

# POWER *Line*



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CUSTOMER PROFILES • NEW TECHNOLOGY • PRODUCTIVITY • FLEXIBILITY

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# Welcome to Our New Headquarters & Tech Center: The Exciting World of Prima Power Technologies is Now Open to You

By Ezio Basso, Prima Industrie Managing Director, Prima Power Division



On May 23, 2016, Prima Power inaugurated our new Headquarters and Tech Center in Collegno (TO), Italy. It was with both pleasure and pride that we opened this new facility that was created to welcome our customers and exhibit all of our technologies in a modern, pleasant, and engaging environment.

The new 5,000-square-meter facility includes the Headquarters of the Prima Industrie Group and Prima Power Demo & Technology Center, where 11 of our machines are operating, including an entire production line.



The event was followed with close attention by the local and national media, as we hosted nearly 200 guests at the ceremony. The new facility was inaugurated in the presence of the President of the Piedmont Region, Sergio Chiamparino; the Mayor of Torino, Piero Fassino; and Vincenzo Boccia, the President of Confindustria (the main association

representing manufacturing and service companies in Italy.

It is a modern building, at the forefront of technology for energy efficiency systems, ranging from thermal isolation, energy production through photovoltaic panels, solar panels, and a geothermal plant. Even lighting management is automated with an automation system in order to reduce waste. This translates into reducing CO2 emissions by approximately 300 tons per year. The inauguration included a list of events such as the Open Houses dedicated to specific markets, European trade press days, and last, but not least, our Family Day, when we presented the new facility to the families of our employees.

And this is just the beginning...the calendar of international events hosted by our new Tech Center is already extremely rich and we wish to invite all our customers to visit this new Technology Hub, a unique place in the world where it is possible to see all Prima Power technologies under one roof.

We wish to thank all our employees, customers, and stakeholders who helped us grow over the years and to accomplish this important result.



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# BCe Smart by Prima Power...The Smart Panel Bender That Increases Your Productivity

The machines of today must be increasingly smart and productive. Ease of use, ergonomics, flexibility, active safety, and reliability are the key requirements to face the new challenges that the market imposes.

The BCe Smart 2220 is the new panel bending machine by Prima Power which perfectly meets these requirements with simple but innovative and smart solutions. This is why we called it Smart.

The large working table that allows loading and unloading in a single sequence increases productivity. The machine is extremely easy to use and does not require skilled operators. Thanks to the barcode 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 are obtained through a series of characteristics, such as the absence of physical barriers for manual loading, warning lights, and acoustic signals to synchronize the loading and unloading, programmable luminous reference for the simple positioning of the pieces to be machined, and the additional interactive display that guides the operator in the working phases to be carried out, such as the orientation of the pieces, etc. The working table side sections can also be easily lowered to allow the operator closer access for loading or unloading the medium-sized sheets.

BCe Smart is very flexible and is also ideal for producing small volumes, kits of components, and individual parts with high-quality bending and high repeatability.



The compact layout, low maintenance, and quick and easy installation make it a truly unique machine. The servo-electric actuators significantly reduce energy consumption and maintenance costs.

With BCe Smart, managing the entire production process is easy and efficient, thanks to the OPEN numerical control by Prima Electro, the Tulus operator interface, and the Master Bend Cam programming system. The machine is also prearranged to be integrated with robots for the automatic loading and unloading.

BCe Smart is equipped with a range of options to adapt it to specific applications, such as automatic tool change, the additional short blades for their symmetrical or asymmetrical positioning, the UBC to minimize the bending profile width, or pieces centering devices with asymmetric notches. There is also an additional screen for the self-learning mode.

The maximum bending length of BCe Smart is 2250 mm and the size of the machinable sheet can vary between 180 x 360 mm and 1500 x 2850 mm. The bending force is 32 tons.

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# Prima Industrie Opens New Headquarters & Technology Center

It consists of 5,000 square meters, is totally self-sufficient from an energy point of view, built with "green" materials and technology. The center not only houses the offices of the group led by Gianfranco Carbonato, but will be the hub of events and activities for customers, researchers, collaborators, and guests from around the world.

Prima Industrie has a new command deck from which it leads a group present in 80 countries, with 1,600 employees, eight manufacturing plants, and eight research and development centers throughout the world.

The Chairman and Founder Gianfranco Carbonato, in the presence of the President of the Piedmont Region, Sergio Chiamparino; the Mayor of Turin, Piero Fassino; and the President of Confindustria, Vincenzo Boccia inaugurated the new Headquarters & Technology Center in via Torino-Pianezza in Collegno. The new facility will be the location of the central offices of the Group that had a 365 million Euro turnover in 2015, is the leader in the development, manufacturing, and marketing of laser systems for industrial applications and for sheet metal fabricating machines, as well as industrial electronics and laser technologies.

"Our growth over the years, created a need for a central hub capable of strongly coordinating the various companies of the Group," said Carbonato. "It is a project that we envisioned for many years. Today we finally have a home for the technologies of our group, and in particular for the products of our Prima Power division." "At this stage, having one of the largest machinery ranges in the world and supplying some of the major customers in the world, in such industries as automotive, aerospace, energy, HVAC, lift & escalators, construction, etc., it is increasingly important to have the opportunity to welcome our customers at our site to explain our technologies. This is a basic requirement for a technologically-advanced group like ours, which invests 6.5% of its turnover in research and development and offers highly innovative products."

Prima Industrie has invested 8.5 million Euro in the construction of the new center (and approximately 6.5 million Euro for the exhibited machines). The construction of the facility was completed in less



than a year after laying the cornerstone. Half of the 5,000-square meter center is dedicated to corporate offices of Prima Industrie and divisional offices of Prima Power and the remaining 2,500 square meters is dedicated to the demo room and customer hospitality. This structure can easily accommodate up to four guest delegations simultaneously, with an 80-seat training room, a demo room dedicated to customers from all parts of the world, in which 11 of our machines are operating, including an entire production line.



The new headquarters & technology center is a building equipped with the latest technologies for energy efficiency, ranging from thermal isolation to energy production through photovoltaic panels, solar panels, and a geothermal plant. Even lighting management is automated with a home

automation system in order to reduce waste. In other words, this will mean reducing CO2 emissions by approximately 300 tons per year. This is a philosophy closely linked to the "Green Means" technology that Prima Industrie applies to all product lines and that allows significant reduction in energy consumption compared to conventional technologies (Laser - 45%, Bending and Paneling Machines - 64%, Punching machines - 80%)



Continued on back cover

# Changing the Way the World Cooks



*ACP's microwave and combination convection/microwave ovens are found in such commercial installations as large fast-food restaurants, gas stations, convenience stores, high-end restaurants, pizzerias, etc., throughout North & South America, Asia, Europe, Africa, India, and other parts of the world.*

Since the invention of the microwave oven in the 1940s, kitchens around the world have taken on a new dimension. And while it took some time to evolve, today no kitchen is complete without at least one microwave oven.

ACP, Inc., Cedar Rapids, IA, manufactures a full line of commercial high-speed cooking equipment carrying the Amana and MenuMaster brands. The first countertop commercial microwave oven was introduced over 50 years ago under the Amana brand. The MenuMaster Jetwave™, one of the first high-speed combination ovens on the market, was introduced nearly 20 years ago. Today, both Amana and MenuMaster remain the recognized leaders of commercial microwave ovens and high-speed cooking solutions.

Building upon a solid foundation of innovation, technology, and state-of-the-art facilities, ACP Inc. continues to develop new products designed to reduce cooking time, improve overall kitchen efficiency, and enhance the quality and consistency of the foods prepared in commercial ovens. ACP's microwave and combination convection/microwave ovens are found in such commercial installations as large fast-food restaurants, gas stations, convenience stores, high-end restaurants, pizzerias, etc. throughout North & South America, Asia, Europe, Africa, India, and other parts of the world.

In addition, every ACP oven is supported by an in-house culinary team of chefs and food scientists in its own fully-equipped commercial kitchen. The ACP culinary team provides customer support including the information and assistance needed for menu development and cooking times. This team continually examines and tests the latest food trends and develops new recipes for ACP's ovens.

Since 2008, ACP has been part of the Ali Group, an Italian company founded 50 years ago that has an extensive portfolio of companies that offer the most complete range of innovative brands in the foodservice equipment industry.

