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POWER LINE

2026
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THE SKILLS GAP

HOW AUTOMATION ADDRESSES LABOR SHORTAGES

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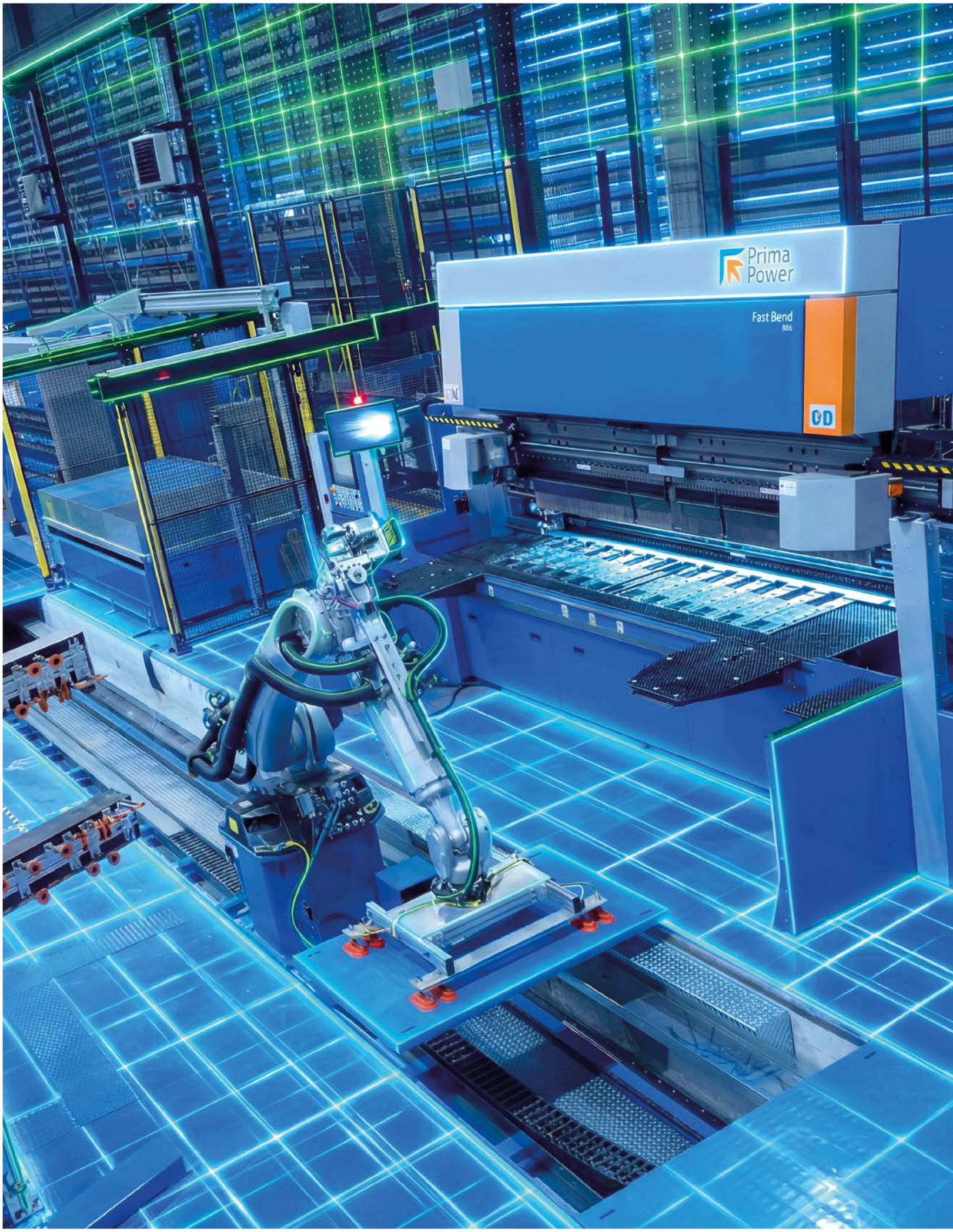
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BRIDGING THE SKILLS GAP

AUTOMATION, SOFTWARE AND INTEGRATION FOR A CHANGING WORKFORCE

Giovanni Negri
CEO Prima Industrie and Prima Power

Manufacturers around the world face a shared challenge: **skilled people are increasingly difficult to find and retain**, reflecting a **widely recognized industrial trend**. On many shop floors, the availability of qualified operators and technicians no longer matches operational needs, while production requirements are becoming more complex.

The question is fundamental: how can we ensure high levels of productivity, quality, and flexibility with **limited skilled resources**? **Automation and integration** are key parts of the answer: not as a substitute for people, but as a way to empower them. By simplifying tasks and embedding expertise directly into processes, automation allows companies to elevate performance even with leaner teams and changing skills.

This perspective is at the core of our cover story. In our conversation with **Professor Juha Varis,** Professor of Production Engineering and Vice-Dean at **LUT University** in Lappeenranta, Finland, the skills shortage emerges as a structural shift. Manufacturing is moving **from operator-driven to system-driven production**, where digital technologies and integrated intelligence reduce reliance on highly specialized operators while attracting new talent focused on supervision and data-driven decision-making. To unlock this potential, **integration is essential**. When machines, automation, and software operate as one system, **complexity is reduced and control is strengthened**. Processes become more stable and repeatable, improving quality, shortening lead times, and making performance easier to manage and scale, even with limited skilled resources.

Manufacturers are increasingly turning to integrated automation to respond not only to the **skills gap**, but also to rising complexity and tighter lead times. The customer stories in this issue show how this approach delivers tangible results on the shop floor, while the other articles explore how automation, supported by an **all-in-one software** environment, can simplify daily production management, offering **greater visibility, control, and consistency** across the entire process.

The **skills gap is a major challenge**, but also an opportunity to rethink how manufacturing creates value. By integrating technologies, we can build more agile and future-ready operations. This is what we mean by **Evolve by integration**: helping our customers **grow stronger, even as the industrial landscape changes**, and turning automation into a true enabler of progress.

> *How can we ensure high levels of productivity, quality, and flexibility with **limited skilled resources? Automation and integration** are key parts of the answer: not as a substitute for people, but as a way to **empower** them.*

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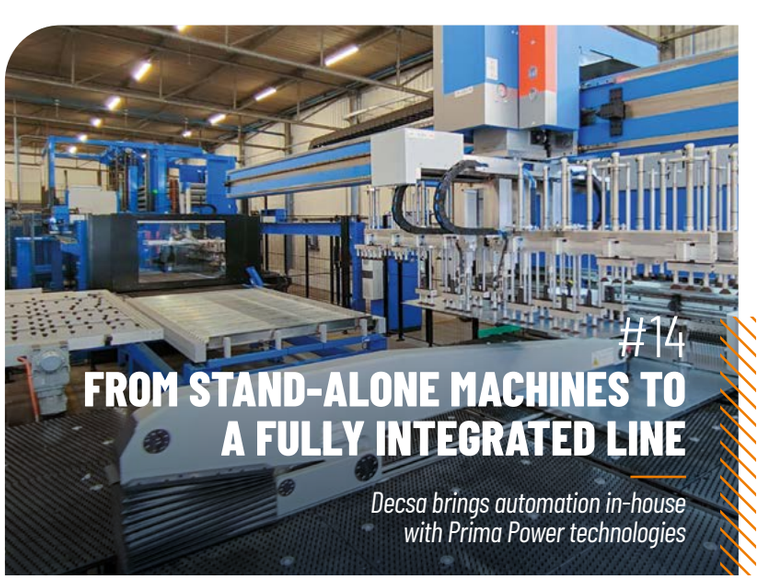

