LVD

LVD's Global Perspective

# DISCOVERY

issue n° 25

CADMAN-Flow, gateway to faster programming

Manufacturing intelligence at KOMASPEC

Increased productivity with panel bending

*"Commit to excellence: efficiency and quality every day."*

Alexander Fickers, CEO Faymonville Group

# TABLE OF CONTENTS



**Editorial Note:** Share your thoughts at marketing@lvdgroup.com or connect with us on social media. For information about products you see in this issue or to find your local LVD contact, head to **www.lvdgroup.com.**


LVD Company nv
Nijverheidslaan 2, 8560 GULLEGEM, BELGIUM
Tel. +32 56 43 05 11
marketing@lvdgroup.com



*Maxime Berube, general manager KOMASPEC*

*"We differentiate ourselves by manufacturing most of our parts in-house."*

# DISCOVER

## LEADING WITH DATA, AUTOMATION


*Faymonville*

*"Our vehicles stand out for their technical quality, thanks to sustainable production methods."*

**Askon Demir, Türkiye**

*"The Askon Academy enables us to train our own staff and gives students the chance to gain experience."*

**14**

Dear reader,

Good data matters because it paves the way to smarter manufacturing. So, too, does automation – automated processes, systems, and equipment are transforming the machine shop as we know it.

In *Discovery*, we spotlight smart technologies to eliminate non-productive time, make production processes faster and digitally connected.

Contract manufacturer KOMASPEC compares the convergence of intelligent science, technology, and manufacturing to a powerful chemical reaction. Using LVD software, the company has reduced equipment setup times as much as 40%.

Maarten Daemen, general manager of LRS, our robotics company, shares how development of user-friendly programming software for automation is fueled by the universal struggle to fill the labour gap and how LRS is making automation the answer for a broader range of users.

As production requirements become more complex and customer needs more individual, data and automation continue to take the lead.

Carl Dewulf
President & Managing Director

# *Building a better brand*

At LVD, we are on a mission to build a strong employer brand.

As a family-owned business, our values have always been aligned to fostering a friendly, collaborative work culture where ideas are encouraged and innovation can thrive.

This positive framework has helped LVD lead with industry solutions and unique products and processes like our *Easy-Form® Laser* technology, Touch controls, and *CADMAN®* software.

Last year, we embarked on a dedicated employer branding project which included a comprehensive survey, focus groups, and world café sessions with all subsidiaries. The evolution of our brand is ongoing and long term, but the results, feedback and subsequent development initiatives will prove integral in strengthening the value of the LVD brand for our employees and customers.

*We use the employer branding slogan 'Let's bend the future together', with 'bend' focusing on our roots and on the agility of our company, 'the future' referring to our innovative character and 'together' emphasizing the importance of teamwork to LVD.*


# *Recognised for leadership*

For seven consecutive years, LVD has been recognised as a privately-owned business leading in the areas of strategy, culture and commitment, capabilities and innovation, governance, and financial performance.

In recognition of this remarkable achievement, LVD has been awarded this year the Platinum Belgium's Best Managed Companies award by Deloitte Private, Econopolis and KU Leuven.

# Nordic expansion

In addition to its presence in Norway through LVD Scandinavia AS, LVD has appointed dedicated agents in Finland, Sweden, and Denmark to better support existing customers in the Nordic region and grow the LVD brand in this area.

**Finland: Vossi Group**

Vossi Group Oy in Tampere, Finland, is the exclusive distributor of LVD press brakes, robotised bending cells, shears, punch press equipment and *CADMAN*® software.

A family-owned business since 1992, Vossi aims to help Finnish manufacturers gain a competitive advantage by using the latest production technologies and life cycle services. With sales offices and service points nationwide, Vossi will introduce new bending technology to its growing customer base.

**Sweden & Denmark: OLSONS**

OLSONS, based in Vingåker, Sweden, provides sales and service support in Sweden and Denmark for the complete portfolio of LVD machinery and software.

With more than 50 years of experience, OLSONS is recognised for its strong service network, including service technicians in 10 Swedish regions. The integration of the LVD Scandinavia AB staff in Sweden will expand OLSONS to nearly 40 employees. Its emphasis will be on automation, robotics, and large-tonnage press brakes.

**Norway:**
**info.no@lvdgroup.com**

**Sweden & Denmark:**
**info@olsons.se**

**Finland:**
**sales@vossi.fi**

# Maintaining key partnerships

LVD is once again sponsoring the Chair in Sheet Metalworking Research at KU Leuven University, Belgium, one of the top 100 universities in the world.

The partnership between LVD and KU Leuven dates back to the 1980s and is focused on developing new sheet metalworking technologies.

The Sheet Metal Research Group at KU Leuven has a long history of research experience in CNC laser cutting and bending. They take on specific short-term projects as well as longer-term research and development. Working together, LVD can more efficiently develop and test new processes and get them to market as quicky as possible.


# ELEVATE SMART MANUFACTURING

## KOMASPEC - CHINA

**The convergence of intelligent science, technology and manufacturing is like a profound "chemical reaction". Manufacturing intelligence optimises production and supply while successfully using big data and algorithms. This, in turn, enables the harmonious integration of customisation with assembly line production.**

**Agile and responsive**

Pioneering the path to manufacturing intelligence is KOMASPEC, a leading Canadian-owned contract manufacturer, established in 2005 and based in Guangzhou, southern China. The company specialises in metal and plastic components for international brands and OEMs, shipping millions of products every year.

From just five employees, KOMASPEC has grown to a team of more than 200 people. The company has three manufacturing facilities, one focusing on sheet metal fabrication, another on plastic and metal parts production, and a third on final product assembly, with a combined total floor space of 93,000 sq ft. Maxime Berube, KOMASPEC General Manager, has his own insights into why the company has achieved such strong results.

"We take pride in being an agile and responsive company. Our focus on moving swiftly is reflected in our system design and the training of our team, ensuring we meet our customers' expectations with high quality, competitive pricing and just-in-time delivery. We offer comprehensive support, including design review, project management, production and logistics.

**In-house manufacturing**

"We differentiate ourselves by manufacturing most of our parts in-house. This approach gives us control over timelines and cost, and allows our engineering team to have a deep understanding of the manufacturing processes and design. If we can provide information in real time to our MES and ERP, we can provide the information in real time to the relevant people. One critical step to achieve this is for our equipment to be connected to our MES system and this is possible with LVD equipment."