## Manufacturing the Ovens

In 2008, ACP moved to its 92,000-square-foot facility in Cedar Rapids, IA, from nearby Amana, IA. At that time, the company manufactured a portion of its products with six stamping presses. The remaining parts were produced by job shops. According to Jason Schwenke, director of manufacturing, the company made a decision to add flexibility to its fabricating process by purchasing a used turret punch press. "A few years later, we began developing a new oven model that would require additional soft tooling," explains Schwenke. "As a result, we purchased a used Laser Brilliance (laser/punch combination), a used Night Train Material Management System, and a new robotic press brake from Prima Power."



*Building upon a solid foundation of innovation, technology, and state-of-the-art facilities, ACP, Inc. continues to develop new products designed to reduce cooking time, improve overall kitchen efficiency, and enhance the quality and consistency of the foods prepared in commercial ovens.*

By 2014, ACP needed additional fabrication equipment, but this time the search was for new equipment. "We needed the extra capacity to domestically manufacture a product that we were producing offshore," explains Ty Hill, senior manufacturing engineer. "We were looking for another laser/punch combination machine. In addition to Prima Power, we also researched products from three other machine builders. In the end, we decided to stay with Prima Power. We had a history with the company and were impressed with their service commitment and the warranty extension they provided with the used equipment. We



After extensive research, Ty Hill, senior manufacturing engineer (left) and Jason Schwenke, director-manufacturing purchased a new Prima Power LPe6f laser/punch combination, which was integrated into the Night Train Material Management System.

purchased a new LPe6f laser/punch combination, which was integrated into the Night Train Material Management System. At that time, Prima Power was the only builder to offer a fiber laser with the laser/punch combination machine."



The high-end premium series turret punch press of the LPe6f has properties such as automatic tool length measurement, optimization of stroke length and easy adjustment of the punching stroke. These combine with others, adding up to faster set-ups and more ease of operation.

## Changing the Way the World Fabricates

The LPe6f series combines high-end, servo-electric punching and state-of-the-art fiber laser technology in a manufacturing solution that provides outstanding flexibility, speed, accuracy, and productivity to fabricate the most challenging products.

The inherent benefit of integrated punching and laser cutting is high versatility. You can use the turret punch press where it is easier or faster and the laser where it is most flexible. Depending on the manufacturing task at hand, you can always choose the most productive manufacturing method. This amounts to flexibility for fulfilling varying requirements, cost-efficiency, and competitiveness.

The Prima Power LPe6f series features a modern fiber laser source with low-energy consumption and the need for laser gases eliminated.

The LPe6f is a perfect example of the Prima Power Green Means® philosophy.

*"In addition, we are getting a better quality cut on the fiber and it is much faster. A job that used to take 1 hour and 45 minutes can be produced in 40 minutes with the LPe6f. It is the same nest, but the fiber laser runs much faster than the CO2 model."*

Very fast reaction times are expected in modern production. The machines need to be flexible and extremely fast for a quick response to production orders, often for very small quantities. The LPe6f is unbeatable when it comes to versatility and flexibility, combining multiple operations in one machine. This Lean Manufacturing style reduces cost per part; parts will be made fast, easily and accurately through one machine by one operator using only one operating and programming system.

"The LPe6f greatly increased our productivity," says Hill. "We were at full capacity with the LB, and new LPe6f relieved that pressure. Around the time the LPe6f was installed, we had some huge orders coming through our facility. Our volume doubled and tripled during that time. In addition, we are getting a better quality cut on the fiber and it is much faster. A job that used to take 1 hour and 45 minutes can be produced in 40 minutes with the LPe6f. It is the same nest, but the fiber laser runs much faster than the CO2 model."



The laser used in the system as its most flexible tool is a 2kW, 3kW, or 4 kW high brilliance fiber laser. Cutting speed increases in proportion to power. Totally closed cabin design for eye safety and noise reduction is always included with the system. With the integrated fiber laser a wide range of material can be cut such as copper or brass. A significant reduction in operating cost is achieved because the laser has no maintenance requirements, no laser gas is needed and energy consumption is far smaller compared with other solutions.

"The LPe6f allowed us to handle some very significant spikes in orders during short periods of time," adds Schwenke. "Prior to the LPe6f, we had to outsource these rush orders. Now we can do them in-house."

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# Changing the Way the World Cooks

Continued from page 7

## High-Performance Servo-Electric Punching

The high-end premium series turret punch press of the LPef has properties such as automatic tool length measurement, optimization of stroke length and easy adjustment of the punching stroke. These combine with others, adding up to faster set-ups and more ease of operation. The punching speed, tool rotation and tool change time are improved. The punching stroke is NC-controlled, providing high-performance punching, and excellent forming capabilities.



## Fiber Laser Cutting

The laser used in the system as its most flexible tool is a 2kW, 3kW, or 4 kW high brilliance fiber laser. Cutting speed increases in proportion to power. Totally closed cabin design for eye safety and noise reduction is always included with the system.

*“The LPef allowed us to handle some very significant spikes in orders during short periods of time. Prior to the LPef, we had to outsource these rush orders. Now we can do them in-house.”*

With the integrated fiber laser a wide range of material can be cut, such as copper or brass. A significant reduction in operating cost is achieved because the laser has no maintenance requirements, no laser gas is needed and energy consumption is far smaller compared with other solutions. Further benefits are:

- No expensive beam manipulation is needed to control beam divergence
- Cutting head collision protection - Long lens and nozzle life
- Efficient dust collection provides a cleaner working area
- Easy integration of a robust protection device around the cutting head
- Sheet vibration damping when cutting thin material
- Prevention of scattered radiation

## Flexible Automation

Reliable unmanned operation with small footprint is a major factor in ensuring cost efficiency in fabrication. The Prima Power range of automation solutions adds productivity and end product value through high performance, accuracy and reliability.



The new Prima Power LPe6f laser/punch combination, which was integrated into the existing Night Train Material Management System (left). ACP chose the high-performance portal-type loading and stacking robot LSR to be integrated with its LPef. The LSR provides a reliable, fully-automatic process from loading to picking of parts and stacking them. Skeletons are unloaded with the unloading device. The operator is free for other tasks while machine productivity and utilization increases dramatically.

*“The LPef has propelled our innovation by allowing us to prototype. We now have the ability to rapidly produce a working model of a new product.”*

## Loading and Stacking Robot (LSR)

ACP chose the high-performance portal type loading and stacking robot LSR to be integrated with its LPef. The LSR provides a reliable, fully-automatic process from loading to picking of parts and stacking them. Skeletons are unloaded with the unloading device. The operator is free for other tasks while machine productivity and utilization increases dramatically. One machine side is free for fast single-sheet production.

## Propelling Our Innovation & Quality Service

Another benefit of the LPef has been its ability to help ACP create prototypes. “The LPef has propelled our innovation by allowing us to prototype,” explains Hill. “We now have the ability to rapidly produce a working model of a new product.”

*“From a relationship standpoint, we couldn’t be happier. When we need service, Prima Power has someone here within 24-36 hours.”*

Another important feature of the ACP relationship with Prima Power is quality service. “From a relationship standpoint, we couldn’t be happier,” concludes Hill. “When we need service, Prima Power has someone here within 24-36 hours.”

# Prima Power Develops Fiber Laser Source



Prima Power has recently announced the development and production of a high-power laser source with fiber technology. The company is the first laser machine manufacturer which has internally developed its own laser source with fiber technology.

The laser source CF3000 (3 kW) was produced through an intensive development program over the last few years. Successful installations at several pilot customer facilities were run for more than six months. The Prima Power fiber laser source will be produced at the Group plants of Chicopee (Massachusetts - USA), Barone Canavese (Turin), and at Suzhou's plant (China). The CF4000 (4 kW) will also be introduced later this year.

Prior to this announcement, Prima Power's only supplier of fiber laser sources was the U.S. company IPG Photonics with which Prima Power still maintains a strong long-lasting relationship. The development of this product will allow the Group to rely on an alternative for a highly strategic component for its own business, such as the fiber laser source, which today represents a winning technology for specific applications.

Prima Power anticipates a remarkable growth from laser machines, taking advantage of the recent introduction of new models, such as

Laser Next in the field of three-dimensional laser cutting machines –and in particular for the automotive market – Platino 2.0 Fiber and Laser Genius in the segment of 2D cutting, and Combi Genius in the sector of laser-punching combi machines.

The Group's target for 2016, the first year for the fiber laser production, is a gradual ramp-up in volumes up to approximately 10 units per month to be delivered to customers. The Prima Power laser source will also allow a more efficient after-sale activity, allowing the company to return to a single source responsibility to end-user customers.

According to Gianfranco Carbonato, Chairman of Prima Industrie Group, "With the introduction of the fiber laser, we achieved an excellent result for the Group. We can now offer our customers the convenience and security of being a single source supplier for our laser product line."

