

MYNNews

A magazine from Mycronic

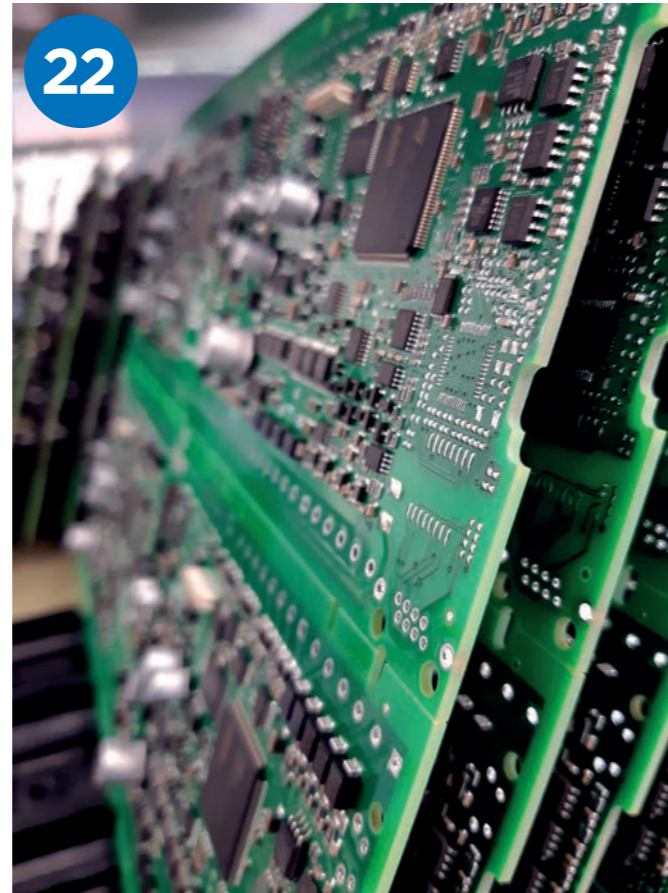
2021.01

Enter the control center

Elevating production performance to
your dashboard with MYCenter Analysis™

AUTONOMOUS INSPECTIONS
— towards a zero-defect future

Efficiency supports
SMARTER GROWTH



Contents 2021.01

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DESPITE CHALLENGING TIMES, OUR INDUSTRY REMAINS RESILIENT. The pandemic waves continue to come and go. And although the future is still uncertain, we continue to help manufacturers improve their flexibility and take control of their production processes.

As a global supplier to essential industries including medical, aerospace, automotive and industrial electronics, we feel fortunate to be contributing our knowledge, support and solutions. The electrification of the world continues, along with the transformation to 5G and edge computing. This progress demands new ways of working and even more rapid digitalization in these unpredictable times.

One way we're adapting is through our field services, which are rapidly becoming digitalized. This is as much about remote diagnostics as improving efficiency and service levels. Our sales force is also undergoing its own digital transformation, which is quite exciting. Think beyond webinars and imagine more online demos and remote services. All of this brings us closer to our customers and leaves us all better prepared for the future. And there remains a great deal to be invented.

As always, we're thinking beyond the boundaries. But we're also thinking outside the production line and beyond the factory walls. Just recently we launched MYCenter Analysis, our first pick-and-place monitoring and control solution. For customers already using it, the dashboard delivers much greater transparency and visibility over vital production data. This is true not just for operators, who can ask and answer more immediate questions about line performance. It is also true for production managers, who now have a powerful new tool for strategic planning and long-term operational improvements. The current MYCenter Analysis is only the beginning, with many more features and capabilities still to come.

Finally, our efforts to enhance material flows have taken yet another step forward. Thanks to a new innovative inventory system, a new range of high-end MYTower models nearly doubles the capacity of previous systems. The new MYTower 5x and 6x represent a massive leap forward in

storage density. With capacities up to 2,468 reels, the newly designed platform packs in as many as 1,000 component reels per square meter.

In addition, all our MYTower storage solutions are now available with dual-terminal access, providing even more flexibility on the factory floor. Whether loading on one side and unloading on the other, or opening up the towers to more robotics integration, customers have been thrilled at the opportunity to further reduce interruptions in their material flows. At the same time, 4 mm reels can now be handled by all new towers and pick-and-place machines, and new customer ideas keep coming in.

In fact, it's this spirit of collaboration that drives our integrated approach to the challenges of high-mix manufacturing. As we continue to connect our machines within our line, with other factory systems and with third-party partners, we remain convinced that collaboration leads to the best solutions.

If you have ideas, let us know. We're always listening and eager to improve.

// Clemens Jargon
Senior Vice President, High Flex



MYCRONIC

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PUBLISHER: Simon Sandgren, responsible under Swedish law **EDITOR:** Jenny Ek Adrell **CONTRIBUTING WRITERS:** Grant Baldrige, Mattias Jonsson, Liam Karlsson, Jeff Leal, Yan Manissadjian, Simon Sandgren **GRAPHIC DESIGN & LAYOUT:** EXPEDITION 46™ **PRINT:** TMG Sthlm, Sweden, 2021 **ISSN:** 1651-4882 P-001-0252/May 2021. This newsletter is produced with the intention of providing general information about Mycronic and our products.

Mycronic, MYDATA, MYDATA automation and MY: Mycronic 4.0; MYPro, MY100, MY100e, MY200, MY200HX, MY200DX, MY200SX, MY200LX, MY300, MY300DX, MY300SX, MY300LX, MY500, MY600, MY600JD, MY600JP, MY600JX, MY700, MY700JD, MY700JP, MY700JX and MYSynergy; MYSmart, MYC50, MYD10, MYD50, MYT10, MYT50; MYTower; Mycronic SMD Tower; VI TECHNOLOGY, VIT; 5K, 5K3D, 8K, 8K3D, 9K, 9K3D; PI, PI Pico, PI Primo; SIGMA Link; HYDRA Speedmount, Midas, ISIC; Agilis, Agilis Linear Magazine (ALM), Agilis Linear Magazine Flex (ALM FLEX), Agilis Stick Magazine (ASM), Agilis Tray Magazine (ATM), Mycronic Tray Exchanger (TEX), Mycronic Tray Wagon Magazine (TWM); Mycronic Dip Unit (DPU); Mycronic Standard Vision System (SVS), Mycronic Dual Vision System (DVS), Mycronic Linescan Vision System (LVS), Mycronic HYDRA Vision System (HVS); Mycronic Assembly Process Management (APM) including; JPSys, TPSys, MYLabel, MYPlan, MYCenter, MYTrace, MYCam and FlowLine are registered trademarks or trademarks of Mycronic AB. Mycronic AB is ISO 9001:2015 and ISO 14001:2015 certified.

