyor

- ▶ Magazing Loader
- ▶ PCB Stacker
- ▶ Flipper Conveyor
- ▶ Transverser
- ▶ Telescopic Track
- ▶ Single / Dual Lane Conveyor

- ▶ Inspection Conveyor
- ▶ Cooling Conveyor
- ▶ Buffer Conveyor
- ▶ Buffer Machine
- ▶ NG-OK Magazine Unloader



YP-2YA050XL  
Single lane inspection conveyor



YP-1T100  
NG buffer conveyor



YP-1N100  
NG-OK Magazine Unloader

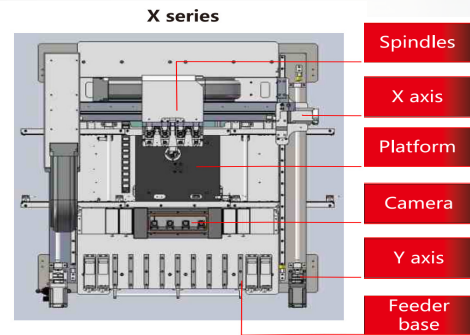


YP-4A050  
Stacker Loader

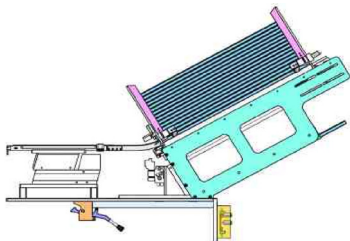
# High Speed Odd Form Component Insertion



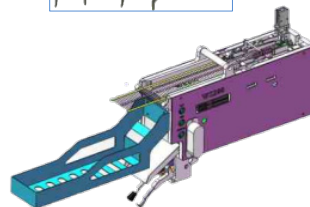
- ▶ High Speed Component Insertion 0.5s per component
- ▶ High Insertion Accuracy 0.03mm
- ▶ Component Size up to W 40mm x H 30mm
- ▶ Variable Insertion Direction 0-360deg
- ▶ Up to 16 feeders (Front and Back)
- ▶ Up to 8 Spindle/Pick-up Heads
- ▶ Automatic Pick-up Exchanger
- ▶ Pin Detection and Camera Checking before placement
- ▶ Variable Feeder Types - Tape, Tube, Tray, Bowl
- ▶ Casted Frame Structure - Minimized Vibration



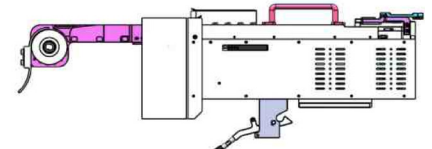
## Tube Feeder



## Axial Feeder



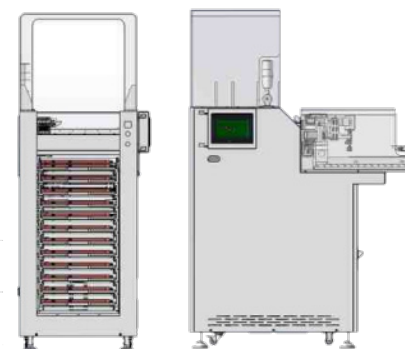
## Radial Feeder



## Bowl Feeder



## Tray Feeder



# Micro Assembly System



## FINEPLACER FEMTO 2

### Flexible Assembly Platform

- ▶ Placement accuracy 0.5um @ 3 sigma
- ▶ Component sizes from 0.05x0.05mm to 100x100mm
- ▶ Fully automated operation
- ▶ Pattern recognition for automated placement and bonding processes
- ▶ FPXvison™ maximum resolution across large field of view



## FINEPLACER PICO 2

### Flexible Assembly Platform

- ▶ Placement accuracy 3μm
- ▶ Component sizes from 0.05x0.05mm to 100x100mm
- ▶ Supported substrate size up to 350x300mm<sup>2</sup>
- ▶ Bonding forces up to 500N
- ▶ Heating Temperature from 40°C to 450°C

# Advanced Rework System



## FINEPLACER CORE

### Industry leading cost-effective rework

- ▶ Placement Accuracy of 25um
- ▶ Component sizes from 0.25x0.25mm up to 90x90mm
- ▶ Board size up to 400x310mm
- ▶ Automated processes with force measurement
- ▶ Vision alignment system with Fixed beam splitter
- ▶ Real time process observation camera