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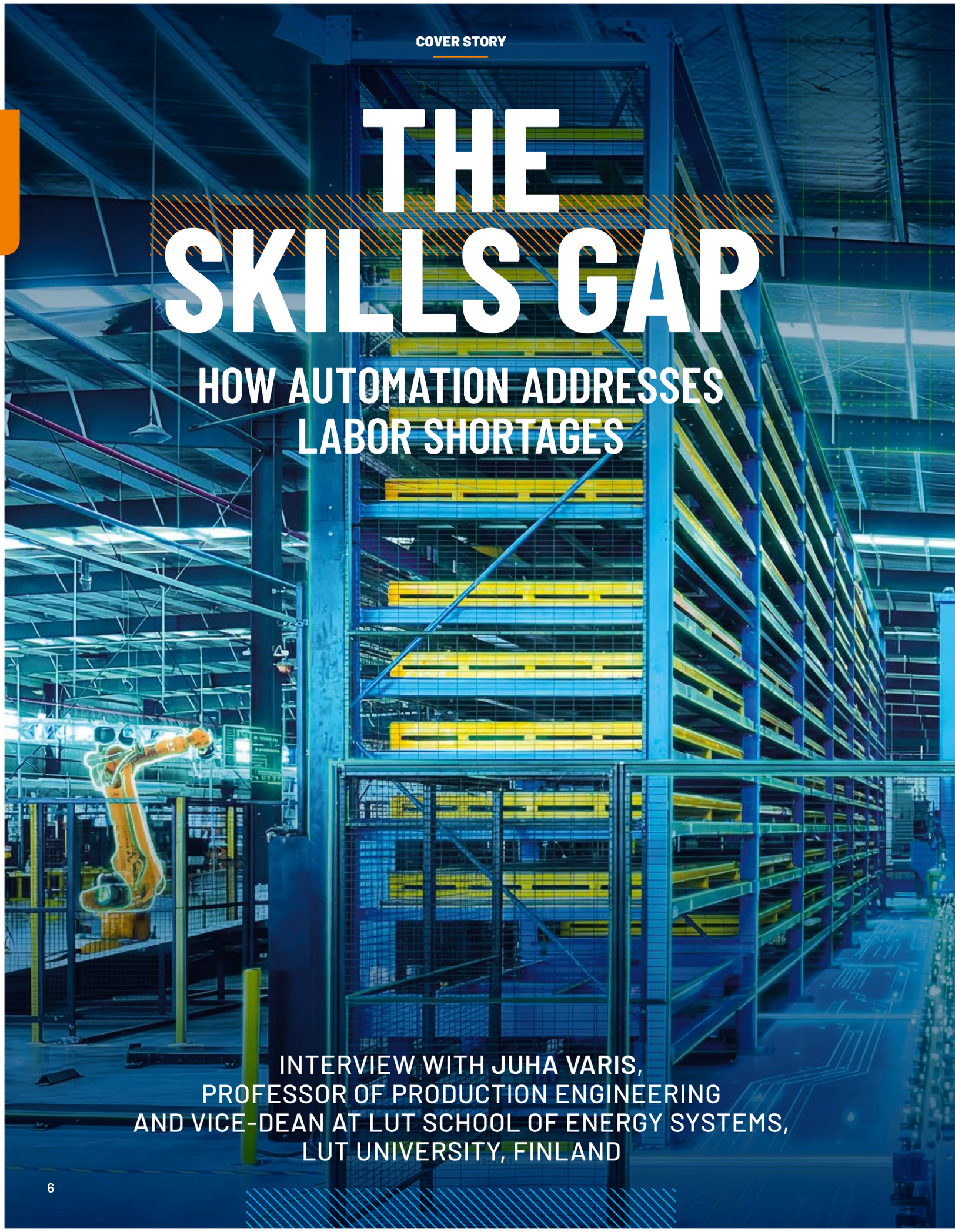


INTERVIEW WITH **JUHA VARIS**,
PROFESSOR OF PRODUCTION ENGINEERING
AND VICE-DEAN AT LUT SCHOOL OF ENERGY SYSTEMS,
LUT UNIVERSITY, FINLAND

JUHA VARIS

- **Professor of Production Engineering** and **Vice-Dean** at **LUT Energy Systems**, with **industry collaboration since 1988**.
- **DFM/DFMA specialist** in sheet and plate metal manufacturing, mechanical joining, metal cutting, paperboard post-processing, and waste-reuse solutions.
- Author of **300+ publications** and **30 patents**; supervisor of **400+ MSc and 17 PhD theses**.
- Long-standing **industry expert and advisor**, focused on **manufacturability** and **efficient production processes**.

Across the manufacturing world, companies are facing a growing challenge: the shortage of skilled workers. **As experienced professionals retire and fewer young people enter industrial careers, the skills gap is widening.** At the same time, **automation and digital technologies are transforming the shop floor. Can these systems help bridge the gap?** We discussed this with **Professor Varis from LUT University** in Lappeenranta, Finland, an expert in sheet metal manufacturing and industrial automation.

What are the main factors behind the growing skills gap in manufacturing today?

Several factors are contributing to the shortage of skilled workers. One of the most visible is the **demographic shift**: many experienced professionals are retiring and their expertise is not always fully replaced. **Industrial sectors such as metalworking still suffer from an outdated image.** They are often perceived as dirty or physically demanding environments, which is no longer the reality in modern manufacturing. Another factor is **competition for digital talent**: today the challenge is not only competition between companies, but also between entire industrial sectors trying to attract the same skilled workforce.

Do you see this shortage as a temporary challenge, or as a long-term structural shift? And what role will human expertise continue to play in manufacturing?

I believe it is structural. **The world is moving in this direction and there is no way back.** In many countries, including Finland and other parts of Europe, manufacturing companies are mostly small and medium-sized enterprises producing small batches, where every day is different from the previous one. Because of this variability, human expertise will continue to be important. **Automation can help companies cope with the shortage of workers**, but it cannot completely replace professional knowledge. **Automation and skilled people must work together.**

Manufacturing is increasingly moving from operator-driven to system-driven production. What does this change mean on the shop floor?

The transition from operator-driven toward **system-driven production** is both natural and necessary. **Today we can use 3D models and digital information throughout the entire**

> ***Automation can help companies cope with the shortage of workers**, but it cannot completely replace professional knowledge. **Automation and skilled people must work together.***

> *It is important that young people understand that today's factories are highly digital environments where advanced technology is used every day.* ***By integrating more intelligence into machines, manufacturers can help companies reduce their dependency on highly specialized operators.***

manufacturing process, from design to production. For example, in our laboratory we use 3D CAD models directly with our punching machines and press brakes. **But digital systems alone are not enough. Operators and engineers still need a solid understanding of manufacturing processes:** they must know how punching, bending or cutting works in practice. Without that knowledge, even the most advanced automated systems cannot deliver the expected results.

What role can machinery manufacturers play in helping companies address the skills gap?

Machine manufacturers can help **promote the modern reality of the manufacturing sector**. It is important that young people understand that today's factories are highly digital environments where advanced technology is used every day. **Another key aspect is automation itself: by integrating more intelligence into machines, manufacturers can help companies reduce their dependency on highly specialized operators.** Collaboration with schools, universities and training institutions can also help attract new talent to the industry.

Can automation also help attract younger generations to manufacturing?

Yes, I think it can. Young people have grown up in a digital world and are naturally comfortable with software and connected technologies. That's why **digitalization could become one of the strongest factors in attracting new talent to manufacturing.** Modern factories are increasingly data-driven and technologically advanced environments, which can be **much more appealing than the traditional image of industrial work.** However, the industry still needs to communicate this transformation more effectively.

> *The transition from operator-driven toward* ***system-driven production*** *is both natural and necessary.*

Digitalization could become one of the strongest factors in attracting new talent to manufacturing.

What new skills will be required in increasingly automated factories?

Digital skills will certainly be important, but they are not enough on their own. **Workers must also understand manufacturing processes in depth. The combination of digital competence and process knowledge is essential.** People who can bridge these two areas will be particularly valuable in future manufacturing environments.

What role could artificial intelligence play in future manufacturing systems?

One of the challenges companies face today is the frequent turnover of employees. **If companies can collect and document production data properly, AI systems can help preserve and use that knowledge even when employees leave.** In that sense, AI can become a powerful tool for capturing and using manufacturing expertise.

Looking ahead, how should the manufacturing ecosystem evolve?

Manufacturing cannot evolve in isolation. What we need is a broader ecosystem.
Machine manufacturers, software developers, integrators, universities and even recruitment agencies should work more closely together. This kind of knowledge network would allow the industry to **combine technological innovation, research and workforce development.** Only through this type of collaboration will manufacturing be able to address the challenges of digital transformation and skills shortages.

