portnertec

Newsletter | July 2024

Total Solutions for SMT



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ASMPT









Vitronics Soltec



Foreword

Dear reader,

The Dutch government will allocate billions of euros to retain technology companies, such as chip machine manufacturer ASML, in the Eindhoven region. ASML acknowledges that the tech industry, a cornerstone of the Dutch economy, is built on past investments. In response, the outgoing government recently announced large-scale investments in technical education and other initiatives under the 'Beethoven Project'.

The Netherlands holds a unique position in the microchip industry, both in Europe and globally, supplying high-quality technology and knowledge. However, there is a significant shortage of technically trained engineers. The semiconductor industry relies on expertise and access to high-quality facilities. Brainport boasts a substantial technical workforce, which is why 900 million euros will be invested in technical education.

Additionally, 500 million euros will be allocated to infrastructure to improve highways and railways around Eindhoven. To address the housing shortage in the Eindhoven region, the government is allocating an additional 100 million euros.

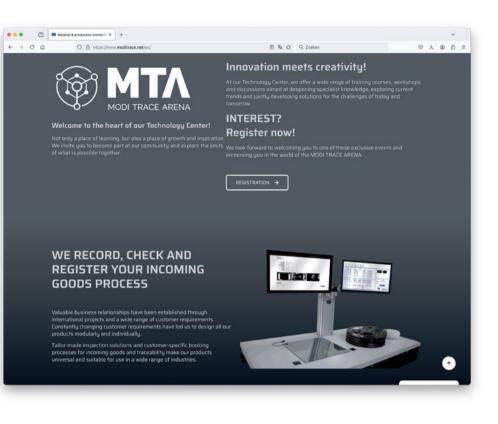
One of ASML's key suppliers, VDL, has recently expanded its investments in the SMT industry by acquiring a second electronics company, Rena Electronics. VDL TBP has also made new investments to support future growth by purchasing High Tech Pick & Place machines from ASMPT through Partnertec. The new SMD line offers a much higher output at an even smaller footprint than before. This also allows easy integration with their sister company Rena, who are already fully equipped with two ASMPT SMD lines from Partnertec.

In addition to significant investments in capital goods, we are seeing a strong increase in turnover from both our consumables department and the stencil production department. Particularly in the field of high-tech emulsion screens, we are receiving more orders to supply special products for the High Tech Campus.



Enjoy reading our Newsletter.

Maurits van der Laken Managing Director Partnertec



Modi opens technology center **MODI TRACE ARENA**

Modi, the specialist for identification solutions and process optimization, has just opened a brand-new technology center at their facility in Wiehl, Germany. In this MODI TRACE ARENA, customers can experience all of MODI's solutions, test their own materials, join workshops and follow courses.

MODI offers a range of products to optimize incoming goods processes in the electronics manufacturing industry. Their latest model, the incoming goods scanning table WES V5, can capture all labels on incoming goods in a single high-resolution image and automatically detect the relevant data. This data is used to verify the delivery against your ERP and order data. The system can automatically create customized labels with a Unique Identifier barcode and other relevant information for your internal organization. MODI software seamlessly integrates with ERP, MES, and machine databases to minimize manual operations and avoid faulty input. A Modi table can significantly reduce the daily workload in your logistics department and is crucial for full traceability.

More information can be found at www.moditrace.net. Please contact Partnertec if you would like to learn more about MODI or would like to sign up for a visit or event at the MODI TRACE ARENA.





www.moditrace.net



partner in exploring technology

Solving the biggest problems facing modern conformal coating application?

Conformal coatings protect printed circuit boards (PCBs) from moisture, corrosion, contaminants, vibration, and thermal shock. Coatings are a complicated science, and there isn't one best coating or application method for every job. It depends on the design, use case and assembly.

Regardless of the chosen method, fundamental application errors can occur, leading to defects in the coating, which ultimately limit the functional service life of the PCB.

Most common problems in conformal coating application The printed circuit board industry is rapidly evolving, leading to two major trends causing issues with conformal coating application:

- Increased Board Density: Boards are more densely packed with shrinking space between components and component leads. Conformal coatings need to flow and distribute evenly across components for proper protection. However, natural surface tension behaviors, such as adhesion and cohesion, prevent the material from flowing properly when space is tight. Common issues in coating applications include:
 - · Bubbles forming in the coating
 - Too much or too little coating spread around sharp corners
 - Defects emerging during intense thermal exposure
- 2. **Higher Performance Expectations:** The performance expectations are more demanding, requiring even better protection from coating materials than ever before.