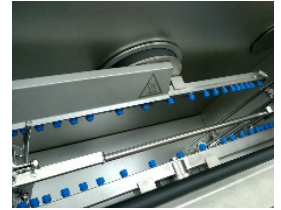


## MiniSWASH

### Automatic Spray Cleaning System

#### Advantages of Mini SWASH

- ▶ Fully automatic spray-in-air closed loop zero drain system
- ▶ Low consumption of chemicals and water
- ▶ Synchronous, double-sided, constant speed motor-driven nozzle manifold
- ▶ **Rotary Direct Spray Bars**
- ▶ Hot air direct dry technology
- ▶ Synchronous motion check
- ▶ Anti-collision system

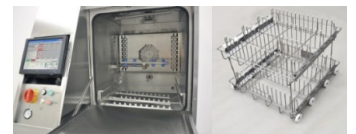


## CompaCLEAN

### Automatic Spray Cleaning System

#### Advantages of COMPACLEAN

- ▶ Fully automatic spray-in-air closed loop zero drain system
- ▶ Illuminated glass door chamber for visual process control
- ▶ Intuitive touchscreen interface with Window OS
- ▶ Complete datalogging, Lan connectivity and optional barcode traceability
- ▶ Personalised password security
- ▶ **Oscillating Basket Fixed Spray Bars**
- ▶ High volume batch size
- ▶ Fixed nozzle system
- ▶ Powerful hot air dryer



## HyperCLEAN

### Automatic Spray Cleaning System

#### Advantages of HyperCLEAN system

- ▶ Single Basket or Double Basket
- ▶ Large chamber for high capacity
- ▶ Quick & Easy Loading with Pushcart
- ▶ Rapid Wash and Rinse
- ▶ Basket Oscillation (Short version only)
- ▶ Fast Drying



# HyperSWASH

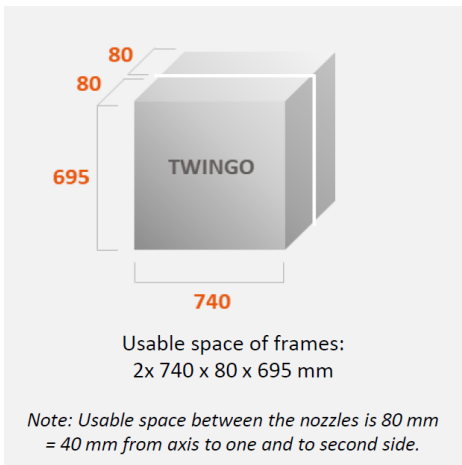
## Automatic Spray Cleaning System

### Advantages of HyperSWASH

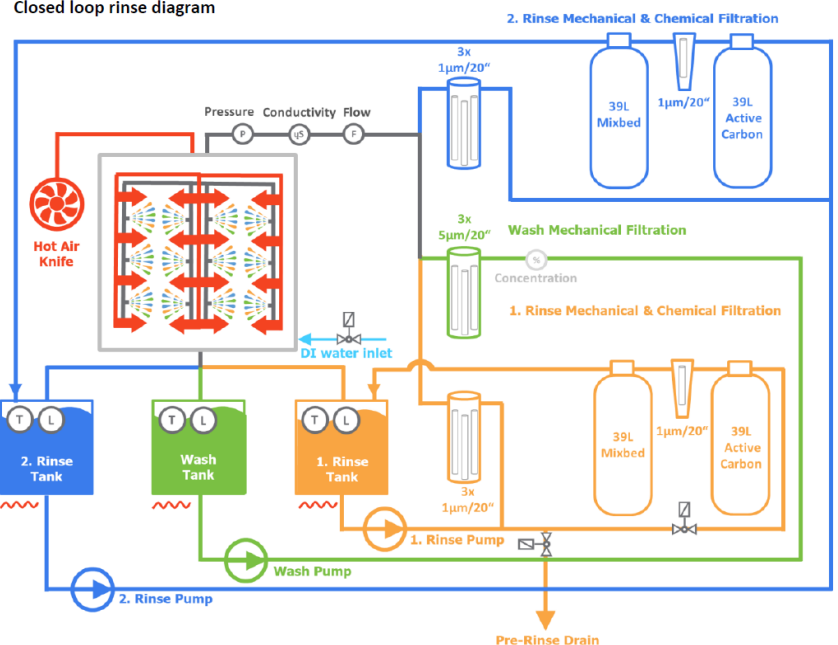
- ▶ High Performance cleaning machine for water-based chemicals
- ▶ Double capacity configuration TWINGO
- ▶ High Performance direct spray technology
- ▶ 5 Stages process: Wash/Pre-Rinse/1.Rinse/2.Rinse/Dry
- ▶ Rapid Direct drying by heated air knife
- ▶ Illuminated glass door for visual processes control
- ▶ Intuitive touchscreen interface with Window OS
- ▶ 2 in 1 - Combo/Twingo