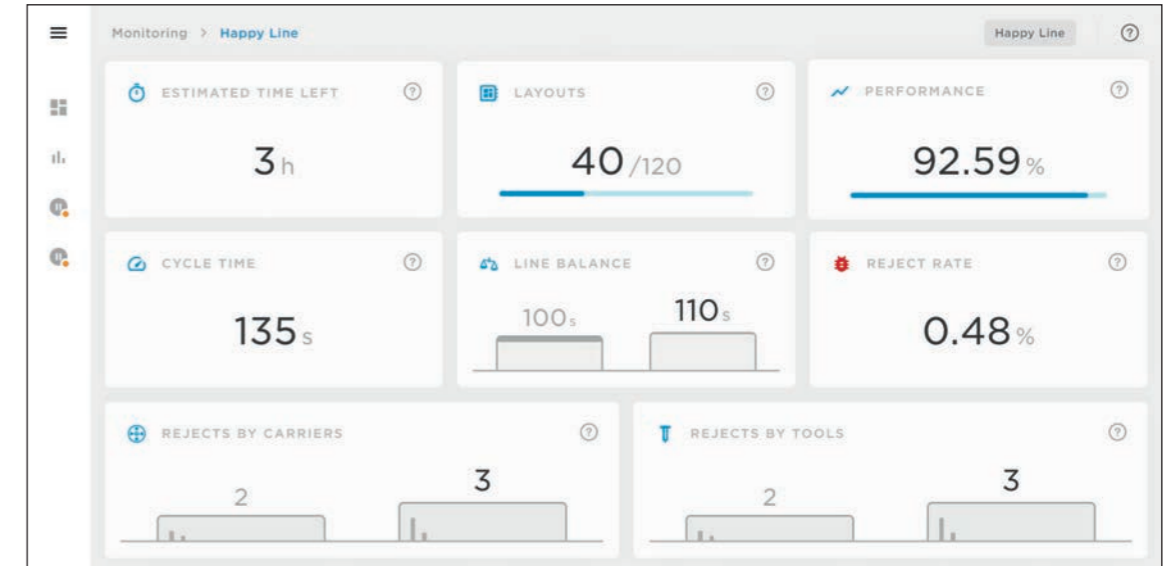
Enter the control center

MYCenter Analysis™ elevates production performance to your dashboard

TEXT: GRANT BALDRIDGE PHOTO: MYCRONIC

Customers asked, and we listened: Bringing together live performance data, root-cause analysis, and actionable insights into a powerful dashboard interface. It's called MYCenter Analysis, and it's all about improving production output with less operator intervention.

→ The dashboard shows live performance data and is typically displayed above the production line. The same dashboard is also the starting point for the production engineer in root-cause analyses.



WHAT TOOLS do you need to better visualize performance, find root causes, and improve output in your SMT line? These were the questions that drove the development of MYCenter Analysis, Mycronic's latest dashboard software. The result of extensive co-development and beta testing, MYCenter Analysis is a promising example of the next generation of software being developed by the Mycronic 4.0 UX development team. Starting with the current pick-and-place control dashboard, the ambition is for MYCenter Analysis to become a comprehensive control center for production efficiency, encompassing a wide range of process steps.

Higher-level insights

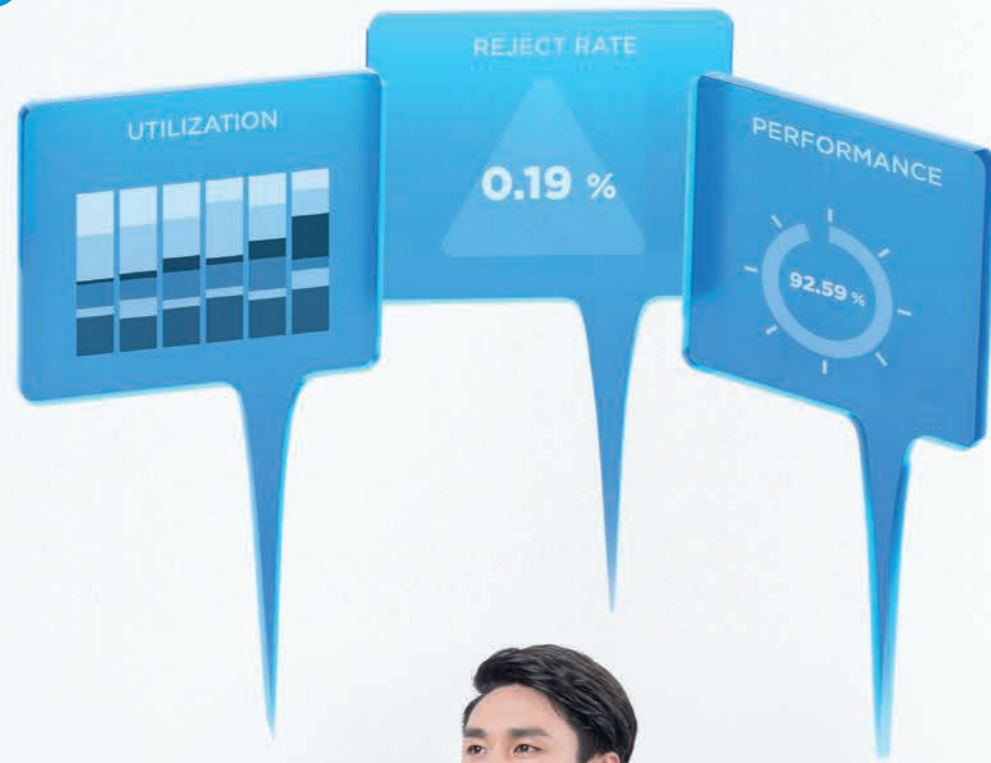
Improved efficiency starts with the right data. In Live View, the new dashboard shows the current state of the line, number of boards produced, cycle time, efficiency, and workload balance. All this live data gives production engineers an overview of the most vital production statistics without the clutter of standard operational data. Directly from the web-based dashboard, it is now possible to compare current utilization with

historical data, plan necessary interventions, and continuously refine production efficiency from anywhere, on any device.

