

# MASTERING CONTINUOUS FLOW TO LEVEL UP YOUR PRODUCTIVITY



Imagine a factory running at full capacity where machines work in perfect autonomy and synchrony, intelligent storage ensures materials are always in place, and integrated robotics seamlessly move parts from one stage to the next. Every component of production is coordinated, creating an efficient and continuous flow, all managed by a single software that provides real-time data.

This is not a vision of the future: it's happening today. Our customers around the world are experiencing **the transformative power of automating material flow**. The benefits are clear: reduced cycle times, enhanced safety, minimized waste, and greater sustainability.

At Prima Power, our commitment, summed up in "Evolve by integration", is to provide dynamic and modular sheet metal working solutions that connect every step of your production process and level up manufacturing performance. This evolution is scalable, allowing you to add elements as your production grows, adapting to new needs.

In this issue of Power Line, we bring you inspiring stories from companies such as Prática in Brazil, Proslat in Canada, EPTA Gruppo in Italy, PRP in Finland, and TDL Industries in France. Each of these manufacturers has embraced our systems to **elevate** 

their production capabilities and achieve new levels of efficiency and flexibility. Their experiences show how Prima Power's solutions drive productivity and open doors to market growth. Powered by a common software ecosystem, our solutions create a unified production flow that maximizes efficiency, reduces errors, and ensures flexibility. This "All in One" approach meets the evolving demands of modern manufacturing, keeping our customers ahead in an ever-changing industry.

Together, we are not just keeping up with the flow - we are

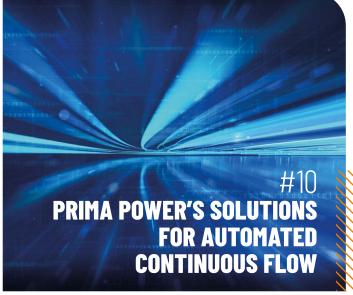
mastering a continuous flow.

Our customers around the world are experiencing the transformative power of automating material flow. Together, we are not just keeping up with the flow we are mastering a continuous flow.

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#14















#### **POWER LINE**

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#### How to choose the right automated material flow systems for today's manufacturing needs?

Antti Kuusisaari, Vice President global System and Automation sales

When choosing automated material flow solutions, several key factors must be considered to ensure they meet your business needs. Automation should **support order-based kit production**, efficiently handling diverse production requirements with sheet-by-sheet operations. For instance, the buffering system has to balance production time differences between various technologies to avoid bottlenecks, keeping part flow as smooth and fast to ensure efficiency, all while meeting output goals.

Modern automation relies heavily on software, supporting hardware by streamlining operations and automating the whole production process, from the back-office to the factory floor.

This integration eliminates manual data entry and facilitates easy information transfer among orders, production tools, and office systems to optimize decision-making and operational efficiency. Furthermore, centralized management, enabled by advanced software, provides a comprehensive view of the factory and the production flow, streamlining the manufacturing process.

And because quality also demands **robust traceability**, the chosen solutions should allow precise tracking of materials and parts throughout the manufacturing ecosystem, regardless of its complexity, **to ensure an efficient and accurate production flow**.

The **adoption of robotics**, including industrial robots, Automated Guided Vehicles (AGVs) and Autonomous Mobile Robots (AMRs), is also on the rise, improving material movement and overall

efficiency within factories. The chosen solution should have native integration as a cornerstone feature to easily incorporate different automation and robotics systems.

In the current scenario, systems need to be **easily scalable to accommodate increased production demands**, enabling
a **sustainable business growth** that meets today's needs and
investment opportunities, and paves the way for future evolution.

Finally, **sustainability** is still a priority: technologies must be energy efficient and support raw material savings to minimize waste, reduce costs, and align with environmental goals.

**Antti Kuusisaari**, Vice President global System and Automation sales at Prima Power



What are the main automated material flow solutions at Prima Power?

Oskari Haiminen, Systems and Automation Product Manager

Automated material handling is deeply embedded in our DNA. At Prima Power we have been pioneers in automated manufacturing (our first automated storage dates back to 1991) and we offer one of the most comprehensive ranges of sheet metal automation solutions on the market.

We provide automated material handling solutions for a wide range of machines, including 2D lasers, punching machines, and combined punch+shear and punch+laser machines, covering every aspect of the continuous flow of materials (from storage, to material loading, part picking and stacking, part and skeleton unloading), guaranteeing efficiency and accuracy at all steps of the production.

With our modular approach, customers can gradually adopt automation, ensuring scalable growth and seamless integration. In addition, the durable design and upgrade possibilities extend the lifecycle of our solutions. By updating controls and electronics, we keep manufacturing systems up to date with the latest features, supporting long-term sustainability and operational efficiency.

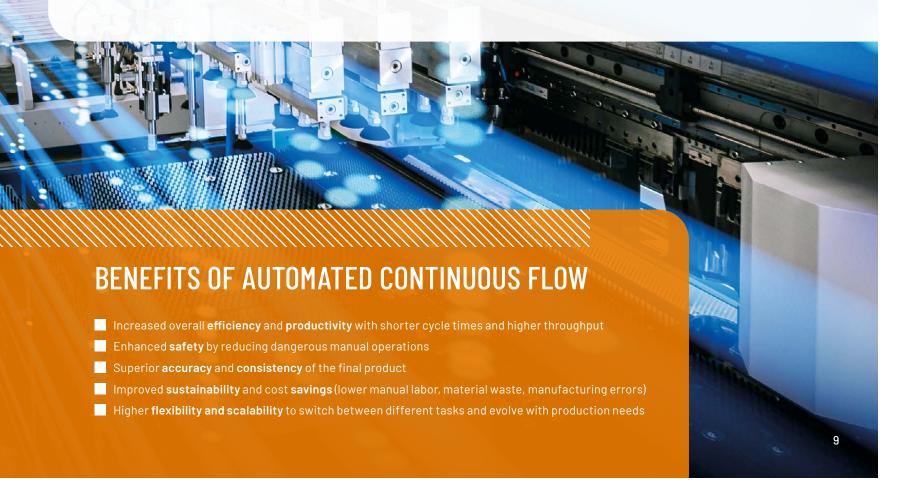
Our systems can handle a wide range of part sizes, material thicknesses, and weights, delivering **industry-leading cycle times** 



Oskari Haiminen, Prima Power Systems and Automation Product Manager

and performance metrics. Prima Power's integrated in-house automation and software solutions allow 100% part traceability, with every sheet, part, and component accurately tracked through each stage.