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# New Look...New Performance

Prima Power Introduces the Next Generation of Punching Technology

True to its tradition of continuous product development, Prima Power has launched a new generation of servo-electric punching technology with its Combi Genius punch/laser cutting cell and the Punch Genius turret punch press.

Enhanced productivity is complemented by a totally new industrial design, featuring numerous improvements in the punching unit with better ergonomics and ease of operation.

"We have been bold enough to name the new Prima Power technologies 'Genius' because they are extensively based on our customers' experience and needs," explains Antti Kuusisaari, product manager for punching and shearing products.

## High-Performance Punching

"There have always been paradigm shifts in sheet metal working technology, and servo-electric punching is one of them," Kuusisaari continues. "The advances in servo-electric punching is comparable to the breakthrough of fiber laser cutting."

The inherent benefits of servo-electric punching include very low energy consumption and maintenance requirement, as well as enhanced precision in forming.

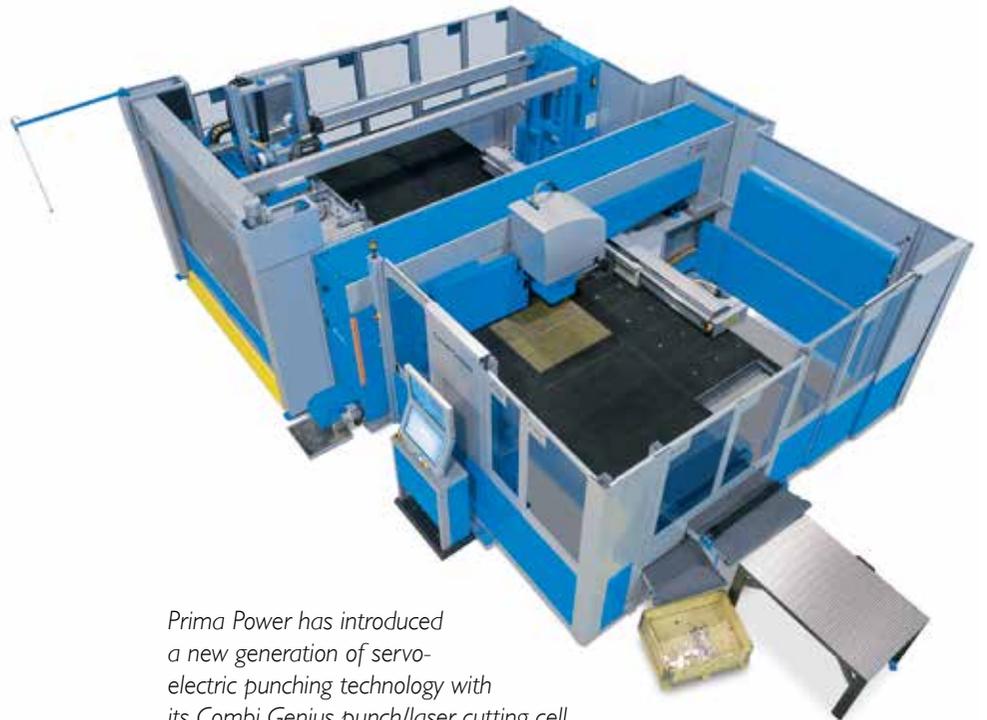
Available maximum sheet sizes for Punch Genius turret punch press and Combi Genius cell are 2,500 mm x 1,250 mm and 3,000 mm x 1,500 mm. The New Genius machines are equipped with servo-electric punching force options of 230 kN and 300 kN.

Prima Power's flexible turret concept allows the availability of up to 384 tools or 128 index tools simultaneously in turret. A new option is the rotary ram which shortens tool change time and increases the number of tools in turret and especially that of index tools. More value can be added to the end product using special tools for tapping, bending, roll forming, marking, etc. A further option is the high-precision, indexable servo-electric 200 kN upforming unit.

Sheet positioning speed is 127 m/min, hit rate 1,000 hpm, index speed 250 rpm and tool change time 0.3 sec (min). X-axis travel is 2,500 mm.

## Integration Equals More Versatility

"When it comes to finding more versatility in an integrated manufacturing cell, we challenge you to propose an alternative to punching and fiber laser cutting in an automatic sequence," says Hannu Riihimäki, product



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manager responsible for Prima Power Combi laser cells. "In modern production you must react fast, and the machine needs to be flexible and fast for a quick response to production orders, often for very small quantities. There may be a rush order, or a test series to prove delivery capacity – here the laser is often the answer. In longer series, punching adds manufacturing speed and cost efficiency, allowing versatile forming and providing competitiveness unmatched by individual laser or punching machines."



*The inherent benefits of servo-electric punching include very low energy consumption and maintenance requirement, as well as enhanced precision in forming.*



Available maximum sheet sizes for Punch Genius turret punch press and Combi Genius cell are 2,500 mm x 1,250 mm and 3,000 mm x 1,500 mm. The New Genius machines are equipped with servo-electric punching force options of 230 kN and 300 kN.

“The integrated laser proves its validity in, for example, complicated corner notching,” continues Riihimäki. “Using a variety of tools, notching could be made, but especially in smaller series, the cost would be prohibitive. The integrated laser is an extra tool in the turret of the cell that handles the task economically, flexibly, and fast.”

Combi Genius combines the benefits of the new punching performance with the latest in fiber laser cutting, raising the productivity of the highly versatile integrated manufacturing concept to a new level.

As the laser source, a fiber resonator of either 3 kW or 4 kW can be chosen. The optimized cutting head, collimator, transfer fiber and cutting parameters ensure a very high cutting quality and speed.



### Easy to Operate – Designed for High Surface Quality

The control unit has one or two displays, and the whole punching – laser cutting process is easy to monitor from the upper display, as four cameras have been installed in the cell.

Prima Power’s programming system and cell control work in perfect combination and can be linked to the factory ERP system.

Punching technology has occasionally been considered difficult by operators with laser experience only, especially concerning tool and set-up change. The new Tulus® MUPS that can be downloaded for mobile devices makes this prejudice unnecessary. “It is a personal assistant to every operator, showing with clear graphics what and where needs to be done to tooling,” says Kuusisari. “The possibility of mistakes is dramatically reduced, set-up times are shortened, and operating and monitoring the machine becomes much easier. This is a software tool that makes operators happy.”

The new Easy Access concept with a movable machine table makes

manual loading of all size sheets convenient in a Punch Genius. Loading and unloading can be automated with Compact Express equipment and loading, unloading and component stacking with the LST system.

As standard, Combi Genius has two work chutes, one (300 mm x 400 mm) for fast sorting of smaller work pieces and an 800 mm x 800 mm chute for larger components. From the chutes the parts are brought next to the machine for manual removal or onto conveyor systems. A 500 mm x 500 mm work chute is available for removing punched parts with the possibility of integration with a sorting device using conveyors.

As requirements for high surface quality are more important than ever, special attention has been paid to this. The optional Scratch Free system has programmable vertically-moving brushes in the front and also inside the turret.



Combi Genius combines the benefits of the new punching performance with the latest in fiber laser cutting, raising the productivity of the highly versatile integrated manufacturing concept to a new level. As the laser source, a fiber resonator of either 3 kW or 4 kW can be chosen. The optimized cutting head, collimator, transfer fiber and cutting parameters ensure a very high cutting quality and speed.

### Automation and Safety

Prima Power’s well-known Compact Express solution is available for automating loading and unloading. The latest model features faster cycle times and the highly practical KOS system, which allows the forklift operator to open the door using remote control. Compact Express in no way prevents manual loading when it is more convenient.

Alternatively, the LST system can be chosen for automatic loading, unloading and component stacking.

Easy Cover is a new, practical solution for required safety. It surrounds the entire system and protects the environment from stray radiation; yet the construction allows easy performance of manual loading, unloading and maintenance tasks.

# Platino Fiber Laser Makes the Cut at West Coast Job Shop



In March, 2015 Larry Rosevear purchased a Prima Power 4000 Watt Platino Fiber Laser with a 3-station tower.

Prior to opening his job shop, Larry Rosevear honed his sheet metal fabrication skills by building dune buggies...a lot of dune buggies. "My company Suspensions Unlimited was selling 100 cars per year," reflects Rosevear. "I purchased my first used laser in 2000. As I went through the process of cutting dune buggy parts, I realized that the laser cut much faster than my plasma cutter. I was getting my work done in two hours, and the laser was sitting idle for six hours a day. So I began doing little odd jobs and cutting my own parts. Soon I began cutting parts for other people, and we received more and more orders. Eventually, the business grew so quickly that the company evolved into a 100% job shop." Rosevear named his new company Laser Innovations, and opened up shop in Anaheim, CA, in 2001.

