



NEW HORIZONS

EVOLVING THROUGH INTELLIGENT AUTOMATION AND PREDICTIVE SOFTWARE



Not long ago, artificial intelligence was a distant vision, something for research labs and sci-fi novels. Today Al is becoming an imperative, transforming how we live, work, and manufacture. In the sheet metal industry, Al is still in its early days, but its impact is growing fast, powering intelligent automation, predictive analytics, and enhanced precision. At Prima Power, we believe evolution comes from integration. Our "Evolve by integration" strategy drives us to create all-inone ecosystems where machines, automation, and software work in synergy. Alis accelerating this transformation, unlocking new possibilities, and this issue of Power Line explores its growing role in manufacturing.

In our Cover Story, Barbara Caputo, a leading Al expert and Professor at Polytechnic University of Turin, takes us inside this transformation. She highlights how Al fuels advancements in defect detection, digital prototyping, and predictive maintenance. She also underscores the importance of skilled teams, high-quality data and strong digital foundation for Al adoption.

Our specialists, Lauri Nevala and Fred Cooke, discuss Al's role in software development and CAD/CAM programming.

Al-driven automation is not only changing how machines operate; it is also transforming the way people work, shifting focus from routine tasks to strategic decision-making. Of course, no issue of Power Line would be complete without the voices of our customers. From South Korea to Finland, Poland, Italy, and Canada, companies around the world featured in this magazine are leveraging integrated automation and software to boost productivity and quality. In sheet metal working the Al journey has just begun, but its potential is limitless. At Prima Power, we are committed to integrating Al technologies into our solutions, to ensure our customers stay ahead in an ever-evolving industry.

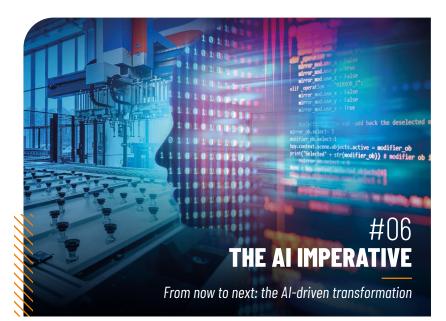
Discover more in this edition of Power Line.



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An interview with Brando Casonato, founder and President of Inox e Inox, alongside his sons Andrea and Marco, Managing Directors of the company

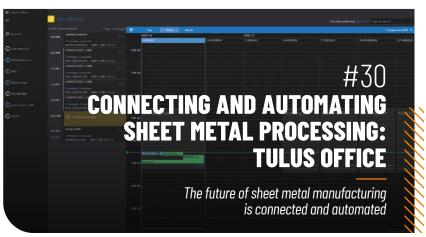














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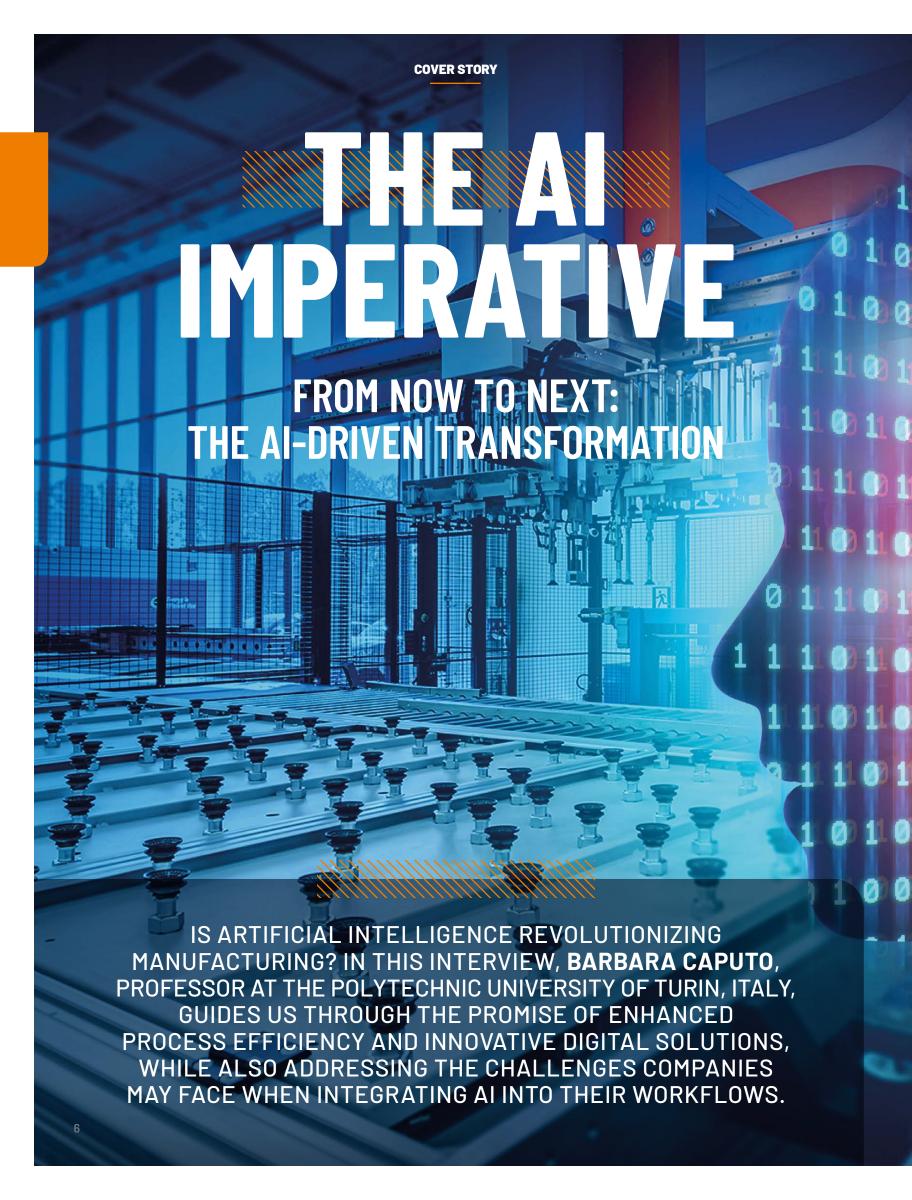
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BARBARA CAPUTO

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- Co-founder of the Laboratory for Learning and Intelligent Systems Society, ELLIS Fellow, and leader of the PhD program on Al and Industry 4.0 from 2021 to 2022.
- Advisor to the Rector for AI at the Polytechnic.
- Contributed as an expert to the drafting of the Italian National Strategy for Al.
- Included in the 2018 "Inspiring Fifty" and "100 Experts for Italy" by the Bracco Foundation.
- Independent director on the Boards of Ites Reale, Ites Reale España, Teoresi SpA and Infocamere.
- Co-founder and Chairwoman of **FocoosAI**, a spin-off of Polito.
- Winner of the 2023 PNI, Italy's **National Prize for Innovation**.

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Artificial Intelligence is a broad concept. How would you define it relating to the industry?

Today, in industry, applied AI is mainly the automation of digital data processing. Everything becomes data: our conversations, images and gestures are transformed into information by increasingly affordable sensors. Buying a camera used to be a major investment; now it is a given that every device has one. This data represents a source of infinite value because it does not wear out and can be reused indefinitely.