Thanks to our **software automation**, businesses can leverage a comprehensive ecosystem to **improve profitability** and **streamline processes across the entire production flow**, from production planning to machine programming and operation, ensuring the highest level of control.



# PRIMA POWER'S SOLUTIONS FOR AUTOMATED CONTINUOUS FLOW

PRIMA POWER OFFERS A WIDE RANGE OF MATERIAL HANDLING DEVICES WITH VARIOUS LEVELS OF AUTOMATION THAT CAN BE CONNECTED TO STANDALONE MACHINES OR INTEGRATED INTO PRODUCTION LINES TO ENSURE A STREAMLINED MATERIAL FLOW.



### **LOAD/UNLOAD**

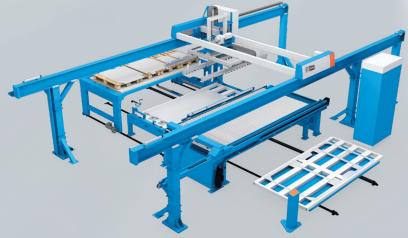
Automatic Sheet Loading and Unloading Systems: fully integrated systems offering efficient, economical, and space-saving automation for stand-alone machines.

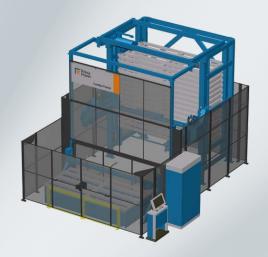
Compact Express for punching and combined machines, Compact Server for 2D lasers.

## **PICK & STACK**

Part Picking and Stacking Devices:

high-performance, efficient, and flexible solutions for part loading, picking and stacking. LST for punching machines or combined machines, LSR for punch-laser combined machines or 2D lasers.





## **STORE**

**Storage Systems:** serving as raw material towers with built-in features for sheet loading and unloading. They also provide storage for cut parts and can be connected to a second machine and to a Night Train system.

Combo Tower for punching machines or combined machines,

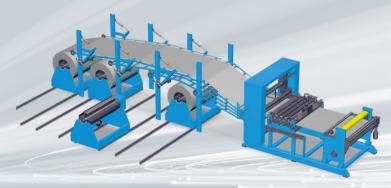
Combo Tower Laser for 2D laser machines,

**Fast Loading Storage** sheet-by-sheet economical solution for fast raw material changes.

### **ROBOTIZE**

Industrial Robots: can be connected to machines such as press brake cells or panel benders. These robots automate part loading and unloading, and the integrated software controls production, enabling the connection of manual machines to a larger automated system.





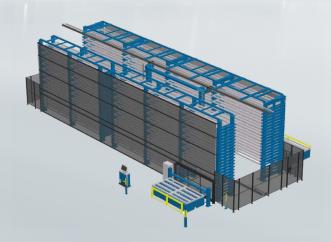
### **FEED**

**Cut-To-Length Lines:** take material directly from the coil, featuring a complete integration with Prima Power's systems, from CAM to the user interface. Direct coil line nesting ensures sheets are always produced according to required sizes, maximizing material usage.

## **CONNECT ALL**

#### Night Train FMS®:

Intelligent warehouse system that can handle three different sizes of material cassettes and can be connected to almost all Prima Power products and automation devices. Its modular design allows for step-by-step expansion, connecting all machines.



#### WHY CHOOSE PRIMA POWER FOR AUTOMATED MATERIAL HANDLING?

- 1) 100% integrated software and manufacturing machines to complete 24/7 automated production, for kit, batch and mass production.
- 2 Reduction of manual operations with low added value, granting **production efficiency** 60% higher than manually operated machinery.
- The largest stacking area available on the market, up to 48 m².

# TURNING ARCHITECTS' WISIONS INTO REALITY

# AN INTERVIEW WITH MR. JUKKA-PEKKA VIITA BUSINESS DIRECTOR AT PRP, A FINNISH SHEET METAL PRODUCTS MANUFACTURER ON THE MARKET FOR OVER 35 YEARS

BASED IN SEINÄJOKI, FINLAND, POHJANMAAN RAKENNUSPELTI OY (PRP) WAS ESTABLISHED IN 1987. INITIALLY, THE COMPANY FOCUSED ON METAL STRIPS, ROOFS, RAINWATER SYSTEMS AND ROOF SECURITY PRODUCTS. AS THE MACHINERY INCREASED, PRP EXPANDED ITS BUSINESS TO SHEET METAL PRODUCTS MANUFACTURED IN-HOUSE.

In 2015, PRP joined the Duuri Group, extending into metal cladding for building façades. By 2017, with major equipment investments, PRP emerged as a leading manufacturer of metal cassettes in Finland, also introducing ProCab products to the market.



#### What are your company's core areas of expertise?

We specialize in large metal façades, innovative sheet metal products, and customizable industrial protection solutions called ProCab, which protect people and machines from noise, dust, heat, and other hazards in working environments.

For building façades, we collaborate with prominent Finnish architects to assess the feasibility of their projects, discussing materials, sizes, colors, and techniques to suggest ideal solutions. We also worked on the façade of the Prima Power facility in Seinäjoki.

#### In your opinion, what are the major technical challenges in sheet metal working?

First of all, **perforation can be challenging**, especially when a high number of holes per square meter is required, as with stainless steel, which is is a very hard material.

Large cassette sizes can also be challenging, and they are also increasingly demanded.

Furthermore, many of our projects are unique, which means we need to maximize production efficiency, as this often requires producing pieces one by one.

#### What do you consider to be your main competitive advantages?

We are a design, manufacturing, and installation company all in one: our integrated approach makes it easier for our customers to do business with us. We have our own product designers, engineers, and modern machinery, which guarantees high quality in a wide range of projects. For example, in the field of façades, our versatile machinery and extensive experience enable us to meet technically challenging design and aesthetic requirements, bringing architects' visions to life.