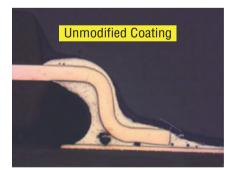
How does Humiseal addressthese challenges?

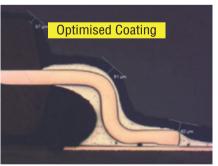
Humiseal continuously conducts extensive research on both coating materials and application methods. In a recently released whitepaper, you can read more about this research and the results achieved: Whitepaper: Conformal Coatings -New Solutions to Existing Problems



New Sharp Edge Coverage (SEC) coating materials As a result, Humiseal frequently introduces new and improved coating materials, such as those developed for better Sharp Edge Coverage (SEC). A significant experiment was performed during Productronica 2023, demonstrating how much better SEC coating materials perform. Watch the experiment here.







Inovaxe - Innovative material handling solutions for smarter factories

Partnertec is happy to inform you that we recently signed a distribution contract with Inovaxe. Since 2003, Inovaxe has been a leading supplier of smart material handling systems. Their award-winning products can optimize your material flow, reducing unnecessary labor and increasing the uptime of your assembly equipment.

Inovaxe's Smart Storage Solutions can efficiently store hundreds of reels per square meter and allow quick "guided by light" access to parts within seconds. The systems are controlled by intelligent Inventory Management Software. Inovaxe systems can store reels, trays, sticks and boxes. You can even convert your existing storage into an intelligent warehouse.

Smart sensors detect when items are placed or removed, and clever barcode scanning allows for free locating to any of the available spaces in the storage. Picking a list of items can be done in one go or in a guided order, such as in the feeder kitting sequence.

The portfolio includes various models and sizes of stationary racks and mobile carts for smart storage in warehouse locations and near production areas. It also offers smart solutions for transport between stock locations and includes a smart MDS storage solution.

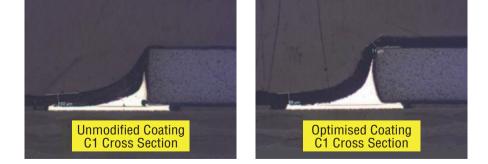
In many cases, Inovaxe storage systems are more space-efficient and better priced than fully automated storage towers and paternoster systems. However, the biggest advantage is the much shorter time required to pick and restore items!

The concept is highly modular and can be tailored and reorganized depending on your fast-changing needs. Inovaxe integrates 100% with Modi's incoming goods scanning table for fast and reliable checking and automatic creation of unique identifiers and labels. It also seamlessly integrates with X-ray counters such as Nordson Asure, to update the actual inventory when parts return from production to the warehouse.

Summary of the main benefits

- Increased inventory accuracy
- Decreased feeder kitting time and machine set-up time
- · Reduced space requirement
- FIFO management
- Avoid mis-picking
- Minimize partial reels
- Substantial reduction of "surprise shortages"





- Fully transparent warehouse and shop-floor inventory
- Increased overall equipment efficiency

In many cases, a return on investment within six months is possible. Please contact us if you would like to learn more about the solutions Inovaxe can offer your organization.



www.inovaxe.com

HumiSeal[®]

www.humiseal.com

Making the invisible visible Nordson T&I launches the Quadra Pro Series X-ray inspection system

The successor to the well-known Dage Quadra has recently been released. Sold under the new company name, Nordson TEST & INSPECTION (T&I), the Quadra Pro series is now available.

New Onyx Detector

The Quadra Pro series uses the new Onyx Detector, originally developed for the semiconductor industry. It offers higher resolution, lower noise, higher clarity, higher brilliance, and above all, faster frame rates resulting in quicker imaging.