What we need is a broader ecosystem. ***Machine manufacturers, software developers, integrators, universities and even recruitment agencies should work more closely together.***

EMBEDDING EXPERTISE THROUGH AUTOMATION

HOW PRIMA POWER SOLUTIONS HELP COMPANIES ADDRESS THE SKILLS GAP IN SHEET METAL MANUFACTURING

BY INTEGRATING SOFTWARE, MACHINES, AND AUTOMATION, PRIMA POWER EMBEDS SHOP-FLOOR EXPERTISE INTO EVERYDAY PRODUCTION, ENABLING CONSISTENT RESULTS, REDUCING MANUAL EFFORT AND SUPPORTING OPERATORS WITH LIMITED EXPERIENCE.

The skills gap in sheet metal manufacturing is **no longer just a matter of workforce availability**. It increasingly reflects the **reduced availability of specific, practical, hands-on experience** traditionally held by operators, programmers, and setup specialists. Many critical production decisions have long depended on individual know-how, built and refined on the shop floor rather than standardized processes.

Advanced integrated sheet metal working solutions address this challenge by **embedding proven shop-floor expertise into machines, automation, and software**. In this way, companies can cope more effectively with the limited availability of highly experienced technicians, **reducing dependency on individual know-how** while enabling operators to achieve reliable results with a **faster learning curve**.

Solutions such as Flexible Manufacturing Systems, automated storage, and robotic cells support **consistent, unattended production**, while **allowing people to focus on higher-value activities** such as planning, supervision, and continuous process optimization.

Within this automation landscape, Prima Power continues to expand its portfolio of advanced enabling features and software capabilities.The examples highlighted here reflect **some of the most recent developments**, designed to **simplify tasks that have traditionally depended on highly specific skills**, while supporting productivity, consistency, and operational continuity **in an evolving workforce landscape**.

- **Tulus® Office –** Provides a unified environment for production planning, workload management, and machine monitoring, offering real-time visibility across the factory and supporting faster, better-informed decisions.
- **Automatic Order Processing (AOP)** - Automates the path from design to production by converting raw data into validated, production-ready programs, reducing manual steps and preparation time while maintaining consistent workflows even with lean teams.
- **Teach Profile by NC Express** - Captures operator know-how and transforms it into shared company knowledge. Once a bending sequence for a specific geometry is executed, it is automatically recognized and reused for future jobs, reducing programming time and manual adjustments.
- **ASP Unmanned** - Increases machine autonomy by automatically selecting and positioning the correct blade for each bend, minimizing setup errors and ensuring consistent quality even with limited operator experience.
- **ORBIT Tool Changer (OTC)** - Automates punch and die changes in robotic press brake cells. Tools can be loaded externally without specialized skills and without interrupting production, improving safety and flexibility in high-mix environments.
- **LogicNest (NC Express)** - A new nesting algorithm that embeds expert logic into the software, providing greater visibility into nesting results (e.g. layouts generated, material used, and reusable residual material) before production, even for less experienced users.

From integrated manufacturing systems to focused software tools and machine features, Prima Power's automation approach translates expertise into technology, supporting customer growth while addressing today's skills gap.

*By **embedding shop-floor expertise into machines, automation and software**, companies can **reduce dependency on individual know-how** and enable a **faster learning curve** for operators.*

SHEET METAL MEETS SMART MACHINES

AN INTERVIEW WITH ROMUALDO ALGILAGA SADURNÍ, PLANT MANAGER AT ONNERA LAUNDRY BARCELONA

Founded in 1922 as a small workshop in Vic, **Onnera Laundry Barcelona is today a manufacturer of industrial laundry equipment**, where sheet metal processing, design and digital technologies come together. Now part of Onnera Group, the company develops machines that combine high reliability with connectivity features.
We spoke with **Romualdo Algilaga, Plant Manager at Onnera Laundry Barcelona**, about how design and manufacturing technologies continue to evolve in this sector.

Your company has more than a century of history. What have been the key stages in its evolution?
The company was **founded in 1922** in Vic as a small family workshop, producing machinery for different sectors. It was only from 1949 that it moved into the laundry industry, with the first washing machines. **In 2001 it became part of what is now Onnera Group.** That led to the opening of the **new plant in Sant Julià.** From that moment on, growth became much more significant, both for the company and for the Group as a whole.

Industrial laundry equipment is primarily designed for functionality and reliability. What other aspects do you consider important when developing new products?
Reliability and **durability** are still the starting point, of course. But **connectivity** has become just as important. **Our machines are connected to the IoT (Internet of Things), which allows users to monitor operations and manage issues remotely, saving time and costs.** This is especially relevant in self-service laundries, which are growing very quickly. And then there is **efficiency**. In machines like dryers, even small improvements can have a real impact on energy consumption and overall operating costs.

Sheet metal is a key component in the construction of industrial washing machines. What advantages does it offer?
The main advantage is flexibility. **Sheet metal allows you to create shapes that would have been much more complex to achieve in the past. It also changes the way you manufacture parts.** Before, you had several steps like welding, painting and storing components before assembly. Now, parts can go straight from cutting and bending to assembly. That simplifies the whole process and makes it faster. Furthermore, **materials like galvanized or stainless steel already provide the corrosion resistance, which is key in our sector.**

What are the main challenges when developing machines for demanding environments such as hospitals or hotels?
In environments like hospitals, requirements are very strict. **Machines must be highly reliable to reduce maintenance**, as any intervention can introduce contamination in sterilized environments. They also need to be **easily accessible, so that maintenance can be carried out quickly** and with as few operations as possible.

Part of Onnera Group, Onnera Laundry Barcelona designs and manufactures reliable, connected industrial laundry solutions.

Romualdo Algilaga, Plant Manager at Onnera Laundry Barcelona.

Is there a strong relationship between the technologies available and the way you design your products?

Yes, design is directly connected with the available technology. **To design properly, you need to understand what the machines can do**. This helps you design parts that are easier to manufacture. **Having the right technology has an impact on production capacity, as well as on the quality and cost of the products.**

Can you give us an example of how technology has influenced the design of one of your products?

Every time we adopt a new technology, from that moment on we have a solution that allows us to manufacture parts that were previously not feasible. **An example is the dryer base. In the past, it was made of several parts assembled together. With the new panel bender, we were able to redesign it as a single component, with a slightly lower thickness.** So we reduced the number of parts, used less material and simplified the process, all while improving efficiency and achieving significant cost savings. It's a good example of how design changes when new technologies become available.

You have been working with Prima Power technologies for several years. What role do these technologies play in your production?

Having technologically advanced partners allows us to improve our products and keep growing. **We want to continue growing hand in hand with suppliers that are technologically strong and can support us in developing better solutions** and in increasing our production capacity.

Automation is playing a growing role in manufacturing. How has it changed your production approach?

Automation is essential for us, mainly because of the level of customization we provide. We have a wide range of machines and, in some cases, we develop tailor-made solutions for specific environments, such as clean rooms. Because of this, **we cannot rely on large production batches. We often need to produce small quantities,** or even single pieces, and with automated systems we can manufacture different parts one after another without manual setup. **Automation makes it possible to reduce costs without compromising quality**; in fact, with well-implemented automation, quality and process repeatability are usually improved.

Sustainability is part of your company's strategy. What actions have you introduced in recent years?

For us, sustainability is closely linked to efficiency. We expect our products to be efficient, so we try to apply the same principle in our own operations. That's why **we launched the Onnera BCN ECO project. We introduced several initiatives, such as photovoltaic panels, waste separation systems and reusable materials for employees.** They are small actions, but are part of an ongoing process of continuous improvement.

How do you see the design of industrial laundry equipment evolving in the coming years?

I think the main direction is **digitalization and efficiency. Machines are becoming more connected and can be monitored in real time. The goal is to make them smarter**, so they can operate more efficiently and optimize their performance. That's what most innovation is focused on today.