Marinranta car park, Espoo. Materials: Perforated aluminium magnesium alloy elements, PRP10 cassettes of Cor-Ten steel





Our versatile machinery and extensive experience enable us to meet technically challenging design and aesthetic requirements, bringing architects' visions to life.



Jukka-Pekka Viita, business director at PRP

You worked on the façades of Fyyri, the main library of Kirkkonummi, which won the Finlandia Award for Architecture in 2021. How was that experience for you?

Fyyri was a very interesting, impressive project, where high quality materials have been used, like copper, stainless steel and brass. The project was characterized by complex details and architecture. The façade is entirely made of copper, with around 25 tons of sheets. It was built with a large number of panels, with different shapes, many of which were crafted individually. Plus, we used sophisticated bending techniques to achieve a seamless look around the corners.

Due to the specific requirements of this façade, the installation was also challenging. This has been the biggest copper project we have worked on.

#### What has been your most challenging project to date?

I'd say it was the Clarion Hotel next to Helsinki airport, one of our latest projects. The architects required very big metal cassettes (about 4 meters in length), something that not many of our competitors are able to provide.

We have excellent machinery that allows us to produce such large cassettes, ensuring high quality and aesthetic appeal.

For this project, we used our Prima Power punching and bending machines, as well as press brakes. The project required highquality perforation with a dense pattern of holes. Also, the static analysis of the façade was demanding, requiring a lot of time from our engineers to ensure structural stability and safety. Before starting, we prepared a few samples for the architects, who were thrilled with the quality and aesthetic. From there, everything fell into place. We're particularly proud of this project.

#### How has the collaboration between PRP and Prima Power evolved over the years?

Our partnership with Prima Power started about ten years ago, and further strengthened in 2017 with new machine investments. We also worked together on developing Procab products for sound protection for Prima Power machines. As a result, Prima Power has become a very important partner for us.

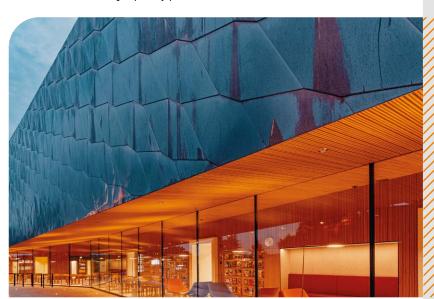
The advanced machines from Prima Power have given us the opportunity to create high-quality, eye-catching cassettes with a variety of metal components. Overall, this collaboration has

boosted our manufacturing capabilities and helped us offer even better solutions to our clients.

#### How does your company incorporate sustainability into its business practices?

We are proud members of the Green Building Council Finland (FIGBC). Our commitment to the environment starts right from the design stage. For example, we carefully plan the dimensions of sheet blanks to make sure we use materials efficiently and cut down on waste.

We also focus on choosing eco-friendly raw materials and are meticulous about sorting and recycling metal waste. Plus, we use Prima Power Green Means systems to improve energy efficiency. These efforts help us reduce our environmental impact and ensure we deliver high quality products.



Kirkkonummi main library, Fyyri. Materials: Copper panels and black anodised aluminium slats, custom perforated. Brass interior details

#### PRIMA POWER MACHINERY UTILIZED BY PRP

- Shear Brilliance SBe8 punch+shear system
- Fast Bend 6 servo-electric panel bender
- Press brakes

# A REÇIPE FOR INNOVATION: PRATICA'S SUCCESS WITH PRIMA POWER

# A BRAZILIAN LEADER IN BAKERY EQUIPMENT PARTNERS WITH PRIMA POWER TO DRIVE EFFICIENCY AND EXPANSION

PRÁTICA'S PARTNERSHIP WITH PRIMA POWER HAS DRIVEN MAJOR ADVANCEMENTS IN THEIR PRODUCTION, INCLUDING NEW AUTOMATION SYSTEMS AND GLOBAL GROWTH.

Prática, a Brazilian company specializing in industrial bakery and kitchen equipment, provides more than just enhanced kitchen productivity. This expansive 20,000 m² facility has continuously adapted to decades of technological advancements, economic changes, and unwavering dedication to its mission: to help clients prepare high-quality food without waste.



Luiz Rezende, Prática General Manager and André Simon, Prima Power Country Manager South America



Led by Luiz Rezende, the Pratica team hosts Prima Power South America's potential clients for an Open House event prosperous with automated material flow

From a humble beginning in Pouso Alegre, Prática has turned into a major player in the global food processing equipment market. The company's journey reflects resilience, Brazilian pride, and its commitment to industrial progress.

Founded in 1991 by entrepreneurial brothers Luiz and Andre Rezende, Prática Brazil emerged from their shared passion for energy-efficient bakery equipment and sheet metal fabrication. They recognized the economic fluctuations and constant challenges posed by energy pricing on food processors' profitability. Although imported equipment was reliable, they saw manufacturing equipment in Brazil as a way to create positive opportunities for the industry.

#### REDEFINING BRAZILIAN KITCHEN MANUFACTURING

Prática's core values of innovation and willingness to improve found a new solution in mid-2004 when a trusted distributor introduced Prática's team to Prima Power machinery. At the time, Luiz Rezende, who was managing a smaller family-owned shop, acquired a CO<sub>2</sub> laser cutter. This machine made a big difference, ramping up productivity and driving growth.

The Rezende brothers' dedication to the business always involved reinvesting into the operation. By 2006, Prática was expanding to include a cooking area, almost like a lab, to enhance and perfect the practice of bakery manufacturing. This led the management team to invest in additional equipment from the same supplier,



The adoption of the Prima Power Night Train FMS was a breakthrough success in production speed, advanced storage control, employee safety, and process modernization.



#### **COMPANY HIGHLIGHTS**

#### Prática Produtos S/A

LOCATION: Pouso Alegre, MG, Brazil

**FOUNDED: 1991** 

FIELD OF BUSINESS: industrial bakery and kitchen equipment

#### **PRIMA POWER MACHINERY**

- Night Train FMS
- Fast Bend FBe bending center (fully automated)
- LPe combined punch+laser system
- Shear Genius combined punch+shear system
- Laser Genius+ 2D laser machine

#### **CUSTOMER STORY**

a C5 turret punch press. All Prática-manufactured equipment needed holes, louvers, and vents. The C5 improved the quality and speed of all punching operations. Partnering with Prima Power fostered a new era of production flow for the Brazilian manufacturer.

