LVD

LVD's Global Perspective

DISCOVERY

issue n° 23

New Puma laser: Cutting the cost curve

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LVD Innovation Tour: On a journey to deliver technology solutions

"Connected processes, 100% production oversight"

Vermeulen, the Netherlands

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Mickael Rousseau, Eurofours

"The new bending and laser cutting solutions enabled us to make more sophisticated products for the bakery market."

DISCOVER

"BIG-PICTURE" BENEFITS

"Our machines are too important to us. They must always be ready for operation."

"We jumped head-first into the deep end with manufacturing. And it has paid off."

Dear reader,

With a complete perspective of a situation, you can make better decisions.

The same applies for your sheet metalworking department. Taking a big-picture view offers the ability to observe, identify issues, and take steps to make corrections or improvements.

In *Discovery*, we bring you stories of companies in the Netherlands, France, Germany and Poland who have done just that. As a result of big-picture thinking, they have embraced Industry 4.0, organizing their workshop, linking their machines and CADMAN software to improve flow.

At LVD, we can help you see what's possible in the big picture of your company. Read on to discover more about our robotic solutions, new 60-ton press brake and Puma laser cutting machine.

We're ready to help you make sense of the full picture and take action to drive long-term results.

Carl Dewulf
President & Managing Director

In Memoriam: Robert Dewulf

Robert Baron Dewulf, one of the founders of LVD, passed away on August 11th in Belgium. He was 93.

The "D" in LVD, Robert Dewulf, contributed to the success of the company he formed in 1954 alongside Jacques Lefebvre and Marc Vanneste. The three executives nurtured LVD into a leading international metal forming equipment builder.

Under their shared vision aided by Mr. Dewulf's talent for building relationships with government and industry and his entrepreneurship, LVD gained a reputation as a respected manufacturer and became a principal employer in the West Flanders region.

His love of the metal working industry and the company he helped build continued well past his retirement. Until his passing, Mr. Dewulf remained genuinely interested in technology and new products, the welfare of company employees and the success of LVD.

Robert Dewulf was Chairman of the Board of AGORIA and Vice-President of the European Committee for Cooperation of Machine Tool Industries (CECIMO). He was also a philanthropist, providing aid for children's mental health. His engaging, warm personality and business acumen will always remain an example to us.

New website is launched

A fresh look, more videos and easy navigation are key features of the new LVD website. Learn more about the industries we serve and success stories of customers around the world. Browse to discover the LVD story, culture and people, and get to know why our family-owned values are an important part of our business. The new site also provides one-click access to on-demand video content at our Resource Center.

Visit www.lvdgroup.com

Meet the team

Who are the people behind the technology at LVD? On the Careers page of our new website, videos zoom in on people working at LVD in Belgium, the US and Slovakia. Hear Justine, Mehmet, Kyle or Marek talk about what they like about their job, their ambitions and what it's like to work at LVD. What a team!

Would you like to be part of the team? We're always looking for new talent to join us all over the world. For more information, visit www.lvdgroup.com/us/jobs.

Warm reunion

The world re-opens and trade shows are coming back. We were happy to exhibit at Poznan, Paris, Milan, Bilbao and Düsseldorf after such a long time.

LVD also restarted Smart Factory Tech Days at the Experience Center in Belgium. We were delighted to see so many customers and prospects. Over eighty people from more than fifteen countries worldwide attended, setting time aside from their busy work schedules to discover their path to a Smart Factory.

A two-day program provided insight into the latest technologies and offered the opportunity to reconnect, meet new people and experience Belgian hospitality.

MORE THAN A SUPPLIER

Niels Meuwissen (Manager Projects) and Ruud van den Boom (Manager Operations)

Dutch supplier Vermeulen Metaal's digital transformation has been going at full throttle for two years. The company raised its production processes to a higher level by improving operational efficiency and quality.

Service from A to Z

In 2008, Peter Vermeulen started his business at home. The company soon became a successful, versatile supplier, and in 2013 moved to an industrial estate to facilitate further growth. Customers turn to Vermeulen Metaal for piping, turning, milling and fabricating sheet metal parts. Also for semi-finished products up to complete assemblies.

Innovation and staying abreast with the latest developments in technology are key to the corporate strategy. "We want to be more than a supplier and we see that customers want this too. That's why we sit down with a customer at a very early stage to provide advice on feasibility, cost-benefit ratio calculation, drawing and design. After that, we take

"We take care of the entire production process, unburdening the customer right through to final delivery."

care of the entire production process, unburdening the customer right through to final delivery," says managing director Peter Vermeulen.

Vermeulen Metaal selected a *Phoenix fiber laser* cutting machine, a 220-ton *Easy-Form* press brake and the full *CADMAN*® software suite. "It was the entire buying experience that convinced us to choose LVD machines. We prepared extensively for the purchase and discussed everything in detail with LVD. This made us certain that we would receive the right guidance post-purchase as well. Confidence is high."

"Three people were involved in the basic training program and continue to learn through experience. We are now able to train a new operator on the press brake or laser cutting machine within a week, so they can get started quickly. The user-friendly touchscreen helps to keep it simple," says Ruud van den Boom, operations manager.

The software thinks along

The software played a major role in transforming the company. "That is where our biggest profit lies," states Vermeulen. "Preparatory work has been reduced to a minimum, and our planning is more reliable. In the past, we had to manually check all drawings for feasibility. Now we can import entire 3D files, get the calculation and the right bending solution within seconds. The software supports us as if it were thinking along with us about the best way to manufacture our products."

"Providing full service to our customers also includes flexibility of scope. We work on a project basis but often receive urgent requests that require a quick response. The system gives us the flexibility to quickly schedule urgent requests," van den Boom adds.