Conor Moore, KOMASPEC's Sales Manager adds: "Our success is also owed to the support of our partner LVD. In the past, we faced a lot of

issues with inconsistent machine performance, lots of downtime versus production time and just the quality of the first parts was not as good as what we're seeing with LVD now."

**Accuracy and reduced setup time**

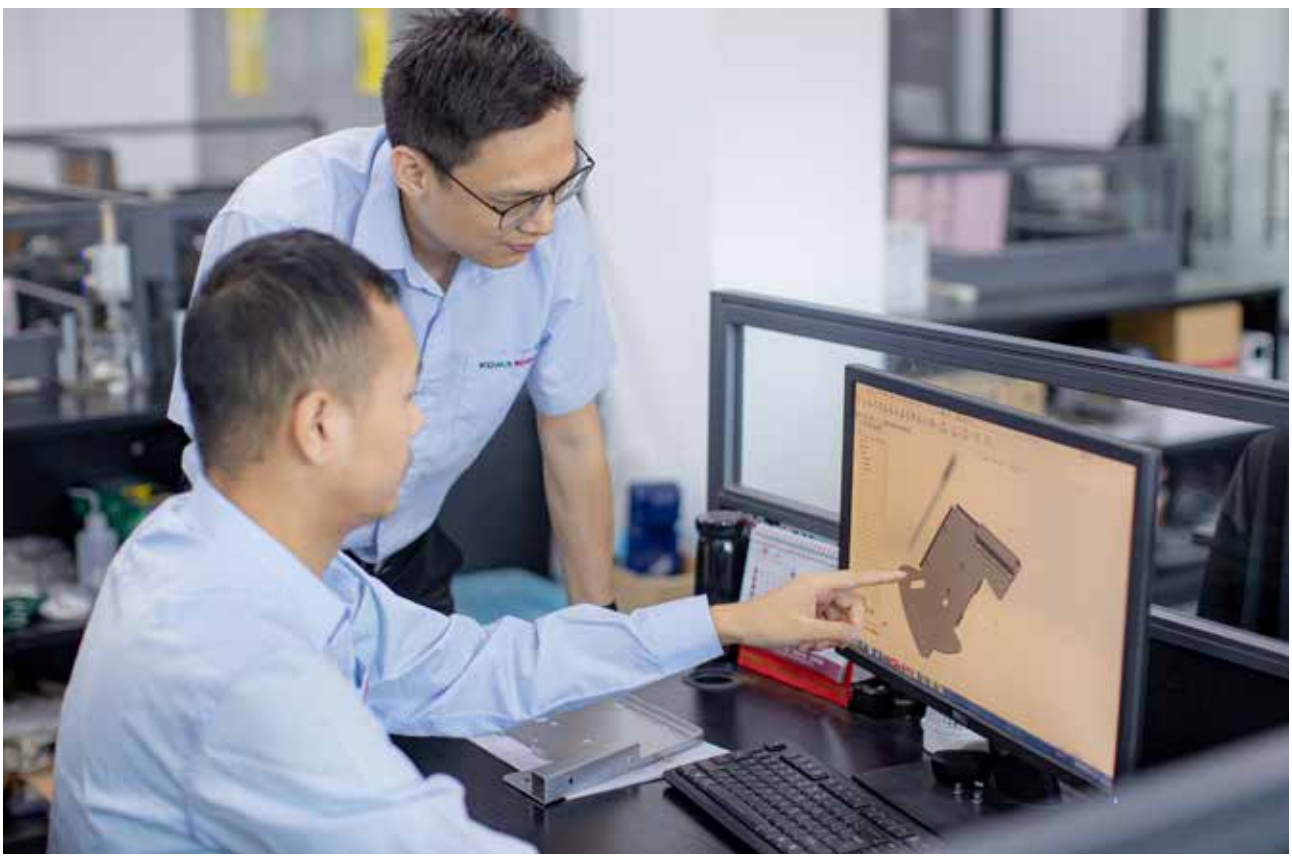
"The turning point came during a random equipment test. KOMASPEC was in search of a high-precision bending machine that could meet the stringent accuracy and performance requirements right from the initial part production. After testing LVD's *Easy-Form*® press brake, we realised that its angular and dimensional accuracy, along with its repeatability, exceeded our expectations. Also, the ability to extract data from the machine and the *CADMAN*® software suite were very powerful," says Maxime.

"LVD's cost savings are evident, firstly through the accuracy of their bending system and its adaptability to material variations, ensuring the first piece is a finished product and batch sizes are highly consistent," he continues.

Says Conor: "LVD's *CADMAN* software solutions, such as *CADMAN-B* for bending and *CADMAN-L* for laser cutting, reduced our average setup time by around 30 to 40%. Because we do a lot of parts every year, this really adds up to a lot of cost and time savings. Secondly, we have about 15% more machine utilisation. The biggest point is probably the average product development time. We save on average 5 to 7 days every time with LVD because we're making the parts right the first time and we don't need to go back and recut parts for a second production."

**Smart Factory integration**

In addition to the outstanding performance of the equipment, it was the responsive technical support services provided by the LVD team that led KOMASPEC's management to choose LVD as their preferred supplier for sheet metal processing




equipment: “Our relationship to LVD has been very positive. The quality support, the responsiveness, the consistency of parts have made our life easier by allowing us to focus on running our day-to-day business, growing it and not worrying about machine setup or production problems,” Conor says.

At present, KOMASPEC has two *Easy-Form*® press brakes, two *Dyna-Press* press brakes, a *Phoenix FL-3015* fiber laser cutting machine with *Compact Tower* (CT-L) and a *Dyna-Cell*. Additional LVD equipment is planned.
All equipment from LVD can be connected to form a Smart Factory. “Connecting our LVD equipment to the same MES system and continuously monitoring the utility, uptime, expected and actual production of our machines offers us real-time insight into the performance of our processes. It provides quick feedback for timely improvements,” Maxime shares.

“We have also introduced an online sheet metal platform, Komacut, facilitating instant quotes, DFM and online ordering. By extracting data from the networked LVD equipment, we continuously refine and improve the platform, proving particularly beneficial for product pricing and lead time forecasting.”