By automating the process of value extraction, Al allows us to analyse in real time a mass of data and information that our human, analogue capacity cannot handle with the same speed. From an industrial point of view, there are more and more applications that demonstrate the value of using and transforming data; that is why artificial intelligence is and will remain pivotal.

What are the main applications of AI in the manufacturing industry today?

All industries are already benefiting greatly from what we call generative Al. Generative Al simplifies the drafting of documents such as manuals and leaflets, allowing an initial version to be created on which a person can then verify information and add unique details.

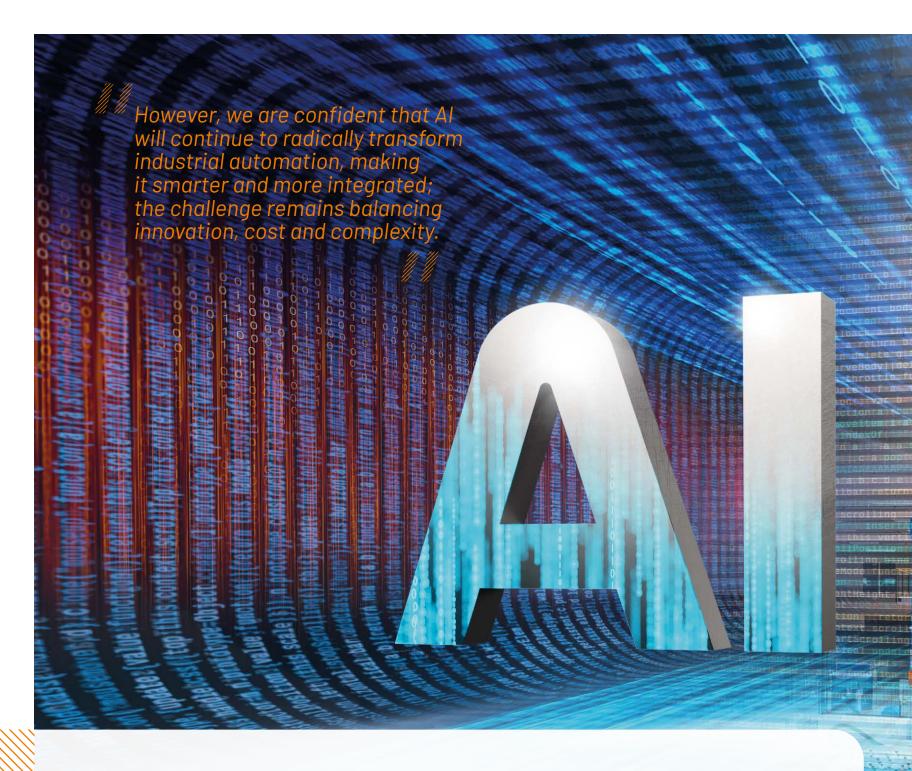
In the manufacturing sector, I see three distinct applications:

- analysis and tracking to quickly and accurately detect any imperfection or defect in the product
- digital prototyping, or digital twins, to test products without the need to physically manufacture them, reducing stock and unsold inventory
- predictive maintenance, through which production chains can be optimised, stepping in with small alterations to avoid costly downtime and reduce declines in productivity.



From an industrial point of view, there are more and more applications that demonstrate the value of using and transforming data; that is why artificial intelligence is and will remain pivotal.





What challenges do companies face in integrating AI into their production processes?

On the one hand, **there is an uncertainty about "who to turn to"**. Companies feel that if they do not act quickly enough, they risk falling behind, standing by while competitors take the plunge and gain market share. Information on the topic is noisy and varied, making it difficult to know what to do.

Another challenge is varying levels of digitisation. In many industries – especially in small and medium-sized enterprises – digitisation took place at different times: in the 1980s, one technology was introduced, in the 1990s another, and so on. The result is outdated operating systems that often lack interoperability; for a company whose purpose is to sell products and ensure that revenues exceed costs, updating and standardising IT systems is a huge challenge. But without a solid digital foundation, generative AI and prototyping remain fragmentary. It is like going from a rough paper pattern to a

seamstress who creates a tailor-made suit: AI, in its current state, needs that "little bit extra" to be tailored to the specific needs of each company. In times of expansion, and for businesses with adequate resources, this investment may be worth the effort; but for smaller companies that perhaps are not yet growing, it represents a considerable challenge.

What skills do companies need to develop to take advantage of AI?

If you want to become an Al company, you need a high-level technical team – people with skills in computer engineering or STEM subjects, capable of not only implementing, but creating Al solutions, because changes happen monthly in this field. If, on the other hand, a manufacturing company intends to introduce Al as part of its digitisation, it is essential to have in-house IT experts or rely on specialised consultants. Without a solid digital foundation, however, you risk paying expensive consultancy fees without concrete results.

How do you see the relationship between Artificial Intelligence and sustainability?

From an environmental point of view, I have to admit that currently AI is not really in the good books. The models running via data centres are extremely energy-intensive: in addition, cooling, which is often done using rather primitive liquid-based systems – mostly water – has a significant impact. If AI is to become a pervasive, win-win technology, efficiency of the systems must be improved so that the benefits truly outweigh the environmental costs.

What developments do you predict for Al in industry over the next 5-10 years?

The manufacturing sector is focusing on AI and better management of automation and robotics. The open-source model with which AI has been developed so far has made this technology very accessible. The result will be increased production capacity for companies that adopt it and, consequently, an increase in product and service offerings and associated cost savings.

However, the open-source approach, which has enabled the rapid growth of Al over the last 3-4 years, may also be threatened by ongoing geopolitical tensions. The shift to a new model will change the evolutionary line of Al and how technology is accessed. Talking about 5-10 years' time for Al today is almost like asking what the world will be like in 100 years, because we are moving at an incredible rate! However, we are confident that Al will continue to radically transform industrial automation, making it smarter and more integrated; the challenge remains balancing innovation, cost and complexity.

What do you recommend for companies that want to harness the potential of Al?

My advice is simple: start at the bottom. If you are behind in digitisation, upgrade and standardise your systems before thinking about AI. Then, equip yourself with in-house experts who really know what it means to create and implement AI solutions. Approach the world of academia and consultants to evaluate and measure every investment, without giving in to the emotional pressure around you.



THE ALL-N-ONE **SOFTWARE STRATEGY**





INTERVIEW WITH LAURI NEVALA PRODUCT MANAGEMENT AND SOFTWARE ARCHITECTURE RESPONSIBLE AT PRIMA POWER



Could you describe the "All-in-One" software strategy and explain how it creates an integrated ecosystem?

Prima Power aims to be a partner in our customers' success, offering turnkey solutions including machines, production lines, automation, and software. Our software manages the entire process - from order to the final bent part - ensuring efficient operations with an integrated ecosystem. This enables a seamless production flow with one software platform.

In which production phases do customers see the most tangible benefits? Can you share some examples?

Production planning, programming, and monitoring are streamlined through an integrated software ecosystem, improving workflow efficiency. Production orders are automatically read and prepared through integration with the customer's ERP system, eliminating manual steps. Automatic programming and nesting reduce human interaction in production preparation. The software provides a 360° view of production and factory status, enabling data-driven decision-making.

How does integrating all software modules lead to operational improvements and cost savings for customers?

Operational improvements and cost savings drive investments in software for sheet metal fabrication. Prima Power Tulus Office and NC Express programming automate production from back office to machine, reducing manual work by 80%. This results in cost savings and a more efficient process. Automating workflows ensures the "right things at the right time" saving material and resources.