#### **AUTOMATION, PRÁTICA'S RECIPE FOR INNOVATION**

"By establishing a productive and profitable partnership with Prima Power, Prática propelled its manufacturing process into a new era, characterized by advanced automation", explained Luiz. With increased sales and plans to automate the entire factory process, in 2012 Prática sold its entry-level machines and geared up for the next level of productivity.

Collaborating with the Prima Power technical and sales team, Prática further enhanced its processes with automations. The company successfully installed the Night Train FMS along with the fully automated FBe Bending Center, the LPe (Laser Punch Combi), and a Shear Genius. This fully-automated system was the first of its kind for the Brazilian market. According to Luiz: "The adoption of the Prima Power Night Train FMS was a breakthrough success in production speed, advanced storage control, employee safety, and process modernization."

The recently upgraded Night Train FMS, along with the fully automated FBe bending center, LPe Laser-Punch Combi, and Shear Genius, seamlessly integrate to handle multiple complex orders efficiently

These decisive investments allowed the company to establish dominance in the market with its robust line of innovative ovens for the industrial and bakery sectors. The expansion propelled Prática onto the global stage, opening subsidiaries first in neighboring Chile and later in the flourishing United States.

#### Strengthening production with local service support

Prática has set up a local technical assistance and maintenance agreement focusing on preventive maintenance. By regularly collaborating with local Prima Power technical support, they optimize spare part efficiency and address issues effectively. "Along with consistent data on production efficiency without material losses and rework costs, we appreciate the local service support," adds Luiz.



By upgrading the original Night Train's hardware and software, we gained additional raw material capacity, finished or semi-finished part buffering space, and enhanced material handling for the updated production flow.





Prática specialises in industrial bakery and kitchen equipment

#### LOOKING AHEAD: PRÁTICA'S PLANS FOR GROWTH

Today, Prática champions its capabilities not only through modular upgrades to their manufacturing line but also by **sharing the productivity benefits of Prima Power equipment with other Brazilian manufacturers.** In 2023, Prática advanced further by investing in multiple upgrades to its manufacturing line. "By upgrading the original Night Train's hardware and software, we gained additional raw material capacity, finished or semi-finished part buffering space, and enhanced material handling for the updated production flow", points out Luiz.

In late 2023, Prática showcased its dedication and partnership with Prima Power South America by hosting an Open House at its flagship factory. Luiz spent the day with the Prima Power team and prospective clients, demonstrating how the equipment enhanced operations. Through plant tours, discussion sessions lead by Edgar Carvalho, Pratica's Printing supervisor, and a live

look at process efficiencies, it was clear that Prática and Prima Power are a recipe for productivity. Luiz highlighted the newest equipment addition, The Laser Genius+, discussing its speed, enhanced automation, and how its quality supports the final product's assembly.

The roster of Prima Power assets at Prática continues to expand its capabilities and output. In addition to showcasing the new laser, Prática's Industrial Director, Douglas Vale, demonstrated their two new servo-electric press brakes for larger parts.

The fully servo-electric eP brakes are efficient and have low energy consumption, fully aligned with Prática's commitment to environmentally conscious processes.

Prática is a modern model for forward-thinking manufacturers, showcasing pride in Brazilian manufacturing with sophisticated and efficient industrial kitchen products. Guided by strong values, a steadfast commitment, and the mission to help clients prepare quality food without waste.



The Shear Genius combined punch-shear system is a staple for manufacturers who need application flexibility, such as right-angle blanking and dynamic punch capabilities. It is a key ingredient in boosting productivity in sectors utilizing rectangular end components

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Scan the QR code to watch the video interview.



# EXPANDING CAPACITY WITH AUTOMATED BENDING

# A FRENCH SHEET METAL BUSINESS INVESTS IN ADVANCED TECHNOLOGY TO BOOST PRODUCTION AND REACH NEW MARKETS

Extract from an article written by Vincent Lebugle and published in Tôlerie.

TDL INDUSTRIES' NEW PRIMA POWER EBE 3320 PANEL BENDER HAS ENHANCED EFFICIENCY AND EXPANDED THE COMPANY'S CAPABILITIES FOR LARGE-SCALE PROJECTS.

Tôlerie de la Loire, a long-established sheet metal company based near Nantes, has been operating under the name TDL Industries and the guidance of Thomas Chaillou since 2013. Chaillou, one of the new owners who stepped in during a tough time for the company, has led a remarkable turnaround. This

transformation involved a major investment in cutting, bending, and painting technologies. A standout addition to their operations is the Express Bender EBe 3320 panel bender. It comes with an automatic loading system and a range of bending options, making it adaptable to many different tasks.

"Before we took over, Tôlerie de la Loire was focused on subcontracting small runs and specialized parts, what we often call 'five-legged sheep' in the industry. We decided to move away from that model and invest heavily to reposition TDL Industries into key areas like industrial subcontracting, construction, and tier 2 aeronautics," says Thomas Chaillou, the company's president.



The Express Bender EBe 3320 panel bender installed at TDL Industries is equipped with an automatic loading system. Courtesy of Tölerie



The turning device system places the burr in the correct direction before bending. Courtesy of Tôlerie



We have just completed the façade for the Pleyel Tower in Paris. It's a 140-meter-high building with  $32,000 \text{ m}^2$  of cassette panels. Prima Power EBe 3320 panel bender's high production capacity was perfect for this project.



On the Express Bender installed at TDL, bending is fully automated and does not require any operator intervention. Courtesy of Tôlerie



This shift in strategy led to the acquisition of the Prima Power EBe 3320 panel bender. TDL Industries is especially focused on the technical façade market. "We don't just manufacture cladding; we produce cassette-type elements, which are more advanced both technically and aesthetically. For instance, we have just completed the façade for the Pleyel Tower in Paris. It's a 140-meter-high building with 32,000 m<sup>2</sup> of cassette panels. Our new machine's high production capacity was perfect for this project," Chaillou explains.

#### **BOOSTING PRODUCTIVITY AND COMFORT WITH NEW MACHINERY**

The investment in new machinery has really paid off in terms of productivity and operator comfort. "Our clients often need large metal panels that are tough to bend with traditional methods. We used to rely on a flat bending machine, which didn't work well for big parts. So, we went for a more automated solution with a panel bender equipped with a piece manipulator and automatic loading system. This setup helps us produce with predictable and regular cadences, making it easier to meet deadlines," confides Thomas Chaillou.