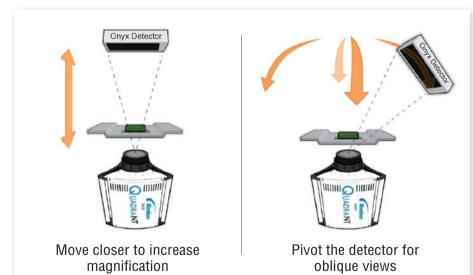
Quadra NT Tube

The well-known "maintenance-free" Nordson Quadra NT tube has been further enhanced, offering dual mode on the Quadra 7 Pro machine. It can switch between "High Resolution Mode" for very sensitive samples and "High-Flux Mode" for denser and thicker samples. The maintenance-free X-ray tube technology, which uses a long-lasting crystal source for generating electrons, remains unchanged. The crystal source creates a more focused electron beam than traditional tungsten filaments, resulting in brighter and clearer images, and the filament does not require replacement, performing consistently over the lifetime of the tube.

New Revolution Control Software

The modular, service-based new software architecture offers divided modules for motion control, image capturing, and tube control. The newly designed modern Graphical User Interface offers simple intuitive menus and easy "point and click" control with advanced filters and image enhancements. Images and software are now displayed on one ultra-wide curved high-resolution monitor. Users can reshuffle and customize the location of menu items on the screen.

As before, the Quadra Pro series uses the same sample manipulation method, meaning no rotation of the PCB, so the orientation remains the same for the operator while examining a solder joint. The sample moves in X, Y, and Z, while the detector rotates up to 140 degrees in all directions around the sample.





Available Models

As before, three models remain available for specific demands:

Quadra 3 Pro

- Defect detection on features as small as 0.75 μm
- · Perfect for PCB inspection on BGA, QFN, solder shorts, through-hole filling, and counterfeit components
- 15 Watt X-ray tube

Quadra 5 Pro

- Defect detection on features as small as 0.3 µm
- Perfect for advanced PCB inspections, void measurements, power electronics, finished goods
- 20 Watt X-ray tube

Quadra 7 Pro

- Defect detection on features as small as 0.1 μm
- Ultimate inspection at the semiconductor level, wire sweep, wafer level inspection, failure analysis
- 20 Watt, Dual Mode X-ray tube

In comparison to the previous Quadra models, a Quadra Pro 3 performs at the Quadra 5 level, while the Quadra 5 Pro matches the original Quadra 7 image quality. The new Quadra 7 Pro performs at unbeatable inspection levels never reached before!

Quadra Pro systems can be demonstrated in the Nordson T&I application center in Feldkirchen, near the Munich exhibition center. In this application center, Nordson T&I also demonstrates Autonomic X-ray Inspection systems (AXI), formerly sold under the name Matrix. AXI systems can fully automatically inspect products at very high speed, allowing inline integration in SMD lines and 100% 3D inspection. Nordson T&I also offers X-ray SMD component counters and acoustic inspection equipment. You're more than welcome to visit and explore the unlimited possibilities.



The manipulator can now move at higher speeds, and images are collected faster at a higher quality. As a result, the popular X-plane CT scan option can now create 3D image information up to three times faster at any location on your PCB, at any desired magnification.

Cera Reconstruction and Visualization software is now embedded in the machine user interface. X-plane scans can now be added to the automatic inspection routines.

Nordson T&I now offers attractive trade-in proposals to promote the new Quadra Pro series. Please let us know if you wish to receive more information.



www.nordson.com



partner in exploring technology

ASMPT subscription-based software – the clever way to optimize your workflows

ASMPT, well known for its market-leading SMD equipment, offers a wide portfolio of supporting software to get the best out of your capital investment. The "ASMPT WORKS" software suite supports every workflow in your complex electronics manufacturing process.

Traditionally, software is purchased in combination with equipment and owned by the end-user. However, selecting what to purchase from the growing range of software can be challenging, and software prices do not always fit within available budgets. Additionally, maintaining all owned software is becoming increasingly complex.