Deeper problem-solving

Previously, reject rates and component waste might only be discovered after a job's completion—sometimes hours, or even days, too late. With component mispick and reject analysis, MYCenter Analysis makes it possible to diagnose and resolve potential quality issues before they multiply. When an uncommonly high reject rate is discovered, production engineers can click through an extensive reject rate analysis, examine the data, and review detailed images of individual mounthead nozzles and components. The end result is a direct path from diagnosis to analysis to planned intervention—all from a single dashboard overview.

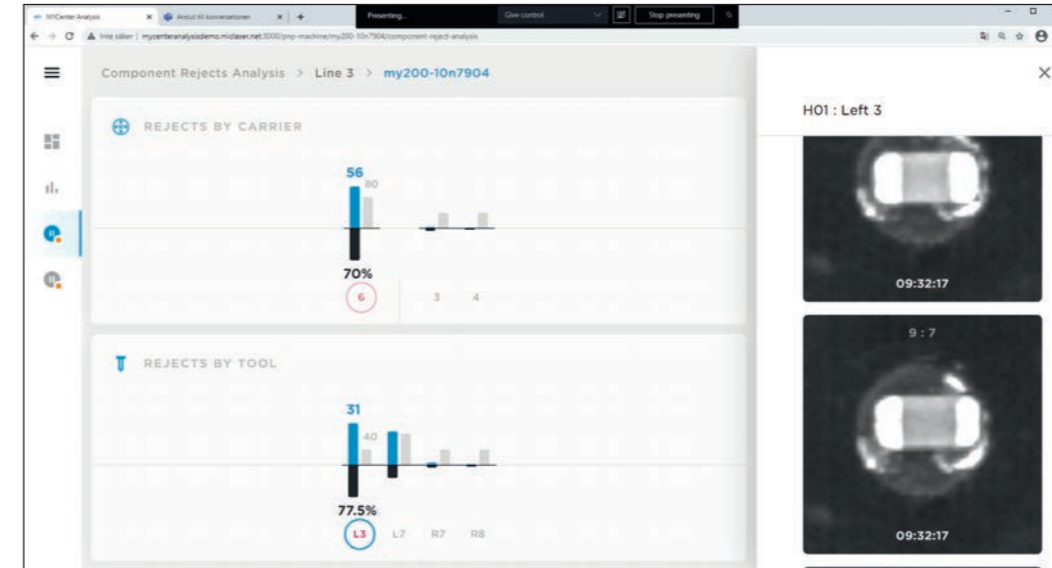
Thanks to detailed utilization data, potential bottlenecks can also be identified beyond the pick-and-place machines in both upstream and downstream production. With the right analysis, it's possible to reveal issues including excessive waiting times for PCBs arriving in the line, solder paste issues



Think bigger.
Dig deeper.
Act faster.

**MYCenter Analysis™ —
Your pick-and-place
control center**

Now there's a better way to take control of pick-and-place performance. With MYCenter Analysis, you get the actionable data you need to increase utilization, reduce reject rates and improve product quality in real time. Co-developed with customers, the MYCenter Analysis dashboard gives you a live overview of the most relevant production data, component mispick and reject analysis, historical utilization and more. Whether you want to see the bigger picture or solve the smallest issues, there's never been a smarter way to boost your bottom-line results. Learn more at mycronic.com



→ The reject rate analysis guides the production engineer in finding the root-cause behind an unreasonably high reject rate.

detected in the Solder Paste Inspection system, or full PCB magazines at the end of the line, to name just a few. MYCenter Analysis makes this debottlenecking process faster, more effective and more thorough, thereby significantly reducing the need for trial-and-error diagnosis.

Thanks to faster diagnosis of even the smallest problem areas, production managers can more effectively plan key steps and reduce machine stoppages to a minimum. Improved maintenance of component and package data, together with optimized feeder composition and loading, further contribute to more effective line balancing throughout the production process.

Boost your
bottom line with
MYCenter Analysis.

Better line balancing

As products and production processes grow more complex, effective line balancing has the potential to deliver huge productivity gains. MYCenter Analysis makes it easier to discover inefficiencies due to frequent machine stoppages as well as reduced speeds in the mounting or feeding of components and packages. In cases where MYPlan is not being used, the software can also highlight instances where a more optimal kitting setup might be possible.

Faster results

Whether it's enhanced remote monitoring, improved line balancing, or rapid reduction of unplanned downtime, the following use cases highlight some of the most immediate advantages offered by the new web-based dashboard control software.

Remote awareness and strategic planning

Production profile

Two production lines: One for large-batch OEM production, one for small-batch EMS production.

Previous challenges

- Sub-optimal line balancing
- Excessive unscheduled downtime due to unprepared feeders
- Lack of measurable improvements from process enhancements

Advantages of MYCenter Analysis

- Improved line balancing due to MYCenter Analysis and MYPlan
- Reduction in unscheduled downtime
- Daily, weekly and monthly improvement monitoring via the desktop dashboard

Results

Now possible to focus on and address the inefficiencies that the operators might not see in their daily work, preparing future production programs and staying close to customers. All without leaving the office.

Reduced component waste

Production profile

High-mix, mid-volume OEM production on a single MYPro Line.

Previous challenges

- Excessive component waste due to un-resolved component rejections
- Lack of skilled operators able to quickly resolve tool or carrier issues
- Operators hesitant to stop production and perform root-cause analysis for rejects

Advantages of MYCenter Analysis

- Real-time overview of current and historical reject rates
- Rapid identification of specific tools or carriers causing reject issues
- Reduction in component waste

Results

Now possible to reduce both the cost of wasted components and the cost associated with troubleshooting the root cause behind issues. Performance of the line could also increase due to the component library being in a good state and not getting modified for the wrong reasons.

Rapid job intervention and resolution

Production profile

High-mix, mid-volume contract manufacturing with regular repeat jobs of 500-1,000 boards on a single line.

Previous challenges

- Sudden drops in machine performance, reducing job output
- Often complex causes for reduced cycle time demanding further investigation
- Delayed awareness of machine performance drop causing long production delays

Advantages of MYCenter Analysis

- Real-time monitoring indicating performance drop compared to historical job data
- Immediate visualization of lower-than-average cycle time
- Rapid intervention and investigation saving valuable production time

Results

Speed is critical when it comes to identifying an unusual drop in machine performance. Now no major problem goes unnoticed, which can save days in otherwise lost production output.



The future is
the speed of stencils
with the quality of
jet printing.”