#### **COMPANY HIGHLIGHTS**

#### **TDL Industries**

**LOCATION:** Carquefou, France

**FOUNDED: 2013** 

FIELD OF BUSINESS: industrial subcontracting,

construction, tier 2 aeronautics

#### **PRIMA POWER MACHINERY**

■ EBe 3320 panel bender with automatic loading system



A piece accumulation zone allows the operator to have time between unloading phases. Courtesy of Tôlerie



Our clients often need large metal panels that are tough to bend with traditional methods. So, we went for a more automated solution with a panel bender equipped with a piece manipulator and automatic loading system.



Another big advantage is the reduction in the number of operators needed to operate the machine. "Previously, in many cases, bending large pieces needed two operators. Now, just one person can manage the entire process. The operator places the pallet with the pieces to be bent under the loading system and retrieves them bent at the exit to place them on a pallet," Chaillou explains. This change also offers ergonomic benefits: "Operators don't have to manually handle the pieces as they did with a press brake. This means less fatigue and fewer shoulder pains," he adds.

#### TOWARDS NEW MARKETS WITH ADVANCED PANEL BENDING

From a business perspective, this advanced panel bending system offers TDL Industries a competitive edge. "The machine lets us explore new markets more flexibly and handle large volumes quickly. Although it's not yet fully utilized, we're currently looking to develop the industrial sector for this machine to achieve a more regular load. Meanwhile, our work on the Pleyel Tower façade has

really put us on the map in the façade industry," Chaillou says with pride.

The machine's parametric programming system is especially useful. "Once we've programmed a piece type, it's easy to adjust for different dimensions. Programming is done remotely from a STEP file, making it efficient for smaller batches," Chaillou explains. "The Prima Power software automatically proposes a bending order and a basic program, which we can tweak for optimization. Although programming this machine requires navigating more sophisticated features compared to a press brake, it's manageable."

#### **GAINING EXPERTISE THROUGH SPECIALIZED TRAINING**

While programming this machine may be challenging, it is well within reach with proper training. Yoann Guillard from Prima Power explains, "Mastering this machine involves more than traditional bending. Unlike conventional methods with a punch and die, this machine lets you rotate the sheet and move the blades during bending. It's a sophisticated shaping process, not just simple bending."

At TDL Industries, the approach includes specialized training.

"We've trained two people in programming and two more in operating the machine. Operators focus on loading, unloading, and selecting programs, while the real expertise comes from the Methods Office. Our programmers get better over time by learning to optimize the machine's capabilities," Chaillou explains. Adrien Demange, a TDL Industries programmer, adds, "Effective programming requires understanding bending sequences and logic. The software provides safety features and cycle proposals for box-type parts. For more complex parts needing extra tools, the operator's expertise is crucial."

#### A STRATEGIC INVESTMENT IN ADVANCED MACHINERY

TDL Industries' investment aligns with its long-term vision. "By choosing a machine that can handle up to 3,300 mm long formats, automating its operation, and adding advanced options, we wanted to ensure we're not limited by technical constraints in future markets. There aren't many machines with these capabilities in our region, which is another differentiating factor for clients seeking proximity and wanting large panels produced," Chaillou notes.

In this configuration, the automatic loading system accommodates multiple part references in the gripping area, enabling the processing of large formats or several smaller parts. During the cycle, parts are transferred to the turnover cradle. "Depending on the requirement, the part either goes directly to the panel bender or is turned to reverse the burr direction before bending, ensuring the highest quality standards," concludes Thomas Chaillou.



Thomas Chaillou, president of TDL Industries, with Yoan Guillard, sales manager at Prima Power France



Previously, in many cases, bending large pieces needed two operators. Now, just one person can manage the entire process.



The machine is equipped with a piece manipulator and automatic loading system and can handle formats up to 3,300 mm long



# TRANSFORMING MANUFACTURING IN NORTH AMERICA

# PROSLAT INTEGRATED ADVANCED AUTOMATION TO ACHIEVE A BALANCED PRODUCTION FLOW AND EXPAND RETAIL OPERATIONS

A version of this article was also published in Canadian Fabricating & Welding: Reshoring with the right tools

THE CANADIAN COMPANY'S INVESTMENT IN PRIMA POWER TECHNOLOGY HAS GREATLY ENHANCED EFFICIENCY AND SET THE STAGE FOR RESHORING MANUFACTURING JOBS IN NORTH AMERICA.

Reshoring manufacturing jobs is a key goal for boosting North American industry. Although it's challenging and not guaranteed, with proper investment in technology and planning, success is possible. Proslat, based in Valleyfield, Quebec, is a prime example of this success.

Proslat, founded in 2010, manufactures garage organization systems like slatwall panels, overhead racks, storage lifts, cabinets, and tool chests. Initially, they outsourced manufacturing to China but now handle it in North America. "In 2017, we didn't have the volume to justify local manufacturing," said founder Eric Letham. "Even now, it's a gamble, but I knew it was worth trying."

Letham identified an opportunity: "Chinese products vary in quality, and our North American competitors are not as automated as they could be." He aims to offer a competitive yet more affordable alternative. "Our competitors make 80 cabinet boxes a week with 30 employees; we make 80 a day with 7. Yes, we had to invest in technology, and yes, it will always need maintenance. But the efficiency we have is second to none."



Eric Letham, President and CEO of Proslat Inc., and Mike Presseau, VP of Operations, lead their team with efficiency and employee focus. They consistently reinvest in their operations and staff



Our competitors make 80 cabinet boxes a week with 30 employees; we make 80 a day with 7, the efficiency we have is second to none.



Optimizing production with automated cutting and bending At Proslat, manufacturing begins with the Prima Power PSBB line, which automatically turns blank sheets into high-quality, bent components. The system's flexible material flow optimizes manufacturing costs and throughput. For smaller parts, Proslat uses a Prima Power eP 0520 electric press brake. After cutting, punching, and bending, parts are welded and sent to the paint booth, primarily using 20 to 14 ga. cold-rolled steel and 16 ga. stainless steel.