How do you see the evolution of the All-in-One ecosystem? Are there plans to integrate emerging technologies?

Our software ecosystem is constantly evolving, and we are exploring new technologies. We collaborate with universities to research the latest advancements in sheet metal fabrication, assessing their feasibility in various applications.

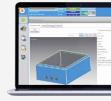
How might Al further enhance the capabilities of the All-in-One software platform?

Al is in its early stages, and the future will reveal its true potential. At Prima Power, we are developing proof-of-concept projects to integrate Al into our software, enhancing value for customers. Al can be part of software platforms indirectly or directly. Interacting with systems like ERP, MES, and APS tools, Al helps customers analyze vast amounts of data. Direct implementation means Al agents executing tasks independently and interacting with the environment.

How do you see Al's role evolving in sheet metal processing, and which applications seem most promising?

Al is rapidly developing. Companies are researching its potential. LLM models help manage large amounts of data. Al assists developers, and at Prima Power, we use Al to develop our software. I believe we've yet to see the best Al applications emerge. Al will enhance sheet metal processing by improving automation, predictive maintenance, and process optimization. It will support better quality control, system integration, and datadriven decision-making, leading to increased efficiency, reduced waste, and more flexible manufacturing.



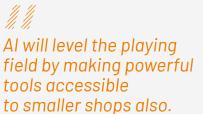


Al will gradually enhance sheet metal processing by improving automation, predictive maintenance, and process optimization.



Lauri Nevala ///







Fred Cooke // //

tools accessible



CAM SOLUTIONS AND APPOTENTIALS

INTERVIEW WITH FRED COOKE SYSTEM SALES MANAGER AT PRIMA POWER NORTH AMERICA

With your extensive experience in CAD/CAM solutions, how have they evolved in the sheet metal industry, and what innovations have had the most profound impact?

CAD/CAM used to be a necessary evil: you needed a programmer to manually process parts, clean up CAD files, and generate paperwork. Paper ruled the shop floor. Today, software drives the process: CAD models are automatically flattened and tooled, order files generate nests based on machine availability and prints and models are accessible to operators. Bending programming is shifting to the office, allowing operators to focus on quality rather than manual setups. The shift to a 3D environment has deeply transformed operations. Designers now embed rich metadata into models, automating CAM processes by recognizing material type, thickness, BOM quantities, and part features.

Previously, programmers had to verify details manually, leading to frequent mistakes.

Now, with automation "right first time" is completely achievable.

How is AI transforming CAM programming?

Today I would say it's indirectly. Al is becoming a powerful assistant. For instance, I use it to develop applications that analyze large volumes of models, extracting key data like material type and thickness in seconds. Al helps identify feature patterns, recommend die clearances, and even determine parts suitable for panel bending - tasks that once required hours of manual review. Al-driven tools like NotebookLM can also offer instant, step-by-step guidance for CAM software, acting as an on-demand instructor, if provided with the user manuals.

Which industries are leading Al adoption, and what challenges do they face?

It's early days, but pioneers include industries producing parametrically driven products like toolboxes, cabinetry, and HVAC. These companies have in-house coding talent,



but AI will level the playing field by making powerful tools accessible to smaller shops also, enabling better decision-making and faster code generation. As NVIDIA'S CEO Jensen Huang said, "It is our job to create computing technology such that nobody has to program. And that the programming language is human."

How will Al evolve over the next decade, and what trends should customers watch?

Al will excel at eliminating mundane tasks and revolutionizing maintenance and troubleshooting. Imagine an Al assistant that instantly diagnoses machine faults using schematics, manuals, and past remedies, getting production back on track faster than ever. We'll move beyond machine learning to real intelligence.

How will Al impact the skills required for programmers and operators?

While metalworking remains a hands-on craft with a level of skills required, AI will shift the focus of programmers from routine programming to solving complex challenges. Operators will still need expertise, but they'll spend less time troubleshooting. In CAM offices, programmers will primarily handle exceptions rather than daily programming. Coding is becoming the silver bullet for manufacturing: what was once overlooked in sheet metal factories is now a game changer.

FROM MANUFACTURERS TO KITCHEN CREATORS: THE INOX E INOX STORY

AN INTERVIEW WITH BRANDO CASONATO, FOUNDER AND PRESIDENT OF INOX E INOX, ALONGSIDE HIS SONS ANDREA AND MARCO, MANAGING DIRECTORS OF THE COMPANY

Founded by Brando Casonato, who carries a long family history in steel working across the Veneto region, Inox e Inox is now led by Brando and his sons Andrea and Marco. The company began by specializing in commercial kitchens in stainless steel, but it has now expanded to create custom kitchens that combine industrial efficiency with artisanal craftsmanship.

Can you provide a brief overview of the key milestones in the company's evolution since 1997?

The company's roots go back before 1997, **starting as a small artisan steel working business**. We eventually turned our attention to industrial kitchens before branching out into the high-end domestic market. In 2008, the team consisted of just seven people, but clear goals were already in place. Since then, **the company's turnover has increased from €400,000 to €32 million last year**.



The turning point came when Marco and Andrea joined the business. Andrea now oversees sales and the technical office, while Marco is in charge of product development, innovation, and Al integration. Currently, Italy accounts for 30% of our business, with the remainder coming from Europe, the Middle East, and shortly India.

What do you appreciate most about stainless steel, and what are the main challenges in working with it?

The most challenging aspect of stainless steel is its working difficulty, which sets us apart from competitors. Mistakes waste the product, but years of experience have sharpened our skills. With an in-house studio of 12 designers, we balance requirements with available equipment to make the impossible possible. Using advanced technology, like Prima Power's bending systems, greatly simplifies production, giving us the precision and efficiency we need. These innovations also allow us to train employees with less formal training.

Your work blends craftsmanship with advanced technology. How do you keep traditional knowledge alive while adapting it to modern needs?

We divided the company into two main production areas: one for standardized products, and the other for highly customized creations. It's by balancing both that we are able to combine innovation with tradition and maintain our market leadership. Technology also contributes to improve our artisanal products' quality. Modern machinery's precision makes it easier to produce complex, bespoke parts leading to a higher-quality final product than was previously possible.

The challenges posed by using stainless steel set lnox e lnox apart.



Brando Casonato, founder and President of Inox e Inox, with his sons **Andrea** and **Marco**, Managing Directors.

Personalization is a key value in your sector. How do you ensure that your products meet the specific needs and desires of your customers?

We often collaborate with architects selected by our clients. We've established a **significant partnership with Milan-based architect Simone Micheli**, who designed a highly complex domestic kitchen with industrial touches. This design, based on curved lines, posed a unique challenge, but we accepted it with enthusiasm. We are now bringing it to life, and it's shaping up to be something very exciting.

How customizable are your kitchens, and how much of your work is based on standard designs?

60% of our products are standardized, while 40% are fully custom-made. Customization is our core offering, where we start with a base design, but no two pieces are ever identical. **We've worked on prestigious projects**, like custom kitchens for major venues such as the SAP Garden Arena in Munich and the Freiburg stadium, as well as high-profile projects in the Middle East.

Over the years, you've worked on numerous projects. Is there one that best represents your approach to metalworking?