The fledgling company began operations with just a laser, a water jet, and a press brake. "The job shop business was easier to predict than the dune buggy business," explains Rosevear. "My early clientele were my customers who had purchased dune buggies. They saw the quality of the laser. We were getting business through word of mouth, and soon I was building parts for my previous dune buggy competitors."

Today, the company has grown into two 8,700-square-foot buildings for a total of 17,400 square feet. The equipment list and services have also grown to include multiple CO2 lasers, waterjet cutting, welding fabrications, sheet metal and all types of customer fabrication. And the company's customer list has evolved by adding the following industries: medical, display, military, automotive, construction, and manufacturing.

By 2014, Laser Innovations continued its growth and Rosevear began his search for additional laser capacity. He attended the 2014 FABTECH show in Atlanta with a friend who owned a job shop in

Utah. "My friend owns three Prima Power CO2 lasers that have automation, and he told me that I was missing the boat if I didn't consider automation on my next laser. We had been studying the fiber lasers for some time, and I pretty much decided that I was going to do thinner sheet metal work on an automated laser. I planned on running large quantities of 16, 18, and 20 gauge material on a continuing basis. While at FABTECH, I decided to purchase the Platino Fiber Laser for its speed. I also made the decision to automate the laser."

## Prima Power Platino® Fiber Laser

Laser Innovations purchased the Prima Power 4000 Watt Platino Fiber Laser with a 3-station tower. The laser was installed in March, 2015, and the tower was installed a few months later.

The Platino Fiber Laser cutting machine is the perfect balance of innovation and experience. This product combines state-of-the-art, efficient and ecological fiber laser technology, with the proven reliability and flexibility of the Platino platform. It is the right choice for sheet metal manufacturers looking for a production tool which is:

- efficient, granting energy and maintenance savings
- productive, particularly on thin and medium-gauge sheets
- flexible, suitable for a wide range of materials, including highly-reflective metals
- reliable and capable of meeting any production need, with a variety of automation modules
- user-friendly, easy to install, use, and maintain



Prior to opening his job shop, Larry Rosevear honed his sheet metal fabrication skills by building dune buggies. Today, Laser Innovations services a wide variety of industries, however, he still makes some dune buggy parts such as this spare tire hydraulic auto-assist power mount.

The Platino Fiber Laser can be used to cut a wide range of materials. Fiber lasers are more effective than other laser sources for cutting highly-reflective materials (e.g. aluminum alloys, copper, brass). The Platino Fiber cuts various thicknesses, up to 20 mm of mild steel, with efficiency and quality. Productivity increases particularly with thin and medium-gauge sheet metal.

Other features and benefits include:

- Very low power consumption
- No laser gases
- Minimum maintenance and low consumables
- Floor space saving - compact automatic loading, unloading, and storage
- Easy and fast operating interface - fast setup
- Less energy, less waste of material
- Unique machine design using a synthetic granite frame offering the best thermal stability and vibration damping
- Cantilever design for maximum accessibility to the machine
- Protection cabin with roof, fiber-safe windows and fully-opening sliding doors: total safety, visibility of the work area and accessibility



Prima Power's Compact TowerServer allows easy loading/unloading for blanks and processed sheets. It has an elevator for loading and unloading the pallets on and off the tower, and features single sheet separating, control systems, and sheet reference. The Platino Fiber is particularly suitable for 24/7 operation, often performed in unattended mode.



## Flexible Automation

Prima Power's Compact TowerServer allows easy loading/unloading for blanks and processed sheets. It has an elevator for loading and unloading the pallets on and off the tower, and features single sheet separating, control systems, and sheet reference.

The Platino Fiber is particularly suitable for 24/7 operation, often performed in unattended mode. It is a fully independent machine, with no need for manual intervention during machine operation. Once the production schedule is programmed, the Platino Fiber Laser takes care of the necessary settings, tip replacement, sheet change and storage, etc.

*“With the automated tower we can run unmanned and ‘lights out’. We love the tower...we just load all our sheets, it automatically transfers them, and then unloads the parts. It is a real time saver.”*



“With the Platino Fiber Laser we often cut 3/8” and 5/16” material at night,” says Rosevear. “It is reliable and cuts all night long on these thicker materials. With the automated tower we can run unmanned and lights out. We love the tower...we just load all our sheets, it automatically transfers them, and then unloads the parts. It is a real time saver. The sheets are heavy for one operator to load manually. The tower eliminates manual labor and material handling. It loads the sheet to the laser, laser cuts, unloads, and we’re up and running again. The Platino Fiber Laser has worked out beautifully. Compared to a CO2 laser, we’ve only had to replace one lens in the Platino Fiber to date. And the speed is awesome. We can cut up to 1200’/minute with the Platino Fiber. The fastest my CO2 laser cuts is 400’/minute.”

The Platino Fiber Laser can be used to cut a wide range of materials. Fiber lasers are more effective than other laser sources for cutting highly-reflective materials (e.g. aluminum alloys, copper, brass). Platino Fiber cuts various thicknesses, up to 20 mm of mild steel, with efficiency and quality. Productivity increases particularly with thin and medium-gauge sheet metal.

*“The Platino Fiber Laser has allowed us to pick up the larger jobs...jobs we weren’t getting with just the CO2 lasers. Since installing the Prima Power 4000W Platino Fiber Laser my business has increased 35%. Profit margins are up, and production time is down.”*

## Attracting New Business

“We have picked up a few new customers because of the fiber laser,” concludes Rosevear. “On long runs we can actually charge a lower price for the same hourly work because of the speed of the machine. The Platino Fiber Laser has allowed us to pick up the larger jobs...jobs we weren’t getting with just the CO2 lasers. Since installing the Prima Power 4000W Platino Fiber Laser my business has increased 35%. Profit margins are up, and production time is down.”

# Prima Power Automates Laser Cutting At MTI

Since 1915, Midland Tank & Ironplate (MTI), Birmingham, United Kingdom, has been producing sheet metal products for a wide range of industries, making parts such as heat exchangers, prototype vehicle parts, and door components. The company fabricated many architectural metalworking products including bespoke staging and lighting systems and the wings for the *phoenix* in the opening ceremony of the 2012 London Olympics. MTI was formed to help with the war effort by making process tanks. The company's current production capability is quite different from its humble beginning. Today, MTI utilizes CAD/CAM and manufacturing management systems, ISO quality approvals, CNC punching and CNC laser cutting with automated loading and unloading, as well as robot welding, assembly, and painting services.

MTI's laser cutting experience goes back 20 years. The company invested in its first Prima Power Platino® CO2 laser in 2007, and in 2013 purchased a Platino Fiber Laser. Both machines are fitted with Compact Tower integrated material handling and storage tower systems. Geoff Cox, managing director of MTI explains, "We needed a bigger, faster, and more powerful laser, which drove our investment in the 4kw Platino® CO2 machine with Prima Power Compact Tower. Automated handling is an essential part of the system as it enables us to work unmanned, running batches of material of up to 3 tons. We have CCTV cameras on each machine and a system which alerts the operator by phone should the machine stop out of hours. He can then return to the factory to correct the problem, which keeps production on track and minimizes our labor costs."

***"Accuracy from the lasers ensures high quality parts, but it is also essential for successful assembly by our robot welders."***

As part of the ongoing maintenance, Prima Power trained MTI engineers in maintenance procedures for the CO2 laser. "UK service has been very good and, with extra training, we now know how to take the optics apart and clean all the lenses and mirrors ourselves," says Cox. "This makes a big difference in the performance of the machine as the operator can recognize the signs of a falloff in cutting capability and perform maintenance and adjustment himself, ensuring that we are always operating at peak levels, with minimum interruption to production."



*While the parts are being laser cut, the Compact Tower positions the next sheet on the waiting sliding table. Once the first sheet is finished, the tables switch over, minimizing idle time, cutting then resumes and the completed sheet is stored in the tower.*



Cox realized the speed advantages he could get for thin material with a fiber laser. "The wavelength is about 1/10 of a CO2 laser and there are no problems associated with the distribution of the laser power, making it simple and robust. Both the pierce times and the cutting times are



*MTI invested in its first Prima Power laser – a Platino® CO2 laser in 2007 and in 2013 purchased a Platino® fiber laser. Both machines are fitted with Compact Tower integrated material handling and storage tower systems.*

much faster than CO2 and the shorter wavelength makes it possible to cut brass and copper." By combining its Radan programming system and e2i process management with the Platino® Fiber Laser, MTI is able to offer very short lead times. For a recent job, the customer required 20,000 parts at the rate of 1000 per day. MTI was able to deliver the first batch within 6 hours of the order.