Wendy Wang, LVD CNC Tech

*KOMASPEC's Sales Manager Conor Moore*

*"CADMAN-B and CADMAN-L reduced our average setup time by around 30 to 40%. Because we do a lot of parts every year, this really adds up to a lot of cost and time savings. Secondly, we have about 15% more machine utilisation."*

**Watch the testimonial**

## *Profile*

**Company** KOMASPEC

**Since** 2005

**Industry:**
agriculture, mining, consumer goods, fitness equipment, automotive and recreational vehicles, construction

**Works with:**
cold and hot rolled steel, spring steel, aluminium, stainless steel, cold galvanized steel

**LVD Installations:**

- Easy-Form 80/15 and 80/25 press brakes
- Dyna-Press 24/12 press brake
- Dyna-Press Pro 40/15 press brake
- Dyna-Cell robotised press brake
- Phoenix FL-3015 fiber laser cutting machine with Compact Tower (CT-L)

**LVD Software:**
CADMAN-B, -L and -SDI

**Website:**
www.komaspec.com

# CADMAN®-FLOW: GATEWAY TO FASTER, SMARTER FABRICATION

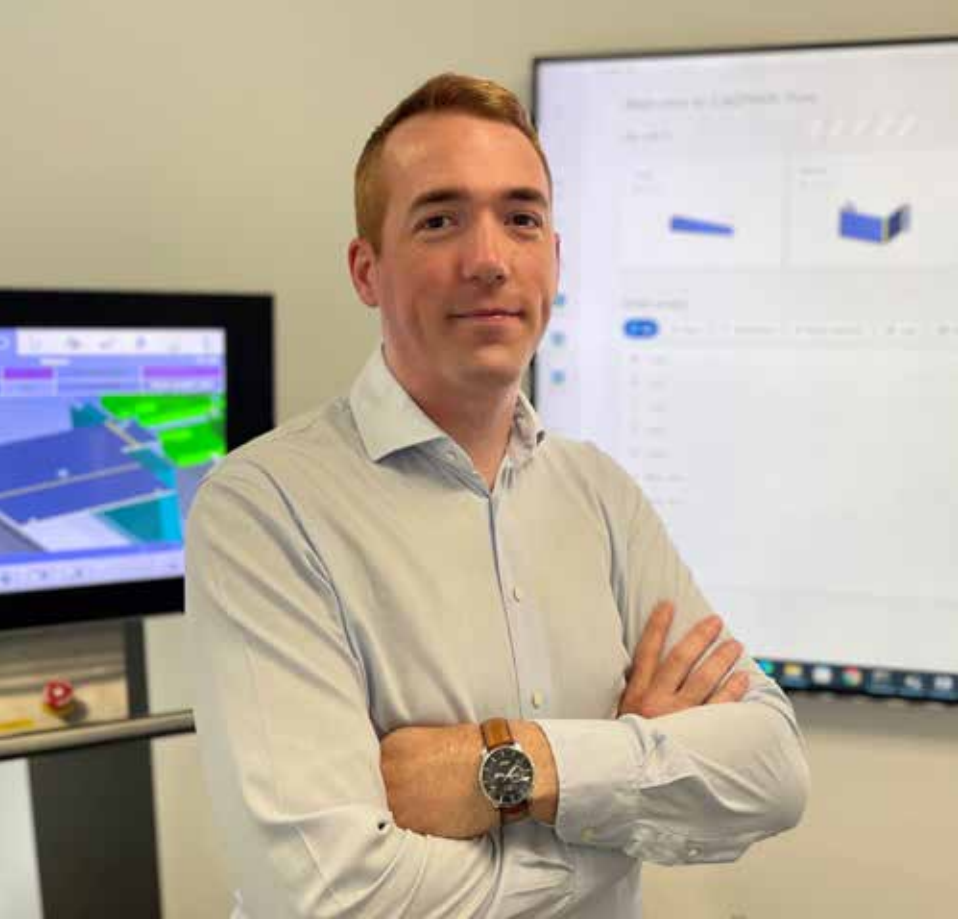
**As software continues to drive manufacturing efficiency, LVD advances its CADMAN software suite to launch CADMAN-Flow. The advantages: Faster, better part programming solutions, reduced downtime, work preparation made easier. CADMAN Sales Manager, Roman Dequidt, provides the details and explains how sheet metalworking companies benefit.**

**What is CADMAN-Flow?**
Current *CADMAN* suite users must individually launch separate *CADMAN* modules to process parts and benefit from the full software package. *CADMAN-Flow* eliminates that multi-step process. Users open the *CADMAN-Flow* environment and have immediate access to the entire software suite. Essentially, it's the gateway through which you access all *CADMAN* software. We call it "Flow" because by using this launch platform, you streamline the part preparation process, and, ultimately, improve the efficiency of your production flow.

**Why the need for CADMAN-Flow?**
Having a single gateway to all LVD software may not seem monumental, but it's significant if you're programming a lot of parts in a day. We have customers programming 600 to 2000 parts a day. For them, *CADMAN-Flow* is a game-changer. Not only does it save time and make programming more efficient, it allows collaboration between workers handling part preparation.

**What were key considerations in developing CADMAN-Flow?**
Most important was that it be intuitive. We want using Flow to be so natural there's very minimal or no training, it's a logical flow to import, edit and locate parts. We were inspired by the ease of the Microsoft® Office environment and we've borrowed from that genius. Filters will remind users of those found on web shops. Also, we want users to get the job done in the least number of clicks. Finally, we engineered a very snappy and responsive interface, so loading and operation is fast. This is especially important for users programming a lot of parts per day with a large parts database.

**Any significance as to timing?**
It was the perfect time for *CADMAN-Flow* because of our work to re-engineer *CADMAN-B*, our benchmark bending programming software. Over the years, we've grown the *CADMAN* suite to add software to manage the machine/production, import parts and assemblies. With the new *CADMAN-B*, we took a step back and asked, how can we take *CADMAN* to the next level? We chose to make the entire suite more functional. On its own, the new *B* provides significant gains with



better, faster bend solutions. Flow adds another layer of usefulness, making it much easier for programmers doing the work of job preparation.

**Why is CADMAN-B so closely tied to CADMAN-Flow?**
*CADMAN-B* is fundamental to part fabrication. When you import a 3D file, the first thing you need to do is unfold it. Unfolding is determined by tooling, the tooling is specified by *CADMAN-B*. It's also the most important part of the process – if your unfolding is incorrect, your part won't be correct.

**How much faster or improved is CADMAN-B?**
Depending on the complexity of the part, it's considerably improved. A significant time gain is achieved in parts with a lot of holes or complex logos. We are stating the new *CADMAN-B* is 10 times faster than its previous version, but that can be a conservative figure.