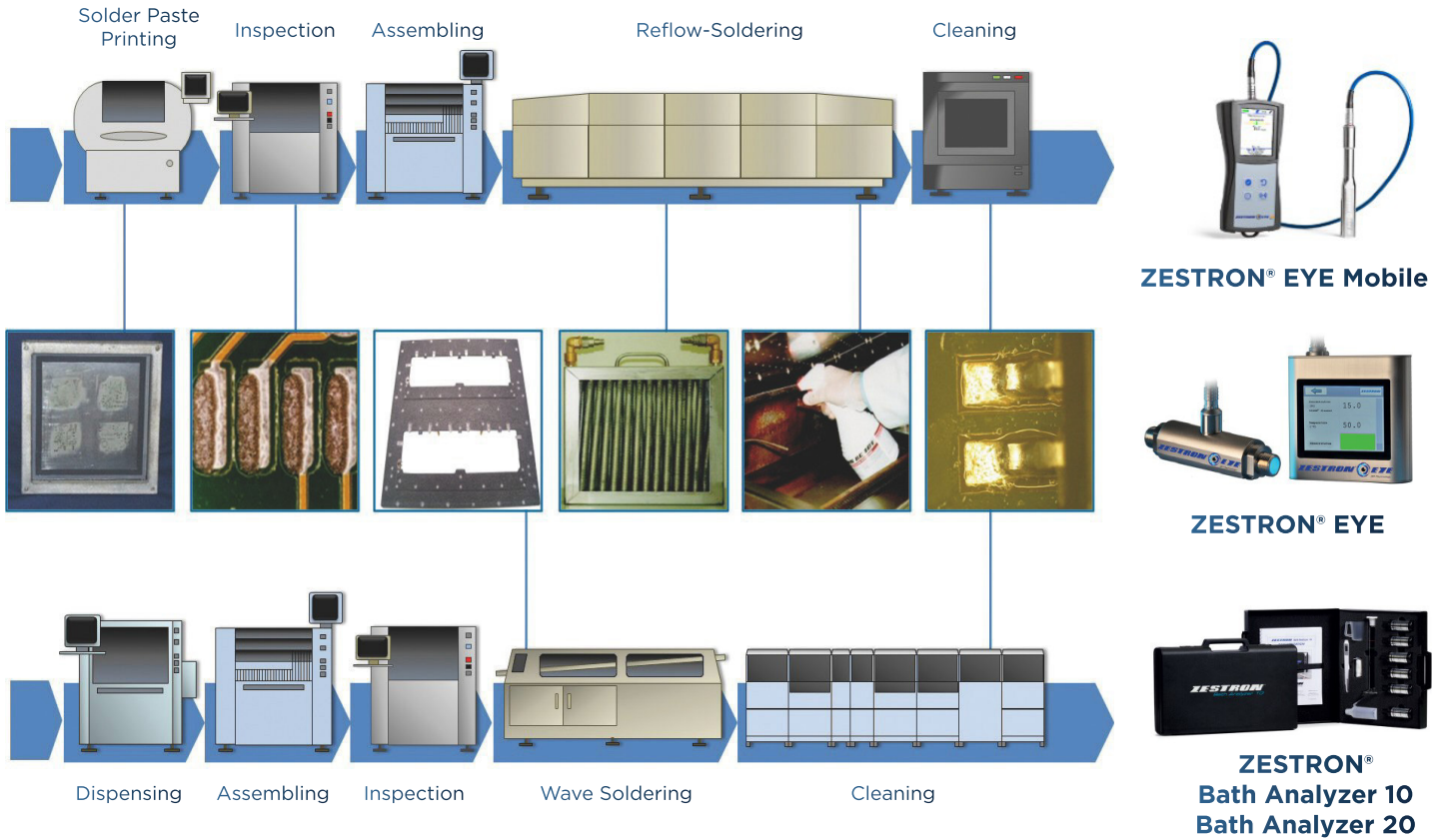
### Usable Space of Chamber (Including fixtures & Clamping)



Closed loop rinse diagram



# Cleaning Applications in the Electronics Assembly Process



No.	Description	Products
1	Stencil	Vigon SC200 Vigon SC210
2	Mis-Print PCB	Vigon SC200 Vigon SC210
3	Pallets	Atron SP200 Atron SP300
4	Reflow Oven Condenser Trap	Atron SP200 Atron SP300
5	Reflow Oven Maintenance	Vigon RC101 Vigon RC303
6	Defluxing	Vigon A200 Vigon A201 Vigon N600 Zestron FA+ Hydron SE230A