Future-proof

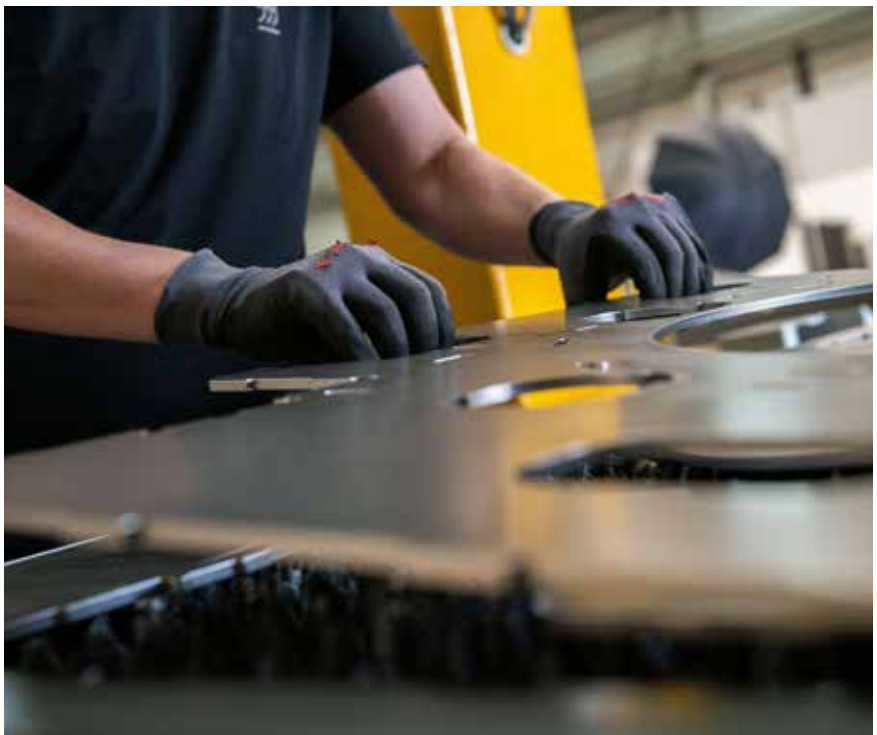
Vermeulen replaced its CO_2 laser cutter with a *Phoenix fiber laser* cutting

machine. “We mainly cut steel, stainless steel and aluminum up to 25 mm thick. We are now able to cut 60 to 70% more products per hour with about 25 to 30% of the former electricity consumption per item. The increased cutting speed also results in a decrease in gas consumption.”

What are the plans for the future? Peter Vermeulen: “The next step is to connect *CADMAN-JOB* to the ERP system. Feeding prices and actual working hours spent back to the ERP system allows you to make accurate post-calculations. The aim is to automate this process.

“The machines have improved our entire production process, we have a lower cost price and better sales rates and hardly any products are rejected. We have more control over planning, meaning much higher reliability in delivery. The conclusion is that purchasing machines from LVD has pushed our costs down, enabling us to remain competitive for at least five years.”

Stefanie Vandemoortele - LVD



Watch the Vermeulen testimonial

EUROFOURS - FRANCE

FASTER, BETTER, CHEAPER

Eurofours, French manufacturer of ovens for the baking industry, has purchased a variety of machines from LVD to increase productivity and reduce raw material waste.

42 years serving bakeries

It all started in the barn next to his house in Gommegnies, where Pierre Lancelot, an aeronautical engineer, designed from the ground up a totally new electric ventilated oven for the baking industry. He applied his knowledge and skills in aeraulics - the science and technique of treating and distributing air – to the field of baking. In 1980 Eurofours was born.

Today his sons Stéphane and Nicolas Lancelot run the company and Eurofours is the benchmark for ventilated ovens for bakeries and pastry shops. New facilities were established in Gommegnies and La Longueville, and busy production lines are driving the company's expansion. After a series of acquisitions, the company has become well-established in the baking sector with around 150 employees over three production sites.

A niche market

Eurofours produces equipment for bakeries, pastry shops as well as modular units used to heat pre-cooked baked goods and snacks. Ninety percent of the sheet metal they use is thin (1.2/1.5 mm). The product range includes ventilated rack and deck ovens, low temperature controlled fermentation cabinets, chambers, and display cases. Eurofours can count many well-known names such as Le Nôtre, Ladurée, Paul, Banette, Bridor and Baguépi among its customers.

The company develops comprehensive designs for bakeries, providing them with all the displays and display cases they need. The ability to produce these ready-to-use solutions is one of its strengths. This niche market enables Eurofours to build around 3,000 ovens per year, achieving 70% of their turnover in France and 30% in exports to no less

than 100 countries, mainly Canada and Asian countries.

"There is a lot of competition in our business," says products & methods director Mickael Rousseau, "but we are the only company that offers such a wide product mix, enabling us to propose and realize comprehensive solutions."

Complete solution

In March 2020, LVD delivered and set up a *Phoenix FL-3015* 6 kW laser cutting machine with *Compact Tower* automation, as well as two press brakes: first a *ToolCell 135/40* and later on an *Easy-Form* 9 80/25. In addition, the company has LVD's *CADMAN*® software. The machines and software were installed right at the beginning of the Covid pandemic, which allowed the company to master the new equipment at its own pace.

Yoan Khinache, sheet metal & methods manager, explains: "With the *CADMAN* suite LVD provided a complete solution. The connectivity between the software, our ERP system, the laser and the press brakes has significantly improved our manufacturing capabilities."

The Phoenix met Eurofours' requirements in terms of power and cutting capacity in different materials and thicknesses.

The press brakes are equipped with LVD's *Easy-Form*® *Laser* in-process adaptive bending system, which enables them to adapt to material variations such as sheet thickness, strain hardening and grain direction, thus guaranteeing the desired bend angle. As for the ToolCell, it was the automatic tool-loading and unloading system, resulting in a 30% time-saving, that convinced Eurofours.

"The automatic tool-loading and unloading resulted in a 30% time-saving."

Good results

"It was definitely time to replace our outdated machinery. We contacted three companies and decided on LVD. We wanted to have more flexibility, more just-in-time work while also reducing material waste, given the current price of stainless steel," Rousseau underlines.

"We have a very good relationship with LVD," adds Khinache. "The demonstration they gave in their Experience Center with our parts was very impressive. It is also a plus that the LVD factory is only

an hour and a half away from ours. As for bending, it was the time savings of the ToolCell automatic tool changer and the *Easy-Form Laser* capabilities that convinced us."

The results speak for themselves. Rousseau: "An important thing is that we have reduced the scrap rate by 20%, also thanks to the use of the *Easy-Form*. The *CADMAN* software allows us to better manage our stock by having a faster reactive production lead-time, which in turn ensures greater profit margins.

"We have also halved the workforce in the sheet metal workshop. These people were moved to the assembly workshops.

"The investment also enabled us to manufacture the insulation panels for our fermentation equipment, which represented a big purchase cost. We also brought inhouse all subcontracted sheet metal cutting in higher thicknesses."