**What makes the bend solutions better?**
A goal with the new *CADMAN-B* is to increase operator acceptance of the bend solution. For that, the new B considers solutions and "scores" them based on parameters such as number of turns and weight of the part to offer the best solution. For demonstrations, we show a part that in the current *CADMAN-B* uses two tool stations, in the new *B*, it uses only one tool station. An experienced operator will recognise that one tool station is sufficient and program one tool setup instead of two. He has full confidence that the software is, in fact, delivering the best solution, not one that needs modification.

**LVD has been demonstrating CADMAN-Flow at various trade shows. Why the delay in the formal launch of this software?**
For *CADMAN-B* a long development time is necessary because we're not just making a bend solution for a part; we're developing a solution for every part on every machine with every tool – from simple to highly complex parts. We want the best bend solution for the part for the specific machine with the user's tooling – and that takes time. Plus, the entire architecture of *CADMAN* software is changing.

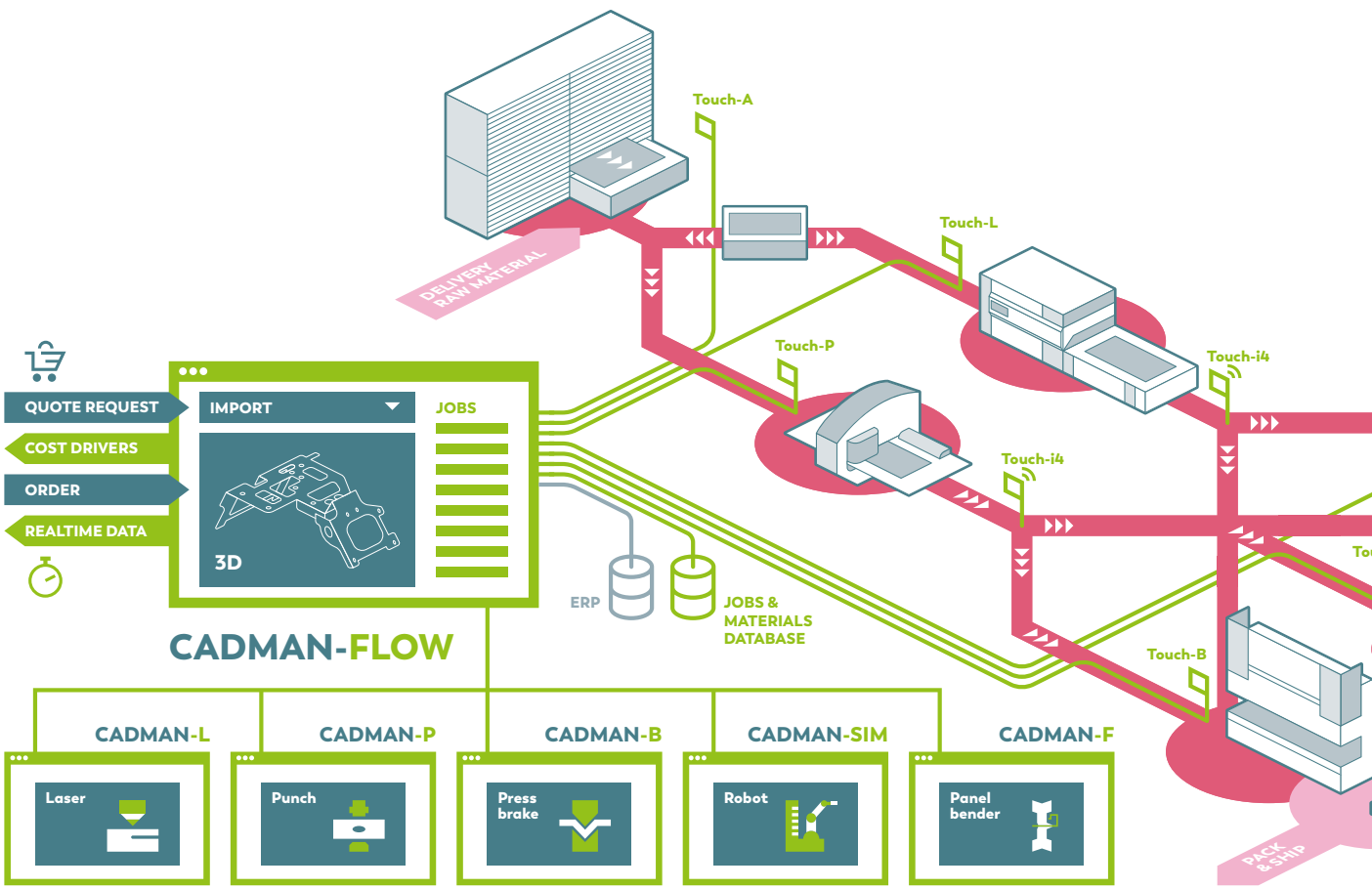
**What's the benefit of changing the CADMAN architecture?**
Changing the architecture was the best way to improve the useability of the software especially in larger production environments with a lot of machines, a lot of parts. Also, it's how we future-proof *CADMAN*. We considered the growing importance of cloud architecture and took steps in that direction. While most customers may not be ready for cloud environments, we want to be ready when they are. Plus, we have a growing number of customers working from multiple sites in multiple countries and even on various continents. With the new architecture, this isn't an issue because you aren't relying on the latency of the data connection.

**How do you stay in tune with what operators want?**
To begin with, we have a very good understanding of the process. We've gone to customers early in the development of *CADMAN-B* and *Flow* to test functionality. We developed a baseline product and released it to a group of customers to test, allowing us to make changes and add features, depending on their feedback.

We also rely on the feedback we get from events and demonstrations, from customers, our sales and service people.

**What's important to a new generation of programmers?**
Every generation wants improvement. Before press brakes, you were very happy to get within five degrees of a 90-degree bend. With CNC press brakes, you were able to draw L profiles on the controller, later program offline. Today's generation wants to improve offline programming – they want faster, better solutions, more intuitive operation. Also, the products that our customers are manufacturing today are different. Parts with 20 – 25 bends are not rare anymore; they are just considered complex. Also, quantity of parts is a consideration. If you need to produce 20 parts a day, then you want to do it automatically.

**What's the biggest advantage of LVD's bending software?**
Sometimes a software program looks fast and fancy, but when the programs come to the press brake, modifications are necessary, perhaps there are collisions that weren't caught in the production preparation. With *CADMAN-B*, we know the program is good every time, that it will produce an accurate part. While the new *B* will be "fast and fancy," what's most critical is that it's stable, reliable software that produces quality results each and every time.