Again, the Prima Power Compact Tower material handling and storage system makes a big difference to productivity. With up to 15 pallets in one tower, a range of different materials and finished sheets can be stored ready for processing or further operations. While the parts are being laser cut, the Compact Tower positions the next sheet on the waiting sliding table. Once the first sheet is finished, the tables switch over, minimizing idle time, cutting then resumes, and the completed sheet is stored in the tower. "With the Platino® Fiber Laser we could choose which side we put the Compact Tower," explains Cox. "This was important for our factory layout. Now we endeavour to process thick material on CO2 and thin

material below about 6 mm on the Platino® Fiber. We can cut thick material on the fiber, but there is not necessarily any speed advantage."

Because MTI offers its customers complete service, investment in technology to reduce labor and increase flexibility is in line with its objectives. "Accuracy from the

lasers ensures high quality parts, but it is also essential for successful assembly by our robot welders," concludes Cox. "Automated handling allows us to run out of hours, quickly change between jobs, and dilute costs with overnight running and, because the majority of parts go through the Prima Power machines, reliability is paramount. We like the service engineers and they respond quickly, involving experts from the Product Unit in Italy when necessary, to ensure that any problems we have are resolved quickly and effectively."

# Close Collaboration Makes Prima Power the Supplier of Choice at PAB

By working in partnership with Prima Power since 2006, PAB, located in Coventry, United Kingdom, has been able to maintain and expand its leadership in the manufacture of prototype and production runs of formed pressings and panels for the prestige automotive market. The company specializes in niche products and additionally supplies parts for defense, aerospace, and HVAC applications, and has a string of supporting quality and performance accreditations.

Currently the company has two Prima Power eP-0520 servo-electric press brakes, an E5x servo electric punch press, a Platino CO2 laser with a fully palletized automated material handling and stacking system, and a Rapido 5-axis laser. Rob Lewis, sales manager for PAB says, "We have invested over £1 million with Prima Power. This is a strategic commitment that will continue into the foreseeable future."

The Platino CO2 laser was purchased eight years ago to cut aluminium sheet up to 5 mm thick while achieving the best edge quality. Its integrated pallet system delivers material to the machine from the automated stack, enabling it to run *lights out* 24 hours per day. The company produces parts to its customers' schedules, manufacturing thousands of components each week. Lewis says, "For our investment in laser equipment, response and backup was very important to us, as was the automation of the machine which was essential to meet production requirements. The technology and service offered by Prima Power ensures that we can provide the best possible continuity of delivery to our customers at the right quality. We have had no serious breakdown problems with the machines, and the service technicians have been extremely efficient."



*By working in partnership with Prima Power since 2006, PAB has been able to maintain and expand its leadership in the manufacture of prototype and production runs of formed pressings and panels for the prestige automotive market. The company specializes in niche products and additionally supplies parts for defense, aerospace, and HVAC applications, and has a string of supporting quality and performance accreditations.*

2012 saw a major investment program for PAB as it replaced its old press brakes with the two new Prima Power eP-0520 servo electric press brakes. The 55 ton eP-0520 press brakes incorporate a pulley belt system actuated by servo electric drives. This spreads the bending force evenly along the whole bending length and offers high repeatability and accuracy. PAB was the first company to install these in the UK.



*Once panels have been formed, trimming to the finished shape is completed on the Prima Power Rapido 5-axis laser. The machine has a teach mechanism for easy programming and a double safety nozzle.*

Just a few months later, PAB added an E5x servo electric punch press. Lewis says, "We added this machine as some parts, such as automotive grills, have lots of holes and manufacture is far quicker using punching technology rather than laser cutting, where hole piercing times are too long for this type of work." The E5x uses far less power than a hydraulic punch press and the shearing action is kinder on tools. This makes savings on both energy and in replacement punches. Lewis adds, "The punching and laser processes save us significant cost in hard tooling, which we would otherwise need for small prototype runs." PAB's manufacturing process starts with laser and punching technology to produce the blank, which is then passed on for forming on the company's SMG 500 ton and Muller 250 ton hydraulic presses, or bending on the eP-0520 press brakes.

***"The technology and service offered by Prima Power ensures that we can provide the best possible continuity of delivery to our customers at the right quality."***

Once panels have been formed, trimming to the finished shape is completed on the Prima Power Rapido 5-axis laser. The machine has a teach mechanism for easy programming and a double safety nozzle. This enables the nozzle or the entire laser head to safely move out of the way in the event of a collision. Should this happen, it can be quickly and easily repositioned by the operator so that cutting and programming can continue without damage to the machine itself. Lewis says, "We can trim low-volume, high-value parts in batches from 2 to 300 very quickly and efficiently. Typical parts include bracketry and welded fabrications in all shapes and sizes.

Close collaboration has been a major driver for PAB when it chose to work with Prima Power. Lewis concludes, "The cost of capital equipment is a major factor; but the quality of service and support is of equal importance. It is a false economy to ignore the benefits it can bring to production efficiency, customer satisfaction, and the lifetime costs of the machine. We rely entirely on Prima Power for maintenance, training and advice on the use of the machines, making us a very satisfied customer."

# NC Express e<sup>3</sup> & MasterBend CAM

By Ivana Montelli, SW Product Manager, Prima Power

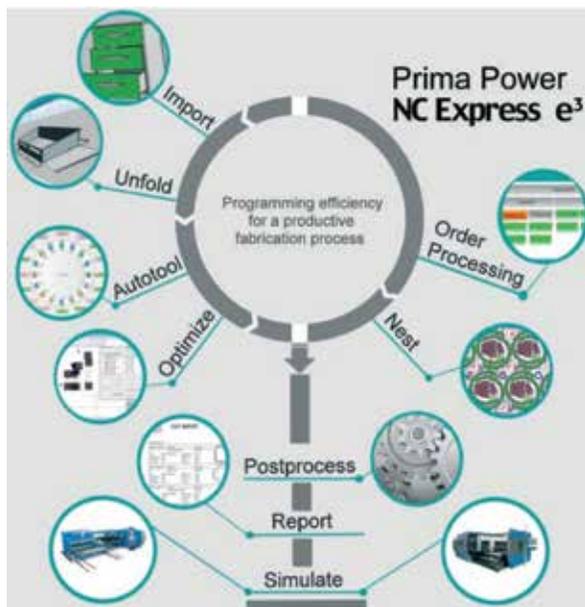


Today, it is very common to refer to the process: from 3D drawings to 3D parts. Prima Power has mastered this process through our cutting-edge machines our cleverly-designed software products.

From a conceptual point of view, this process is easy. You begin with a 3D model, process through software to create 2D geometry, and then apply tooling, and then proceed to created blanking and bending programs. The programs are then created and sent to different machines that produce your 3D part.

This process is supported by Prima Power SW CAM products NC Express e<sup>3</sup> and MasterBend. Both CAM systems contain enhanced features and can share data and work together to speed up the programming process.

NC Express e<sup>3</sup> introduces many new features to support all 2D technologies of Prima Power machines, including: laser 2D, Punch and Combi, with Robots and, in addition, the new module 3D unfolding has been enhanced to manage 3D Drawing import and unfolding, while supporting and sharing data with MasterBend CAM.