It's hard to answer, as there are at least seventy projects worth mentioning. We've collaborated with major airlines, high-end hospitality venues, and award-winning wineries. Our work can be found in landmark locations such as luxury resorts, prestigious fine-dining establishments, and acclaimed restaurants worldwide. We've partnered with Michelin-starred chefs and worked on some of the most renowned culinary spaces in Italy and abroad. In Dubai, three of the restaurants we've worked on have won Best Restaurant in the Gulf for four consecutive years.

What changes do you think steel working will undergo in the years to come?

The industry is moving toward greater industrialization, and if you're not embracing this, you risk falling behind. The market is increasingly receptive to customization, which is where we continue to focus our efforts. We're also exploring innovative surface treatments that alter the external appearance of steel to achieve results that are both aesthetically pleasing and durable. Emerging markets like the Middle East and India drive the

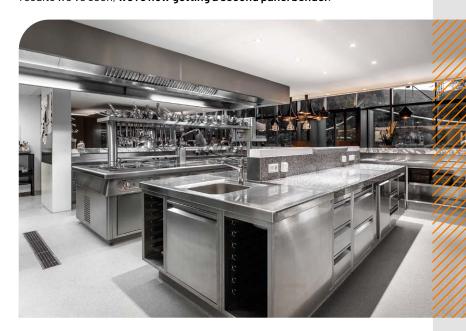
market evolution, demanding durable, high-quality solutions at competitive prices, pushing us to keep innovating.

What strategies are you adopting to make your processes more sustainable?

Sustainability is central to our philosophy. We're obtaining ESG certification and launching a 1000 kW energy community for our employees, promoting energy independence and well-being as part of our welfare program. We've also implemented certified production procedures which ensure sustainability, gender equality, and environmental respect.

Why did you choose Prima Power as your partner?

We first met Prima Power at a Stuttgart trade fair a few years ago and decided to purchase our first panel bender from them in 2021. **We chose Prima Power because they provided the best overall solution for our needs.** The technology improved our productivity and quality, reduced outsourcing costs and streamlined training. Given the results we've seen, **we're now getting a second panel bender**.



Inox e Inox creates customized projects using advanced technologies that guarantee productivity, flexibility and quality.

COMPANY HIGHLIGHTS

INOX E INOX

LOCATION: Maserada sul Piave (TV) Italy

FOUNDED: 2008

FIELD OF BUSINESS: Professional stainless steel kitchens

and custom projects

PRIMA POWER MACHINERY

- BCe 2720 servo-electric panel bender
- BCe 2220 servo-electric panel bender

A PATH TOWARDS AUTOMATION AND SUSTAINABILITY

HOW WOOJIN PLAIMM IMPROVED PRODUCTIVITY AND WORKFORCE HEALTH WITH PRIMA POWER'S TECHNOLOGIES

WOOJIN PLAIMM ENHANCED PRODUCTIVITY AND ADDRESSED WORKFORCE CHALLENGES WITH PRIMA POWER'S AUTOMATION SOLUTIONS, IMPROVING EFFICIENCY AND SUPPORTING ESG GOALS.

WOOJIN PLAIMM, a leading manufacturer of injection molding machines, has embraced automation solutions to improve productivity and address key challenges like workforce health and ESG issues.



ADDRESSING CHALLENGES THROUGH INNOVATION

Established in 1985, WOOJIN PLAIMM has grown into a globally recognized injection molding machine manufacturer, listed in KOSPI (Korea Composite Stock Price Index).

Like many manufacturing companies, WOOJIN PLAIMM faces challenges such as strengthening global competitiveness and implementing ESG (Environmental, Social, and Governance) management. Particularly, issues like an aging workforce and the risk of musculoskeletal disorders were critical concerns that needed addressing to solidify its position in the injection molding machine manufacturing sector.

In seeking solutions to these challenges, WOOJIN PLAIMM turned to Prima Power's automatic sheet metal manufacturing systems, which improved work speed, flexibility, and workforce efficiency within a short period of time.

STREAMLINING SHEET METAL PROCESSES WITH LPBB LINE AUTOMATION

WOOJIN PLAIMM previously outsourced various production processes, like many large Korean enterprises, but this approach often had limitations.

Mr. Sunho Kim, General Manager of Sheetmetal Team at WOOJIN PLAIMM.



The eP Genius 1030 press brake with automatic tool change storage and 7-axis anthropomorphic robot installed at WOOJIN PLAIMM.

Mr. Sunho Kim, General Manager of Sheet Metal Team at WOOJIN PLAIMM, explained, "While outsourcing met our requirements, it lacked opportunities for improvement, and meeting delivery deadlines was challenging. Prima Power quickly incorporated our feedback, enabling the rapid automation of our production line."

The key contributor to enhancing WOOJIN PLAIMM's sheet metal processes is the LPBB Line. This Flexible Manufacturing System (FMS) integrates Laser cutting, Punching, Buffering, and Bending, offering high productivity through modular technology and intelligent material flow management.

Regarding Prima Power's LPBB Line, Mr. Kim noted, "Previously, materials processed by manual punching or laser cutting machines had to be transported to bending machines with forklifts or cranes. Prima Power's system eliminates this step, directly connecting punching and laser cutting to bending.

Tasks that previously took over three days with around 20 personnel can now be completed in just 8 hours."

The LPBB Line also reduced the required workforce on the production line from 20 to just 3, significantly lowering labor costs. Additionally, continuous in-line operation of the machines ensures consistent product quality.



WOOJIN PLAIMM places significant emphasis on ESG management. Prima Power's laser machines enhance speed in these areas, facilitating ESG activities related to energy usage.



COMPANY HIGHLIGHTS

WOOJIN PLAIMM

LOCATION: Boeun-gun, Chungcheongbuk-do, South Korea

FOUNDED: 1985

FIELD OF BUSINESS: Manufacturing and sales of highprecision plastic injection molding machines

PRIMA POWER MACHINERY

- Night Train FMS Storage & Flexible Manufacturing System
- LPBB Line (Laser cutting/Punching/Buffering/Bending)
- Combi Genius punching-laser combined system
- Laser Genius+ 2D laser cutting machine
- eP Genius 1030 press brake integrated with robot



Prima Power Night Train FMS offers W00JIN PLAIMM optimized sheet metal production with excellent storage capacity and minimal installation space.

FROM EFFICIENCY GAINS TO ESG MANAGEMENT WITH LASER CUTTING MACHINES

In 2022, as ESG management gained recognition, W00JIN PLAIMM proactively responded by receiving the Chungcheongbukdo Governor's Award at the **Korea ESG Management Awards**.

The Combi Genius, a punching/laser combi supplied by Prima Power, delivers high productivity even in confined spaces and is compatible with various automation solutions, ensuring optimal productivity and flexibility.

Another laser machine, the Laser Genius+, sets a new standard in 2D laser cutting with its fully automatic operation, from material

loading to sorting and stacking. It offers superior precision thanks to its highly rigid static and dynamic structures. Equipped with high-speed motors, **it achieves the fastest cutting speeds on the market** and features a high-speed automatic pallet change system, a 20-station automatic nozzle changer, and a real-time process control system.

Mr. Kim shared his expectations for Prima Power's laser machines, stating, "WOOJIN PLAIMM places significant emphasis on ESG management, particularly environmental friendliness and energy conservation, where automation is essential. Prima Power's laser machines enhance speed in these areas, facilitating ESG activities related to energy usage."