"Prima Power's equipment is essential for us, converting sheet metal to finished parts swiftly," Letham said. "One person handles the shear, punch, and bend processes while another manages the press brake, welding, and painting. We achieve a fully welded and painted cabinet box with just two or three people. Speed is key; Manufacturing leaders know that day shifts are the most profitable, and night shifts are less efficient. We plan to shift from four 10-hour

Proslat has perfected the flexible material flow of the PSBB line by precisely monitoring each output to the second, enabling the optimization of every transition for a seamless, well-coordinated process that maximizes throughput

shifts to three 12-hour shifts to improve work-life balance."

Proslat runs the PSBB unmanned overnight for large orders, monitored via cameras. However, some parts are too small for the PSBB, so Proslat has invested in a new Prima Power Platino Linear, a highly productive and compact 2D Laser with load-unload capabilities. "The laser will help with parts the PSBB struggles with and will significantly boost our production speed," Letham added.

#### **COMPANY HIGHLIGHTS**

#### **PROSLAT**

LOCATION: Salaberry-de-Valleyfield, Quebec, Canada

FOUNDED: 2009

**FIELD OF BUSINESS:** residential and commercial garage organization systems

#### PRIMA POWER MACHINERY

- PSBB line including Shear Genius combined punch+ shear system and EBe 2220 panel bender
- eP 0520 servo-electric press brake
- Platino Linear 2D laser machine



The Part Picking and Stacking Devices maintain a buffer zone for semi-finished parts, which ensures a smooth and continuous manufacturing flow

#### ACHIEVING A BALANCED PRODUCTION FLOW

Letham aims to set realistic production targets with the current team size. "I want to be able to tell my team, 'This week, the steel budget is 100,000 lbs. Hit that target, and everyone gets a bonus," Letham said. "A smaller team is more flexible but must pivot quickly without losing quality."

Proslat's compact production line moves parts from the PSBB or press brake via conveyor to a nearby weld cell, then to the paint booth, and finally to an assembly conveyor at a comfortable height for workers.

"Adding technology to a tight line is challenging, but we've made space for it," Letham noted. "For instance, we used to rivet drawers, but it was slow and problematic. Now, the PSBB bends a drawer in about 35 seconds, and the welder takes about 40 seconds, removing a previous bottleneck. Small time differences can create backups, but we balance this with efficient shell runs."

#### **MASTERING AUTOMATION**

Thomas Fournier, hired before the PSBB installation, is crucial for Proslat's efficiency. "He's eager to learn," Letham said. Fournier handles robot and PSBB maintenance and programming. "I enjoy working with machines and robots," Fournier said. He received training from Prima Power on the PSBB and EBe. "Prima Power's service has been excellent, though mastering the machines takes time."

We achieve a fully welded and painted cabinet box with just two or three people.

Speed is key



Fournier manages stock flow through the PSBB, which isn't fed by a tower, creating potential bottlenecks. "Balancing it is tough," he said. "You adjust, but efficiency stays the same." The new laser and the relocation of the press brake will help streamline the process, especially for smaller parts.

Fournier also sees potential for increased PSBB output. "We typically run at 50 to 75 percent capacity and still get surpluses. I could push more, but balancing the line is more crucial."

#### STRENGTHENING MARKET REACH THROUGH STRATEGIC RETAIL EXPANSION

**Letham aims to minimize work-in-progress on the floor.** "I didn't invest in a Night Train system because I want material to be either in sheet metal or fully painted and ready for shipping," he said. "We keep minimal stock of pre-paint doors while deciding on their color to avoid excess inventory."

Next, Proslat plans to be the first garage cabinetry manufacturer to sell directly to retail, opening six stores this year in Scottsdale, Dallas, Boca Raton, Columbus, Las Vegas, and Long Beach. "We're focusing on the southern US due to its strong car culture," Letham explained. "We believe these areas have the customer base we need."

This expansion highlights the importance of the Valleyfield operations. "If we do well, we'll become the 'Apple Store' of garage organization," Letham said. "Opening our stores will allow us to offer direct installation services. Our goal is to integrate our products into new homes, ensuring people think of our cabinets and toolboxes, knowing they'll be professionally installed." Maintaining high product quality will help Proslat attract and retain customers, proving that delivering quality products at competitive prices in North America is possible.

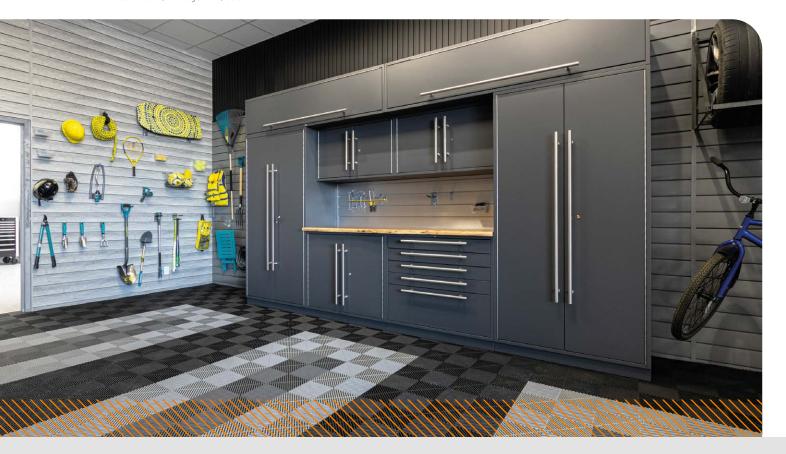
The PSBB bends a drawer in about 35 seconds, and the welder takes about 40 seconds, removing a previous bottleneck.





The servo-electric Express Bender automatically turns blanks into high-quality bent components. Perfect for bending deep drawers and cabinets

Proslat manufactures garage organization systems such as slatwall panels, overhead racks, storage lifts, cabinets and tool chests



# GAINING COMPETITIVENESS THROUGH AUTOMATION

# HOW EPTA GRUPPO'S PARTNERSHIP WITH PRIMA POWER IS DRIVING ITS INDUSTRIALIZATION AND GROWTH

Extract from an article published in Lamiera magazine.