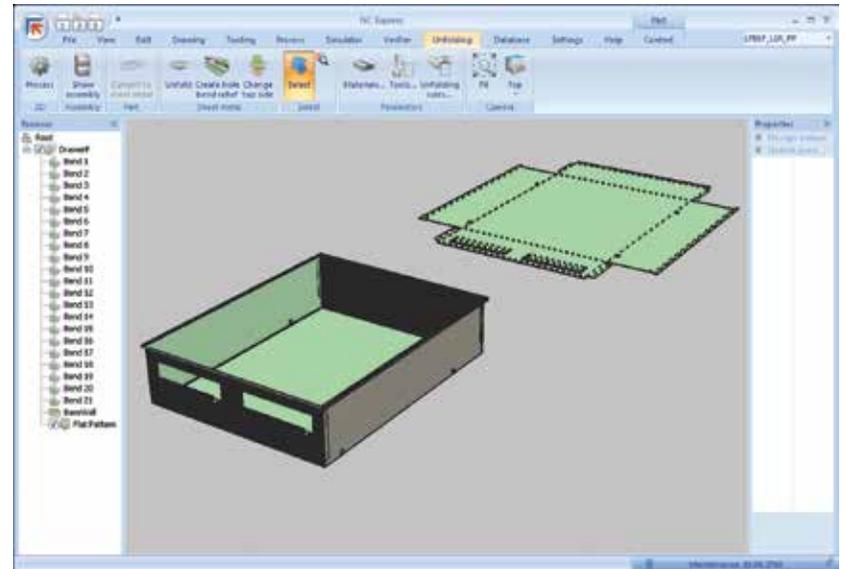
IMPORT	Import extensive range of 3D- and 2D-drawing files
UNFOLD	Precise unfolding of assemblies and single part models
AUTOTOOL	Intelligent autotool to reduce manual preparation work and get fast machine run times
NEST	Efficient nesting to reduce manual preparation work, reduce sheet usage and support reliable machining operation
OPTIMIZE	Powerful optimization to get full speed and reliable operation
POSTPROCESS	Reliable postprocessors proven and tested for Prima Power machines
REPORT	Fully customizable reporting for operators and management
SIMULATE	Visual simulation of NC-program

## Main features Nc Express e<sup>3</sup>

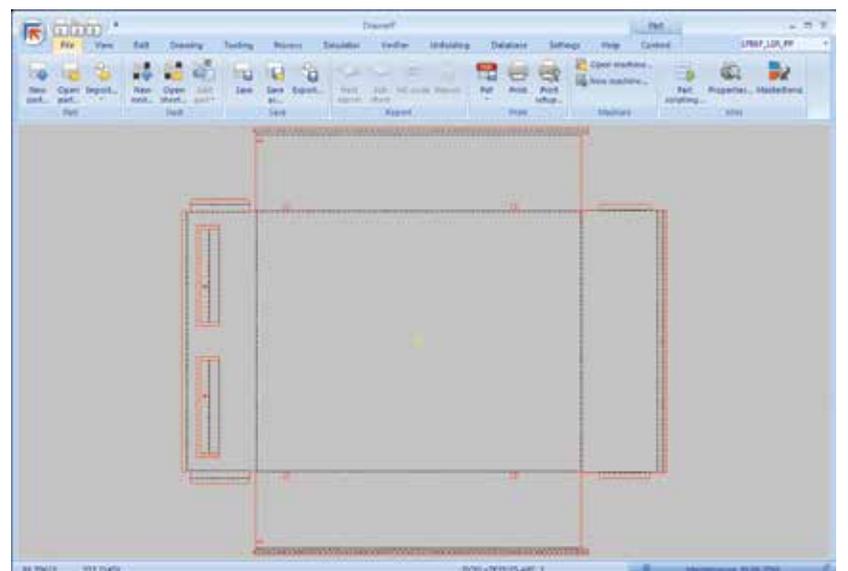
From the 3D unfolder module, you can import an extensive range of 3D cad format files, such as STEP, IGES, ACIS, Catia V4/V5/V6, Creo, NX, Inventor, Solid Edge, and SolidWorks. Assemblies also are allowed. After the importing, an automatic assembly unfolding is done.

Unfolding functions include :

- Apply correct Unfolding parameters based on material and thickness
- Unfold parts
- Run Autotool
- Create PFP files for panel bender programming - MasterBend CAM



Unfolding a 3D part



Unfolded part (flattened from a 3D model) inside NC Express e<sup>3</sup>, automatically ready for 2D programming

Then with NC Express e<sup>3</sup> programming, through a new efficient nesting engine and new Optimizer, you can make your 2D programs for the blanking machines. After the unfolding process, files are automatically created and ready to be managed by MasterBend CAM, our 3D panel bender programming software.

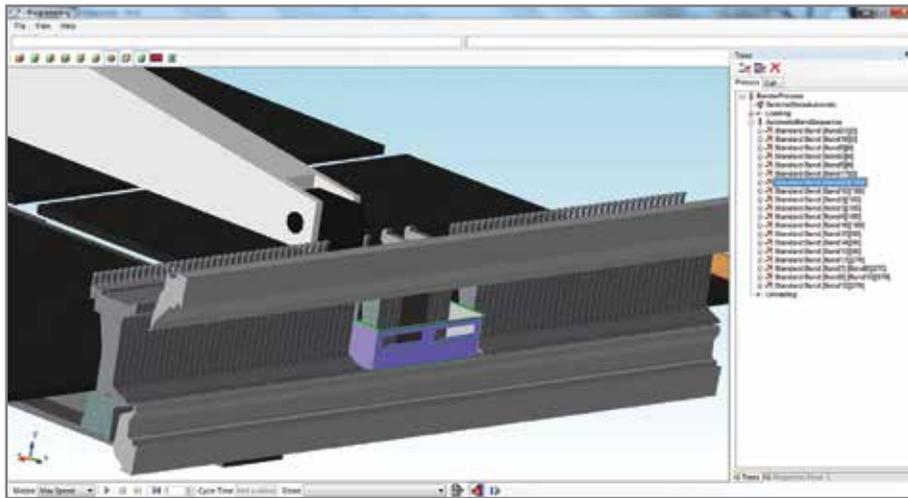
MasterBend CAM is a new user-friendly, integrated tool to manage Prima Power panel bender machines through interactive graphical interface.

MasterBend CAM features include:

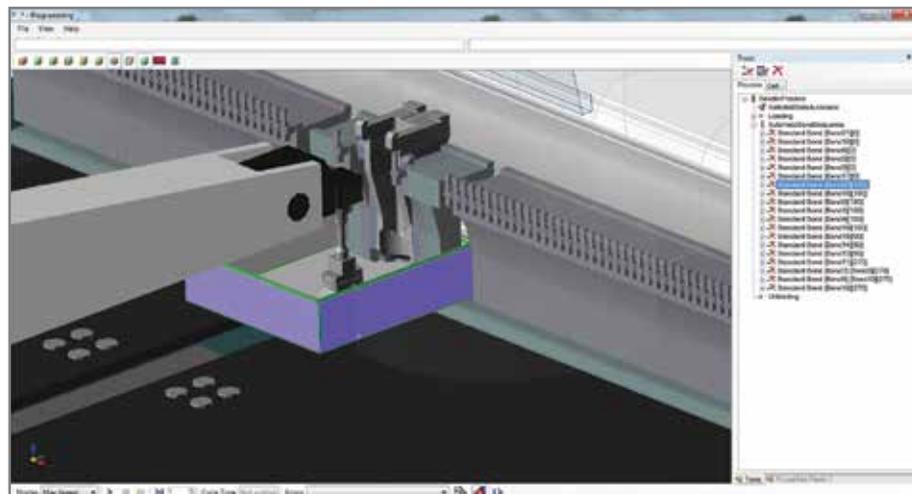
- Simplified programming through preset bending cycles
- Simple positioning of the machine axes through visible support
- Tree-view structure of the bending process
- Program optimization by 3D simulation
- Check of collision between part and tools
- Complete tools management
- Tools setup

Below are some positive comments from customers that are currently using MasterBend CAM:

- Provides an easy way to check of all bending steps in 3D that provides a quicker way to find mistakes before bending.
- MBC is simple and intuitive, new users learn it quickly
- The biggest advantage is the 3D visualization and simulation that allows to see the machine processes in all angles
- Graphical User Interface very friendly
- Fluent and simple sequences of operations



**Part displayed and checked in 3D environment within MasterBend CAM**



# Punching on Demand

Just-in-Time delivery model drives need for modern fabricating technology

**THE PROBLEM:**  
Meeting Just-in-Time demands

**THE SOLUTION:**  
Turret punching equipment



Philips Ledalite has improved production efficiencies and customer deliveries with its turret punch presses.



When you're shipping 700 metal fabricated products daily to customers throughout North America, you better have an efficient manufacturing system in place.

That's the case for Philips Ledalite, a Langley, BC, lighting systems manufacturer. To meet customer needs for fast delivery and quality, the company relies on its fabricating equipment, including its six turret punch presses.

According to Jim Moloney, manufacturing engineering manager, Ledalite currently produces 33 product families at its Langley facility. "When you combine all the possible variations in terms of mechanical, electrical, photometric, controls, etc., those 33 families swell to 2-billion potential variations," explains Moloney. "One hundred per cent of our products are made to order. We don't attempt to stock any finished goods. We ship roughly 700 luminaries per day to locations all over North America. We are not a commodity product. Every one of those 700



Jim Moloney says Philips Ledalite relies on its turret punch presses, including a Prima Power hydraulic turret model and the E5 servo-electric punch press, seen here and purchased in 2011.

products we produce each day is shipped to a job site or an electrical contractor."