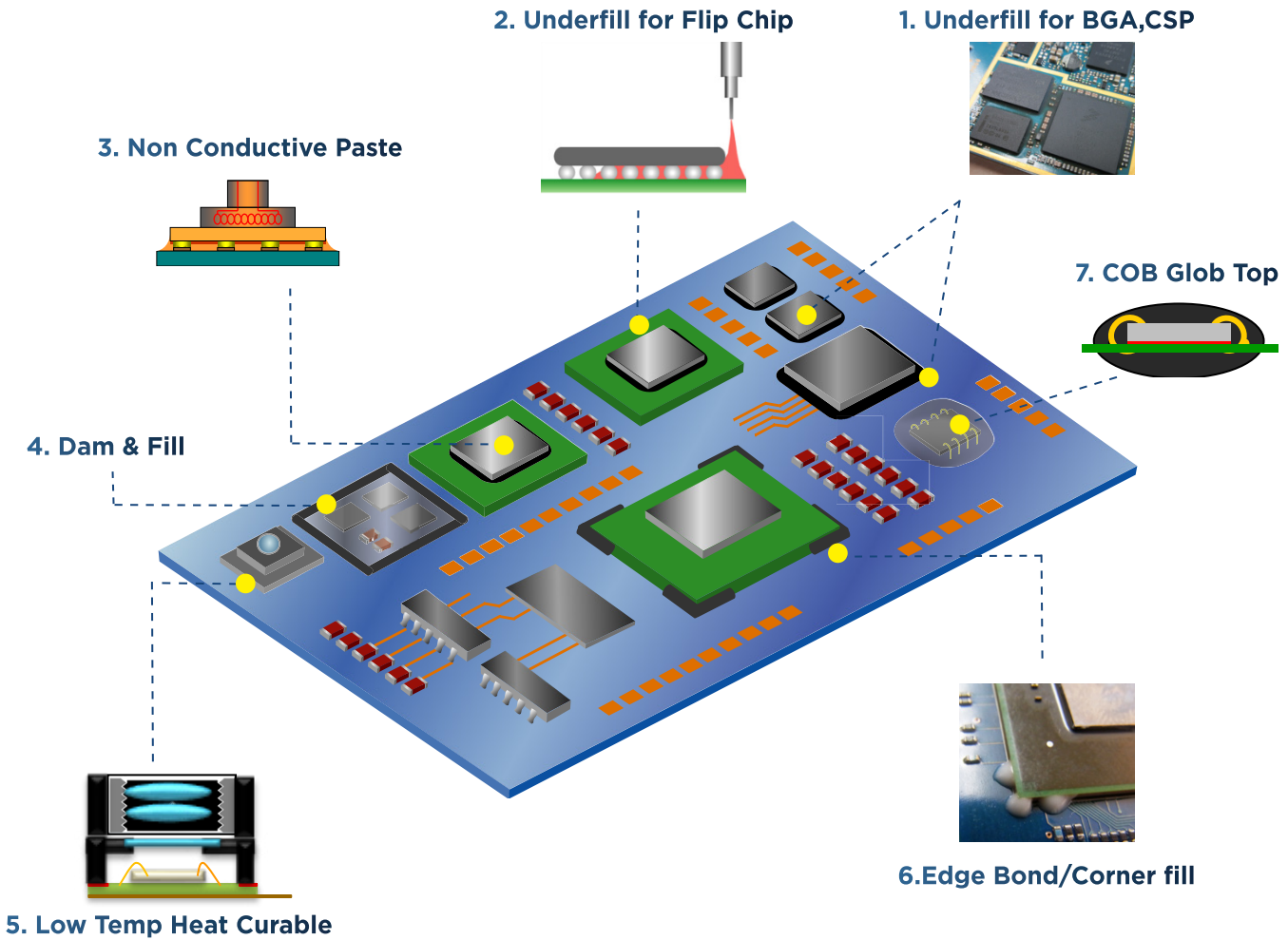
## The Recommended Product for Cleaning in Electronics



ALL ZESTRON®, VIGON® and ATRON® based products fully comply with the requirements of the European Directives WEEE and RoHS