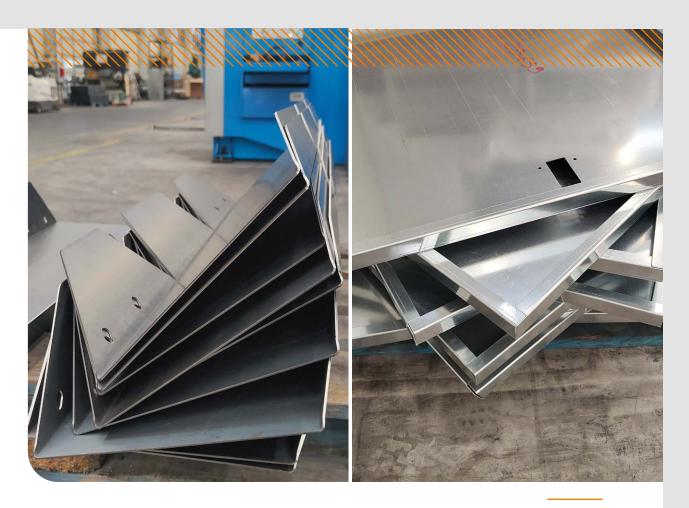
THE ITALIAN GROUP HAS INTEGRATED PRIMA POWER MACHINERY TO STREAMLINE ITS MANUFACTURING FLOW, SIGNIFICANTLY ENHANCING COMPETITIVENESS AND CUSTOMER SATISFACTION.

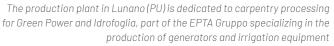
EPTA's success arises from its commitment to innovation, exemplified by its partnership with Prima Power. The PSBB line boosts sheet metal processing, highlighting EPTA's role in enhancing production efficiency and flexibility for varied customer needs.

EPTA, meaning 'seven' in Greek, refers to the number of founding partners. Now a colossus with an annual turnover of over 250 million, EPTA was born in the late 1980s from the Brugnettini family's entrepreneurial vision. They founded Idrofoglia, specializing in irrigation systems, motor pumps, and fire-fighting units. "As time passed," says Alberto Brugnettini, managing director at Green Power Systems, "we realized that relying on a single market was risky, so we expanded our expertise into new sectors. This led to the establishment of Green Power Systems, specializing in the production of generators; Modula, focused on the thermoforming of plastic materials; and other companies in the early 1990s, which are now unified under the EPTA Gruppo umbrella."

Green Power System, an EPTA Gruppo company, is a leading manufacturer of generators with a strong focus on in-house component production







Prima Power's technology has been crucial in our growth and flexibility, enabling us to become the leading company we are today.





#### **COMPANY HIGHLIGHTS**

#### **EPTA GRUPPO**

LOCATION: Lunano (PU), Italy

**FIELD OF BUSINESS:** Irrigation machines, generator sets, thermoforming solutions for plastic, etc.

#### **PRIMA POWER MACHINERY**

- Laser Genius+ 2060 2D laser cutting machine PSBB line including:
- Shear Genius SG 1540 punching and shearing
- Express Bender EBe 3320 panel bender
- PSR robot

"Green Power Systems has 150 employees, with 100 in production", Brugnettini adds. "Our strength lies in our extensive sales network and ability to provide off-list products. Our core value is responsiveness to customer requests. This has led us to expand into standby, agriculture, oil and gas, residential, and other sectors, enhancing our customer satisfaction and competitiveness." Idrofoglia, another Group company where sheet metal machining is key, attributes this success to EPTA's philosophy, based on two key principles: internalizing most processing and flexible production for both large batches and customized needs.

#### IN-HOUSE PRODUCTION WHEREVER POSSIBLE

Green Power and Idrofoglia have largely internalized their machining operations. In-house production allows to meet customer requests promptly, avoiding reliance on third-party schedules.

#### **CUSTOMER STORY**

EPTA has allocated about 20,000 square meters at the Lunano (PU) plant for carpentry, despite different production needs between Idrofoglia and Green Power. The Group carefully selects suppliers who align with their values of customer focus, innovation, and in-house production.

"We've worked with Prima Power for many years," says Manuel Polverini, EPTA Gruppo production manager. "Their cutting and forming technology has been crucial in our growth and flexibility, enabling us to become the leading company we are today. We value their continuous innovation and ability to listen to our needs."

#### A PARTNERSHIP WITH SHARED VALUES

In the EPTA carpentry area, the Laser Genius+ 2060 laser cutting system with a 10-kW fiber source and the PSBB automated production line are used. The Laser Genius+ 2060, ideal for Idrofoglia's thicker materials, offers high speed and precision, processing up to 30 mm of steel with a repeatability of 0.03 mm. The PSBB line, central to EPTA's industrialization efforts,

The PSBB line not only overcomes production obstacles but optimizes material flow and improves batch management and delivery times

integrates a Shear Genius SG 1540 punching and shearing unit with an Express Bender EBe 3320 panel bender, supported by a sheet metal storage and a PSR robot. This setup automates the production of punched and bent panels and offers flexibility, allowing machinery to operate in series or feed semi-finished products.

"The PSBB line not only overcomes production obstacles but optimizes material flow and improves batch management and delivery times", Polverini adds. "The laser offers flexibility, and adding the punching machine and PSR has significantly increased productivity and industrialized our processes."

Polverini concludes, "The PSBB line has also redefined our approach to custom products, enabling us to produce standard components and assemble them in order to meet customization needs."

#### **USER-FRIENDLY AND GREEN TECHNOLOGIES**

The Pesaro-based Group values Prima Power's machinery for its performance, efficiency, and ease of use. Polverini notes, "New technologies have alleviated operators' tasks a lot. Prima Power machines automate adjustments, making it easier for less experienced operators to carry out important work."

The Group also appreciates Prima Power's focus on sustainability. "Our goal is to minimize environmental impact. Prima Power's low-consumption, fully electric machines support this, and their just-in-time production reduces storage needs and  ${\it CO}_2$  emissions", Polverini states.







The Prima Power Laser Genius+ 2060 with a 10-kW source is ideally suited to the fast processing of low thicknesses required by Green Power and the high thicknesses required by Idrofoglia



Prima Power machines automate adjustments, making it easier for less experienced operators to to carry out important work.