***"What's important for us in our high-mix, low-volume business with our short lead times is a high level of machine reliability and very fast tool changes."***

To meet these flexible Just-in-Time production requirements, Ledalite has six turret punch presses to make the housings the company uses to manufacture its luminaries. Two of these turret punch presses are manufactured by Prima Power: The A5 hydraulic turret punch press purchased in 2010 and the E5 servo-electric turret punch press purchased in 2011. "Four weeks is our normal lead time," says Moloney. "We are focused on quick turnaround to service our high-mix, low-volume business.

"What's important for us in our high-mix, low-volume business with our short lead times is a high level of machine reliability and very fast tool changes. We don't want to spend time changing tools...we want to spend time making parts for our customers."

Established in 1982, Philips Ledalite, Langley, BC, creates innovative lighting systems and technologies for commercial and institutional buildings throughout the world. In an industry where most technology dates back 50 years or more, Philips Ledalite is a recognized leader in research and development.

The company is proud of the fact that innovation is the engine of its business and the inspiration of its designs. By maintaining a close relationship with the design community, Ledalite identifies customer needs often overlooked by existing products and develops innovative solutions to meet those needs.



The Prima Power E5 servo-electric turret punch press.

Since 2008, Ledalite has been a Philips group brand. Royal Philips Electronics of the Netherlands is a diversified health and wellbeing company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle, and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights.

### Optimizing for Performance

"When we added the E5 to our line, we actually spent a fair amount of energy configuring the machine – organizing the turret – so that we could have a very minimal tool set for that product line, says Moloney. "We dedicated many hours in figuring out the optimal turret configuration. For example, how many of the 20 stations did we want to be indexable, how many upforming, etc."

"The reason that we specified the E5 was that it was 8' travel in the X direction. "Our normal product sizes are 4', 8', or 12'. The 8' is becoming the nominal, maximum product size for our linear products. We wanted to fabricate an 8' part without repositioning. We were also very interested in the servo-electric technology for a number of reasons.



Philips Ledalite ships 700 metal fabricated products daily to customers throughout North America.

"The machine is simpler to operate with fewer parts. It's faster than a hydraulic machine and energy consumption is lower. The footprint is tighter so it is easy to place in the shop...less machinery means no hydraulic power. It also offers tooling flexibility. Having the 20-tool turret with the flexibility of having a single tool or a Multi-Tool is a very good combination."



Philips Ledalite's commitment to innovative and sustainable designs has won accolades from the design community. An example of a Philips Ledalite customer installation.

Over the years, Philips Ledalite's commitment to design innovation and sustainable design has consistently been recognized by multiple international design and innovation awards--including the highly coveted iF Product Design Award and the Red Dot Design Award. Philips Design is widely recognized as a leader in people-centric design. In 2012, it won over 120 key design awards in the areas of product, communication, and innovation design.

## THE EQUIPMENT

The inherent benefits of servo-electric include energy efficiency, versatility, accuracy, and low maintenance cost.



Philips Ledalite selected the Prima Power E Series turret punch press because of the advantages it offers a fabrication shop. For example, it is easy to operate. Features such as automatic tool length measurement, optimization of stroke length and adjustment of the punching stroke means faster set-up times to better handle the high-mix, low-volume product mix and the demand for Just-in-Time delivery.

Prima Power says its E5 series turret punch presses offer high performance punching and high accuracy for forming because of the NC-controlled servo-mechanically actuated punching stroke. A large number of index tools facilitates set-ups and programming, shortens tool change times, and increases production speed. Maximum index rotating speed is 250 rpm. The rotation mechanism of the punch and die is mechanically engaged and disengaged vertically. It enables full tonnage and punch speeds to be used in any station, with any tool size.

Automation features are also a plus for Philips Ledalite because it aids in production efficiencies. For example, a programmable clamp setting function positions sheet clamps automatically according to a numerical program, minimizing clamp dead zones. When changing production from full size to small sheets, clamp settings can be made automatically without wasting operator time.

The turret punch press is equipped with a brush table, which protects sheet surfaces and prevents noise and vibration, hazardous for micro joints. Manual loading is easy even with automation devices added to the system. Whether processing small, pre-cut sheets or full-size material, sheet loading takes place with a simple push. Sheet supports allow easy positioning of heavy sheets.

The machine has a large tooling capacity: 384 tools. An additional forming cylinder is available. It is a servo-operated ram installed in the lower machine frame. It lifts the forming die to a programmed position. The tool is retracted after forming, preventing a collision with the moving sheet. With this cylinder, versatile forms up to 6 mm (0.63 in.) in height can be made.

This article is reprinted with permission from Shop Metalworking Technology, February 2016.

# LPBB Quality & Flexibility... Best Solution for Finnish Manufacturer

Established in 1952, Antti-Teollisuus Oy, is a Finnish family-owned company that originally repaired tools, farm machines, and manufactured kitchen furniture, doors, and windows. As agriculture became more mechanized, farming machinery such as oil tanks, snow blowers, grain dryers, and silos were added to the product range.

Antti-Teollisuus is owned by Kalle Isotalo together with his siblings. With more than 100 employees, the company's turnover is 20 million euros. Antti-Teollisuus also has a subsidiary Antti Baltic OÜ in Estonia. In addition to the company's internal sales staff, Antti-Teollisuus has an extensive global dealer network.

Antti-Teollisuus continues to produce equipment for agricultural needs, such as grain handling equipment and grain dryers. Agricultural equipment is responsible for three quarters of the company's turnover. A significant part of the production is exported, especially to the Eastern market. Grain handling solutions under the Antti brand



*Antti-Teollisuus continues to produce equipment for agricultural needs, such as grain handling equipment and grain dryers. Agricultural equipment is responsible for three quarters of the company's turnover.*



*CEO Kalle Isotalo (right) inspects a part produced on the LPBB with Prima Power sales manager Ilkka Hunnako.*

name are used worldwide, even in very exotic countries. Antti products have been delivered as far as Africa. The circumstances and customs in each country, as well as the different grain and plant species, create new challenges to the deliveries.

The other main product sector of Antti-Teollisuus encompasses marine doors used on luxury cruise ships. The Antti-Teollisuus factory supplies 40% of the ocean cruiser doors throughout the world. Exports account for as much as 70% of the sales of these doors.

## From Combination Machine to Entire Manufacturing Line

In the Antti-Teollisuus factory, while the employees are busy, they maintain a positive approach to their work. The factory operates in two shifts to handle the large volume of orders. The factory building is currently being enlarged and the production reorganized.

According to the current CEO Kalle Isotalo, the nephew of Antti Isotalo, the founder of Antti-Teollisuus, the increase in production created a need to invest. "We started to look for different alternatives to acquire a laser/punch combination machine," explains Kalle Isotalo. "We believed that a punching and laser cutting machine would be a versatile solution for our production. After more detailed negotiations with Prima Power concerning our production needs, we became convinced that instead of a mere LP machine, the LPBB line would be the best solution for us. The LPBB line combines punching, laser cutting, bending, and intelligent part handling."



"The LPBB system delivered to Antti-Teollisuus was the first one of its kind," continues Isotalo. "The Antti-Teollisuus products are perfectly suitable for the LPBB line. When you feed a blank sheet to the line from one end, you get a completed marine door leaf from the other. The high quality achieved on the production line was a prerequisite for the investment."

Cooperation with the global Meyer Werft shipyard in building ocean cruisers is an important issue for Antti-Teollisuus. High quality and delivery reliability are the basis for this cooperation. "This investment ensures that the cooperation will hopefully continue for a long time," says Isotalo. "At the same time, we get additional capacity for the rest of our production."

## Flexibility in Production

The huge size of the production line, together with the high level of automation, makes it appear that the line produces massive amounts of one product on a conveyor belt. "No doubt this is possible with the system," says Isotalo, "but the line also works very well when we manufacture small pilot batches. And while the line operates automatically, we can flexibly carry out single work stages with its individual machines, such as the bending center. After programming is done and there are blank sheets in storage, one operator can successfully operate the entire line. We needed more efficiency, flexibility, and automation in our production. It was particularly important for us that the system would not only be efficient but also flexible in the manufacture of even small customized batches. The latest trend in the cruiser cabin doors are different print figures. There can be thousands of doors on one cruiser with more than a hundred different figures on them. This creates challenges to the production, which has to be efficient and fast...but also extremely flexible. These requirements are met by the Prima Power LPBB system."