The Combi Genius punching/laser combined system delivers high productivity and flexibility.



Prima Power's robotic solutions enable high-level integration and automation.
These solutions are ideal for fluctuating production volumes and parts with diverse shapes, integrating complex production steps into a single system to boost productivity and cut costs.



Prima Power's automatic sheet metal solutions are expected to significantly reduce musculoskeletal disorders caused by handling heavy products, while also maintaining a clean and safe environment.



REACHING THE PINNACLE OF AUTOMATION WITH PRIMA POWER'S ROBOTIC SOLUTIONS

Robots are essential for achieving full automation in manufacturing sites. WOOJIN PLAIMM utilizes robots in various processes, enhancing efficiency through those integrated with Prima Power's automatic machines.

Prima Power's robotic solutions enable high-level integration and automation, including programming, ERP production management planning, feedback, and reporting. These solutions are ideal for fluctuating production volumes and parts with diverse shapes, integrating complex production steps into a single system to boost productivity and cut costs.

ACHIEVING AUTOMATION IN LOGISTICS WITH NIGHT TRAIN FMS®

The Night Train FMS (Storage, Flexible Manufacturing System), introduced to WOOJIN PLAIMM by Prima Power, is a leading solution for automated material and semi-finished product handling, backed by 30+ years of experience and advanced engineering. Featuring a low-profile crane and shelf structure, the Night Train FMS offers excellent storage capacity with minimal installation space. It automates material and information flow, integrating individual manufacturing stages into a flexible process. Additionally, it optimizes sheet metal production within Prima Power's extensive



WOOJIN PLAIMM is a globally recognized injection molding machine manufacturer, listed in KOSPI (Korea Composite Stock Price Index).

range of high-performance machine tools, integrated cells, automated material handling solutions, and software.

Mr. Kim highlighted, "One reason for the aging workforce in manufacturing is poor working conditions. Prima Power's automatic sheet metal solutions are expected to significantly lower the occurrence rate of musculoskeletal disorders caused by moving heavy products, while maintaining a clean and safe environment." He further noted, "With Prima Power's automatic solutions, we anticipate not only mass production of standardized products but also swift responses to customers' urgent demands."



Scan the QR code to watch the video interview.





Prima Power FMS technology automates the material and information systems of a facility and combines individual manufacturing stages into a single flexible process.

TRANSFORMING OPERATIONS FOR EXPANSION AND EFFICIENCY

PERTEMET OY IS STAYING AHEAD WITH STRATEGIC INVESTMENTS IN AUTOMATION AND NEW TECHNOLOGIES

Extract from an article published in Konekuriiri.

THE FINNISH COMPANY IS INVESTING IN ADVANCED TECHNOLOGIES TO ENHANCE EFFICIENCY AND DRIVE GROWTH, POSITIONING ITSELF FOR LONG-TERM SUCCESS IN THE EVOLVING TECHNOLOGY SECTOR.

Amid rapid industry changes, Pertemet Oy is transforming its operations to stay ahead of the curve. After a change in ownership and a strategic partnership with Gebwell, the company is investing heavily in automation and advanced production technologies. These steps are set to boost efficiency, expand its capabilities, and position Pertemet for continued growth in the competitive technology sector.

The large-scale investment project develops Pertemet's production. Standing in front of the Laser Genius+ laser's material storage: **Toni Teittinen**, CEO of Pertemet, on the left, and **Ilkka Hunnakko** from Prima Power on the right.





Pertemet's investment project increases the degree of automation in its production. The new panel bender's material processing is automated by a robot.



The capability for unmanned production was key. Efficient and ecological production is highlighted through modern automation.



A KEY PLAYER IN THE TECHNOLOGY INDUSTRY Pertemet Ov is a contract manufacturer in the to

Pertemet 0y is a contract manufacturer in the technology industry, specializing in sheet metal processing, welding, assembly and bending operations. Its primary materials are aluminum, stainless steel and carbon steel, and it serves a diverse clientele both locally and internationally.

"Components for casings, cabinets and similar structures are our bread and butter. **We work as partners with our clients, supporting their production.** With this operational mindset, trust and transparent cooperation become essential," says CEO Toni Teittinen.

COMPANY HIGHLIGHTS

PERTEMET OY

LOCATION: Leppävirta, Finland

FOUNDED: 1994

FIELD OF BUSINESS: Contract manufacturing, sheet metal components and steel structures

PRIMA POWER MACHINERY

- Laser Genius+ 1530 laser cutting machine with tower storage Combo Tower Laser
- Punch Genius 1530 punching machine
- Robotic bending cell with BCe Smart panel bender
- Robotic bending cell with eP1336 press brake

NEW PRODUCTION METHODS TO MEET FUTURE CHALLENGES

Pertemet Oy's history spans twenty years, and the winds of change have swept through the company in recent years.

Ownership passed to Toni Teittinen at the turn of the decade.

Following this change, the company's operations were transformed and relocated to its current premises.

Pertemet's development accelerated a couple of years ago when Gebwell, a company operating nearby, became a client and soon after a part-owner. Today, Pertemet supplies Gebwell with steel components for home heating and cooling systems, focusing on both the domestic market and exports.

Gebwell is now concentrating component manufacturing at Pertemet, driving the company to further develop its manufacturing methods.

CUSTOMER STORY

This growth project has received significant funding from the ELY (the Centre for Economic Development, Transport and the Environment in Finland) and is being implemented as a program to modernize all of the company's core machinery. Automation is the central focus of this investment project.

"We are developing our methods and investing in new technology, focusing on increasing the degree of automation. At the same time, we are investing in competence, software and quality systems to develop our production," Teittinen summarizes.

ENHANCING PRODUCTION CAPABILITIES WITH MODERN AUTOMATION AND ROBOTICS

The investment program includes production machinery for several different tasks, and it encompasses new technology for, among other things, sheet processing: cutting, punching and bending. All machines are supplied by Prima Power and are servo-electric.

The project includes the Laser Genius+ 1530 laser cutting machine with 10 kW resonator power and a 3000x1500 mm cutting table. The machine can cut aluminum up to 15 mm, structural steel up to 25 mm and stainless steel up to 20 mm. The machine's material flow is automated by Prima Power's tower storage and a third cutting table.

The investment project also includes the Punch Genius 1530 punching machine, which is equipped with a 3000x1500 mm cutting table, a three-ton automatic sheet processing capability, and a tapping unit. It can process material up to 8 mm thick. The large-scale project also includes the eP1336 robotic bending cell with a bending length of 3600 mm. Autopol 3D assists in creating bending programs.

The company later expanded its order to include a **BCe Smart** panel bender with a bending length of 2250 mm.

BCe Smart can process sheets the size of 2850x1500xH205 mm, and bend aluminum (0.5–4.0 mm thick), steel (0.5–3.0 mm thick), and stainless steel (0.5–2.0 mm thick). Its material processing is automated by a robot.

"The capability for unmanned production was key. Efficient and ecological production is highlighted through modern automation," says Teittinen.

DRIVING GROWTH THROUGH STRATEGIC INVESTMENT

Pertemet chose its machine supplier based on practical considerations.

"We trust in Prima Power technology. The communication and services are always top notch and, by choosing them, we could acquire all of the project machinery from one supplier," Toni Teittinen says.