# Adhesive System Engineering Consulting

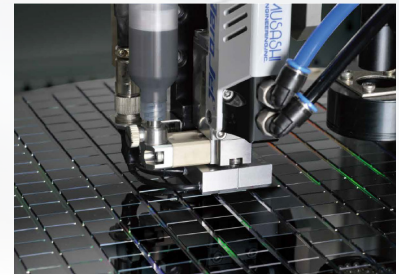
UV Curable | Heat Curable | Anaerobic



No.	Products	Characteristic
1	Underfill for BGA,CSP	Low CTE type / Low viscosity type
2	Underfill for Flip Chip	Capirally flow type / for Cu pillar / for TSV
3	Non Conductive Paste	Voidless NCP
4	Dam & Fill	Low stress type
5	Low Temp Heat Curable	80 X 10 mins
6	Edge Bond/Corner fill	High Viscosity & High thixotropy
7	COB Glob Top	High Tg type / Low stress type

# FAD 5100S-WH

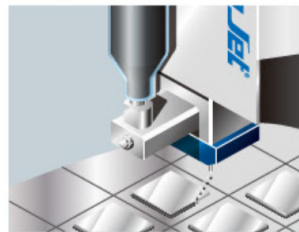
## Back-end processes



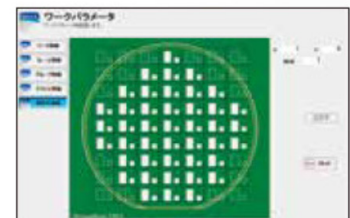
### For high throughput and high-quality dispensing

- ▶ High-speed dispensing with uninterrupted, continuous operation
- ▶ Automatically controls dispensing quantity
- ▶ Forms “leaf line” dispensing patterns that are ideal for avoiding voids
- ▶ Prevents large numbers of defects from occurring

#### Applications



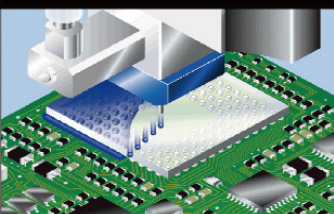
Underfilling CoW



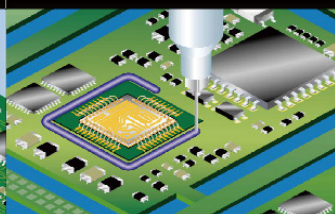
#### Equipped with wafer mapping function!

Configure any device layout on wafers.  
Helps to reduce programming time significantly.

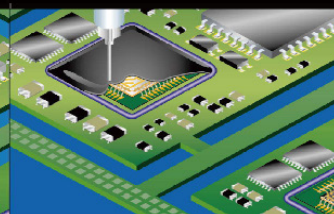
#### Underfilling on CSP/BGA



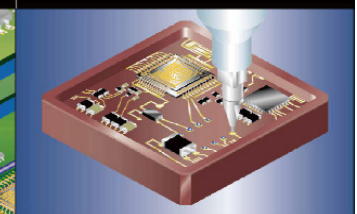
#### Dam dispensing



#### Encapsulation



#### Super-fine point dispensing



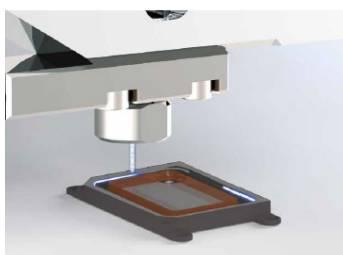


# FAD 2500

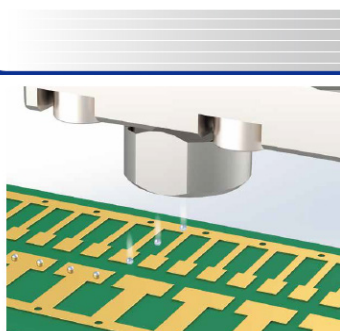
## Fully automatic dispensing mainframe



### Application



Vibrating membrane attach on speaker



Ag dispensing on semiconductor lead frame

### Multi-head compatibility Highly versatile to suit various applications

- ▶ High-speed dispensing with uninterrupted, continuous operation: Express JET function
- ▶ Automatically controls dispensing quantity: DVM function
- ▶ Forms "leaf line" dispensing patterns
- ▶ that are ideal for avoiding voids: MCD function (PAT.P)
- ▶ Wide range of standardized optional accessories.