.....●●●●●●●● Discover the MY700 3D SPI add-on solution

The future of high-volume jetting applications is here. The MY700 3D SPI add-on solution is a fully integrated 3D solder paste inspection and jet printing module that eliminates stencil printing compromises at any production volume. Let the 3D SPI scan and identify missing or damaged solder paste print, and the MY700 automatically fills them in with perfect placement and volume control. All so you can keep the highest throughput speeds, simplify your stencil designs and put the future back where it belongs: in your control.

MYCRONIC

Meet the MYTower™ family

— a new generation of storage for factories of all shapes and sizes

TEXT: GRANT BALDRIDGE PHOTO: MYCRONIC

SMD Tower set the benchmark for intelligent component storage. Now, with two new high-capacity models, the options are greater than ever for manufacturers who demand the ultimate in compact, near-production storage. It's a system so far out in the forefront, we decided it needed a new name. We call it MYTower.



The newly designed platform packs in as many as 1,000 component reels per square meter to give manufacturers the most space-efficient intelligent storage system available.

THE MARKET'S most efficient near-production storage system just got more versatile. Thanks to an innovative inventory system, a new range of high-end MYTower models nearly doubles the capacity of previous SMD Towers of the same height.

Double up on smarter storage

The new MYTower 5x and 6x, available in two different heights, represent a massive leap forward in storage density. With capacities up to 2,468 reels, the newly designed platform packs in as many as 1,000 component reels per square meter to give manufacturers the most space-efficient intelligent storage system available.

A breakthrough in space efficiency, the new MYTower series X models employ an advanced shelving system design with four rotating columns, each of which can contain five positions for 7" reels. At the front and back of the storage system are an additional two positions that can be used for 15" reel magazines or a versatile range of options for component trays of other sizes.

Despite offering nearly double the capacity of previous models, the system provides all the same advantages as other MYTower and SMD Tower models, including the same fast retrieval times, automated recording of all stock movements and control and monitoring of MSD components, as well as safe component storage.

Wherever space is tight and demands are high

The MYTower series X will come as especially welcome news for manufacturers struggling to keep up with a growing number of miniaturized components. The platform's footprint and reel carousel design are especially optimized for maximizing storage of 7" reels. This gives smaller EMS producers the opportunity to consolidate and automate their inventory within a smaller space, even as their product mix continues to expand. For mid-volume producers, it makes it possible to reduce the total number of storage systems, thereby freeing up floor-space to pursue the most optimal workflow strategies.



Double up on smarter storage

Introducing the industry's most compact near-production storage system

Looking to squeeze more profitability into the same floorspace? Now you can. With the new MYTower series X, you can reach the highest levels of component automation at up to 1,000 reels per square meter. Thanks to a breakthrough inventory system, it offers the same advantages as previous SMD Towers with as much as double the storage density. All so you can pack more performance into less space and keep massive volumes of reels, trays and tapes always close at hand. Learn how the new MYTower series X can help you make the most of every square meter at mycronic.com

A powerful high-mix warehouse

Low-volume, high-mix producers, are of course among the main beneficiaries of the recent expansion in the MYTower portfolio. It is in these demanding environments that efficient material handling, tracking, kitting and changeovers have the most impact on profitability. MYTower 5x and 6x can help to streamline these complex workflows by eliminating inefficient manual shelving systems, offering far greater capacity for storage of customers' inventory and bringing more automation directly to the production line where staff movements and proactive replenishment matter most.

Powerful combinations

The wider range of MYTower options also offers powerful combinations of multiple models. The maximum capacity of MYTower 6x, for instance, can be combined with a MYTower 6+, which offers a wide range of storage options for larger components, wider reels and Agilis™ Smartbox. Configurations like these make it possible to store several thousand reels containing an extremely broad range of components, offering the best of both capacity and flexibility within a very small footprint.

Together with the new dual-terminal option, available on any MYTower model, Mycronic's intelligent material handling systems are now more complete than ever before. Whether the future of your factory demands better accessibility, higher capacity, smarter movements or simply more floorspace, the new MYTower family has a member to meet every need.

Store reels kitted with an Agilis feeder on the Agilis carrier pallet.

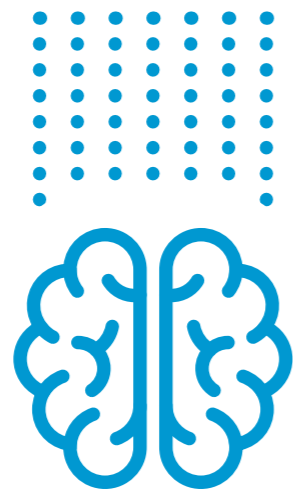


The connectivity continues

— and this time, it's vertical

TEXT: GRANT BALDRIDGE PHOTO: MYCRONIC, SHUTTERSTOCK

Over the past year, Hermes compatibility has been added to a number of Mycronic's SMT solutions. The next step is to extend vertical connectivity by uniting data from multiple machines for standard connection with any MES or ERP system. Find out how Mycronic is taking connectivity to the next level.



→ By using a standard protocol such as CFX, Mycronic's solutions could seamlessly communicate with factory wide systems such as MES, ERP.



FULL FACTORY DIGITALIZATION is on its way. And thanks to new vertical integration capabilities, it's closer than ever. Over the coming year, Mycronic will continually roll out plug-and-play communication solutions based on a standard vendor-independent factory integration platform.

Plug into leading standards

The new solutions utilize standard protocols such as CFX and CAMX, as well as tailored interfaces to the most common proprietary MES systems. This should come as welcome news for customers looking to advance their Smart Factory initiatives, who can now rest assured that their Mycronic equipment will feed data seamlessly into their preferred factory-wide systems.

Flexible, open and independent

"For our customers, it's really vital that the machines they buy use the type of connectivity that suits their production strategy," explains Håkan Sandell, Director of Industry 4.0 platform solutions at Mycronic. "So this is really just a continuation of our long tradition of custom connectivity solutions and open interfaces. But this time we brought in new partners and new standards to expand our offering and take it to the factory overview level."

Making Industry 4.0 more affordable

The most immediate advantage of standard vertical connectivity, particularly for larger operations with multiple production lines, is that they make it possible to avoid the cost and effort of integrating each individual machine. "By bringing in standard protocols like CFX," says Håkan, "manufacturers can install their pick-and-place machine, jet printers or inspection equipment one day, and have a full overview in their MES system the next day. This removes one of the biggest obstacles in the journey to Industry 4.0—the cost of custom integration."

Now the need is to take control of the entire factory. By tying everything together with the right protocols, we're making this not only possible, but more flexible and technology-independent.