He concludes: "We have a great partnership with the after-sales service, the development team and the sales manager, Mr. Gallez. They are always attentive to our needs and can respond very quickly when needed."

Françoise Soetens – Metallerie

Profile

Company Eurofours SA

Since 1980

Industry:
Manufacturer of bakery ovens, fermentation cabinets and chambers, pastry, chocolate and bakery display cases

Works with:
Stainless steel, aluminum and special alloys

Equipped with:
Phoenix FL-3015 6 kW with Compact Tower ToolCell 135/40
Easy-Form-9 80/25

Software:
CADMAN-SDI, CADMAN-B, CADMAN-L, CADMAN-JOB and Touch-i4

Website:
www.eurofours.com

Watch the Eurofours testimonial

NEW DYNA-PRESS 60/20

ANSWERS THE CALL FOR MORE TONNAGE

LVD introduced its electric-drive press brake almost 10 years ago and the demand for the technology of Dyna-Press remains strong. The new Dyna-Press 60/20 answers the call for increased bending force in a highly-productive, energy-efficient machine.

More bending capacity

The first *Dyna-Press* was a 12-ton model designed for bending small parts in a compact machine that could be transported by forklift. The 24- and 40-ton *Dyna-Press* machines followed, providing a broader range of bending capacity.

In 2018, LVD launched *Dyna-Cell*, the first 100% LVD-built robotized bending cell featuring a *Dyna-Press* 40/15 Pro, which further expanded the scope and the demand for the *Dyna-Press*. A year later, LVD's *Easy-Form® Laser* (EFL) adaptive bending system became available on the *Dyna-Press* 40/15 Pro, adding a higher level of efficiency and repeatable accuracy to the *Dyna-Press* family.

Complete offering

LVD's newest electric-drive press brake is the *Dyna-Press* 60/20. Featuring 60 tons of pressing force and 2 meters of bending length, the machine closes the gap between LVD's electric-drive and hydraulic press brakes, which start at 80 tons.

All *Dyna-Press* machines offer universal, Wila or US style-punches and universal, LVD or US style-dies. Pro versions offer pneumatic Wila clamping for the European market and hydraulic clamping for the U.S. market. The 60/20 Pro also provides an optional crowning system, which is tailor-made for the machine. The crowning system ensures a consistent bend angle over the entire bending length.

The expanded *Dyna-Press* range provides a wide choice of electric-drive press brakes to suit every bending requirement:

- Standard: 24/12 and 40/15
- Pro: 40/15 and 60/20
- Pro EFL: 40/15 and 60/20

Why Dyna-Press?

- **High processing speeds**
  Dyna-Press efficiently bends small to medium-sized parts at speeds up to 59 inches per minute.
- **Functional design**
  A streamlined design uses two heavy-duty ball screws to drive the force transmission from the servomotors to the pressing force of the ram. Fewer components means less maintenance.

- **Bending methods**
  Machine and software are suitable for a range of bending methods: air bending, coining, hemming and bottoming.

- **Easy-Form® Laser**
  LVD's *Easy-Form® Laser* adaptive bending system ensures a higher level of precision bending. EFL is available on *Dyna-Press* 40/15 Pro and 60/20 Pro.

MEURER MOVES FORWARD WITH DIGITAL WORKFLOW

Food industry machinery maker Meurer Verpackungssysteme GmbH is implementing LVD's CADMAN® software suite to achieve a seamless, end-to-end digital workflow, from 3D model to finished sheet metal component.

Failure is not an option

Meurer specializes in end-of-line packaging machinery for foods such as dairy products, tea, coffee and bottles of wine. Since 2015 the company is part of US-headquartered ITW, a global manufacturing specialist with 85 divisions and a $12 billion turnover.

Meurer's strategic marketing director, Matthias Look, explains: "Our whole philosophy is to deliver a solution that is fully integrated and tailored to the customer's needs.

"For our customers, the critical thing is the availability of the machine. Supermarkets have very specific requirements on when they want products to be supplied. If the product isn't supplied on time there will be empty shelves in the store and the supplier will be fined.

"Failure is not an option, customers have to rely on our delivery performance. And this leads back to our manufacturing operations.

"We make around 50 to 60 thousand distinct parts a year with just 8,000 repeating parts. So it is important to get the right mix on the manufacturing plan to minimize setup times."

Hermann Brand, head of operations, continues: "The starting point for us is the productivity and flexibility of the machines. We need to be able to integrate fast track jobs in the production flow."

Latest technology

Meurer already had two *Easy-Form* press brakes retrofitted with the latest controls.

The *Easy-Form® Laser* adaptive bending system plays a key part in Meurer's manufacturing strategy, says Hartwig Busch, head of component production: "You get a good part right from the first part and that is vital to achieve the availability and quality of components we need."

In parallel with this, a new *Phoenix fiber laser* was installed. "We constantly look at the flow of work through the department. We saw that we could do more, but our old 4 kW CO_2 laser was a bottleneck. On the one hand it was no longer energy-efficient, and on the other hand our production possibilities were constricted by the laser power."

Brand adds: "The advantages of the fiber laser are clear. On the basis of our trials I would say it is around three and a half times faster, with a very good cut."

Process integration through the manufacturing chain

Brand continues: "We have a big

engineering department and although we standardize our machines, there are always new parts."

The complete LVD software process integration was introduced. "In the past we had a 2D system. Contours were taken from individual drawings and prepared for the laser and nested on the sheet. Now 3D parts are seamlessly transferred from engineering onto a server. The LVD software imports the data, automatically generates the cutting and bending programs and sends them to the machines."

The software includes the latest *CADMAN-B* bending software, *CADMAN-L* laser cutting software, *CADMAN-SDI* smart drawing importer and *CADMAN-JOB*.

CADMAN-JOB manages the interactions between the engineering department, the ERP system, CAM and the workshop in order to optimize manufacturing resources and production time.

He adds: "*CADMAN-JOB* gives us real-time visibility on the status of individual components, telling us which part is on which machine, what has been completed, what is ready for dispatch. So we get 100% oversight of the whole operation and a continuous data flow from A to Z."

Touch-i4 will allow the team leader to organize and monitor parts on the shop floor – tracking which parts on which sheet go with which assembly, even when they have moved on to secondary operations such as deburring and thread cutting.