COMPANY HIGHLIGHTS

ONNERA LAUNDRY BARCELONA

LOCATION: Sant Julià de Vilatorta (Barcelona), Spain
FOUNDED: 1922
FIELD OF BUSINESS: Industrial laundry equipment manufacturing

PRIMA POWER MACHINERY

- **LPBB (Laser - Punching - Buffering - Bending) line composed of:**
  - **Combi Genius with LSR Loading and Stacking Robot**
  - **EBe2220 panel bender**
- **BCe 2220 panel bender**
- **Laser Genius+ with Compact Server and PSR Picking and Stacking Robot**
- **2 E5x punching machines with Compact Express**

FROM STAND-ALONE MACHINES TO A FULLY INTEGRATED LINE

DECSA BRINGS AUTOMATION IN-HOUSE WITH PRIMA POWER TECHNOLOGIES

Based on an article originally published on Lamiera magazine in October 2025.

BY INTEGRATING LASER CUTTING, STORAGE, AND BENDING INTO AN LBB LINE, DECSA HAS IMPROVED EFFICIENCY AND TAKEN FULL CONTROL OF ITS SHEET METAL PRODUCTION.

Part of the Cofinair Group, **Decsa has brought the production of sheet metal components for its cooling towers in-house** by relying on Prima Power technologies. This gradual path led **from stand-alone machines to a fully integrated, high-performance LBB line.**

***Valentino Zella**, Managing Director of Decsa and **Cesare Brunelli**, Sales Manager North and Central Italy at Prima Power.*

Decsa, part of the Cofinair Group, specializes in the production of evaporative cooling towers.

After years of subcontracting, DECSA brought sheet-metal processing in-house, now accounting for around 90% of the final product.

A EUROPEAN LEADER IN COOLING TECHNOLOGIES

Evaporative cooling towers are key components in many industrial processes, ensuring efficient heat dissipation while supporting safe and reliable operations. They are used across a wide range of sectors, including food, metallurgical, chemical, and pharmaceutical industries. **One of the leading players in Europe is Decsa, now part of the Cofinair Group, with nearly a century of experience in ventilation and cooling technologies.**

Founded in the 1930s from an initial focus on industrial fans, the company progressively developed expertise in evaporative water cooling, leading to the creation of Decsa in 1975. Rapid growth soon made it an independent company, with production facilities established in Voghera. **Today, as part of the Cofinair Group, Decsa has strengthened its international presence and ranks as the second-largest player in the European market.**

"Within the Cofinair Group," says Valentino Zella, Managing Director of Decsa, *"Decsa specializes in water recovery, cooling, and refrigerant gas condensation technologies.* ***What truly sets us apart from competitors is our high degree of customization.*** *This approach, combined with increased production capacity, has allowed us to consolidate our presence in Europe and expand into the Middle East and China."*

BRINGING PRODUCTION IN-HOUSE

Today Decsa employs **45 people** and operates across **36,000 square meters**, producing around **500 units per year** with **revenues of about €14 million**. Its range includes open- and closed-circuit cooling towers and evaporative condensers for industrial refrigeration, all designed for efficiency, reliability and low environmental impact.

> *"Handling galvanized steel with a very high zinc content was a challenge, especially in bending. Thanks to the EBe 3320 and NC Express software, we were able to overcome it."*

COMPANY HIGHLIGHTS

DECSA SRL

LOCATION: Voghera (PV), Italy
FOUNDED: 1975
FIELD OF BUSINESS: Cooling Towers

PRIMA POWER MACHINERY

- **LBB (Laser - Buffering - Bending) line composed of:**
  - **Laser Genius+ 2D laser machine**
  - **PSR picking and stacking robot**
  - **Combo Tower storage system**
  - **EBe 3320 FM panel bender**
- **eP 1030 press brake**

"What all these products have in common," the Managing Director explains, *"is the* ***intensive use of sheet metal****, which represents about 95% of the materials used. We mainly process galvanized steel from 1.5 to 4 mm.* ***Until a few years ago, we relied on subcontractors, but after joining the Cofinair Group we needed greater control over the entire production flow****. So we brought sheet metal fabrication in-house, processing around 600 tons of sheet metal per year."*

Relying on subcontractors posed significant issues: from uncertain lead times to delays and high transport costs, with a significant impact on CO_2 emissions.
*"****Setting up a sheet metal department from scratch was not easy****,"* Zella adds. *"We had to train internal staff and adopt technologies we were not sufficiently familiar with. That's when* ***Prima Power opened our eyes to how much cutting and bending technologies had evolved****."*

EVOLVING THROUGH TECHNOLOGY INTEGRATION

After analyzing its production needs with Prima Power**, Decsa installed a Laser Genius+ 1530** with a 4 kW fiber source, **an EBe 3320 FM panel bender and an eP 1030 press brake.**

"Installation and training were completed in record time," says Zella. *"Prima Power supported our operators from the very first production runs."*

Early results exceeded expectations. *"With the panel bender,* ***we saw how effectively the technology handled galvanized steel, which in our case has a very high zinc content and can be difficult to bend.*** *Thanks to the EBe 3320 and NC Express software, we were able to solve this issue."*

The PSR 2D sorting robot is the heart of the system, enabling unattended material flow, buffering cut parts and directly feeding the panel bender.

With the LBB line in place, production time per component has dropped from 4-5 minutes to just 65-70 seconds.

With quality challenges addressed, the focus shifted to improving efficiency and reducing waste in production.

"Once again, Prima Power provided the answer," Zella explains. *"****We integrated the technologies already installed at our facility into a fully automated LBB*** *(Laser, Buffering, Bending)* ***line****, significantly speeding up the entire sheet metal production process."*

LASER CUTTING AND PANEL BENDING GO IN-LINE

Integrating stand-alone machines into fully automated production lines is one of the pillars of Prima Power's strategy. In Decsa's case, this meant **connecting the Laser Genius+ 1530 to an eight-shelf Combo Tower and**, via a PSR 2D robot**, to the EBe 3320 FM panel bender within a fully automated LBB line.**

Increasing production demands drove the integration of the laser and panel bender into a complete LBB production line.

The **Laser Genius+ 1530** combines high-speed, high-quality cutting with automated storage, sorting and bending. The **Combo Tower** ensures continuous, unmanned production, while the **PSR 2D robot** enables precise picking and stacking without interrupting the cutting process. The **servo-electric EBe panel bender** completes the cycle with fully automated, high-precision bending.

*"**Once again**,"* Zella notes, *"**the integration took much less time than expected.** We quickly saw improvements in lead times, scrap reduction and operator safety."*

Decsa organizes its production in kits, a crucial approach given the high level of customization and small batch sizes. In this context, **the LBB line enables grouping by material and automatic sorting, improving nesting efficiency and reducing scrap from 30% to 18%.** Production times have also dropped significantly, from 4-5 minutes to just over a minute per component, while eliminating manual handling.

AN EVOLUTION DESTINED TO CONTINUE

The increased production efficiency enabled by the LBB line perfectly aligns with Decsa's future vision, which focuses on further growth while maintaining strong customization capabilities, energy efficiency, and environmental sustainability. *"**These growth objectives**,"* Zella emphasizes, *"**are shared by both Decsa and the Cofinair Group, and given the results achieved, Prima Power will continue to play a key role.**"*

> *We integrated the technologies already in place into a fully automated LBB line, significantly speeding up the entire process.*

Scan the QR code to watch the video interview.

Decsa partnered with Prima Power for the supply of a Laser Genius+ and an EBe 3320 FM panel bender.

Decsa's next-generation evaporative cooling towers for the retrofit of a major shopping center.

DRIVING GROWTH THROUGH INTEGRATED AUTOMATION

HMT SHIFTS TO SMART SHEET-METAL MANUFACTURING WITH PRIMA POWER

WITH THE PSBB FLEXIBLE MANUFACTURING SYSTEM, THE VIETNAMESE COMPANY HAS IMPROVED FLEXIBILITY, PRECISION AND PRODUCTIVITY.

In Vietnam's rapidly growing manufacturing sector, **Huy Thanh Mechanical and Metal Group (HMT) has taken a decisive step toward integrated automation.** By adopting the PSBB (Punching-Shearing-Buffering-Bending) flexible manufacturing system from Prima Power, **the company has streamlined production, improved precision, and strengthened its ability to respond to increasingly complex market demands.**

HMT team at the Hà Nội plant, showing strong team spirit behind the company's steady growth over the past two decades.

HMT plant in Hà Nội for high-precision sheet metal manufacturing for a wide range of industries.