A bird's-eye view

Of course, CFX compliance also enables a wide range of high-level production insights including overall equipment efficiency, route control, material control and verification, and fault analysis. It's a bird's eye view of factory productivity that goes hand-in-hand with process- and machine-level analysis systems that are already well optimized through horizontal integration.

Tying it all together

Initially, the new vertical integration platforms will support most factory overview and monitoring functions, with additional full automation protocols currently under development. "We've really made huge advances over the past couple of years when it comes to line optimization," Håkan concludes. "Now the need is to take control of the entire factory. By tying everything together with the right protocols, we're making this not only possible, but more flexible and technology-independent."



The future is
a fully software
controlled line with
the highest utilization
and zero defects."



→ By tying together data from different production processes, a birds-eye view is possible by visualizing KPIs such as overall equipment efficiency, to achieve increased productivity.



.....●●●●●●●●●● Meet the new MYPro Line™

The future just got smarter. With the MYPro Line, you can jet print perfect solder joints at the highest speeds. Ensure non-stop production with intelligent storage and proactive replenishment. And eliminate defects with 3D inspection systems that monitor and improve your process over time. It's the best of Mycronic in a single integrated manufacturing solution. Now with more intuitive process controls, Hermes support and new dashboard and analysis software to simplify production scheduling and improve line efficiency. All to put the future back where it belongs: in your control.

MYCRONIC

Autonomous inspection

— towards a zero-defect future in automotive electronics

TEXT: YAN MANISSADJIAN PHOTO: MSL CIRCUITS, MYCRONIC

21st century industries demand 21st century manufacturing solutions. With the help of the latest 3D automated optical inspection systems, MSL Circuits, an ALL Circuits company, is helping leading automotive manufacturers make a flawless transformation to the era of electric vehicles.



By the end of the evaluation period, it was clear that the 5K 3D was the only system capable of supporting the same level of FPY as the plant's 2D AOIs, while adding 3D test coverage.

THE ELECTRIC VEHICLE REVOLUTION IS WELL UNDER WAY.

And many automotive manufacturers are transforming almost overnight. The gearbox, once the beating heart of the industry and the focus of vast amounts of manufacturing expertise, has given way to the circuit board, the brain behind the cars of tomorrow.

Driving the evolution

Most automakers, of course, have already geared up for disruption. Thanks to strategic partnerships with companies like MSL Circuits, leading global carmakers have secured access to valuable expertise in the design, supply, industrialization and production of automotive electronics.

Part of the ALL Circuits group, a top 50 global EMS, MSL Circuits represents a leading center of expertise in automotive electronics assembly. The MSL Circuits' plant, located near Orleans, France, operates ten SMT lines to produce more than 100,000 finished products a day, amounting to some 2.5 billion components per year.

To guarantee non-stop production of such massive volumes is a challenge in itself. Maintaining the strict quality standards demanded by automotive customers is another. This is where the K series 3D Automated Optical Inspection (AOI) systems come in, enabling each production line to combine the highest levels of quality, automation and control.

Maintaining near-perfection

Until recently, MSL Circuits had relied on 2D AOI systems from Myconic's France-based subsidiary, Vi TECHNOLOGY, to ensure the highest possible quality standards. The plant has now upgraded eight of its lines to the latest 5K 3D AOI systems and plans to add 3D capabilities to all its production by the end of the year.

"We had an excellent level of performance for our 2D test coverage," says Alain Picault, Process Manager, MSL Circuits. "We had a First Pass Yield (FPY) of over 96% for a full panel and well over 99% on individual circuits. So our lines were calibrated to maintain that level of performance."

The evaluation of 3D AOI systems was a lengthy process, and one that generated a great deal of insights. For one, MSL Circuits learned quickly that an efficient state-of-the-art 3D AOI has to seamlessly combine the best algorithms from both 3D and 2D worlds. "The evaluation has shown us that in some configurations, 2D tests are more efficient than 3D tests — it all depends on the type of defect you are looking for," says Alain. "To meet the levels of quality and reliability demanded by our automotive customers, we needed to maintain our 2D test coverage, while adding 3D testing but without degrading the FPY. And if you want to implement 3D AOI, you need to make sure it keeps up with your cycle time."

By the end of the evaluation period, it was clear that the 5K 3D was the only system

capable of supporting the same level of FPY as the plant's 2D AOIs, while adding 3D test coverage. "With the other 3D AOI brands, it would have taken years of development and adjustment before we could expect to reach the same level of FPY as with our former 2D AOI," explains Alain.

The learning library

Key to the 5K 3D's performance, and a crucial factor for many of Mycronic's inspection customers, is an advanced

auto-check function known as Library Pro. Rather than running test boards with pre-fabricated defects, a common industry standard, Library Pro performs software qualification of all actual defects, stores them in the library, and virtually re-verifies program inspection performance against library changes. It's a self-learning system based on real production issues — a major safeguard against regressions due to updated component libraries, and a huge time-saver on the factory floor.

"The automation of these library "self-checking" functions saves us an enormous amount of time in production," says Alain. "Otherwise, we would have dedicated operators for these tasks. This logic of fine-tuning the central library to each individual PCB without regression, with qualification and memorization of true and false defects, opens the way to artificial intelligence which in the future will use neural networks to analyze images and sanction defects on behalf of the operators."

Another crucial requirement, particularly for a plant of this scale, was data portability. Since an average series might consist of up to 500,000 units, extremely high levels

of automation need to be balanced across multiple lines, with multiple inspection systems. "At the SMT stage, a series is generally split over several lines, while the back-end process is managed on a single dedicated automatic line," says Alain. "It is therefore essential that our AOI inspection programs are portable from one line to another in one click."

All-terrain flexibility

At the end of the day, the 5K 3D system has proven to be a highly flexible tool for a highly demanding production environment. "The software toolbox proposed by the 5K 3D allows us to deal with all types of components and PCB topologies, by adapting the test algorithms to the subject to be inspected," explains Alain. "It's a truly 'all-terrain' software technology. This allows us to be creative, and to always have an inspection solution, adapted to our needs, in all circumstances. It's these two very powerful features — openness and flexibility on the one hand, and a centralized library on the other — that allow us to implement a 3D AOI in a high-volume/mid-mix production context."