The installations at Pertemet progressed last summer, and by early autumn, most of the equipment was already in use.

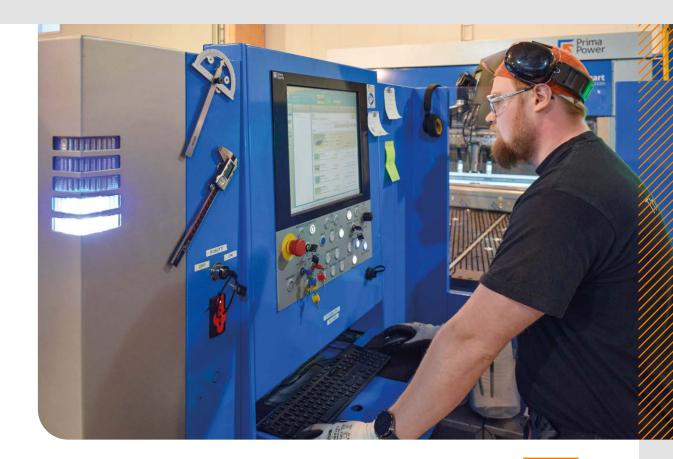
As space was limited, special attention was paid to the layout so that the large machines and devices would fit in the factory nicely. Currently, Tulus software is being introduced to work with the Prima Power devices.

In addition to sheet metal processing devices, Pertemet has recently invested in a pressing machine, as well as in grinding and welding automation. The transformation of the company's processing operations is ongoing; for example, Pertemet is developing its paint shop operations, for which it has acquired additional space near its headquarters.



The Punch Genius 1530 punching machine.





Pertemet focuses on producing components for casings, cabinets, and similar sheet metal structures. Fire extinguisher cabinet in the foreground.

The BCe Smart panel bender offers a bending length of 2250 mm.

Toni Pitkänen operating the machine.



We trust in Prima Power technology. The communication and services are always top notch and, by choosing them, we could acquire all of the project machinery from one supplier.

Automated bending. The project includes the eP1336 robotic bending cell with a bending length of 3600 mm.

FUTURE GOALS AND REGIONAL IMPACT

Pertemet's turnover was 1.4 million euros in its last financial year, and it **aims for significant growth in the coming years** with its ongoing production investments.

"Growth is achievable as our client companies develop; after all, little strokes fell great oaks. Our goal in the coming years is to significantly increase turnover through new capacity and clients. We see good prospects for that ahead and aim to reach five million euros in turnover in the near future," Teittinen says.

Pertemet's investment project is significant not only for the company and its clients but also for the region. The investments will develop local industry and competence. In addition, Pertemet has hired new staff for both production and sales functions, mainly from the Leppävirta area, and some employees have also transferred to Pertemet from Gebwell.



BENDING AUTOMATION CLEARS THE AIR FOR PRODUCTIVITY

HOW FIVE SEASONS IS STREAMLINING PRODUCTION AND BOOSTING OUTPUT WITH CUTTING-EDGE AUTOMATED BENDING SOLUTIONS

Extract from an article published in Shop Metalworking Technology.

AUTOMATED BENDING TECHNOLOGY DRAMATICALLY CHANGED FIVE SEASONS PRODUCTION BY REDUCING SETUP TIME AND LABOR, DELIVERING PRECISION AND ALLOWING FOR FASTER DELIVERY.

Since 1962, Five Seasons Comfort Limited & Electro Air Canada has designed and manufactured a complete line of residential, commercial, and industrial air cleaning systems. Their products include electronic, high-efficiency media, HEPA filtration systems, ultraviolet light, and photocatalytic filtration technologies. The company's success is also due to a visionary outlook that focuses on helping people with allergies, asthma, and respiratory illnesses.



Caroline David, vice president sales, and Mary-Louise Donadio, vice president of marketing, manage

the company that was founded by their father in 1962.



Prima Power BCe Smart with its innovative servo-electric bending technology is the optimal solution for medium production volumes as well as for low volume or lean production. It guarantees precision and repeatability with a considerable reduction of maintenance costs.

A FAMILY WITH A VISION FOR CLEANER AIR

Founder Howard David first became interested in electronic air cleaners because his daughters had allergies. Those two daughters, Caroline David, vice president of sales, and Mary-Louise Donadio, vice president of marketing, manage the company today.

"Our father was ahead of his time," explains Caroline David. "Back in the 1960s, he was very health conscious and doing yoga. Our product line has evolved dramatically. It started with the electronic and portable room air cleaner and now includes all mechanical air cleaners on furnaces, air handlers, heat pumps, furnace bottoms, platforms, etc."

TRANSITION TO AUTOMATED BENDING AND PRODUCTIVITY KICK-OFF

Five Seasons moved into its current 100,000-square-foot facility in 1985 and is expanding, with an additional 30,000 square feet set to be added.

In 2011, Five Seasons took its first step toward bending automation by purchasing a Prima Power Fast Bend to eliminate bottleneck delays in the bending operation.

"We decided to move away from the traditional press brake operation and produce the parts on a servo-electric panel bending machine," says David.

The Fast Bend reduced labor-intensive tool setups, programming time, and part handling while offering flexibility to form different angles, hems, and multiple corner radii. Its features-including automatic tool change (ATC), an automatic feed table, and automatic inversion of positive and negative bending blades allow for creating more bends per side in an automatic sequence without manual intervention.



We decided to move away from the traditional press brake operation and produce the parts on a servo-electric panel bending machine.



COMPANY HIGHLIGHTS

FIVE SEASONS COMFORT LIMITED & ELECTRO AIR CANADA

LOCATION: Concord, Ontario - Canada

FOUNDED: 1962

FIELD OF BUSINESS: residential, commercial, and industrial air cleaning systems

PRIMA POWER MACHINERY

- FBe Fast Bend servo-electric panel bender
- 2 BCe Smart servo-electric bending centers
- **Press Brakes**

CUSTOMER STORY

SMART MOVES IN BENDING

Following the success of the Fast Bend, Five Seasons purchased two additional Prima Power benders in 2021 and 2022. The Prima Power BCe Smart incorporates innovative technologies and enhanced intelligence that, combined with operator ability, make the machine easy to use while eliminating margins of error. It is ideal for both medium and low-volume production and lean production, guaranteeing precision and repeatability with reduced maintenance costs.

BCe Smart's compact layout, unique loading/unloading capability, and large working table allow for increased productivity in a single sequence. The machine is straightforward to use and does not require skilled operators. Due to the bar-code reader and the ATC system, its setup is automatic; it takes place in masked time and activates dynamic production queues.

The high ergonomics and safety levels result from a series of features, such as the absence of physical barriers for manual loading, warning lights and acoustic signals to synchronize the loading and unloading. The interactive display guides the operator in the working phases to be carried out, such as the orientation of the pieces.



BCe Smart's compact layout, unique loading/unloading capability, and large working table allow for increased productivity in a single sequence. The machine is straightforward to use and does not require skilled operators.



THE BCE SMART BENEFITS

- A compact footprint
- Higher productivity (with the loading operation ergonomically in sequence with unloading)
- Reduction of direct labor for bending and setup
- Full safety for the operator (with no physical barriers for high efficiency)
- Excellent component quality
- A wide range of bending profiles
- Lower tooling costs
- Electrical energy savings
- Reduced maintenance costs
- Low noise levels and vibrations

With the positive results of its first Prima Power bender, Five Seasons purchased two BCe Smart benders in 2021 and 2022.