For this reason, ASMPT has released "Subscription-Based Software" in our region. The main benefits of subscription-based software include:

- Lower initial investment
- No listing on your balance sheet
- Modern software standards
- Benefit from all available features
- · Access to the latest releases and new features
- · Items can be added or removed from the subscription contract

The ASMPT WORKS Software Subscription consists of a modular bundle of software packages supporting the following main workflows:

- Programming
- Planning
 Monitoring
- Logistics

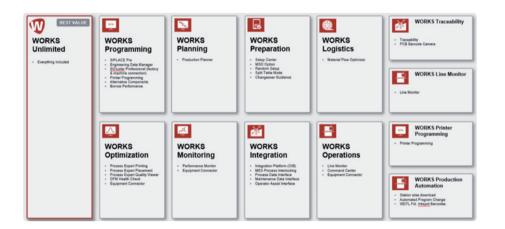
Preparation

Integration

Operation

Optimization

ASMPT also offers the "WORK Unlimited Package," which includes all the above packages at a very attractive bundled price. The image below describes all available modules.



The subscription price is relative to the number of machines owned, making the model attractive for every type of customer. Subscription contracts are available for a period of one, two, or three years.



Coventry[™] cleanroom wipes: ensuring process integrity

Coventry[™] cleanroom wipes are designed to keep contamination at bay, enhance yield and deliver consistent performance. Tailored to specific applications and industries, Coventry[™] offers a variety of wipes crafted from 45/55 polyester/cellulose, 100% laundered polyester, or 50/50 polyester/nylon. These wipes boast high absorbency, minimal linting, and high purity, making them ideal for critical environments.

Features and Benefits

- High absorbency capacity
- Excellent particle entrapment
- Low ion contamination



- Laboratory
- Semiconductor
- Pharmaceutical
- Electronics
- Fiber Optic
- Aerospace

Applications

- Cleaning up acids and chemical spills
- Wiping down machinery and instrumentation
- Cleaning laminar flow benches
- General-purpose wiping in cleanrooms







Please contact Partnertec if you wish to learn more about our subscription-based software offerings for ASMPT software.



For complete product portfolio and more info.





www.asmpt.com



www.chemtronics.com

www.partnertec.nl

Whitepaper portal from Zestron How to boost reliability and prevent expensive failures

Have you ever wondered whether assembly cleaning in **batch systems** inevitably leads to **shadowing**? Or how cleaning can enhance the **quality of your protective coatings**? How to prevent moisture and material-induced **failure mechanisms in power electronics**? In a nutshell, how to boost the **reliability** of the assemblies and components you use, thereby preventing expensive failures?

If these questions resonate with you, we have the **perfect solution**: a compilation of current **technical articles** that delve deeply into these topics and offer **valuable insights**. Request your individual selection of technical articles today!



Shadowing in Batch Cleaning Systems

PCB Cleaning

Cleaning electronic assemblies under soldered components with low stand-off heights of 40 µm poses a significant challenge in cleaning processes, where the primary objective is the complete removal of flux residues. Previously, flux residues under components with low stand-off heights could only be detected by removing the components, thereby destroying the assembly. This study introduces a specially developed non-destructive test using transparent assemblies to measure potential shadowing phenomena in spray-in-air (SIA) batch cleaning machines. The study identifies specific differences in cleaning behavior among different machine types concerning shadowing, depending on the position within individual machines, and derives recommendations for process development.

Improving the quality of protective coatings

Coating

Protective coatings are extensively employed in applications requiring high reliability of electronics. Thermal shock tests verify the reliability of these coated electronics in the field. This study investigates the effects of specific production parameters on the occurrence of defects in conformal coatings during thermal shock tests. The findings highlight that production residues contribute to failures during thermal shock tests, and employing appropriate cleaning procedures positively impacts performance in these tests. The paper also ranks the significant contributions to achieving good thermal shock performance.

Moisture and material-induced failure mechanisms in power electronics

Electrochemical Migration

Modern, energy-efficient power electronics are pivotal in harnessing renewable energies, such as those used in wind turbines and e-mobility applications. In these applications, power modules are often exposed to harsh environmental conditions, particularly moisture. Therefore, understanding the failure mechanisms and aging effects under these conditions is crucial to maintaining the reliability and lifespan of power modules, thereby ensuring the functionality of the entire system. This whitepaper presents concrete case studies demonstrating the conditions necessary for electronic systems to transition from the basic electrochemical migration (ECM) failure mechanism to anodic-cathodic migration—known as AMP.

eCollection Corrosion in Power Electronics

Corrosion

Failures induced by corrosion mechanisms, such as electrochemical migration (ECM), are a growing challenge for power electronics manufacturers. In this webinar, our expert Stefan Strixner will highlight the failure mechanisms in power electronics, how they occur in practice and the possibilities to avoid and/or remedy them. Use our knowledge package on the topic of Corrosion in Power Electronics in the next four weeks and benefit from the experience and expertise of our ZESTRON experts.