**Is there any one feature of Flow that is a particular standout?**
The task feature is a very easy way of sending a few parts to the machine for production. It eliminates the operator having to look for the parts in the parts list, so it saves time, but the biggest advantage is that you can optimise by tools. For the press brake, a task can be optimised to decrease tool changes up to 50 percent.

The optimisation function will change the order of parts, can change the punch type and the complete tool setup length to minimise the amounts of tool changes.

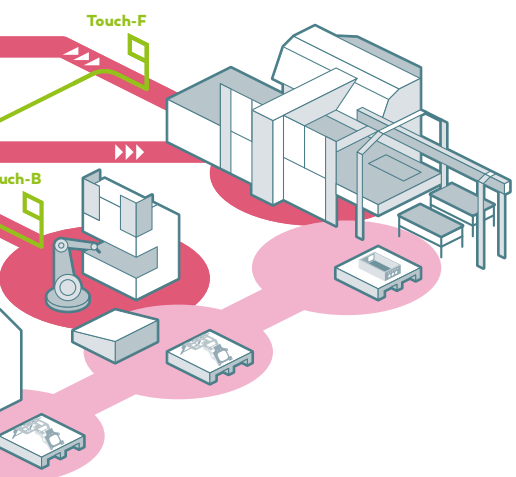
This optimisation is a very big deal. Competitive offerings can change the length of the tooling stations, change the order of production, but they don't change the punch type. Reducing the amount of tool changes is a real and measurable efficiency gain. The combination of those three things – order, punch type and tooling – is 100 percent unique to LVD.

**How about the learning curve?**
Because the software is so intuitive to use, and can produce better bend solutions faster, the learning curve is greatly diminished. Instead of three days, training might now take four hours. Proficiency with *CADMAN-B* could be achieved in a week or two instead of several weeks.

**Any consideration for security vulnerabilities?**
LVD takes the risk of cyberattacks very seriously, and is involved with the new NIS2 directive for manufacturers. NIS2 establishes new benchmarks for cybersecurity practices and requires manufacturers to act on safeguarding manufacturing processes.

**Are other CADMAN software modules changing?**
Today, *CADMAN-SDI* is used to import parts. Importing parts will become a function of *CADMAN-Flow*. If there are minor part modifications, edits can be made in Flow. For more complex corrections, such as with part geometry, *SDI* must be used to repair the part. *CADMAN-JOB* will be integrated into Flow. An overview of production orders will be built into *Flow*, it will no longer be a separate application. You will have better integration – view all parts and their status, all within the same software package. This increases overview, useability, and intuitiveness of the software.

**It seems software is becoming more important than machines. Is that true?**
Software is such an important part of the process. If you have an incorrect bend allowance unfolding at the press brake, you will never have a good part despite having the best machine with the most advanced features. If your unfolding is good but your operator makes a mistake while programming the part, then you also make scrap, despite having the latest equipment. It all comes back to the offline software – it's a critical piece of the process and the production flow.




## *Why CADMAN-Flow?*

- Single entry to the entire CADMAN® software suite
- Enables a fully automated process flow
- Makes programming easier, faster
- Evolves LVD's integrated fabrication philosophy

# BETWEEN CRAFT AND INNOVATION

## ASKON DEMIR – TÜRKIYE

**From heavy industrial metalworking to refined wall decoration: the Turkish company Askon Demir can't easily be categorised under one heading. Okan Konyalioğlu, general manager and chairman of the Askon Demir Group, was at LVD headquarters during Turkish Customer Days. An excellent chance for a conversation.**

**From wood to metal**
In 1932, nine years after the establishment of the Turkish Republic, the grandfather of Okan started a repair shop for wooden horse carriages in Denizli, in the southwestern part of Türkiye. The economic climate was still facing significant challenges but made steady progress in diversification and modernisation.

"The modest workshop grew into a flourishing family business. However, two devastating fires in the 1960s led the family to switch from metal and woodworking to solely metalworking," explains Okan.

The 1970s marked a new era with the production of agricultural machinery and tractor trailers. The business later included tube and sheet metal processing as well as steel pipe and profile production.

**Askon Demir, a new beginning**
Financial and economic crises afflicted Türkiye in the 1990s but thanks to its resilience the family enterprise managed to stay afloat. Eventually, the sons divided the subsidiaries among themselves. In 2001, as the economy slowly recovered, Okan and his father started the company Askon Demir, with three employees and a workshop equipped with a guillotine shear and a press brake.

"From those initial three employees, we've grown to a team of 600. In 2022, Askon Demir achieved a group turnover of 70 million euros. We are still a family business, with my sister as vice chairman overseeing the finance department. Together, we proudly serve as Askon Demir's ambassadors. I see parallels with LVD, where family values also play a crucial role in the corporate culture," says Okan.

The company includes Askon Demir Celik for metalworking, Askon Mechanics for welding, and Askon Design Center specialising in indoor and outdoor metal decoration integrated with glass, wood, marble, and other materials.

The company has six facilities, one of which is located in the United States. The most recently acquired production site, an impressive 85,000 sqm area, is also the largest, strategically located near Çardak (Denizli), close to the airport, easily accessible for business partners.


*Onur Misirli, general manager of Tekno2000 LVD's agent in Türkiye, and Okan Konyalioğlu, general manager and chairman of the Askon Demir Group*

"The first building of 17,000 sqm is already operational. We intend to further expand our bending, welding, machining and painting operations there," Okan says.

**Core business**

Askon Demir Celik focuses on CNC cutting - laser, plasma, oxygen and tube laser cutting - and post-cutting services and press brake, roll and profile bending, machining, welding and coating.

The company not only works with steel, aluminium and stainless steel, but also with IPE and NPI irons for steel constructions, machinery, mining, railways, airport GSE (Ground Support Equipment), agricultural equipment and NPU profiles for building construction. It exports its processed parts and components to 32 countries worldwide. Customers operate in mechanical engineering, transportation, energy, agriculture, mining, pipe construction for water, gas and oil, storage systems, heat exchangers and construction.

**Partnership with LVD and Tekno2000**

"Our history with LVD dates back about 16 years. In our quest for the perfect laser cutting machine, we decided to explore options beyond Turkish suppliers. I was first introduced to LVD laser cutting machines in 2008 through Tekno2000, LVD's Turkish agent. LVD and Tekno2000 have maintained a successful 30-year partnership marked by shared growth and achievements.