Thanks to the system's advanced machine learning algorithms, the same advantages hold true for high-mix manufacturers with lower production volumes. By combining features such as Auto Matchmaker and Auto Teach, even the most complex board designs can be rapidly introduced and programmed while maintaining inspection efficiency across varying batch sizes. "With this kind of machine learning on your production line, I can easily see how the 5K 3D would be a huge advantage for low- and mid-volume high-mix producers," Alain concludes.

With this kind of machine learning on your production line, I can easily see how the 5K 3D would be a huge advantage for low- and mid-volume high-mix producers.

ALAIN PICAULT
PROCESS MANAGER, MSL CIRCUITS



→ By the end of 2021, 100% of MSL Circuits' SMT lines will benefit from the flexibility and performance of Mycronic's 5K 3D AOI.



FACTS: MSL Circuits

- 600 employees
- 10 SMT lines
- 89,000 PCBs/systems produced daily
- Single-digit PPM, complying with top automotive quality standards

www.allcircuits.com

Smarter growth

— building future efficiency into today's factory footprint

TEXT: GRANT BALDRIDGE PHOTO: MYCRONIC

What happens when business is growing, components are shrinking, and both staff and production space remain the same? A visit to Allelektronik shows that the answer lies in the thoughtful development of smarter planning systems, advanced equipment and cutting-edge automation solutions.

A climate of innovation

Allelektronik, based in southern Sweden, has pushed to stay at the forefront of electronics assembly since its founding in 1975 when the company assembled bimetal thermostats for radiators. It has continuously expanded and invested in new equipment to meet changing technology requirements ever since and have also expanded their factory's footprint about eight times over the years.

In recent years, the pace of change has only accelerated. For Allelektronik's customer, a leading manufacturer of air conditioning, climate control and other facility automation systems, this means adapting to entirely new market demands. Energy prices are

rising. Climate change is a growing concern. And a new generation of intelligent indoor climate control systems will play a major role in meeting increasingly strict sustainability goals.

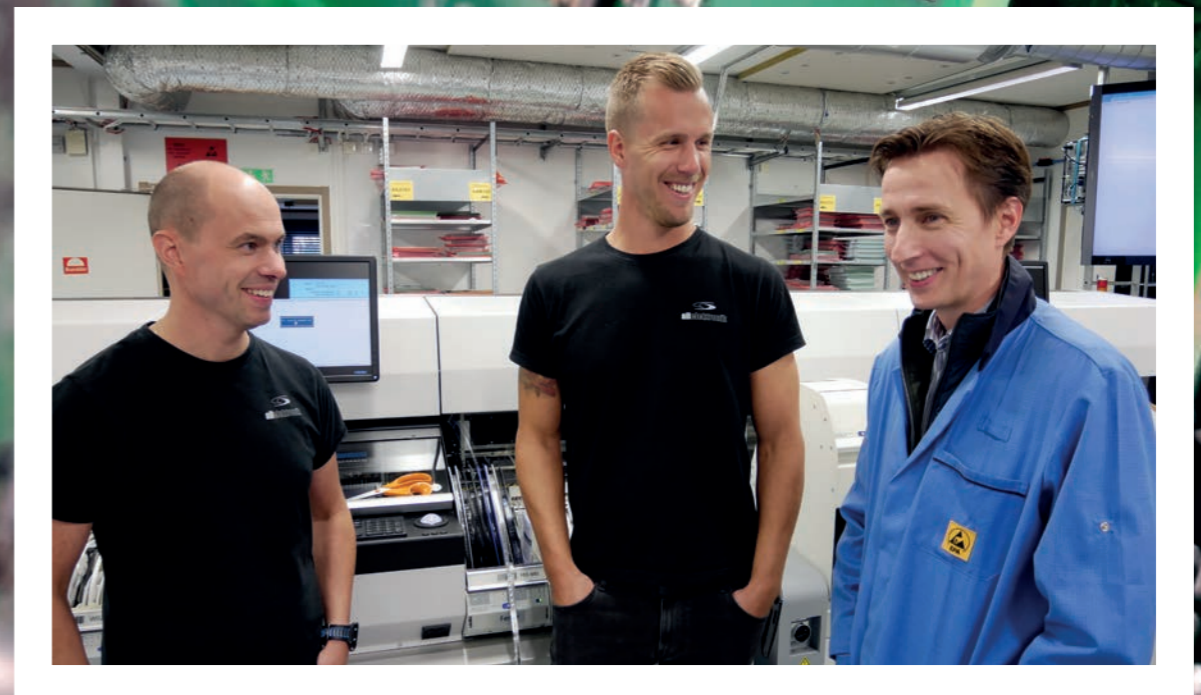
"It's exciting to be part of this change," says co-owner Mats Landström. "We've always worked closely with our customer to build products that really make a difference in people's lives. There's no question that advanced electronics will be critical to solving some of our biggest energy challenges. When you look at all the energy that goes into heating and cooling a building, it's pretty clear that efficient controls can make a huge positive impact."

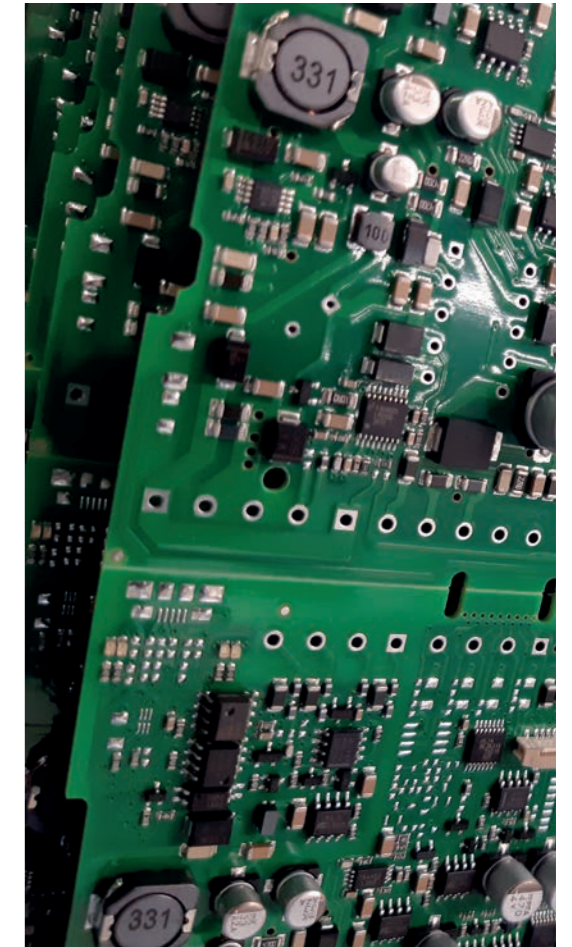
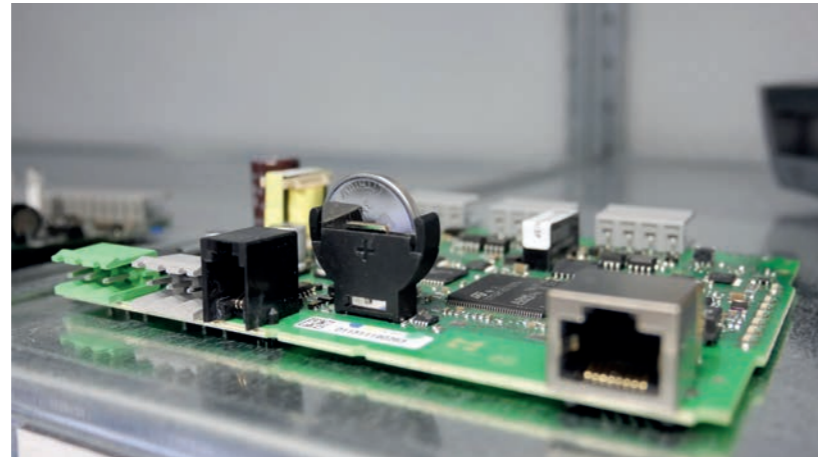
Smart planning for new product mixes