***Mr. Chu Van Huy**, President, and **Mr. Chu Van Thanh**, CEO of HMT.*

FROM FAMILY BUSINESS TO SHEET-METAL MANUFACTURER

HMT has evolved from a family-run mechanical business into a dynamic sheet-metal manufacturer serving construction contractors, industrial parks, infrastructure developers, and manufacturing firms. **Over the past two decades, the company has grown steadily** under the leadership of Mr. Chu Van Huy, President, and Mr. Chu Van Thanh, CEO of HMT.

As the company expanded, so did the challenges. **HMT faced growing pressure to deliver high precision** across a wider mix of materials, **shorten lead times and maintain consistent quality** in stainless steel, carbon steel, copper, aluminum, and zinc. At the same time, the company had to balance high-volume production with growing custom orders – a combination that strained traditional workflows.

"Our customers expect both speed and accuracy, even for complex parts," Mr. Chu Van Huy explains. *"We had reached a point where **traditional processing was no longer enough** to manage both mass production and customized work efficiently."*

> *"Finding experienced operators for CNC punching, bending, and laser cutting has become difficult. We needed a solution to reduce dependence on manual skills while improving quality."*

COMPANY HIGHLIGHTS

HUY THANH MECHANICAL AND METAL GROUP (HMT)

LOCATION: Hà Nội, Vietnam
FOUNDED: 2004
FIELD OF BUSINESS: High-precision sheet metal manufacturing for a wide range of industries

PRIMA POWER MACHINERY

- **PSBB (Punching - Shearing - Buffering - Bending) composed of:**
  - **Shear Genius punch-shear machine**
  - **EBe 3320 FM panel bender**

> *At Hannover, we realized the future of sheet-metal production is integration, not isolated machines. That was the moment we knew the PSBB by Prima Power was the right direction for us.*

At the same time, Vietnam, like many markets, was facing a **shortage of skilled labor.** ***"Finding experienced operators for CNC punching, bending, and laser cutting has become difficult. We needed a solution to reduce dependence on manual skills while improving quality."***

THE DECISION TO AUTOMATE

HMT's relationship with Prima Power began in 2016, during an early meeting with Ha Anh Tuan, Prima Power's Head of Sales for Southeast Asia. **The company was impressed by Prima Power's automatic line, described as "*technology clearly ahead of its time*"**, but postponed the investment as other priorities took precedence.

Everything changed in 2022. During a visit to Hannover Messe, HMT's leadership saw fully integrated automated systems in action. ***"At Hannover, we realized the future of sheet-metal production is integration, not isolated machines. That was the moment we knew the PSBB by Prima Power was the right direction for us."***

Shortly after the event, **HMT decided to invest in the PSBB flexible manufacturing system**, marking a turning point.

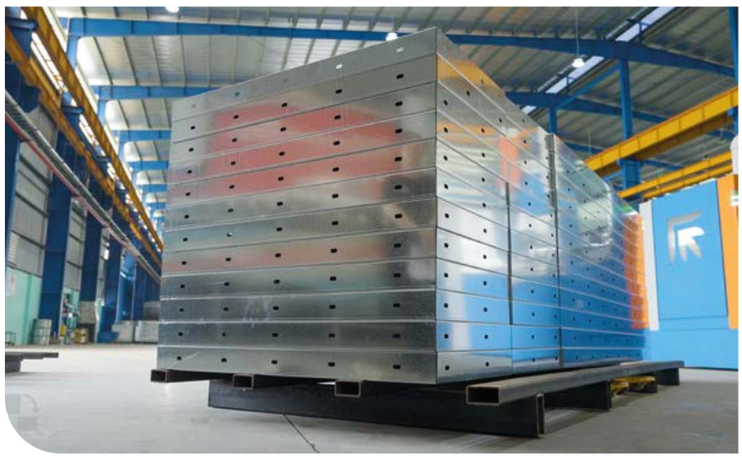
A FULLY INTEGRATED PRODUCTION LINE

The PSBB line at HMT is a complete, end-to-end automated system that transforms raw sheet into finished bent parts in a single flow. **For a company producing everything from cabinet doors to structural components and decorative panels, this integration was a major step forward.**

"Before the PSBB, many operations required multiple workers and stations. ***Now one continuous line does it all, with far greater precision****,"* says Mr. Huy. *"It has transformed our entire workflow."*

Key benefits seen by HMT include:

- 24/7 unmanned production
- Reduced dependence on skilled operators
- Automatic loading, unloading, and part handling
- No manual setup between jobs
- Improved cut-edge quality, ideal also for visible panels
- Repeatable accuracy thanks to servo-electric punching, shearing and bending
- High-mix, low-volume flexibility



HMT's production spans cabinet doors, structural components, and decorative panels in stainless steel, carbon steel, copper, aluminum, and zinc.

The Shear Genius combined punch-shear machine delivers high productivity, improved cut-edge quality for visible panels, and repeatable accuracy thanks to servo-electric technology.

At HMT, the rapid product changeover of the PSBB line proved to be a real game changer.

"What surprised us most is ***how quickly the system switches between products.*** *For us, that is a game changer,"* adds Mr. Chu Van Thanh.

DOING MORE WITH FEWER OPERATORS

For HMT, the PSBB line arrived at the right moment. **Skilled operators were becoming harder to find, training took time, and the company needed a reliable way to scale production** without increasing workforce pressure.

*"****Without the PSBB, we would still need many more workers to achieve the same output.*** *Now, production keeps running smoothly,"* explains Mr. Sau, production manager of HMT's workshop. *"****One operator can oversee the entire line. That was unimaginable for us before.***"

One of the biggest advantages for HMT is the reduction in manual work**. Tasks that once required several workers across different stations are now handled automatically by the PSBB line**, simplifying the workflow and easing labor demands.

CONSISTENT QUALITY, FASTER RESPONSE

Automation has also improved production stability. Reliable part separation, controlled bending angles, and servo-electric accuracy ensure consistent quality. *"We use the PSBB for thick sheet components and visible surfaces.* ***The precision is excellent, and edge quality has improved significantly****,"* says Mr. Huy.

The system supports both large batches and custom projects, essential in a market where order patterns are increasingly fragmented. *"****Today our customers ask for smaller quantities with faster delivery. With PSBB, we can respond immediately*** *without worrying about long setup times,"* adds Mr. Huy.

The collaboration with Prima Power was a key factor in the success of the project. ***"Prima Power supported us step by step,"*** **explains Mr. Huy.** *"Their expertise and guidance made the transition to integrated automation smooth and reliable. We truly feel we are working with a partner, not just a supplier."*

EVOLVING BY INTEGRATION

HMT's transformation reflects a broader shift in sheet-metal manufacturing toward integrated automation, greater flexibility, and smarter use of human resources.

*"****The PSBB line*** *helps us produce faster, more precisely, and with fewer workers. It* ***has brought us to a new level****,"* Mr. Huy concludes.

"For us, ***automation is not just a technology investment. It is our strategy for the future.***" With the PSBB system in operation, HMT has strengthened its ability to respond to a changing market while maintaining high standards of precision, efficiency, and flexibility.

> *Without the PSBB, we would still need many more workers to achieve the same output. Now one operator can oversee the entire line. That was unimaginable for us before.*

Scan the QR code to watch the video.

BUILDING AUTOMATED PRODUCTION CAPABILITIES

KOR-FERR STRENGTHENS ITS SHEET METAL CAPABILITIES WITH PRIMA POWER TECHNOLOGY

Based on an article article by Papp Olivér, originally published on CNCMedia in February 2026.

WITH A FULLY AUTOMATED PRIMA POWER SYSTEM, KOR-FERR HAS INCREASED PRODUCTIVITY, IMPROVED ACCURACY AND OPENED NEW OPPORTUNITIES IN COMPLEX SHEET METAL MANUFACTURING.

From its beginnings as a small workshop, **Kor-Ferr Kft. has grown into a manufacturer capable of handling complex sheet metal processing**. The recent installation of a **Prima Power PSBB (Punching-Shearing-Buffering-Bending) flexible manufacturing line** marks the company's latest step toward integrated automation and higher production efficiency.