For more information on these articles or other whitepapers from Zestron, please visit www.zestron.com/en/company/whitepapers



www.zestron.com



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Partnertec news flash



Solderstar reflow shuttle with O2 PPM measurement

About 50% of all reflow ovens operate under nitrogen. Nitrogen limits the amount of oxygen and so reduces oxidation during the soldering process. As a result, solder joints become less susceptible to failures, and issues such as de-wetting and solderability problems are minimized. It is crucial to control the oxygen level in each oven zone.

Solderstar has developed an easy-to-use shuttle that analyzes the oxygen PPM (parts per million) level while moving through the oven. This shuttle measures the O2 PPM level at the PCB level in every

individual zone. The shuttle uses the same Solderstar SLX profiler found in other Solderstar products, such as the Delta Probe, Wave Solder Optimizer, Selective Solder Optimizer, and Vapor Phase Thermal Profiler. Solderstar specializes in thermal profiling solutions for the electronics assembly industry.



www.solderstar.com

Indium Durafuse[™] LT, low-temperature solder paste

Durafuse[®] LT is a new patented low-temperature alloy system designed to provide high reliability in applications requiring a reflow temperature below 210°C. Durafuse[®] LT offers improved drop shock resilience, outperforming bismuth-tin (BiSn) or bismuth-tin-silver (BiSnAg) alloys, and even surpassing SAC305 with an optimized process setup. Durafuse[®] LT comprises a low-melting indium-containing

alloy and a higher-melting SAC alloy. The SnInAg alloy initiates joint fusion, while the SAC alloy provides enhanced strength and durability. Durafuse[®] LT is ideal for high-reliability applications with thermally sensitive components or boards and those requiring step soldering.



__ www.indium.com



Modi goods receipt 5.0

Modi's latest WES 5 incoming goods scanning table now features one high-resolution camera. All labels on the entire workspace are scanned and captured in one shot, in a much shorter time and with higher resolution. It can now also scan and read documents such as delivery bills and automatically

measure reel diameters. The improved user interface makes operation even easier. Modi offers the perfect solution to automate your incoming goods receipt, resulting in less operation time and improved data quality. It will automatically detect the relevant barcode information on incoming goods, compare it with ERP data, collect or create unique identification numbers, and generate customized internal labels.



www.moditrace.net

MBtech doubling its production facility

MBtech is doubling its factory in Saint-Lys, near Toulouse. Founded in 1993 by Mr. Michel Bourdat, the company specializes in developing and producing cleaning equipment for the electronics industry. Key to its success was the original patent on perfect filtration of cleaning liquids, resulting

in outstanding cleaning results while dramatically reducing running costs. The company has continued to grow and become a leader in high-demand industries. To cope with continuous growth, MBtech is now doubling its facility and production capacity.



ITW Vitronics Soltec - Idle mode: saving energy and nitrogen

Sustainability and green manufacturing are essential in today's modern electronics industry. Over the years, Vitronics Soltec has improved its reflow ovens, with the latest Centurion models among the most efficient ovens on the market. However, reflow soldering remains a thermal process, consuming significant power during operation.

Soltec now offers a convenient "Idle Mode" software option to reduce this consumption. An upstream sensor detects when no boards are entering the SMD line, and the oven reduces both fan speed and conveyor belt speed. In nitrogen ovens, the N2 insertion volume is also lowered. The board sensor location and delay timing can be freely set. Depending on production, power savings of up to 35% and N2 consumption reduction of up to 40% are easily

achievable. As soon as SMEMA detects a new incoming PCB, the reflow oven rapidly awakens and restores the original settings without affecting the thermal profile on your PCBs.