Long-term partnership

This is the latest stage in a long-term relationship with LVD.

The first LVD machines were supplied to Meurer in 2011. Until then the company had been outsourcing its sheet metal work. LVD trained about 20 people from engineering and production on how to design, program and produce laser cut and formed sheet metal parts.

The next step came in 2016 when Busch was put in charge of part production. "We carefully audited the whole manufacturing process so that we could re-organize it and optimize it.

"Moving from 2D to 3D, we had to be able to design the sheet metal parts so that we could make them. Our engineers worked with LVD to continually refine them so we could get the right sheet metal parts and optimize them on the sheet and produce them.

"In 10 years' time, the production environment at Meurer has evolved tremendously. But it hasn't happened overnight, we have always been moving forward step by step."

MTL COOL - CANADA

KEEPING COOL UNDER PRODUCTION PRESSURE

Simplifying production processes is key to speeding up production. When it involves a variety of parts and custom products, maintaining flexibility is critical. When commercial refrigerator manufacturer MTL Cool planned its shift to fabricating metal parts in-house, this is what it had in mind.

Family history, changing industry

MTL Cool is a Canadian, family-run manufacturer founded in 1997 that specializes in point-of-purchase refrigerated displays.

Founder Mark Bedard began working with his father in downtown Montreal repairing residential and commercial air conditioning units. The company was asked to design a refrigerated display to accommodate different products. It was that one custom request that kickstarted MTL Cool. The client list has since included brands such as General Mills, Danone, and Kraft Heinz.

The company opened a 4650 square meter facility in Chambly in 2017 and now has a second assembly plant in Plattsburgh, N.Y. Mark's son Thomas has since joined the management, the fourth generation of family involved in the refrigeration business.

"We've been through a few changes in terms of products since MTL Cool was created," says Thomas Bedard, vice-president of production. "We were producing industrial chillers and heat pumps for a while. In 2014 we started importing a lot of material to build point-of-purchase refrigerators. As the supply chain can be unreliable, we decided to manufacture most of the materials ourselves."

MTL Cool has always kept operations as streamlined as possible. "We jumped head-first into the deep end with manufacturing," said Bedard. "And it has paid off. We now import less than 10% of the material we use in production."

Streamlined fabrication

MTL Cool works in cold-rolled steel, galvanized, and some aluminum; the thickest sheet it uses is 3.2 mm. With the variety of secondary features required in refrigeration units, a punch press was a natural fit.

The company invested in an LVD *Strippit PX-1530* punch press, which allows it to punch, bend, tap, and form parts with flanges up to 3" (75 mm) high. Its tool changer features all-tool rotation to a full 360 degrees and can hold up to 200 tools. The punch is equipped with a tower that can facilitate lights-out operation.

Point-of-purchase refrigerated units

To ensure that the press brake could easily adapt to order changes without concerns about tool changes, MTL Cool equipped itself with an LVD *ToolCell 135/30*. All of the tool loading/unloading is automated. It is equipped with LVD's *Easy-Form® Laser*, which monitors the angle of the bend in real time to provide instant feedback to the controller.

The metal fab department is managed by three team members during the day. All programming for both machines is done offline in the office using LVD's *CADMAN* software. At night a two-man crew keeps both machines going. This is the only area at the facility that runs two shifts.

In addition, the company has its own powder coating and foam injection machinery, such that it can build panels for its refrigerators.

Shifting priorities

Since the company first invested in its equipment, business has increased such that it has had to change its approach in the production department.

"Ideally we would purchase more equipment, but we don't have the square footage available," says Bedard. "Instead, we are outsourcing our higher volume, cheaper parts, keeping in-house complicated, critical parts and prototyping."

The flexibility of its automated machines means that running high-mix, low-volume parts is relatively straightforward for MTL Cool. "We used to have subcontractors doing our prototype parts," explains Bedard. "Now, if we know we will be cutting parts in a certain thickness on a certain day, we will include prototype items on those nests. Having that flexibility is a real benefit because prototyping new products takes a great deal of time."

This flexibility is ultimately helping the company grow.

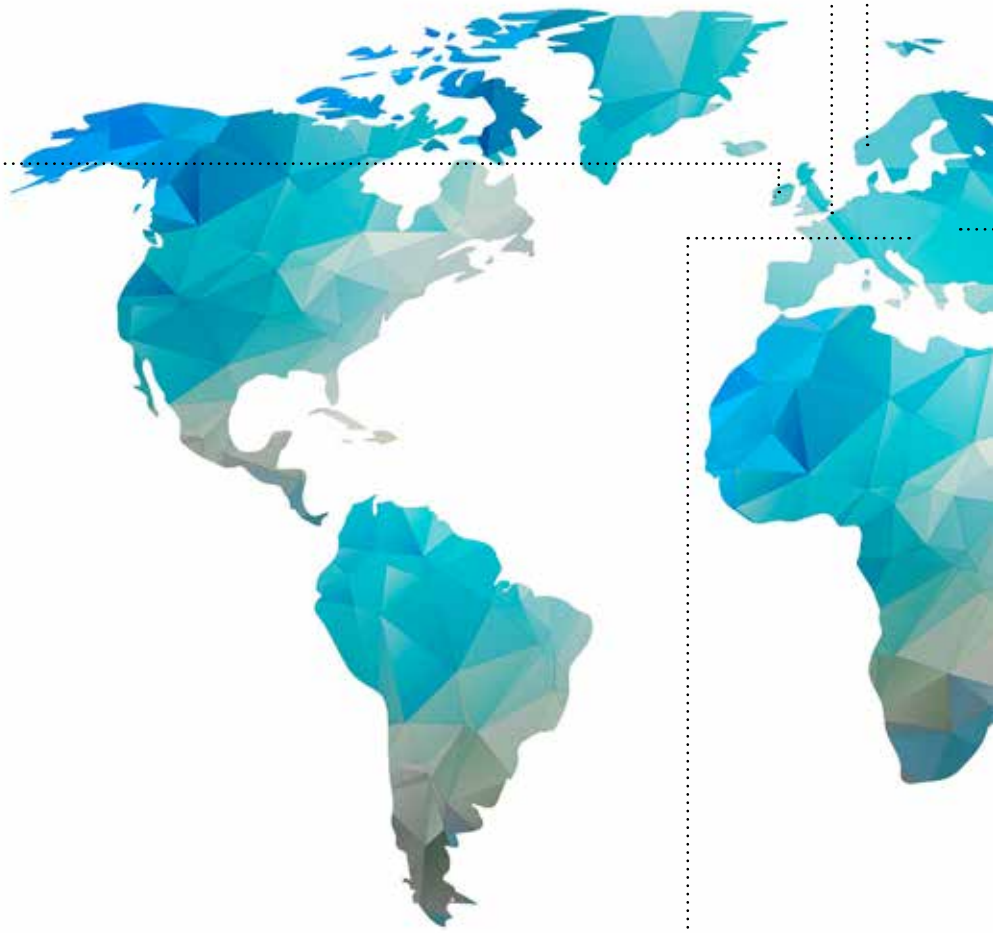
"Since MTL Cool began to market and sell our own products made in Canada and the USA, the growth trajectory has been very strong," says Bedard. "We are making significant strides with major retailers in the grocery industry and look to continue to bring needed, innovative, and quality products to the market. We continue to implement actions to increase the use of our existing facilities and are looking at strategic plans to take it to the next level."