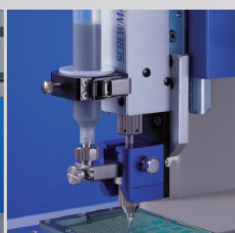
### Dispenser Lineup



AeroJet®



MPP-1



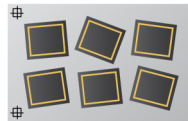
SCREW MASTER®2



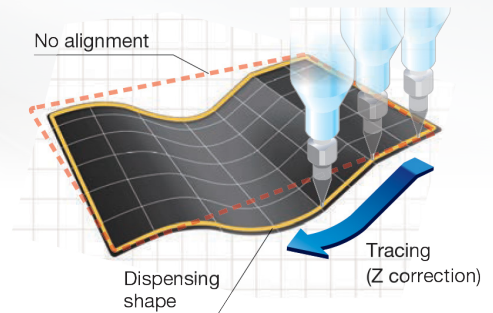
Super ΣCMII

# IMAGE MASTER™ 350PC Smart

SMΩX series



Complete correction of  
device position deviation



## Complete 3-D Alignment

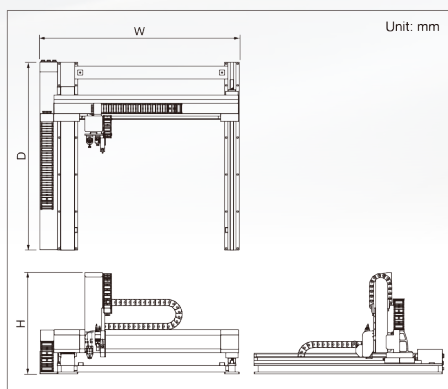
Automatic correction for individual differences in works and pallet array errors

Name		350PC Smart SM200ΩX	350PC Smart SM300ΩX	350PC Smart SM400ΩX	350PC Smart SM500ΩX
Model		350PCS-SM200 OMEGAX	350PCS-SM300 OMEGAX	350PCS-SM400 OMEGAX	350PCS-SM500 OMEGAX
Number of Controlled Axes		3 axes			
Control Method		PTP control/interpolation control			
Travel Range	X*Y	200 x 200 mm	300 x 300 mm	400 x 400 mm	500 x 500 mm
	Z	80 mm			
PTP Operation Speed Setting Range	X*Y	1 - 500 mm/s			
	Z	1 - 400 mm/s			
Interpolation Operation Speed Setting Range	X*Y	0.1 - 500 mm/s			
	Z	0.1 - 400 mm/s			
Repetitive Positioning Accuracy X*Y*Z		±0.005 mm			
Transportable Weight		20 kg			

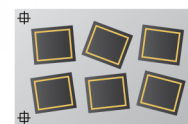
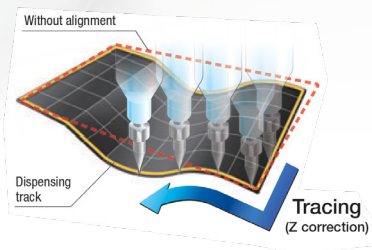
# X CROSS MASTER™ Sx series



## Outside drawings



## Desktop / Inline Dispensing



Complete correction of device position deviation

Name		<b>350PC Smart XMΩX</b>			
Model		350PCS-XM OMEGAX			
Number Of Controlled Axes		3 axes			
Control Method		PTP control/interpolation control			
Working Area X*Y		300x300 mm	400x400 mm	500x600 mm	700x800 mm
Working Area Z		150 mm			
PTP Operation Speed Setting Range	X*Y	1 to 500 mm/s			
	Z	1 to 400 mm/s			
Interpolation operation speed setting range	X*Y	0.1 to 500 mm/s			
	Z	0.1 to 400 mm/s			
Repetitive positioning accuracy X*Y*Z		±0.005 mm			
Tool Payload Weight		8.7 kg			
Main Unit Dimensions (excluding protrusions)	Width (W)	831 mm	931 mm	1031 mm	1239 mm
	Depth (D)	671 mm	771 mm	971 mm	1171 mm
	Height (H)	630 mm			
Main unit weight		80 kg	91 kg	120 kg	143 kg