The BCe Smart introduces new principles for modern semi-automatic machines. By innovating new technologies and enhancing intelligence, Prima Power makes this machine easy to use and eliminates the margin of error. The Bce Smart does not require skilled operators.

SPEED, PRECISION, RELIABILITY IN EVERY BEND

"In addition to the two BCe Smart benders, we also purchased two Prima Power press brakes," explains David. "Before making the purchase, we talked to three bender manufacturers. We showed all three the parts we wanted to build, but the other two companies couldn't help us. Prima Power sent our parts to Italy to test whether they fit on the BCe Smart. As soon as they told us it would work, we bought the two machines. We chose the Prima Power machines due to our close relationship with the company. The people at Prima Power actually take the time to understand what we are manufacturing. They take care of us and help foster our growth."

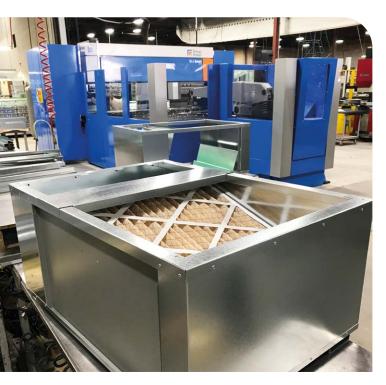
According to David, the BCe Smart machines have dramatically increased productivity. "A complex job that we were bending on the press brakes took 8-9 minutes per part. The BCe Smart makes the part in 60-70 seconds. In addition, the press brake operator has to be very knowledgeable on tolerances, the machine, the part, etc. These days, it isn't easy to find experienced press brake operators. But with the BCe Smart, we can hire someone with basic skills who doesn't need engineering knowledge or be a technician. He doesn't need to worry about tolerance or which side has to be bent first. The BCe Smart does everything."

THE SERVICE YOU CAN RELY ON

"We promise 48-hour delivery on all our orders," continues David.

"Prima Power and the BCe Smart machines have literally changed our company."

Dependable service is a key part of the partnership with Prima Power. "From the first day they installed the BCe Smart machines, Prima Power ensured they were operating efficiently," adds Donadio. "If we have a programming question, the Prima Power technician stops what he is doing and is there for us. It is not just the machines that make Prima Power unique but also their customer satisfaction. When a problem needs to be addressed, Prima Power will respond immediately."



Five Seasons designs and manufactures a complete line of residential, commercial, and industrial air cleaning systems, such as electronic, high-efficiency media, and HEPA filtration, including ultraviolet light and photocatalytic filtration technologies.

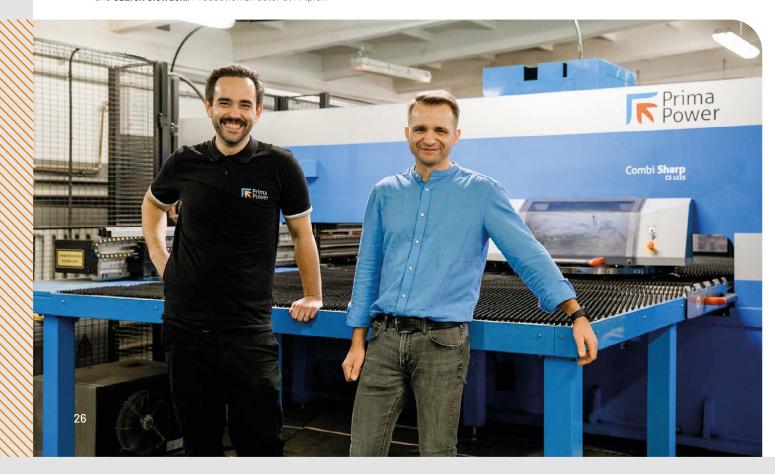
AND EVOLUTION IN THE POS INDUSTRY

ARTPLEX LEVERAGES PRIMA POWER'S INNOVATIVE SOLUTIONS TO MEET EVOLVING MARKET DEMANDS

THROUGH ADVANCED TECHNOLOGY AND STRATEGIC PARTNERSHIP WITH PRIMA POWER, ARTPLEX HAS ENHANCED PRODUCTION EFFICIENCY, PRODUCT QUALITY, AND SUSTAINABILITY IN THE POS (POINT OF SALE) SECTOR.

From a small Polish startup to a POS industry leader, Artplex has thrived by embracing innovation, exceptional product standards, and responding to the growing demand for eco-friendly POS solutions. Partnering with Prima Power, Artplex has not only enhanced its production capabilities but also reinforced its commitment to sustainability and quality.

Jacek Szypuła, Sales Area Manager at Prima Power and Czarek Glowacki, Production Director at Artplex.





Prima Power Combi Sharp is a compact servo-electric machine that provides outstanding energy efficiency, low maintenance requirements, and a high speed of operation.

Prima Power's Combi Sharp allows us to execute projects faster while maintaining the highest quality standards, which are crucial for POS materials, where aesthetics and accuracy are priorities.



A JOURNEY OF GROWTH AND EVOLUTION

Founded in 2002 by Dorota and Jerzy Kalinowski, Artplex began as a small enterprise in Poland, just as the POS industry was emerging. "At the time, the POS market in Poland was just beginning, creating excellent opportunities for production," shares Jaroslaw Kasper, purchasing and logistics specialist at Artplex. "Starting with just two employees, the company has grown dynamically, now boasting a team of over 120 dedicated professionals." This journey reflects not only the growth of Artplex but also its ability to adapt to evolving industry needs. Artplex specializes in creating innovative and functional POS materials, including stands, displays, and promotional items tailored to diverse market needs. With a production capacity exceeding 2 million units annually and a strong export strategy (30-40% of their production) targeting primarily Western and Central Europe, the company serves clients in sectors ranging from FMCG (Fast-Moving Consumer Goods) and cosmetics to electronics and pharmaceuticals. "We're proud to collaborate with companies that aim to maximize sales results through creative and effective POS solutions," says Kasper.



Scan the QR code to watch the video interview.



OVERCOMING CHALLENGES IN A DYNAMIC MARKET

The POS industry demands high flexibility and precision, presenting challenges such as continuous adaptation to new trends and market demands, increasingly faster time-to-market, fluctuating raw material prices requiring constant negotiations and supply chain optimization, complex logistics, and growing sustainability requirements.

COMPANY HIGHLIGHTS

Artplex

LOCATION: Warsaw, Poland

FOUNDED: 2002

FIELD OF BUSINESS: Design, production and

implementation of permanent sales support materials.

PRIMA POWER MACHINERY

Combi Sharp punching-laser combined system



Combi Sharp allows Artplex to increase productivity and reduce costs, while maintaining the highest quality standards, crucial for the POS market, where aesthetics and accuracy are priorities.



With Prima Power, we've not only improved our operations but also reinforced our reputation for delivering innovative and sustainable POS solutions.



"One of our biggest challenges is adapting to the increasing demand for advanced, creative, and eco-friendly solutions," explains Kasper. "The need to deliver quickly for seasonal or promotional campaigns adds another layer of complexity, requiring streamlined processes and close collaboration with clients and suppliers."