Canadian Fabricating & Welding - April 2022
www.canadianfabweld.com

GLOBAL REACH

Belgium

'Creative with Aluminum' is the motto of **Ursus bv.** Offering a mix of services and its own brands, the company designs and manufactures niche products for the cladding (window and door) construction market – all with a focus on innovation and a unique market approach. A *Phoenix FL-4020* 6 kW laser coupled with two *PPEB* press brakes and *CADMAN*® software do the work of efficiently producing the precision aluminum components Ursus fabricates.



Ireland

Graepel Perforators & Weavers Ltd manufactures a wide variety of products for industry sectors ranging from architectural and construction to food processing and quarrying. The company is able to deliver an extensive line of high-quality products through advanced, flexible production equipment, including an *Easy-Form* 9-axis 220-ton press brake.

Austria

Specializing in custom elevators and lift systems, **M-Tron** is a full-service provider, from design to planning and production of individual lift components, housings, door frames, and interior cladding. A new production hall has tripled its production capacity and its ability to meet market needs into the future. Improving its sheet metal cutting process is a *Phoenix FL-4020* with *MOVit Load-Assist* automation.

Norway

IMS Technologies AS is the world's leading manufacturer of watertight doors for ships and the offshore industry. Through close collaboration with ship owners, shipyards and operators, IMS is able to develop its leading-edge products and solutions. A new *Phoenix FL-6020* 10 kW laser provides the high-power, large-table cutting capacity needed to manufacture both small- and large-format components.

Czech Republic

Pegas-Gonda s.r.o. is a second-generation family business that produces general purpose, dual column and joint band saw machines, as well as band saw blades for metal cutting. A fast-growing company, its goal is to exceed production of 1500 machines a year. To go from design to formed component as efficiently as possible, Pegas-Gonda has invested in an *Easy-Form* 220-ton press brake with LVD's *Easy-Form® Laser* adaptive bending technology and *CADMAN-B* software.

Slovakia

NMH is a custom manufacturer of industrial products, offering design, engineering and production solutions from single units to complete turnkey installations. Setting the company apart is a *Taurus* 10 kW laser cutting machine. Using the Taurus, NMH can cut sheet sizes as large as 22000 x 3.300 mm at high cutting speeds in thin and thick materials. Taurus helps NMH take on more work and a greater diversity of jobs to enhance its competitive edge.

Indonesia

P.T. Abacus Kencana Industries manufactures industrial racking systems and is also one of the largest sheet metal subcontractors in Indonesia. The company has exponentially grown its business. Advanced fabrication equipment including LVD high-speed laser cutting, punching and automation systems are key to the efficiency of its manufacturing. A new *Dyna-Cell* robotic bending cell is the company's latest investment.

New Zealand

Macintosh Farm Machinery has been building farm and agricultural machinery for more than 70 years, serving New Zealand and Australia. Their equipment is known for its innovative engineering, heavy-duty construction and durability. Using an *Easy-Form* 9-axis press brake, they ensure the accuracy of bending operations to produce large, complex parts that comprise their advanced farm machines.

DANIEL FEDAK

HELPING LVD CUSTOMERS WORLDWIDE

On the southwestern border of Slovakia, close to Hungary, is the large production plant LVD S3, where press brakes, laser cutting machines and press brake tooling are produced. It is also where Daniel Fedak, a young field service engineer, is building his future and the place from where he starts his travels all over Europe and far beyond, to get press brakes up and running.

In Field Service every day is different

"Working as a field service engineer is my dream job. I have strived for it and have been a part of the World Service team for four years now. I was almost 20 when I started working at LVD S3. I combined assembly work with a day of lessons per week in Košice. Three years later, I had my degree and could finally start working as a field service engineer. My brother Michal is following in my footsteps, and has been combining his work at LVD S3 and school for two years now."

"I do all the work related to the customer's press brake, from installation, maintenance and repair to replacing spare parts and training the operators on site. I go to many places, meet new people, and every day is different. Sometimes I run into a technical problem that makes me scratch my head. But I always find the solution, sometimes remotely assisted by the service team in Belgium. Once the machine is running and the customer is satisfied, it makes me feel great."

Challenging machines

"Large machines are labor-intensive because of their weight. Take a 12-meter-long press brake with 2000 tons of pressing force. The steel parts weigh several hundred tons and have to fit precisely. The press brake must be perfectly aligned. A large press brake is usually assembled in three weeks, but sometimes if the machine is really large and more complex it can take up to three months. It's always a great feeling when such a large project is successfully completed," says Daniel.

Daniel also helps to install and dismantle machines at trade fairs, and has done so in Thailand, India and the United States. He works well together with co-workers and has strong technical know-how, including experience with robotized bending cells.

Tinkering with vehicles

"I spend my free time with my girlfriend, family, friends and - not to forget - my dogs. For me, being at home feels like I'm on vacation. It's also beautiful here. The Tatra Mountains, one of the main tourist attractions in this area, are just an hour away. You can make brisk walking tours there."

"I feel I am part of the LVD family and am proud of how far I've come."

"Even at home I cannot unplug from tech. I love tinkering with motorcycles and cars. I used to race my motorcycle on tracks and on the roads, for the thrill."