***János Locker**, Managing Director of KOR-FERR Kft. (right), with **David Holczer**, Sales Executive at Prima Power CEU Hungary (left).*

The PSBB line allows shorter cycle times for complex cabinet side panels while maintaining consistent quality and enabling autonomous night-shift operation.

THE EARLY YEARS OF KOR-FERR

Founded in 1999 as part of the Rotte Group, Kor-Ferr Kft. is today well known in Hungary not only in the general metal fabrication market but also in advanced sheet metal manufacturing. ***"We started as a classic garage company**: two or three of us, a few basic machines, and a lot of enthusiasm,"* **explains Managing Director János Locker.** *"Our first significant projects were shopping cart shelters, which remain important products for the company today."* Profits were consistently reinvested to expand machinery and production capacity. **Sheet metal processing initially seemed a distant goal, but it gradually became reality** with the purchase of basic equipment such as a cutoff saw and plate shears, supported by grant funding.

> *Two days after the handover, we were already manufacturing the most complex components on it.*

The PSBB line enabled Kor-Ferr to access new markets, such as the precise bending of pre-painted metal sheets with the Express Bender.

EXPANDING INTO NEW MARKETS

In the company's first two decades, shop fittings accounted for most of the company's turnover, but as the market became saturated, **new directions opened up: equipping hotels and institutions, and developing industrial parks.**
"Just weeks after the outbreak of Covid, we were already producing hand sanitizers and protective screens for retail chains," notes the Managing Director, illustrating that the company reacts quickly to market challenges and trends.

COMPANY HIGHLIGHTS

KOR-FERR KFT

LOCATION: Tatabánya, Hungary
FOUNDED: 1999
FIELD OF BUSINESS: General metal fabrication market and complex sheet metal processing tasks

PRIMA POWER MACHINERY

- **PSBB line, including:**
  - **Shear Genius punch-shear machine**
  - **EBe 2720 panel bender**
  - **Fast Loading FL Storage**

Today, the Rotte Group is present in more than 25 countries, and Kor-Ferr plays a major role in the group's metal industry production, while also working on hotel projects from Switzerland to Dubai.

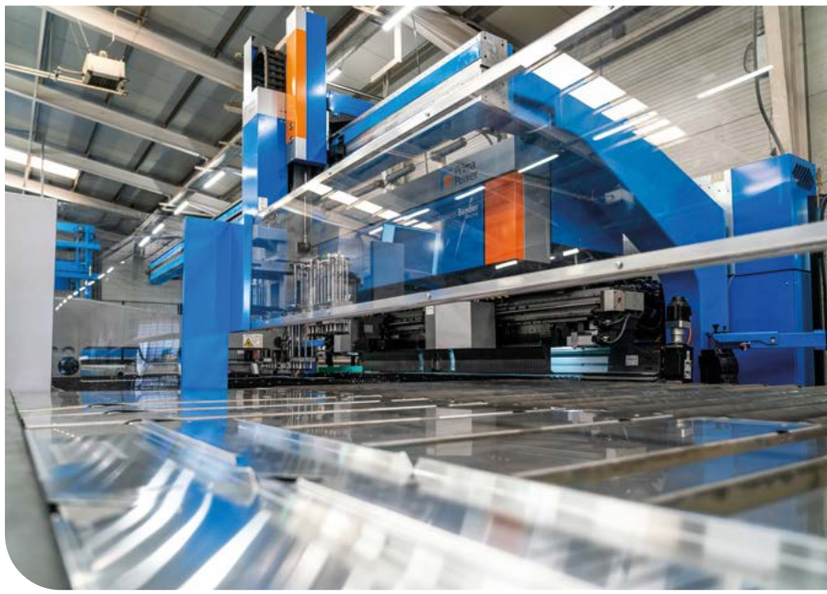
STRENGTHENING SHEET METAL PRODUCTION

In the 2010s, the company strengthened its production infrastructure with new facilities and a painting plant. **In 2020, the first major press brake, laser cutting machine, tube laser, and tube bender arrived.** The investment laid the foundation for higher value-added sheet metal processing tasks. In the following years, **an increasing number of orders arrived for panel- and box-type products** (lockers, cabinet enclosures, and machine housing panels) **where manual bending posed an efficiency bottleneck.**

RECOGNIZING THE NEED FOR PANEL BENDING AUTOMATION

"We had many products where a panel bender could have significantly reduced errors," says János Locker. During the preparation of the decision, two manufacturers remained in the running. Factory visits were conducted with colleagues, examining the technology's integration capabilities, energy consumption, and logistical advantages. **Prima Power's solution convinced the management:** the package included the **Shear Genius punch-shear technology** featuring fully servo-electric drive and very low energy consumption of under 4 kW, the **Fast Loading storage tower system, a turning device, a sorting module, and the EBe panel bender.**

Kor-Ferr chose a Prima Power PSBB flexible manufacturing line to increase efficiency and flexibility, and to enable unattended night shifts.



Precise bending of painted materials, once unfeasible, is now a stable and reliable process thanks to the Express Bender.

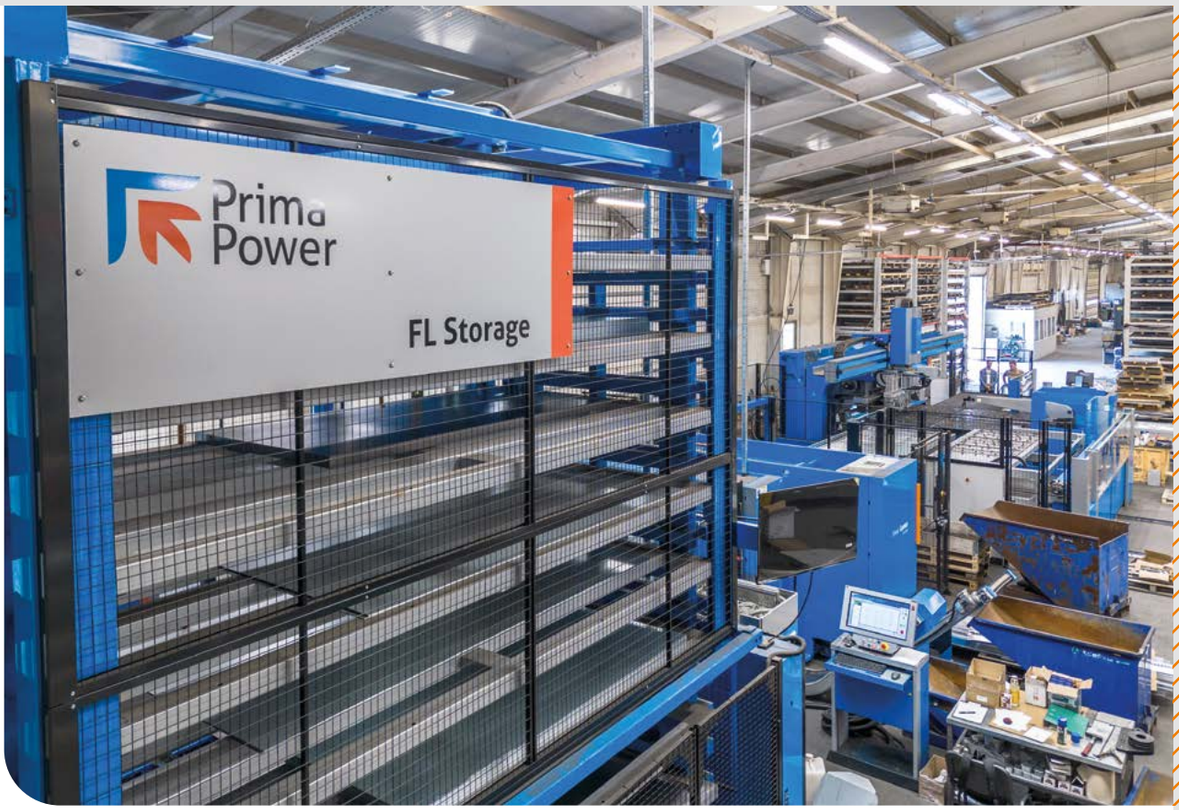
> *Previously, it took three to four hours to produce 100 trays using laser cutting and press braking; now, it takes less than fifty minutes, supervised by a single operator.*