___ www.itweae.com

TEKNEK solutions for mitigating foreign object debris on PCBs

TEKNEK, a manufacturer of contact cleaning equipment, has recently published an interesting whitepaper. The prevalence of Foreign Object Debris (FOD) has become a significant concern in the Surface Mount Technology (SMT) and Printed Circuit Board Assembly (PCBA) sector. FOD, encompassing any foreign material that jeopardizes electronic components or assemblies, poses risks of malfunction and damage throughout manufacturing, assembly, and product operation. As the industry grapples with increasingly complex and compact electronic devices, innovative solutions are sought to mitigate FOD-related challenges and ensure reliable production processes.

The whitepaper describes the potential risks of FOD and how contact cleaning can contribute to better yield and reliability. Download the whitepaper here:



__ www.teknek.com

GEN3 launches new model contaminometer

GEN3, well known for its market-leading test and measurement equipment for shielding electronic circuits from failures in the field, has launched the successor to their CM+ series contaminometer. The latest models can measure ionic contamination on your boards according to IPC's

new "objective evidence" methodology. The new models will be known as the GEN3 CM Series and offer similar model sizes as before, except the CM60+, which will be renamed to CM-VMC (Volumetric Measurement Cell).



www.gen3systems.com

MEK ISO Spector M2: full 3D AOI system renewed!

MEK has released its upgraded 3D AOI flagship. The new ISO-Spector M2 is equipped with a brand-new, improved digital Moiré projector with higher accuracy, reducing the number of projections required and shortening inspection time by 25%.



www.mb-tech.fr

Zestron's new premises nearing completion



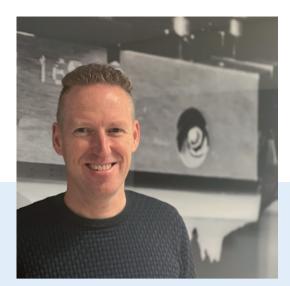
The Wack Group will soon move its entire operation, including Zestron, from Ingolstadt to a brand-new corporate campus in Baar-Ebenhausen, Germany. The new location will feature a state-of-the-art cleaning experience center, where customers can test cleaning applications in a wide range

of equipment using any type of Zestron cleaning agent. This includes MBtech's latest flux cleaning and stencil cleaning equipment. Feel free to contact us if you wish to receive recommendations from the best cleaning specialists in the world.

www.zestron.com

With its 25-megapixel ultra-high-resolution camera and large 69x69mm field of view, the M2 is among the fastest and most accurate 3D inspection systems in the world. The system now comes with MEK's new Al-driven EZpro programming software, which automatically recognizes CAD formats, footprints, and multi-panels from any given CAD format. The industry-leading Al-driven automatic programming algorithm for solderjoint inspection reduces programming time and minimizes false calls. Low learning skills are required, and inspection results are independent of who creates the program. Almost all programming can be done offline without needing a sample board, allowing the AOI to remain running production. As a result, the overall programming time is commonly below 30 minutes, making the system suitable for small batch production.





Daan's Tips & Tricks Obvious ways to improve your SMD line output

Offline work preparation:

In many companies, a lack of engineering capacity and pressure on delivery times create major bottlenecks. This often results in incomplete work preparation before jobs are transferred to the SMD production line. If a job is not 100% prepared in advance, additional required programming work at the line should be accounted for during planning. Failure to do so will cause unforeseen delays at the start of production, significantly disrupting subsequent production steps. This will not only result in longer delivery times but might also affect the quality of the end product.

On-time parts supply:

Similar issues arise when the logistic flow is not aligned with production planning. Timely material supply should allow operators to prepare feeder kits in advance to avoid long machine stoppages during job changeovers. Good part supply before and during production will result in higher equipment utilization and increased production output.

Smart software:

Smart software tools and integrated connections between systems like ERP, MES, and machine software can contribute to better visibility of the current state of production and component availability in production and warehouses. This enables more accurate and predictable planning. Modern software can even recommend the best production order and cluster jobs to reduce the number of changeovers. As a result, overall equipment efficiency and output are increased, and less operator time is required.

Preventive maintenance:

Preventive maintenance is frequently not executed on time due to production pressure, sometimes caused by issues as described above. However, this can result in unplanned machine breakdowns, further exacerbating capacity problems. A typical example is the cleaning of machine parts such as filters, oven radiators, or pallets used in soldering and coating equipment. Cleaning is a dirty and time-consuming task that operators dislike and tend to delay. However, using the right tools and chemicals can simplify the job and improve cleaning results.