*"This creates challenges to the production, which has to be efficient and fast...but also extremely flexible. These requirements are met by the Prima Power LPBB system."*

## Training and Customer Support

The domestic system weighed down the scale in favor of the LPBB. "We want to support Finnish employment," concludes Isotalo. "It is also important for us to have machine training and customer support in Finnish. It is easy to understand each other when we speak the same language."

## FACTS:

**Name:** Antti-Teollisuus Oy

**Line of business:** grain handling equipment and marine doors

**Established:** 1952

**Turnover:** 20 M€ (2014)

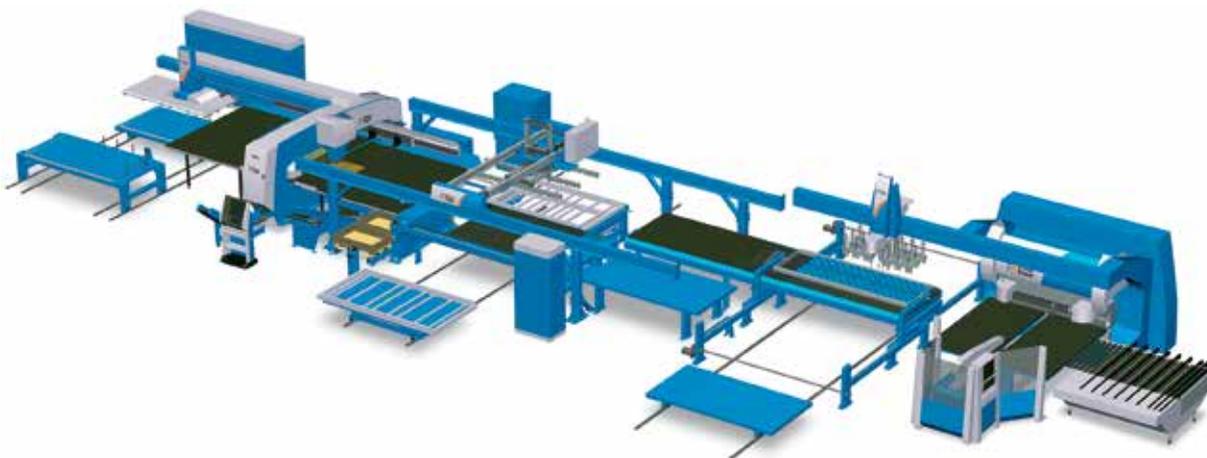
**Number of employees:** 120 (2014)

**Place of business:** Salo, Finland

**Latest Prima Power investment:** LPBB line



*After more detailed negotiations with Prima Power concerning its production needs, Antti-Teollisuus became convinced that instead of a mere LP machine, the LPBB line would be the best solution for the company. The LPBB line combines punching, laser cutting, bending, and intelligent part handling.*



# Italian Manufacturing Innovation Takes Center Stage at i3 Forum in Chicago



Italian Prime Minister Matteo Renzi (left) made his first official visit to Chicago on March 30, 2016. He was hosted by Chicago Mayor Rahm Emanuel. This visit by the Italian head of state focused on Italian manufacturers in the Midwest at the Italian Trade Agency's i3 Forum=Impact, Innovate, Integrate at the University of Chicago's Gleacher Center. The Forum was preceded in the day by a visit to the Digital Manufacturing and Design Innovation Institute (DMDII) in Chicago.

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The U.S. is Italy's most important trading partner outside of the European Union with 7.5% of its total exports being sent to the U.S. In 2015, Illinois was the sixth largest importer of goods from Italy with almost \$1.8 billion, an increase of almost seven percent over the previous year. Manufacturing is at the heart of this growth. In 2015, about a third of goods imported from Italy were machinery products with \$516 million, followed by two sectors which had dynamic growth: chemical products with \$459 million and food products with \$130 million – respectively with

86% and 14 % increases over the previous year. Closing the top four sectors of Illinois' imports was metal products at \$136 million. These four sectors combined, accounted for approximately 70% of Italy's total exports to Illinois in 2015. Along with Fiat Chrysler Automobiles, there are over 89 Italian companies with operations in Illinois employing almost 3,700 Illinois residents as of 2016 and of these, almost a third call Chicago home.

"It was an honor to host Prime Minister Renzi here in the City of Chicago and to celebrate our enduring partnership with Italy when it comes to being a center for jobs and innovations in advanced digital manufacturing," said Mayor Rahm Emanuel. "This forum not only showcases some of the results of our strong partnership, but will also strengthen the bonds between us, creating even more jobs and opportunities for manufacturers in Chicago and in Italy."



In addition to Prime Minister Renzi and Mayor Emanuel, other honored guests and speakers included Ivan Scalfarotto, Italian Undersecretary of State, Armando Varricchio, Italian Ambassador to the US, and Marc Allen, Sr. Vice President, The Boeing Company and President, Boeing International.

Fifteen of Italy's top manufacturing innovators in the aerospace, automotive, energy, and robotics sectors joined with more than 100 invited guests from American and Italian manufacturing companies to discuss the current state of the industry and the trends expected to take place over the next several years.

Prima Power's Vice President of Marketing Matteo Benedetto was one of the presenters during the Forum. Also representing Prima Power were Luca Bianchini, 3D Laser Systems, Business Development Manager; Paolo Calefati Innovation Manager; John Rogers, COO Prima Power North America; Lutz Ehrlich, Punching & Automation Product Manager; Bob Kolcz, Director Marketing & Corporate Communications. Prima Power customer Steve Southwell, President of Nu-Way Industries was also present.



Prima Power's Vice President of Marketing Matteo Benedetto was one of the presenters during the Forum.

# ABB Automates Sheet Metal Fabrication Operations with Prima Power Equipment

A Swiss multinational company with over 130,000 employees has invested in Prima Power automated sheet metal fabrication technology. ABB, a leading company in the field of energy and automation technologies, recently installed a new Prima Power system in its plant in Dalmine, in the province of Bergamo, Italy.

The heart of the system is the Prima Power Night Train Material Management System which is able to manage different sheet sizes up to a maximum size 1500 mm x 3000 mm. The storage is connected to a PSBB line that includes an SGe6 punch press with right angle shear, a sorting conveyor C1500, a buffer SPB, a PSR6/2 robot to manage components flow, and the EBe5 Express Bender with an unloading system on roller conveyor served by a high-capacity ABB robot.

The Night Train FMS® automates the material and information systems of a facility and combines individual manufacturing stages into a single flexible process. Systems are customized using the wide range of Prima Power high-performance fabricating machines, integrated cells, automatic material handling solution, and software. The modularity of the system allows the most flexible solution for high productivity.



*The EBe servo-electric Express Bender is a bending solution that is designed specifically for each fabricator's production requirements to achieve maximum productivity, quality, and repeatability. The bending operation is fully automated, from the loading of flat punched parts to unloading of the finished product.*

A choice that confirms and strengthens the well-established relationship between ABB and Prima Power: "Prima Power is a leading supplier of ABB in the field of metal carpentry for low and medium voltage rack gears," says Carbonato. "We are proud of this collaboration which created added value for both companies."

The ABB plant in Dalmine is a center of global excellence for the design and manufacturing of circuit breakers and medium voltage rack gears, and it represents a model for the entire ABB group.



*ABB purchased a Prima Power automated sheet metal fabrication system that includes: a Night Train Material Management System, an SGe6 punch press with right angle shear, a sorting conveyor C1500, a buffer SPB, a PSR6/2 robot to manage components flow, and the EBe5 Express Bender with an unloading system on a roller conveyor served by a high-capacity ABB robot.*

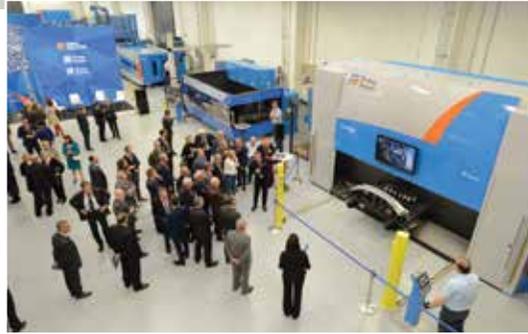


The introduction of the new Prima Power equipment was attended by the management of both companies: Prima Power President Gianfranco Carbonato, Cristiano Porrati, South Europe Manager, and Riccardo Pellegrini, Sales Manager Italy represented Prima Power while the CEO of ABB Group, Ulrich Spiesshofer, the CEO of ABB Italia, Mario Corsi, and the General Director of ABB production plant in Dalmine, Fabio Tagliaretti participated in the event.



# New Headquarters & Technology Center

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Prima Power offers the widest range of sheet metal fabrication equipment from stand-alone machines to full Flexible Manufacturing Systems.



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