The punching unit on the PSBB line performs multiple processing operations, such as threading or forming, on a single station, thereby enhancing the overall efficiency of the production process

From the left: Manuel Polverini, Design and Production Manager at Idrofoglia; Alberto Brugnettini, COO at Green Power; Severino Brugnettini, CEO at Idrofoglia; Lucio Volpe, Area Manager at Prima Power; Carmine Caramuscio, Area Agent at Prima Power

#### THE FUTURE REQUIRES EVEN MORE "POWER"

EPTA has achieved notable success in over 120 countries, especially in Italy, Europe, and Africa, due to diverse sectors served, high customer responsiveness, and efficient production.

"We aim to grow by consolidating current customers and **expanding into markets with opportunities** like hybrid generators and renewable energy applications", Brugnettini adds. A new 35,000-square-meter hub will house Green Power Systems' production, doubling turnover and workforce, while Idrofoglia will use the Lunano plant.

"To increase production, we'll likely need new technologies", Polverini concludes. "I'm confident Prima Power will be our preferred supplier due to their consistent support and optimal tools."

#### UNPARALLELED FLEXIBILITY WITH THE PSBB LINE

The PSBB line integrates punching, shearing, buffering, and panel bending, revolutionizing the way sheet metal is processed. It optimizes material flow for efficient, uninterrupted production, balancing time and cost. The servo-electric functions and sophisticated software enhance productivity with unmanned operation, faster production, and zero set-up time. Seamless data transfer ensures transparency. The PSBB line can be paired with Prima Power's automation solutions, like the PSR robot, sorting systems, automatic loaders, and the Night Train FMS for superior performance.

# MASTERING THE FLOW WITH NO EXPRESS BEND

# ELEVATING EFFICIENCY WITH INTEGRATED CAD/CAM SOLUTIONS

PRIMA POWER'S NC EXPRESS BEND IS THE NEW, POWERFUL CAD/CAM SOLUTION FOR STREAMLINING THE SHEET METAL BENDING PROCESS.

As a key component of the latest version of the comprehensive NC Express family, it plays a key role in enhancing productivity, accuracy and efficiency in bending operations. Designed to support a **unified and continuous production flow**, NC Express BEND optimizes manufacturing performance in today's demanding production environments.

#### ALL IN ONE - SEAMLESS INTEGRATION ACROSS PROCESSES

One of the outstanding features of NC Express BEND is its exceptional ability to integrate with Prima Power's cutting machines. This **integrated workflow connects bending with laser cutting and punching**, creating a synchronized process that dramatically reduces errors and optimizes production time.



By allowing manufacturers to program cutting and bending operations in one streamlined step, NC Express BEND exemplifies Prima Power's "Evolve by integration", where technology, software, and automation work together to achieve continuous progress.

The software's common file management system is another key differentiator, providing users with a **single**, **unified file to manage the entire process**. This simplifies file handling, as all relevant data for the bending process, such as the geometry, tool selection, and sequence, is stored in one place, ensuring **consistency and easy access**. This holistic approach supports Prima Power's "All in One" concept, where simplified management drives greater productivity.



#### **AUTOMATIC BENDING SEQUENCE CALCULATION**

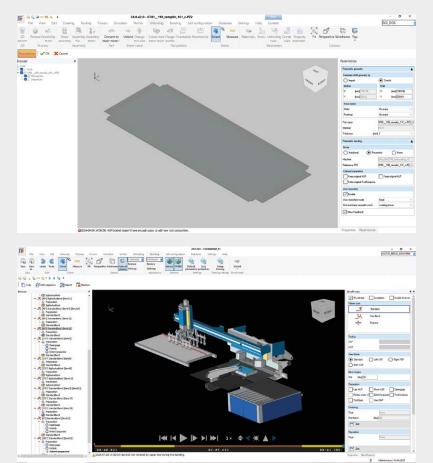
NC Express BEND Automatic Bending Sequence Calculation feature represents a major leap in efficiency. By automatically determining the optimal bending order based on the part's geometry and material, it removes the need for manual sequence planning, reducing potential errors while accelerating production. The Learn profiles functionalities, which allow complex programming procedures to be performed with a single click, further increase the level of automation of the bending process. This results in increased precision and more effective use of machine time: core benefits for any manufacturer seeking to level up their operations.

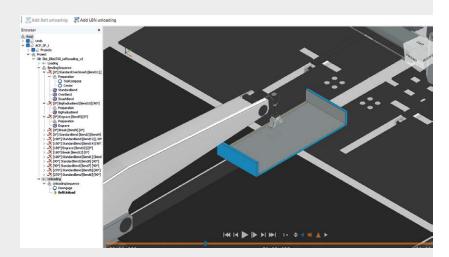
#### PARAMETRIC PROGRAMMING FOR FLEXIBLE PRODUCTION

Flexibility is at the heart of modern manufacturing, and NC Express BEND offers powerful Parametric Programming functionalities. Users can **define parts using X, Y and flange dimensions**, making design changes easier and faster by **adjusting specific parameters rather than starting from scratch**. This parametric approach ensures rapid adaptability, reducing lead times when product specifications change.

#### REACTIVITY TO GEOMETRY CHANGES FOR DYNAMIC UPDATES

In today's fast-paced manufacturing environment, agility is crucial. With NC Express BEND, small geometric adjustments don't require redoing the entire bending program.





The software dynamically updates the program based on the modified geometry, saving time and ensuring flexibility during the design and production stages. This feature greatly improves workflow efficiency, especially in fast-paced manufacturing environments.

NC Express BEND software embodies Prima Power's commitment to innovation, productivity, and integration. By combining advanced automation with flexibility and seamless machine integration, NC Express BEND enables manufacturers to streamline their workflows, minimize errors, and stay competitive in an ever-evolving industry. Prima Power continues to deliver solutions that level up productivity, offering a true "All in One" approach to meet the demands of modern manufacturing.

# NEW NC EXPRESS BEND MAIN CUSTOMER BENEFITS

- An integrated solution with Prima Power machines enables effortless transitions between different manufacturing processes, reducing programming time by up to 20%
- Advanced features and automated programming deliver a fast, reliable, and flexible programming environment to
- Intuitive and user-friendly interface for an enhanced user experience. Fast learning for reduced training time and increased productivity

Prima Power

Partner with the knowledge and dynamism of Prima Power. **Evolve by integration** 

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