INSTALLATION AND FIRST RESULTS

The installation of the production line was carried out by a Hungarian Prima Power service team, with the number of technicians adjusted to each installation phase. ***"Two days after the handover, we were already manufacturing the most complex components on it,"*** explains the managing director, adding that the team's strong technical preparation played a key role in the rapid learning curve. **The automated system opened up new markets:** architectural cladding jobs, green roof elements and the bending of pre-painted metal sheets. **The precise bending of painted materials was not previously feasible, but it has now become a stable technology.**

A SIGNIFICANT BOOST IN PRODUCTIVITY

The efficiency gains are clear in daily production: **previously, it took three to four hours to produce 100 trays using laser cutting and press braking; now, it takes less than fifty minutes, supervised by a single operator.** The cycle time for manufacturing complex cabinet side panels has been similarly shortened, while quality has remained constant. **The line is capable of operating in an autonomous night shift, bringing new flexibility to production.** The main



The line installed at Kor-Ferr includes Fast Loading Storage, ensuring quick access to different materials when batch sizes are small and materials change frequently.

manufacturing materials are carbon steels, aluminum, and stainless steel. **The new line fully covers the thin sheet metal range, which represents 90-95% of production; thicker materials, up to 20 mm, are processed using the laser machine and press brake.**

LOOKING AHEAD

Following the Prima Power investment, the company is building a new 1,500 m^2 hall, partly to serve as a finished goods warehouse.

Examples of sheet metal structures produced by Kor-Ferr with Prima Power's PSBB line.

A robotic press brake is also under planning. ***"This is where we see the future: we automate where possible, and where not, we create high-quality products using manual labor,"*** summarizes János Locker. The goal is to stabilize capacity and secure jobs where large production runs and premium quality provide a competitive advantage.

Kor-Ferr's journey shows how continuous development, new technologies and international expansion can transform a small workshop into a competitive industrial manufacturer. **The Prima Power production line has proved to be a strategic asset that has opened up new opportunities** and provided a solid foundation for the automated production of the future.

> *The new line fully covers the thin sheet metal range, which represents 90-95% of production; thicker materials, up to 20 mm, are processed using the laser machine and press brake.*

AUTOMATING METAL SPINNING PROCESSES

HOW WENZEL IMPROVED TRIMMING EFFICIENCY WITH A PRIMA POWER 5-AXIS LASER

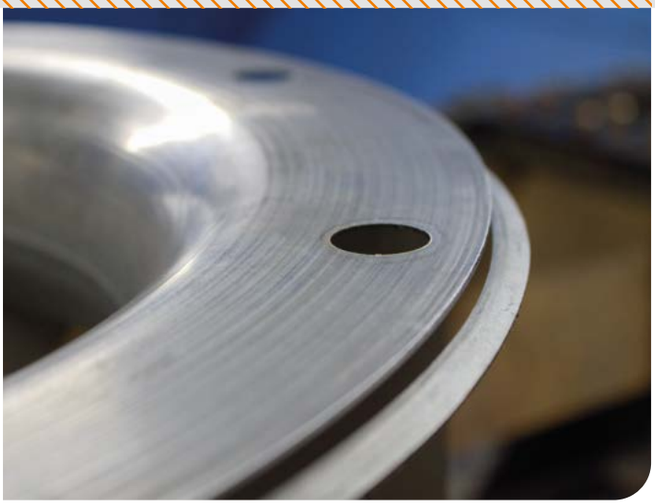
THE AMERICAN MANUFACTURER REDUCED TRIMMING TIME FROM OVER AN HOUR TO MINUTES, MAKING COMPLEX GEOMETRIES EASIER TO HANDLE WHILE IMPROVING SAFETY.

Wenzel Metal Spinning, one of the largest metal spinning companies in the United States, **recently integrated the Prima Power Laser Next 2131 into its workflow**.
The investment **improved safety, quality and waste control**, while enabling the company to process more complex geometries and expand its range of applications.

FROM EVERYDAY COMPONENTS TO HIGH-PRECISION PARTS

Founded in **1982**, Wenzel Metal Spinning operates multiple facilities in Indiana and Alabama, with around **250,000 square feet of manufacturing space and 150 employees**.

Wenzel Metal Spinning team at their Scottsboro, Alabama production facility.



*"Our capabilities span from **high-volume industrial components**, like trash can lids, to **high-precision parts** made with exotic materials for the Mars Rover,"* says **Ryan Funkhouser**, **General Manager** at Wenzel Metal Spinning.

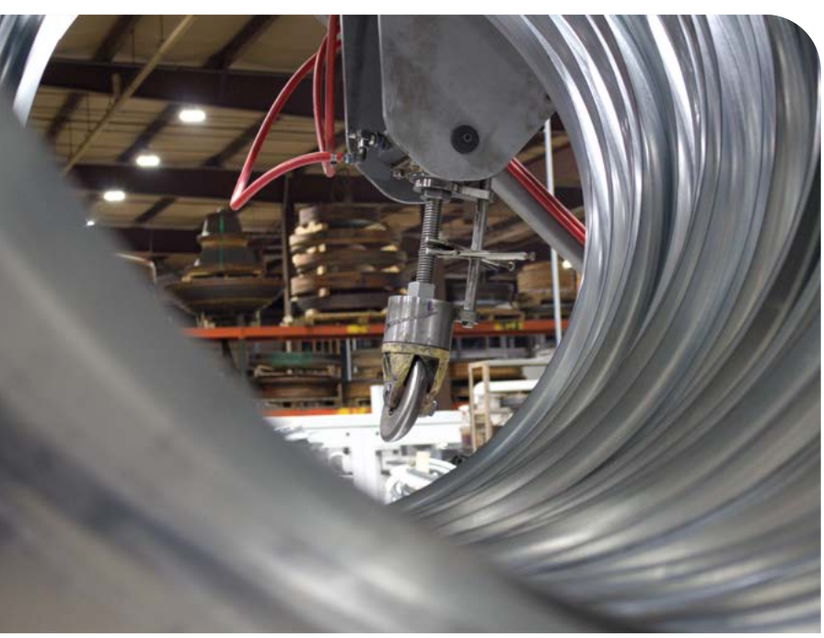
Recent projects range from everyday industrial components to specialized aerospace parts. These applications require tight tolerances and often involve exotic alloys, making post-processing especially demanding.

METAL SPINNING: A PROCESS THAT RELIES ON EXPERIENCE

Metal spinning is **a cold work metal forming process used to create axially symmetric parts**. The process begins with a flat sheet of metal cut into a disk and is then formed over a rotating mandrel into a round shape.

*"**It's as much an art as it is a science**,"* Funkhouser explains. *"You are moving metal, changing its grain structure. **It requires a feel for the material that you can't just program into a computer**."*

Metal spinning is craftsmanship in motion, where skill, pressure, and precision come together at the die.



> *We've cut tasks that took over an hour down to just a few minutes.*

The Prima Power Laser Next 2131 enables Wenzel Metal Spinning to automate complex trimming operations with speed, precision, and repeatability.

This "feel" is why Wenzel values its long-term employees so highly. **Knowing how much pressure to apply without damaging the material takes years to develop**.

MANUAL TRIMMING AS A PRODUCTION BOTTLENECK

For years, trimming spun parts was a limiting step. **The process was manual, slow, and potentially unsafe**, and it lacked the consistency needed to meet increasingly complex customer demands.