MB-Tech offers the MC200 parts cleaning machine, specifically designed to simplify and improve this maintenance task. Zestron offers cleaning fluids, such as Atron SP300, that work perfectly in this machine. They also offer chemicals for those who prefer manual cleaning, providing a significant improvement.



VDL-TBP expands production capacity with ASMPT SMD line

VDL-TBP recently became the proud owner of a new fast SMD production line from ASMPT. This Electronics Manufacturing Service company was founded in 1976 and was one of the first to invest in SMD assembly equipment in the 1980s. They have always followed the latest technology trends and achieved a unique position in the market.

Since the takeover by the VDL Groep, a significant expansion of production capacity was needed. The desired growth turned out not to be achievable with existing equipment, so a benchmark study for a new SMD line was initiated. ASMPT turned out to offer the right machines with the desired output and quality, along with the important required flexibility and good local support.

In early March, the line was ordered and custom-built in the weeks that followed. Less than three months later, it is already up and running at the customer site, thanks to the commitment of all involved staff at VDL-TBP, ASMPT, and Partnertec.

The new line consists of three modern ASMPT Siplace SX2 machines that offer a realistic placement speed of approximately 100,000 CPH on customer-specific boards. This makes the line almost four times faster than the replaced SMD line while taking up considerably less floor space.

ASMPT's Siplace machines are known for their high flexibility and high placement accuracy in combination with high speed. This is achieved by three unique placement heads:

- The fast CP20 rotating chip placement head that features 20 individual placement units.
- The 12-nozzle multi-purpose CPP rotating head, which quickly mounts both small and large components.
- The Twin Head, designed for extremely complex or large and heavy parts such as odd-shaped components.

The line at VDL-TBP is equipped with six placement heads in total and features a wide range of options to produce the most complex electronic boards.

In addition, VDL-TBP also invested in an extensive software package for efficient programming and seamless integration into the existing factory software. The ASMPT Works software suite allowed the experienced IT professionals within the VDL team to integrate everything within a couple of weeks. ASMPT Works includes Material Management and the latest Production Planner, which will allow better sequence planning and product clustering to reduce the number of changeovers and achieve higher efficiency.

An extensive implementation program, including e-learning via the ASMPT Academy and on-site training, has been completed. VDL-TBP is now ramping up its production while learning on the fly.

Partnertec wishes VDL-TBP success in its ambitious growth plan and is pleased to contribute to this effort.



Partnertec stencil department news New CAD-engineer on board

We recently expanded our Stencil Department team with a new colleague, Tim van Dortmont, in the role of Stencil Design Engineer. Tim has already gained experience in our industry during his studies while working as a test engineer at one of our customers. Tim will strengthen our team in the development and manufacturing of laser-cut stencils. Please give him a warm welcome.

New fine grain sheet thicknesses available

We have expanded our range of thicknesses for the very popular fine grain Vector Guard Sheets. Fine grain material is now available in steps of 10 microns to accommodate any requirements for solder volume.

Advanced stencil technology

Most applications can be solved with standard stencil material and thickness, but for more challenging applications, we offer a wide range of advanced technologies together with our partner ASMPT. Our experienced engineering team performs analyses on your stencil design using unique Design for Experiment software. If recommended, we offer Stepped Up or Stepped Down stencils (Milled or Welded), Electroformed stencils, and a special Nano Ultra Coating to improve paste release.

We also provide recommendations on solder paste type, board support method, and stencil printer setup. If required, our

All the points mentioned might seem obvious, but as noted, we often see issues arise in the field. Many problems can be avoided with some extra attention or a small investment.

Please contact me if you would like to learn more.

Daan van Hoogstraten

8

engineers can even visit you on-site to support you in setting up your complex projects.

Framed stencil and screen technology

Nowadays, cost- and space-saving frameless stencil tensioning systems are most preferred. Partnertec offers the world's most popular and easy-to-use ASMPT's Vector Guard.

For special applications, we also offer framed stencil and framed screen technology together with our German partner Berbertec. Ultrathin stencil sheet materials down to 20 microns can still be processed if framed. Traditional emulsion mesh screens are still required for advanced applications where thin large layers of material need to be printed. For such applications, Partnertec can support you with perfect solutions.

portnertec

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