"Impressed by the cutting quality, I bought three $CO_2$ machines in a row. A few years ago, we upgraded to two *Phoenix fiber lasers*. They have higher productivity and effortlessly handle the stronger materials we often work with."

Tekno2000 has become a strong partner over all these years: "Onur Misirli, the general manager, is of my generation, we have a good relationship. He also thinks about what is good for our company, beyond mere sales. This important element is the main reason why we enjoy working with him and his team.

"We recently invested in a ToolCell 200/40 with 200 ton pressing force/4000 mm working length and automatic tool changing. Again, a machine that perfectly suits our

ever-increasing product mix. This year, we are attending the Turkish customer days in Belgium to learn more about LVD's robotic cells and large press brakes, including Synchro-Form, for our heavy-duty applications."

**Design objects**

In addition to being a subcontractor, Askon also manufactures artistic metal objects for the ethnic, commercial and high-end furniture markets.

"About 10 years ago, we investigated how we could use our experience in metalworking, accounting, finance and logistics to create additional value, which led to the establishment of our design center, now called Askon Design Center. We craft decorative pieces and furniture, that we mainly sell on a B2C basis through e-commerce and export to 69 countries worldwide.

**The challenges**

"In the future, we also want to apply e-commerce in our core business, Askon Demir Celik. We have seen at LVD that it is possible. We are now implementing MES (Manufacturing Execution System), a challenging task for which all production processes were rewritten.

Based on the data generated, we will be able to analyse site capacity, machine and employee performance, optimising production while having real time and historical traceability.

"The persistent, sky-high inflation in Türkiye poses one of our most significant challenges. Factors such as strong wage increases and high interest rates have contributed to rising prices. While we prefer entering into long-term contracts with our customers, obtaining such agreements from our suppliers has become increasingly difficult, creating a dilemma for us. The lack of certainty regarding net prices, compounded by daily fluctuations, makes it challenging for us to project our revenues well in advance.

"Türkiye has a population of 85 million people, about half of whom are under 30. Yet it is not easy to find technically skilled staff. The Askon Academy enables us to train our own staff and gives students the chance to gain experience. Even people who are not technically trained but show potential have a chance to join us," Okan concludes.

Stefanie Vandemoortele,
LVD Company

*"Türkiye has a population of 85 million people, about half of whom are under 30. Yet it is not easy to find technically skilled staff."*

## *Profile*

**Company** Askon Demir

**Since** 2001

**Industry:**
mechanical engineering, transportation, energy, agriculture, mining, pipe construction for water, gas and oil, storage systems, heat exchangers, construction, decoration and furniture

**Works with:**
wear-resistant steel, high-strength steel, high manganese, corten, X120Mn12, commercial grades, aluminium, stainless steel, special alloys, IPE, NPI and NPU irons

**LVD Installations:**
ToolCell 200/40 Plus press brake
2 x *Phoenix* laser cutting machines

**LVD Software:**
*CADMAN-B*, -L and -SDI

**Website:** www.askondemir.com


*Peter Vandromme, international sales manager and automation expert LVD & Maarten Daemen, general manager LRS*

# SUCCESSFUL SYNERGY

**An engineering company on the other side of Belgium has been working with LVD on robotic projects for two decades. Formerly part of robot giant Kuka, it operates since 2022 under LVD's wings as LVD Robotic Solutions (LRS).**

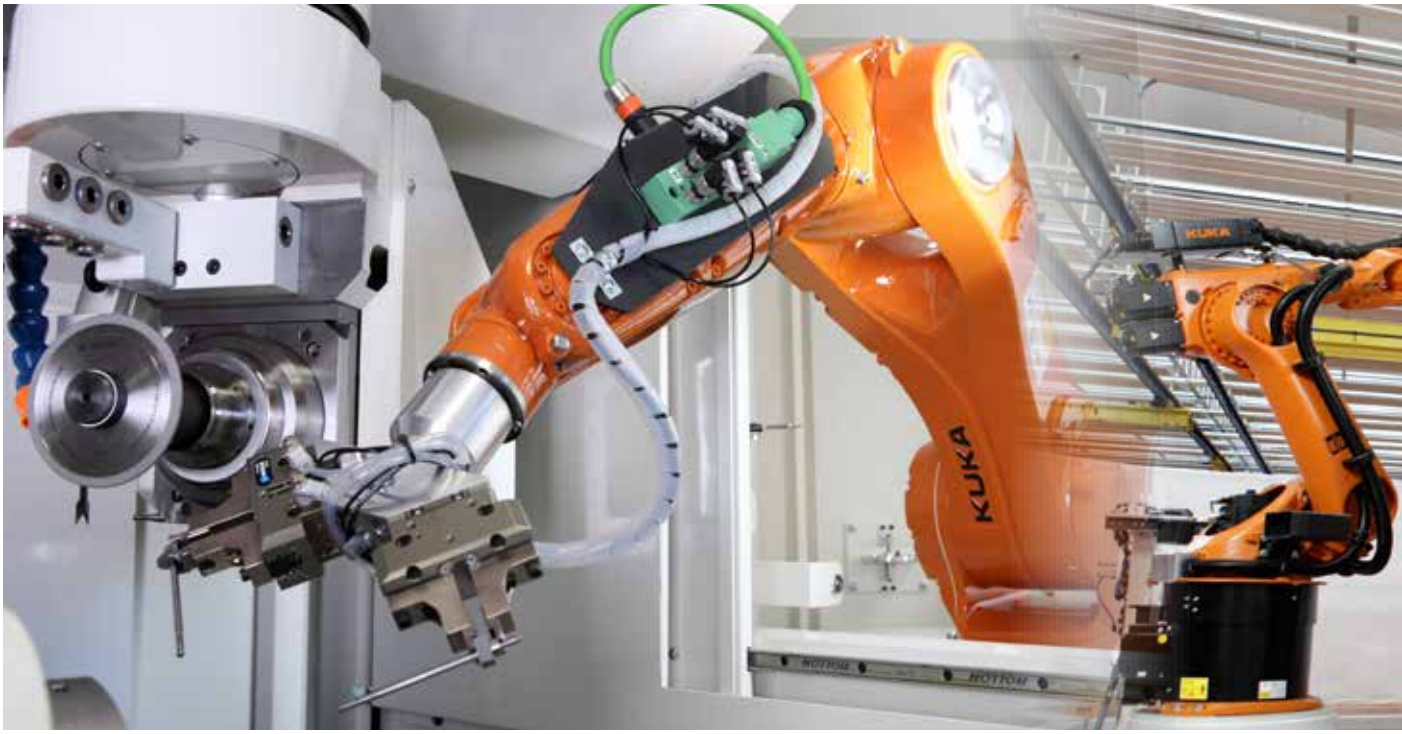
## SAME PHILOSOPHY

Maarten Daemen, general manager of LRS, and Peter Vandromme, international sales manager and automation expert at LVD, meet at LRS on a bright day after a gloomy spring to talk with Discovery about software and robots, a mutual area of expertise.