"I can speak Hungarian, my father's native language. It's the language I grew up with in a region that was formerly part of Hungary, just like the LVD S3 area. Did you know that Hungarian has its roots in the Finno-Ugric languages? It is related to Finnish, not to Slovak. Interesting, right?" Daniel smiles.

LVD ROBOTIC SOLUTIONS

FAST TO PROGRAM AND EASY TO USE

LRS

LVD puts robotics within reach for a broad scope of manufacturers, offering solutions that eliminate robot teaching, balance system price and functionality to make robotized automation a viable choice.

Standardised solutions

Robot teaching eliminated

Key to increasing adoption of robotics in manufacturing is eliminating "robot teaching." Historically, robotized cells necessitated a highly skilled robot programmer and required "teaching" the robot the moves needed to manipulate the part correctly and without collision – a costly and time-consuming process complicated by a shortage of specialized programmers.

LVD Robotic Solutions (LRS) is a key software development partner. The LRS smart programming solution eliminates the need for robot teaching. Standardized robotic bending cells, like *Dyna-Cell* and *Ulti-Form*, use *CADMAN*-SIM programming software to automatically generate the optimal bending program, collision-free robot path and gripper positions. As a result, it's possible to go from "art to part" in just 20 minutes with no robot teaching, making small to medium batch production cost effective.

Balanced price point

Another factor influencing implementation of a robotic solution is the overall cost of the cell. Traditionally, manufacturers looked to automate all types of parts. The result was "over automation," and a complex and expensive system that could only be justified for high-volume applications. Today, the market calls for robotic systems with fast change over between jobs for small to medium batch sizes,

Customized solutions (picture Creative Production)

"By adding robot applications to its portfolio, LVD has become a complete automation solutions provider."

and a price point that ensures optimal cost per part production.

LVD focuses on standardization whenever possible. When this is not possible, there is a close examination of each element of the solution to analyze cost-to-benefit and prevent over-automation.

Ease of use

All LVD products are designed for ease of use, and this is also key to the robotized cells. As a shortage of skilled labor impacts manufacturers worldwide, easy-to-use production equipment is more critical than ever before.

Bending cells like *Ulti-Form* and *Dyna-Cell* use a single, icon-driven touchscreen control to coordinate all operations of the cell, minimizing and simplifying operator interaction.

Beyond sheet metalworking

LVD Robotic Solutions was created following the acquisition of the solutions business unit of Kuka Benelux. The robotic experts at LRS have years of experience across a wide variety of applications, including non-sheet metal robotized production and solutions for coating, press-linking, handling and assembling. With LRS, LVD opens the doors to a broader scope of robotized solutions and new opportunities for LVD customers.

Have questions about robotic solutions? Contact LVD at marketing@lvdgroup.com.

INNOVATION TOUR: DIRECT TO YOU

On the road to sheet metalworking companies across North America with LVD solutions.

For the Innovation Tour schedule or to register an event at your facility, visit: www.lvdgroup-innov8.com/innovation-tour/

In 2021, with a global pandemic preventing trade shows or large-venue in-person events, and virtual events and webinars exploding, LVD North America choose an unexpected path: Commissioning a custom 46-foot mobile showroom.

The concept was simple: bring LVD solutions to sheet metal fabrication companies in a personal, friendly, right-to-your-doorstep approach and in a safe setting. Since kickoff in October 2021, the Innovation Tour has traveled roughly 24,000 miles.

Technology on board

The showroom is equipped with a *Dyna-Press* Pro 40/15 press brake with *Easy-Form® Laser* adaptive bending system powered by LVD *CADMAN-B*, CAM software for bending. Other LVD products are showcased in presentations and video.

Easy-Form Laser (EFL), LVD's unique adaptive bending technology, provides feedback in real time to the machine control, which processes it and immediately adjusts the punch position to achieve an accurate bend.

LVD was the first in the industry to offer adaptive bending, having introduced a mechanical system for angle measurement and correction in 1993.

Tour attendees experience the precision of *Easy-Form Laser* through various bending demonstrations.

Making connections

The mobile showroom offers a unique environment for one-on-one interactions.

"It's informal and comfortable and a genuinely easy way to connect with all walks of fabricators, says Chuck Fick, associate press brake product manager. "We learn more about what companies are challenged with and have in-depth conversations about how the right technology can have a positive impact on their business."

Because of its right-to-your-door convenience, the mobile showroom draws a diversity of attendees. It's not just the senior or middle managers who would visit a trade show, but a wide range of a company's employees – people who have different perspectives to share.

"In one visit we can meet with the business owner, senior management, engineers, programmers, machine operators and maintenance personnel – it's a great mix of people who look at technology in different ways," reports Sylvain Lefebvre, president of LVD North America. "The dialogue is open and honest and we get a clear picture of their wants and needs. It's remarkable and so unlike a trade show where only a select group attend and there are distractions and limited time."

Easy and convenient

The mobile showroom is usually set up in 45 minutes or less. For the company hosting the Tour, there is no traveling, expense or lengthy amount of time away from work. It's an easy way to see new technology.

Events are small-scale and customized. Health and safety protocols are top of mind. The showroom is equipped with an advanced filtration system for air flow.

For most events, lunch and refreshments are provided. LVD promotional items and the chance to register to win a trip to LVD's Experience Center in Belgium are part of every stop, as are special offers on LVD equipment.

Meeting with success

The success of the Innovation Tour has generated interest to expand the program to technical schools and use the Tour to supplement in-person open house events.

"Going on the road has proved a fantastic way to engage with both existing clients and new prospects all across the country. We keep the program flexible with versatility on where we stop, how long we stop for, and whether we make a repeat visit. The Tour will continue into 2023," notes John Wolf, LVD North America sales manager.

TA-NO - POLAND

ALWAYS MOVING FORWARD

Since 1989, the year of the fall of the Berlin Wall, as well as the year in which Solidarność won the first free elections, Poland has undergone enormous economic development. In just one generation the country transformed from a closed Eastern European economy to a country brimming with entrepreneurial potential. TA-NO, renowned trailer and car body manufacturer, is one of these successful companies, in business for 25 years.

Wide vehicle range

TA-NO has always embraced technology and innovation as a manufacturer and as a subcontractor for high-quality sheet metal goods. It invested in several LVD press brakes and a *Phoenix FL-4020* laser cutting machine, all driven by the full *CADMAN*® software suite.