# Super $\Sigma$ CM IV<sup>TM</sup>



## ► SIGMA Functions

1. Automatic Volume Compensation
2. Automatic Vacuum Correction
3. Automatic Low Liquid Level Alarm

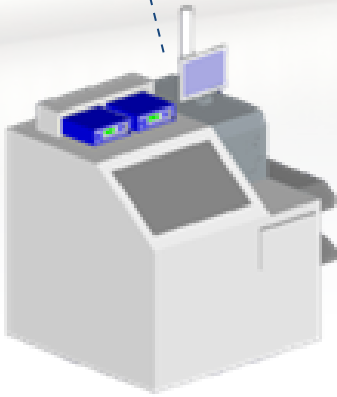
## ► Full production control features

1. Operation Log
2. Ethernet/LAN Port
3. PC communication via USB

## ► Compact Design w/ Ener Saving mode

## ► Touch Panel Settings and Display

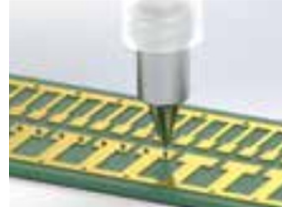
### Die-Attach Paste Controller Replacement / Integration



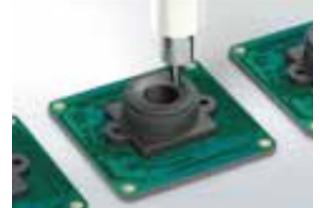
## Applications



Ag paste dispensing for die bonding



Solder paste dispensing to lead frame



UV dispensing for fixing the automotive camera lens

## ML-8000X



- Fully Customizable Pressure/Time Increment
- Vacuum pressure auto control
- Various production control functions
- Operation log, self-diagnosis, emergency stop
- Improved operability with a 4.3inch touch panel
- Communication with PC with USB ports
- Network connection via LAN and Ethernet
- High-Res dispensing pressure setting option

## ML-6000X



- Updated Model supersedes ML-5000XII
- Superior dispensing control accuracy
- Air Pulse stabilization circuit
- Operation Logging
- Residual quantity detection
- Multiple dispensing param channel
- High-Res dispensing pressure setting option

Ultra-high-speed and Non-contact JET dispenser

## *SuperJet*<sup>TM</sup> MJET-S



### Applications

- ▶ Conformal Coating
- ▶ Underfill Dispensing
- ▶ Silicon-based Liquid Dispensing
- ▶ Tab Reinforcement
- ▶ Smartphone Cover Adhesive

## *AeroJet*<sup>®</sup> MJET-A



### Applications

- ▶ Jet-dispense AG paste on lead frame
- ▶ Jet-coat PCB to prevent moisture for automotive
- ▶ Jet-dispense UV resin
- ▶ Jet-bond various electronic parts
- ▶ Dispensing, dots, line, coating and more

# MEASURING MASTER MPP-1 / MPP-3



### Features

- ▶ Volumetric Dispensing with Outstanding Accuracy
- ▶ Consistent dispensing regardless of Viscosity change
- ▶ Superior Liquid cut-off suck back mechanism
- ▶ Excellent Constant Flow
- ▶ Various Liquid feeding methods