**Maarten:** Peter and I have known each other for 20 years and have collaborated on many robotic projects for LVD. The LRS team has 35 years of experience and unique knowledge in projects and robot integration. We apply this in-depth expertise to sheet metal working, handling and process technology.

## THE PATH TO AUTOMATION

**Peter:** Automation is no longer confined to large volumes but is also suitable for small batches, to deal with fluctuations in production, delivering better quality and handling heavy parts and bending profiles. But the main reason to automate is the labour shortage, with programming software playing a crucial role.




*Tool feeding*

**Maarten:** The shortage of technical workers made us - as suppliers facing the same challenge - think about a solution. In sheet metalworking, this led to the development of smart “no robot teaching” offline programming software for bending, which allows customers to programme their bending cells themselves.
In addition to projects for LVD, LRS offers robotic and automation solutions in a broad context, both in automotive and general industry. Assignments therefore vary widely: from palletising metal sheets, machine tending and handling glass to assembling compressors and applying coating. In those pure handling applications, the robot provides the logistical link between the machines. Because of the customer- and industry-specific nature of the product, logistics and machines, the process is not so easy to map out as in sheet metalworking, where you have a robot, a press brake and a sheet to bend.

*“The main reason to automate is labour shortage.”*

**Peter:** Indeed, in LVD we focus on standard, cost-effective bending cells. We involve customer support early on, to get the project on track from the start and ensure continuity in its follow-up. Additional requirements need to be checked on feasibility by LVD engineering and LRS.

**Maarten:** Peter plays a key role by initially assessing LVD requests. Since becoming part of LVD, we have the great opportunity to directly reach LVD customers who want to automate other industrial processes. The trust base is already in place. We manage capacity across LVD projects and LRS projects for various industries, including suppliers like Atlas Copco, DAF trucks, Indupol, Vitalo, and Daikin.

**Peter:** LRS' broad expertise is also an advantage for us. We have a broader view and can propose more comprehensive solutions. Customers look not only at the machine but at the entire production flow and logistics, and together with LRS we can offer more than the competition.


*Applying adhesive and sealants to vehicle body*

*Loading and finishing*

**Maarten:** As an SME, we pride ourselves on having our own development team, specialising in product and software development. A strong parent company provides additional drive. Although our focus is on Western Europe, it is not restrictive. Depending on the customer and strategic importance, we also offer solutions outside this region.

For bending projects we can rely on LVD's global service network, and for other projects the local distributor of the robot can also provide support. For integration, our software team can provide remote support.

## THINKING OUT-OF-THE-BOX

**Peter:** Our customers strive for more efficiency, energy savings and solutions to increase workflow. They urge us to continuously improve their processes.

**Maarten:** The short line with the customer is indeed important. You need to understand the question well to translate it into the ideal solution.

*"LRS offers robotic and automation solutions in automotive and general industries."*

A good example of this is winning the Kuka Innovation Award with Ricobb (Reliable, iisy, Cobot Buddy), a project involving a cobot in front of a press brake. This requires creativity and out-of-the-box thinking.

**Peter:** And that's where LVD and LRS join forces: LVD is strong in bending technology and LRS in turn brings extensive expertise and experience in robotic projects and software.

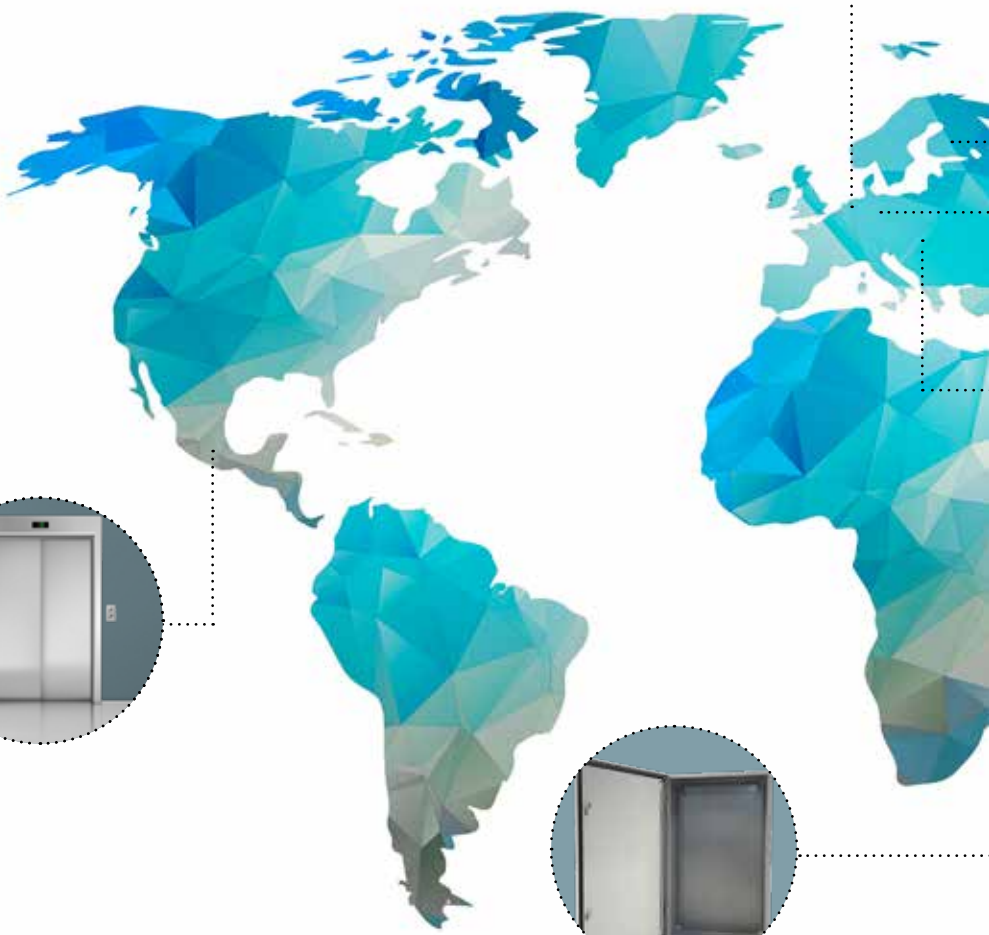
**Maarten:** Both firms have always started from a technological solution and lead, and this is reflected in our products. Although other companies market similar products, we stand out in quality and reliability.