The family-owned company prides itself on being one of the oldest companies in trailer construction, a business in high demand in Poland, where the infrastructure is mainly focused on transport by road, especially for large or heavy loads. The water level of the various canals that connect the south and north of the country is too low for heavy-load transport and even transport by rail does not offer the right solution.

TA-NO produces light, single-axle trailers for recreational purposes up to three-axle heavy goods trailers with a capacity of 60 cubic meters. Car bodies include autotransporters, also with double deck, boxes, containers, and custom-made structures. The company exports 70% of its products; mainly to the European Union, but also to New Zealand and the United States. The facility occupies 6000 square meters of production and office space and employs more than 120 employees.

The only right solution

The collaboration with LVD began more than 10 years ago with the purchase of a *PPEC* 220/42 press brake. After a few years, the growing demand and the positive experience led TA-NO to return to LVD for another press brake, an *Easy-Form* and later on a 6 kW *Phoenix fiber laser* cutting machine.

“When TA-NO was planning further investments, we thought it was an ideal customer for the LVD *CADMAN* software

suite," says Maciej Dąbrowa, national sales manager of LVD-Polska.

"From the moment LVD demonstrated the Industry 4.0-ready software, we were convinced that this was the only right solution for TA-NO," says Jakub Nockoski, sales manager at TA-NO. "Thanks to this solution, we were able to precisely analyze production time, machine efficiency, operator efficiency and direct waste management."

CADMAN common environment

The growing role of digitization almost forces manufacturers to apply the principles of the Smart Factory.

"Nowadays, where short series dominate and the delivery time is extremely important, the implementation of this type of solution is a must to be competitive in the market," explains Dąbrowa. "The *CADMAN* software suite perfectly meets the needs, with the great advantage that it also enables the integration of third-party machines, creating a common environment."

The central database allows connection to devices, machines and processes, monitoring and remote support. It reduces production time, increases efficiency and flexibility and minimizes material waste. Moreover, it allows fast reaction to the constantly changing data, creation of better-priced offers, and improves the work environment for employees.

Also the *Touch-i4* industrial tablet has been used by TA-NO for many years. It allows the user to check real-time data from any place in the plant, facilitating management of the complete production process.

Confidence with Easy-Form

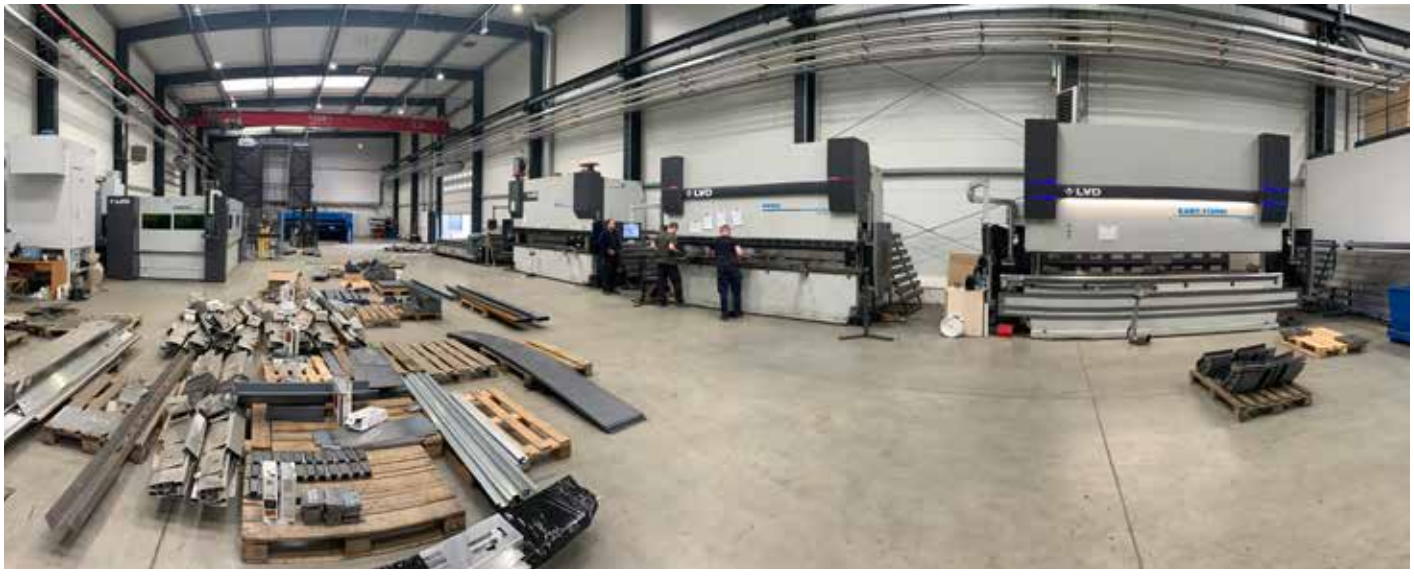
LVD software is not the only solution that helps TA-NO maintain the highest standards. The company decided to buy an *Easy-Form* press brake, precisely because of the *Easy-Form® Laser* system. "This real-time adaptive bending system has revolutionized our production in terms of time and quantity. We managed to reduce bending errors below the assumed minimum, and accelerate the manufacturing process by 20 to 30%. Operators feel more confident using the technology," Nockoski points out.

Common goals

Modern technology plays a huge role in this story, but it's just as important to have like-minded business partners.

"Over time, LVD turned out to be not only our supplier and installer, but also our partner and advisor. Thanks to this, we are sure that we have chosen the right path and we intend to follow it further," emphasizes Jakub Nockoski.