## *DUAL MPP-3*

### Features

- ▶ Configured for 2-part dispensing
- ▶ Excellent Constant Flow



**UV LED Type**

**AREA**



H-20AH4-FS1

**LINE**

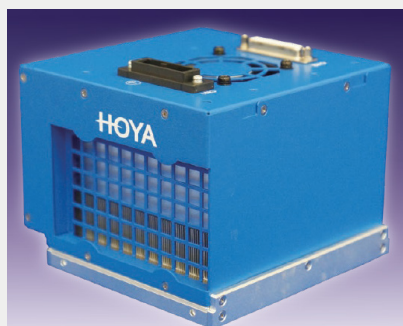


EX120-V\*-CN1A

**SPOT**



H-1VH



HD240-V\*-CN1A/-CN1A



H-4MLH84-1S12-SM1



H-1VH4+HDL-Q1

**UV Light Source Type**



Execure 4000-D

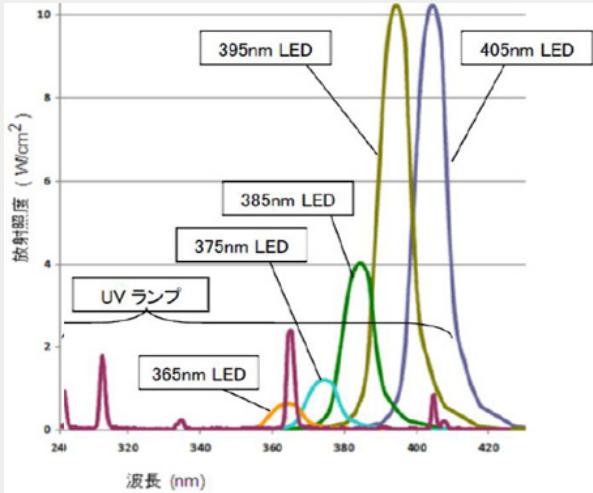
**UV Meter**



HM-2. HD-365S. HD365

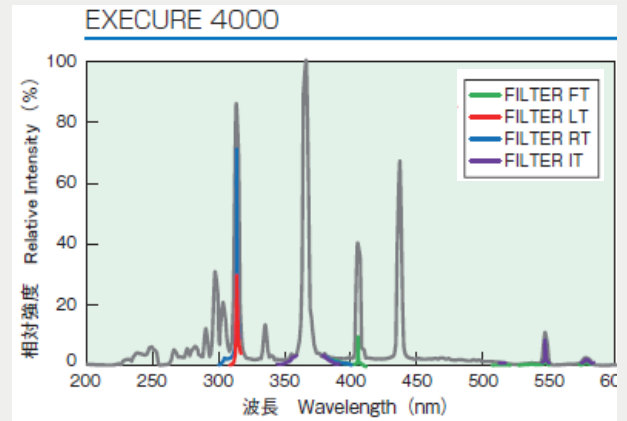
## UV Light Technology

### LED - Single Wavelength



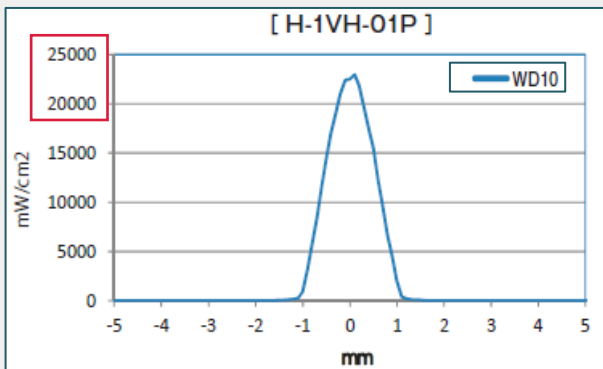
- » High Irradiation Intensity
- » Low Power Consumption
- » Air Cooled Led Design
- » Integration Friendly
- » Long Chip Lifespan

### LIGHTSOURCE - Multi Wavelength

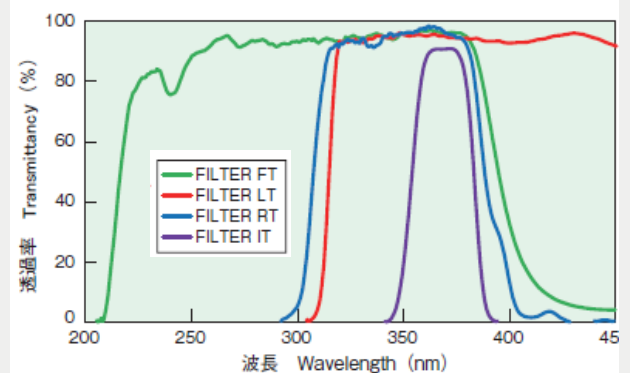


- » Stable Irradiation Uniformity
- » Ease of Maintenance
- » Flexible Layout & Support
- » Long Lamp Lifespan
- » Interchangeable Filters

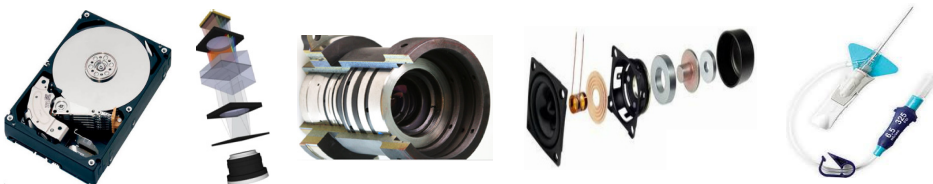
### HOYA Lens - SUPER Intensities



### FILTERS



## Adhesion/Bond Cure



HDD

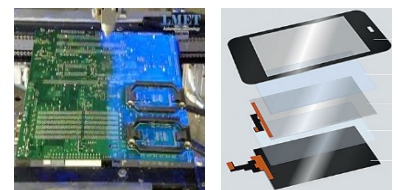
CCM

Optics

Micro Speaker

Medical

## SEAL / COAT



PCB

Mobile



**SINGAPORE**  
Headquarter

More than **45** offices across  
*North America, Europe and Asia Pacific*

- Manufacturing Plants -

*Singapore • Malaysia • China • France • Poland*

**DOU YEE**  
ENTERPRISES

**HEAD OFFICE**

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Tel: (65) 6444 2678

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Website: [www.douyee.com](http://www.douyee.com)

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**Branches Contacts**