Artplex addresses these challenges through strategic investments

in advanced technologies, lean manufacturing principles, efficient production planning and tracking, a modular production approach, and regular employee training to ensure high skill levels and alignments to new methods. "Our advanced ERP systems and open communication with clients allow us to meet diverse needs efficiently and ensure on-time delivery," Kasper highlights. "Modular production lines are core to customer satisfaction, enabling easy adaptation to different orders, from prototype to mass production."

PARTNERING WITH PRIMA POWER FOR PRECISION AND EFFICIENCY

"Artplex's partnership with Prima Power began three years ago, marking a decisive moment in its journey toward the modernization of our Płock facility," recalls Czarek Glowacki, production director at Artplex. The company chose the Combi Sharp machine, a highly versatile solution combining punching, laser cutting, forming, threading and marking. "We needed a machine that could deliver high accuracy for complex projects while aligning with our sustainability goals," continues Glowacki. "The Combi Sharp's advanced capabilities have been a game-changer for Artplex, enabling precise shaping and efficient material processing." "Prima Power's Combi Sharp allows us to execute projects faster while maintaining the highest quality standards, which are crucial for POS materials, where aesthetics and accuracy are priorities," states Kasper. "The machine's energy-saving features and reduced waste align seamlessly with Artplex's commitment to sustainable production. Its unmatched flexibility allows the company to handle both small and large series with ease, meeting client-specific needs."

TRANSFORMING OPERATIONS WITH PRIMA POWER SOLUTIONS

Before adopting Prima Power solutions, Artplex relied on older, less automated technologies, which limited its production capabilities. The transition to Prima Power's advanced machinery has significantly improved productivity, product quality, and cost-efficiency. "Its multi-functionality, including punching, cutting, threading, and forming, enables the production of diverse components in one process, saving time and increasing production efficiency," says Kasper. The ability to quickly change tools and program various machine operations allows Artplex to adapt production to diverse projects and fulfill a wide range of orders, from small series to large productions, without lengthy machine adjustments.

The benefits extend beyond the shop floor. With Prima Power's user-friendly control software, Artplex can program diverse tasks, optimize each production stage, and ensure consistent quality. "This level of automation and reliability minimizes downtime and supports our ability to deliver urgent orders promptly," adds Kasper.

BUILDING A STRONG PARTNERSHIP

Artplex's collaboration with Prima Power has been marked by professionalism and mutual trust. "From the initial needs analysis to operator training, Prima Power's team demonstrated exceptional support, technical expertise and openness to customer needs," notes Kasper. The responsiveness of the service team ensures that any issues are resolved quickly, minimizing disruptions to production.

The relationship extends beyond technical support. Prima Power's regular updates and commitment to understanding Artplex's unique challenges foster a long-term partnership. "We value their flexibility and dedication to helping us maintain our competitiveness in the POS market," Kasper emphasizes.

A COMPETITIVE EDGE IN THE POS MARKET

The introduction of Prima Power solutions has taken Artplex to new heights. Increased productivity, enhanced quality, and reduced costs and waste have strengthened the company's market position. "With Prima Power, we've not only improved our operations but also reinforced our reputation for delivering innovative and sustainable POS solutions," says Kasper.

As Artplex continues to grow, its partnership with Prima Power remains an important element of its success. "The **synergy between our vision and Prima Power's technology** drives our ability to meet the evolving needs of our clients and the market," concludes Kasper.

Prima Power Combi Sharp installed at Artplex is a multi-functional machine for punching, laser cutting, threading forming; it enables the production of diverse components in one process, saving time and increasing production efficiency.



CONNECTING AND AUTOMATING SHEET METAL PROCESSING: TULUS OF FICE

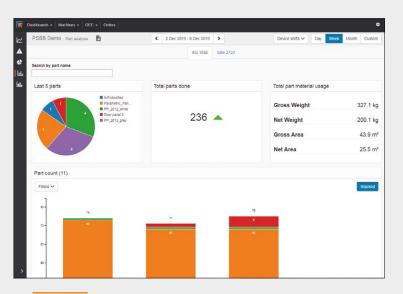
THE FUTURE OF SHEET METAL MANUFACTURING IS CONNECTED AND AUTOMATED

TODAY MANUFACTURING COMPANIES ARE NAVIGATING A PARADIGM SHIFT TOWARD FULL DIGITALIZATION

The key to maintaining a competitive edge is **integrating machines** and **software into a connected and automated All-in-One ecosystem**. Efficiently linking ERP systems, production planning, machine control, and monitoring ensures seamless production, reducing inefficiencies and maximizing performance.

Tulus Office: the digital core of smart manufacturing

To meet the evolving needs of modern sheet metal production, Prima Power offers **Tulus Office**, an advanced suite designed to bring full connectivity to manufacturing operations.



Tulus Analytics Parts Analysis: The dashboard displays detailed production data of individual pieces, including their quantities, material usage and processing distribution. This overview helps to assess efficiency and identify trends in part production over a selected timeframe.

Tulus Office is available in three versions, tailored for businesses of any size:

- Basic: Real-time machine status monitoring and order scheduling.
- Classic: Includes ERP connectivity for a seamless data flow between the management and shop floor.
- Premium: Encompasses automated CAM programming through NC Express, including dynamic nesting and parametric programming for unparalleled efficiency.

In addition to the Tulus Office platform, two additional optional web-based applications are available, offering advanced features to further optimize production management: Tulus Analytics and Tulus Terminal. These applications allow intuitive visualization of machine and production data through dashboards, improve production monitoring, enable manual task handling, and generate quality reports. These additional tools provide power and flexibility beyond the base functionalities of the platform.

Enhancing efficiency through integration and automation

The challenge of finding skilled operators is an increasing concern in the sheet metal industry. Tulus Office simplifies production through an intuitive, easy-to-use interface that minimizes manual work and lowers technological barriers. By automating NC programming it ensures seamless data flow from ERP to production, enhancing efficiency across various key performance indicators (KPIs):

- Shorter programming times
- Higher machine utilization rates
- Enhanced production scheduling and shop floor management







With Prima Power's software solutions, companies can harness digitalization, automation, and perfect integration to stay ahead in an increasingly competitive market.



Evolve by integration: Prima Power's promise to customers

The tagline Evolve by integration encapsulates Prima Power's strategic direction: not only integrating machinery into automated production lines but also creating a seamlessly connected digital workflow. This means bridging the gap between different technologies such as blanking, punching, and bending, while ensuring a smooth vertical integration from ERP systems to machine programming and shop floor operations.



Tulus Terminal Machine Status View: Empowers users with full control over the production shop floor by visualizing the status of every machine in realtime. Within the dedicated page for each machine, users can access detailed information, manage tasks, and oversee workload distribution efficiently.



Tulus Office Order View: Each order is broken down into multiple parts, requiring various processing tasks. These tasks, which can be either automatic or manual, involve CAM systems, machines, and operators working collaboratively on the shop floor.

A scalable future for every business

Tulus Office is designed to adapt to the specific needs of each manufacturer, whether a small workshop looking to improve scheduling or a large industrial player aiming for full automation. By enabling a step-by-step transition toward increased automation, it supports businesses in optimizing their production and achieving superior efficiency in every aspect of their operations.

With Prima Power's software solutions, companies can harness digitalization, automation, and perfect integration to stay ahead in an increasingly competitive market. Our integrated approach ensures that your production is not just connected, but truly optimized for the future.