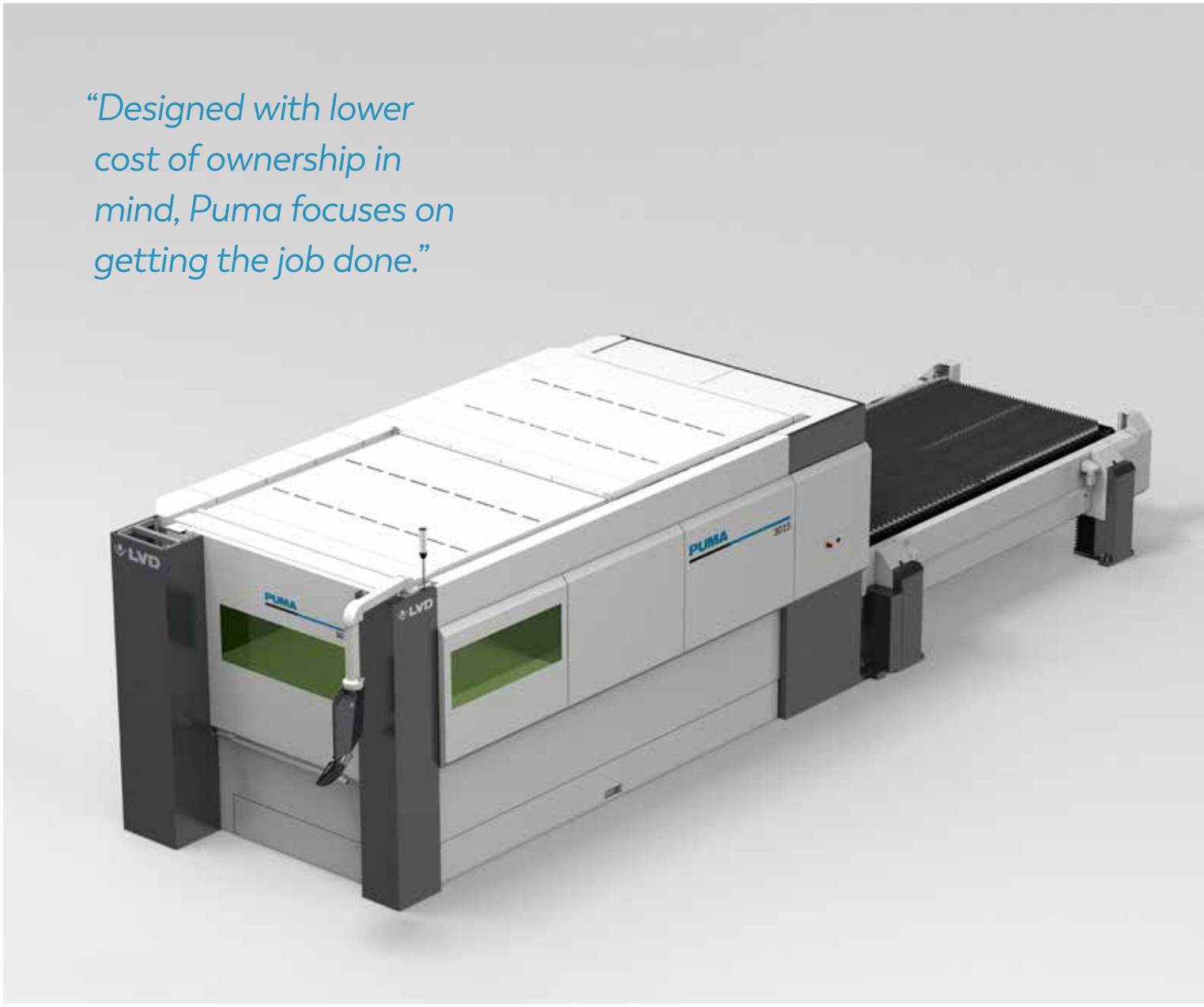
Watch the TA-NO testimonial



PUMA

TOTAL SOLUTION FOR COST-EFFECTIVE LASER CUTTING

"Designed with lower cost of ownership in mind, Puma focuses on getting the job done."



Puma, LVD's latest laser cutting machine, provides proven laser cutting technology in an economical design. The machine focuses on getting the job done at a lower cost per part.

Lower total cost of ownership

Built by LVD's Global Manufacturing network, Puma uses field-proven production methodologies in a lower-cost design. The machine features cost-effective components selected for their quality and reliability, such as a Maxphotonics fiber laser source and a Tongfei chiller.

Lower purchase, operating and spare parts costs will ultimately reduce the cost per part.

All-round performance

Puma provides all-round performance at an affordable price point, processing a wide range of material types and thicknesses with high repeatability. Machine accuracy is ensured by the welded steel frame construction, a feature of all LVD flatbed lasers. It provides maximum stability and minimizes deformation caused by high acceleration.

Agility to take on any job

Designed with cost-effective operation in mind, Puma doesn't compromise on versatility and offers peace of mind that your cutting operations will run smoothly. The machine features a range of options that increase its capacity.

- The optional automatic nozzle changer increases throughput by quickly performing nozzle changes, nozzle cleaning and control.
- The *CADMAN-L* software releases the full potential of the machine, including optimized sheet utilization and collision avoidance.

Automation-ready

Puma is compatible with all LVD's MOVit Laser Automation systems, including:

- Load Assist
- FA-L – Flexible Automation
- CT-L – Compact Tower
- TAS – Tower Automation System
- WAS – Warehouse Automation System

Specifications

- 19" icon-driven Touch-L touch screen control
- 120" x 60" sheet size
- 3, 6 and 12 kW laser power

For more information, contact your local LVD sales representative.
Visit lvdgroup.com

Why Puma?

- Lower total cost of ownership
- All-around performance
- Agility to take on any job
- Automation ready


VIGAN

materialized by LVD since 1952

VIGAN

Belgium-based company VIGAN is a leading manufacturer of pneumatic unloaders, used for unloading ships in ports worldwide. Pneumatic unloaders lift products by vacuum out of the hatch of the vessel to fill trucks or to transfer on a conveyor belt to storage silos.

VIGAN handles the entire process, from concept and engineering to production and pre-assembly of the unloaders on site. Each machine is perfectly tailored to meet the customer's requirements.

Recently, VIGAN invested in a *Phoenix FL-6020* laser cutting machine to cut larger pieces, eliminate welding work and add capacity for future growth. They also installed two *Easy-Form* 320/40 press brakes synchronized for bending in tandem up to 8 meters. With the complete *CADMAN*® software suite the company has full control over its production flow.

VIGAN is part of the Van De Wiele group.


Shaping **flows.**
Managing your production process can be tough, we know!
Luckily there is LVD's CADMAN software that helps organize your product flows. The centralized database is the lifeline connecting your front office and shop floor.
We are here to help you, reducing the cost per part, seamlessly linking your production steps and increasing throughput with software suited to your varying applications.
integrated
Shape your flows with LVD.
Learn more at **www.lvdgroup.com**
LVD
2022 BELGIUM'S BEST MANAGED COMPANY
An initiative of **Deloitte.**