Today, Allelektronik produces some 130 PCB platforms for use in more than 900 customer products. Shorter batches bring longer kitting times. And older products can remain in production for more than 15 years. With such a diverse product mix, the company is struggling to balance expanding component storage needs, just-in-time production demands and several changeovers a day.

We've always worked closely with our customer to build products that really make a difference in people's lives.

Per Edin, Mycronic, with Mats and Niklas during a visit to Allelektronik.





FACTS: Allelektronik

- Electronics manufacturer of climate systems
- Founded in 1975 in southern Sweden
- Mycronic customer since 2000
- Installed machines: three MY300 pick-and-place machines (HX/HX/EX)
- Produces 130 PCB platforms and 900 products

Smart planning, based on several key considerations, is essential to handling this growing complexity:

- A family kit of three or four products is typically prepared, and production planners try to maintain an optimal mix of longer and shorter batches.
- Another family kit, for the most common products, is usually stored next to the line to keep production running in case of unexpected slowdowns in incoming orders.
- Allelektronik has full insight into the customer's order plans and supplies, is responsible for restocking and continuous efficiency improvements, and can plan their production accordingly.

Maintaining high quality and profitability

Currently, just one in every thousand PCBs fails in functional testing. But the continuing miniaturization of components will eventually require more sophisticated quality systems and refined production processes. The use of BGAs in some products, for example, has led to a growing need for 3D Solder Paste Inspection and X-ray inspection systems.

Over time, the company has become more involved in the design and industrialization of new products. Through Design for Manufacturing, or DFM, Allelektronik can continue to ensure that each new customer product is produced with the highest levels of quality and efficiency.

The Industry 4.0 roadmap

Next on the agenda is to explore the possibility of using collaborative robots for repetitive tasks such as testing, packing and possibly even programming circuits. Rather than reduce the workforce, the owners hope to automate production in order to gradually grow their production volumes with the existing factory set-up.

In terms of material flow management, when new products continue to enter the assembly floor and the stock of parts to track and manage grows by the minute, a higher degree of storage automation could potentially help reduce stock levels further while freeing up valuable staff time.

Paving the way for future growth

Naturally, all of these production enhancements will be implemented, tested and refined to maintain the highest possible space and equipment productivity. The skill and experience of the operators have always been central, and through combining it with intelligent planning, state-of-the-art equipment and advanced automation systems, Allelektronik will continue to build a strong foundation for future growth.

Introducing the dual-terminal MYTower™

Open new doors to automated material handling

TEXT: LIAM KARLSSON PHOTO: MYCRONIC

If you're like most manufacturers, repetitive material handling tasks can consume entirely too much valuable staff time. The new dual-terminal MYTower gives you twice the possibilities for loading and unloading of components and reels by offering flexible access for any combination of people and machines.



A MORE REWARDING DAY'S WORK is now possible for your assembly staff. With dual terminals in a single MYTower, you can better optimize your floor layout while giving operators simultaneous access to the components they need. Assisted by collaborative robots, operators can focus on the tasks that demand their attention, while a robotic arm simultaneously handles otherwise manually intensive movements from the same component storage system. With either approach, the result is often a more flexible factory layout that delivers improved efficiency, assembly quality, and staff satisfaction.

The best of both worlds

Whether you're looking to automate inventory stocking, unloading to carts and labeling machines, or simply to reduce unnecessary waiting times, the dual-terminal MYTower opens up a range of new possibilities. On one side, staff can access reels and components unimpeded by their robotic assistants. On the other, the robotic arm can proceed uninterrupted by operators to allow seamless integration with surrounding automated systems.

Together, the two terminals empower your factory to bring out the best in both your people and your robots, allowing you to develop the floor layouts, workflows, and automation strategies best suited to your operations. Where space is tight, one MYTower line can support dual access to storage for multiple pick-and-place lines.

The dual terminal enables a flexible factory layout that delivers efficiency, assembly, quality and staff satisfaction.

In another setup, key process steps such as automated labeling may be a priority, in which case robotic solutions can bridge the gap through one terminal as operators move freely on the other.

Intelligent upgrades

To enable multiple operations simultaneously, the new dual-terminal MYTower is equipped with quad-core processing technology and high-speed data interfaces. Another new interface makes it simple to integrate with modern factory safety systems, ensuring that operators remain safe from potential collisions with robotic arms and automated guided vehicles (AGVs).

Collaborating better together

Whatever strategy you pursue, the dual-terminal MYTower can help reduce the labor hours required to manage your flow of components and PCBs to and from the SMT lines. It can also eliminate bottlenecks through constant loading and unloading of reels, ensuring that your material is always ready and kitted precisely when you need it.

As new robotic systems arise, the smarter material flows enabled by the dual-terminal MYTower will continue to deliver higher-value work, lower operational costs, and a flexible path forward for enhanced human-machine collaboration.

Collaborative kitting is here.