COMPANY HIGHLIGHTS

WENZEL METAL SPINNING

LOCATION: Fremont, Indiana
FOUNDED: 1982
FIELD OF BUSINESS: Metal spinning

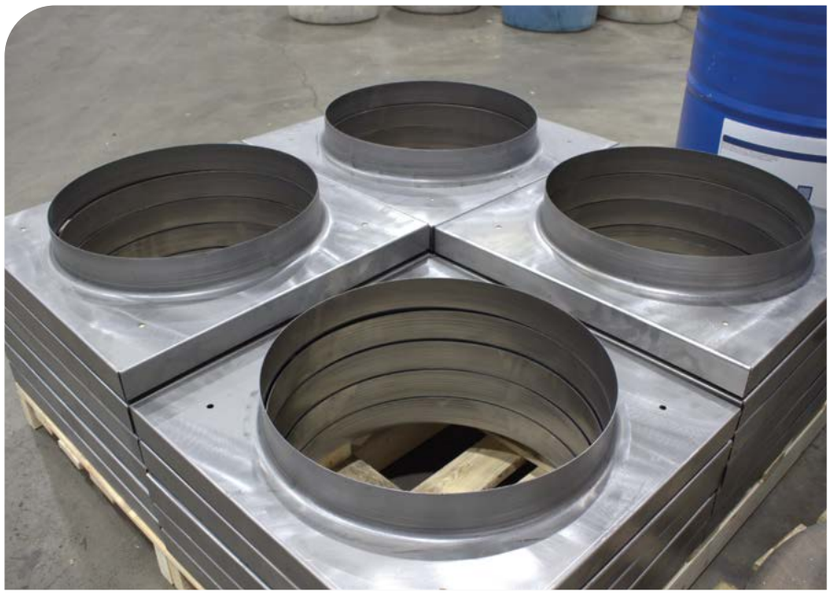
PRIMA POWER MACHINERY

- **Laser Next 2131 with Split Cabin**

The split cabin design enables continuous operation, keeping the laser cutting while operators load and unload parts.

Where manual finishing once limited capability, automation now enables high-precision results at scale.

> *Younger workers want to operate advanced equipment , automation isn't replacing our workforce. It's motivating our people.*



"We were hitting a wall," says Funkhouser. *"**We could spin parts faster than we could finish them. We had to decline jobs requiring complex cutouts because we couldn't manage the finishing cost-effectively.** We needed a solution that could handle the 3D nature of our parts."*

SELECTING A 5-AXIS SOLUTION

The search for a 5-axis laser was rigorous. **Wenzel evaluated the top players in the market**, including German and Japanese manufacturers, before selecting Prima Power.

*"**The Laser Next 2131 from Prima Power fit our needs**, including the cabin size, which accommodates the larger parts we make,"* says Operations Manager Ned Kaiser.

*"They understood our workflow and showed how the machine could integrate into our shop floor. **Support was also a key factor.** When you're running production, you can't wait three weeks for a technician."*

REDUCED CYCLE TIME AND CONTINUOUS OPERATION

"What previously required multiple jigs, steps, and several workers is now down to a single operation," says Production Manager Lance Angus. ***"We've cut tasks that took over an hour down to just a few minutes."***

The split cabin configuration allows continuous operation. *"While the laser is cutting a complex pattern on the left table, an operator is unloading a finished part and loading a raw one on the right table,"* he explains. ***"The laser beam is almost always on. We aren't paying an operator to watch a machine work; we're paying them to keep the machine fed."***

TIGHTER TOLERANCES AND REDUCED SCRAP

The 5-axis capability has enabled Wenzel to achieve tolerances previously impossible. ***"We are doing aerospace parts where the tolerance is plus or minus five thousandths of an inch,"*** Kaiser adds.

This precision has also drastically reduced scrap. In the world of metal spinning, **scrapped parts are costly, especially when working with expensive materials** such as Inconel and Hastelloy.

Finished components demonstrate the precision and surface quality achievable with automated 5-axis trimming.

INSTALLING AND INTEGRATING THE NEW SYSTEM

"Installing and integrating new technology into production is often challenging, but ***Prima Power made it manageable****,"* Kaiser explains. *"****They were on-site to assemble the machine, adjust parameters, train our team, and ensure the software integrated seamlessly with our existing systems****. Their applications engineer guided us in mastering its capabilities and tackling complex processes and geometries."*

> *The Prima Power Laser Next 2131 changed how we position ourselves. This machine has given us the confidence to take on more complex jobs.*

SAFER OPERATIONS AND WORKFORCE IMPACT

The new system also contributes to **improved safety by reducing operator interaction with higher-risk trimming processes**. *"Operators transition from direct handling of sharp edges and cutting tools to loading a fixture and initiating the cycle,"* says Angus, *"creating a cleaner, quieter, and more controlled workflow."*

Advanced equipment also supports workforce development. **In an industry that often struggles to attract younger workers, cutting-edge technology is a big draw**. *"Younger workers want to operate advanced equipment like the Prima Power laser,"* Funkhouser notes.

"It involves programming, robotics, and high-tech interfaces. ***It shifts the role from 'laborer' to 'technician'. Automation isn't replacing our workforce. It's motivating our people****."*

HOW NEW TECHNOLOGY RESHAPED THE COMPANY'S POSITIONING

"The integration of ***the Prima Power Laser Next 2131 changed how we position ourselves****,"* Funkhouser reflects. *"We are no longer just a spinning house that does a little fabrication on the side.* ***This machine has given us the confidence to take on more complex jobs where spinning is just the starting point****."*

Funkhouser sees a broader evolution in the company's direction. *"We are realizing that our name needs to reflect our expanded capabilities.* ***We're no longer just 'Wenzel Metal Spinning'; we are becoming 'Wenzel Metal Spinning and Fabrication'****."*

From aluminum to Inconel, mastering metal spinning requires a deep understanding of how each material forms, flows, and responds under pressure.

FROM PLANNING TO CONTROL: A SINGLE PRODUCTION PLATFORM

HOW PRIMA POWER CONNECTS PLANNING, PROGRAMMING, EXECUTION AND CONTROL IN SHEET METAL MANUFACTURING

PRIMA POWER'S ALL-IN-ONE SOFTWARE STRATEGY BRINGS ALL PHASES OF SHEET METAL PRODUCTION INTO A SINGLE DIGITAL ENVIRONMENT. BY CONNECTING TECHNOLOGIES, DATA AND WORKFLOWS, IT SIMPLIFIES PROGRAMMING, IMPROVES VISIBILITY AND GIVES MANUFACTURERS GREATER CONTROL OVER INCREASINGLY COMPLEX PRODUCTION SCENARIOS.

Francesca Pacella
Prima Power
SW Product Manager

Prima Power's **All-in-One software strategy connects every phase of sheet metal production within a single, intelligent digital ecosystem.** Our software suite creates a continuous and integrated workflow **from the ERP order to final production reporting**.

At the core of this approach is a **unified environment where all technologies** (laser cutting, punching, bending, combined machines and automation systems) **are fully interconnected**.

A **single CAM platform enables consistent programming across all processes**, ensuring that any change in design or geometry is automatically reflected throughout the production chain. This eliminates inefficiencies, reduces manual intervention and guarantees consistency.

Production planning, machine programming and shop floor execution are synchronized, allowing companies to manage priorities, optimize resources and maintain **full control over operations.** With Prima Power's All-in-One software, they can **plan, program, run and control their production within a single environment.** Operators and engineers benefit from **intuitive interfaces and advanced automation tools,** enabling faster programming and more reliable output.

Production monitoring and machine data collection further enhance control, providing a clear view of machine status and job progress. By transforming production data into actionable intelligence, **the system supports informed decision-making, increasing confidence** in daily operations and enabling continuous improvement.

Another key strength of the strategy lies in its **modular and scalable architecture**. Whether operating a single machine or a fully automated factory, companies can adopt and **expand the software ecosystem according to their specific needs**.

This flexibility ensures a **future-proof investment**, allowing businesses to evolve step by step without disruption.

Ultimately, Prima Power's All-in-One software strategy empowers manufacturers to achieve **greater integration, higher profitability and full control over their production**. Our comprehensive digital ecosystem is designed to support growth, adaptability and long-term competitiveness **in an increasingly connected manufacturing landscape**.

> *With Prima Power's All-in-One software, **companies can plan, program, run and control their production within a single environment**, gaining full control across the entire process.*

PRIMA POWER ALL-IN-ONE SOFTWARE

PLAN. RUN. CONTROL. COFFEE.

LEVEL UP YOUR PRODUCTIVITY WITH OUR DIGITAL ECOSYSTEM

Stay in full control of your system across every technology with Prima Power's unified suite of software.

1. One **comprehensive ecosystem** for the entire production flow.
2. **Improved profitability** with optimized material management and data-driven process and maintenance.
3. **Empower your team** with enhanced programming capabilities combined with intuitive interfaces.

FMS | AUTOMATION & ROBOTICS | SOFTWARE | PUNCHING & SHEARING | BENDING | 2D & 3D LASER

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