Introducing the new dual-terminal MYTower

Material flows just got faster. With dual terminal access to your component storage, your operators and automation systems can collaborate better than ever before. Load and unload seamlessly from both terminals. Reduce waiting times for multiple kitting staff. Or give robotic systems unimpeded access to their own storage terminal. Whatever your production strategy, the new dual-terminal MYTower gives you compact, intelligent and flexible material handling that frees up your factory to a range of new possibilities. Join a new era of collaborative kitting at mycronic.com

New handheld scanner for MYCenter™

THE NEW barcode scanner with display helps the operator to prepare, collect and load material without the necessity to remain physically at the MYCenter station. The result is more flexibility, faster job preparation, and more freedom to move around the factory floor when needed.

MYCenter 5 supports the Datalogic Memor 1 barcode scanner with built-in touchscreen. The scanner's on-board display shows the same loading guidance as MYCenter's main screen, but in a more compact format. It helps the user to prepare, collect and load material without the necessity to remain physically at the MYCenter station.

The scanner comes with a removable pistol grip, power supply and a charging cradle. //

PHOTO: SIMON SANDGREN



New Agilis™ 4mm tape feeder and magazine now available

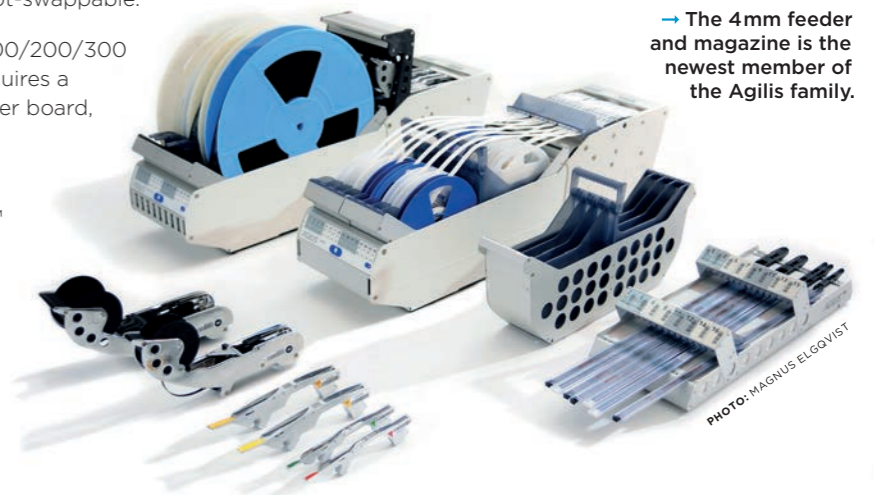
THE NEW Agilis™ LM4 magazine and the Agilis™ 4mm tape feeder is now officially released for sale. 4 mm tape is primarily used for small chip components such as the 01005 and 03015. The 4mm tape feeder is using the same unique cover tape separation method as the legendary 8, 12, and 16mm Agilis™ feeders, making it fast and easy to load and unload. The Agilis™ LM4 magazine can hold up to 16 different part numbers, and is of course hot-swappable.

The Agilis™ LM4 magazine is compatible with MY100/200/300 machines and requires TPSys 5.1 or later. It also requires a Magazine Control Unit (MCU) with CMOT3 controller board, which was introduced in 2014.

If you are operating a Mycronic storage solution, you can now store your 4mm reels with the Agilis™ 4mm tape feeders still attached and save one step during changeover phases.

All MY100, MY200 and MY300 users can upgrade their TPSys to version 5.1 and upgrade their MCU with CMOT3 board.

Contact your Mycronic representative for more information and lead times. //



→ The 4mm feeder and magazine is the newest member of the Agilis family.

PHOTO: MAGNUS ELGOVIST

MYCRONIC

New functionality in TPSys/MYCenter 5.1

THE LATEST PICK-AND-PLACE SOFTWARE release includes several powerful improvements that help improve automation and useability.

- The new Hermes protocol for board transport is now available as an option on the MY300 pick-and-place machine. The Hermes data delivered with each panel can be used to automatically select machine recipe when running MY300 in fully automatic mode.
- MYCenter Material Handling has improved guidance for selecting the correct feeder type based on package and tape dimensions.
- Improved performance and user experience by automatic archiving of discarded carriers.
- ERP quantity synchronization can now be executed without unloading the feeder.
- Support for the new 4mm tape feeder and magazine.

All MY100, MY200 and MY300 users can upgrade to version 5.1. //



PHOTO: MYCRONIC

Open new doors to automated material handling

THE MYTOWER DUAL TERMINAL option gives twice the possibilities for loading and unloading components and reels by offering flexible access for any combination of people and machines.

- The two terminals empower your factory to bring out the best in both your people and your robots, allowing you to develop the floor layouts, workflows and automation strategies best suited to your operations.
- The MYTower's speed and size is unaffected by the addition of an extra terminal.
- Customers with limited space in their factories can provide material to multiple pick-and-place lines from both sides of the MYTower, enabling less crowded work areas and new layout planning possibilities. //

A wider choice of solder pastes for Mycronic Jet Printers

MYCRONIC IS HAPPY TO ANNOUNCE the release of Koki S3X70-E160DN solder paste for the Mycronic Jet Printers.

This paste is one of Koki's latest innovations: a high-performance, high-speed jetting solder paste, offering excellent consistency without slumping. It is halogen-free and is approved for use in MY600 and MY700 Jet Printers.

Solder powder and flux of consistent viscosity in continual use maintain fine-print shapes in long-term use. It ensures good meltability in N₂ atmosphere reflow ovens and is very resistant to temperature variations.

Koki S3X70-E160DN is a Type 5, SAC305, no-clean, halogen-free, solder paste.

Koki S3X70-E160DN solder paste is not a product sold by Mycronic.

For MSDS (Material Safety Data Sheet) or PDS (Product Data Sheet) please contact your local Koki representative. //



PHOTO: MAGNUS ELGQVIST

MYCenter Analysis — a powerful tool for increasing profitability



MYCENTER ANALYSIS is the dashboard and statistics software, providing Mycronic pick-and-place users with a powerful tool to increase profitability by improving process performance and reduce operator intervention.

Many stakeholders benefits from the solution.

- Operators could focus on operating the machines.
- Production engineers get the tool they need to maintain the component and package data, monitor the line performance and reduce component waste.
- Managers get insights needed to achieve increased profit by increasing production output and reducing costs.

Contact your local Mycronic representative to arrange a virtual demonstration and discover how Mycronic's latest production management software enables you to increase your utilization time and productivity. //



PHOTO: MAGNUS ELGQVIST

Put tomorrow's
workflow

in your control



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