Stefanie Vandemoortele, LVD Company

# GLOBAL REACH

**The Netherlands**

Serving its customers A to Z, **Dumaco Oss,** part of the Dumaco Group, produces parts from flat sheets and tubes in single components to welded assemblies. Dumaco is the largest metalworker in Benelux with 260 machines, 9 locations and 750+ employees. As a one-stop-shop, it follows QRM principles to ensure short leads times and stays competitive using production machinery, including a recently installed 400-ton LVD *Easy-Form* heavy-duty press brake.



**Mexico**

From outdoor grills to door frames for elevators, **EMYASA** manufactures a diversity of products using its *Puma 3015* 6 kW laser. A family-owned business, it holds itself to high standards of quality and service and is recognised for its rigorous quality control. Using Puma, EMYASA cuts stainless steel with a clean, smooth edge in varying thicknesses and at high speeds.



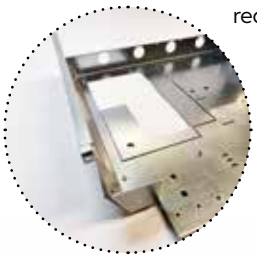


**United Arab Emirates**

**Ideal Design** offers turnkey retail solutions for POP displays, shelving systems, customised units as well as enclosures, cabinets, and other related fabricated products. The company has grown its business relying on LVD equipment to deliver uncompromising quality in its designs. It has more than 10 LVD machines, across punching, laser cutting and bending technologies, with two *Strippit PX*-1225 punch presses, *PPEB-8* 135/30, *PPED* 165/30 and *Dyna-Press* 24/12 press brakes.

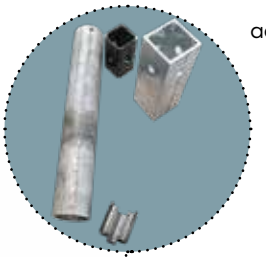
**Finland**

Whether its components for shipbuilding, mounting plates for industrial machinery, transformer structures for power plants or airports, as a subcontractor, **VAMM Steel Oy** knows that accuracy and quality matter. Investment in a *ToolCell* automated tool changing press brake ensures its manufacturing is top quality. Significantly reduced tool change time means VAMM can be competitive even in small series production.



**Germany**

**LMG GmbH** was founded in 2002 by the Caritas Association Altenoythe e.V., a provider of services for people with disabilities. LMG currently employs 72 people, 35 of whom have a severe disability. The company processes metal for various industries, including wind power, biogas plants, vehicle construction, the furniture industry, and more. A new *TL 8525* tube laser helps LMG address a diversity of market needs and win new business as a service provider for profile cutting.



**Hungary**

As part of a modernisation plan to significantly increase production capacity of railway vehicle frames, the **Alstom** factory in Mátranovák, Hungary installed a large-format *Phoenix FL-6020* 10 kW and custom-built *Easy-Form-9 320/30* press brake to cut and bend chassis components with repeatable precision. Alstom is world-renowned as a global mobility leader committed to greener transportation worldwide.



**Vietnam**

In a country recognised as an emerging manufacturing hub, **ASV Commerce and Industry Co., Ltd.** is meeting increased demand for its passenger elevator, home lift, and vending machine products by investing in modern metal fabrication equipment, including *LaserONE* 3 kW laser, *Easy-Form 9 135/30* press brake and *CADMAN®-B,-L* and *SDI* software.

# BUILDING FOR HEAVY HAULING

## FAYMONVILLE - LUXEMBOURG

**Faymonville's production site in Luxembourg needed a more efficient press brake. They chose the PPEB-H 640/61 from LVD and implemented the CADMAN® software suite. The result? Significant productivity gains.**

The origins of the Faymonville Group date back to the 19th century. Until the 1960s, the main activity was the manufacture of agricultural machinery. At the end of the 60s, the first semi-trailer was built, and from the 80s onwards Faymonville increasingly devoted itself to the field of special transport.

Today, with its brands Faymonville, MAX Trailer and Cometto, the group offers a complete range of vehicles for heavy hauling and special transport. The Faymonville Group manufactures low-loaders, lowbed trailers, flatbed trailers, inloaders, modular vehicles and self-propelled vehicles. Its transport solutions cover capacities from 15 to over 25,000 tonnes.

Faymonville has four production sites in Luxembourg, Belgium, Poland and Italy. On a total production area of around 175,000 m², the group produces 3,000 units a year. These are exported to more than 125 countries worldwide. With around 1,350 employees, the company had a turnover of 442 million euros in 2023.

Faymonville also uses *CADMAN* software and LVD press brakes in its other subsidiaries: in Italy, a large, high-tonnage tandem press brake - 1,600 and 1,250 tons, and in Poland a series of press brakes.

"Our customers appreciate our reliability and flexibility in providing customised transport solutions, despite the considerable challenges involved. The vehicles stand out for their technical quality, thanks to sustainable production methods. What's more, the extensive global

*"In Italy, a high-tonnage tandem press brake, 1,600 and 1,250 tons, guarantees highly accurate parts, important for the quality of the vehicles."*

network guarantees a high level of service at all times," says Robert Franzen, Process Engineer Digitalisation at Faymonville.

**Increasing production speed**

Until 2023, the Lentzweiler production site used an LVD press brake with a 4 m working length. Longer sheets were bent at the site in Poland. In recent years, however, the range of finished products has been greatly expanded, and the parts to be bent have become longer and wider, for example, trailers for wind turbine blades. To relieve the Polish site, limit transport costs and increase production speed, Faymonville looked for a larger press brake.

"The choice of a machine from LVD was an obvious one, as our group was already using several LVD press brakes, both in Belgium and Poland," explains Franzen. Faymonville was very satisfied with these machines and with the service provided by LVD.

After an in-depth analysis of its requirements, LVD proposed the *PPEB*-H 640/61 press brake. This 6400 kN installation with a working length of 6.1 m is equipped with the *Easy-Form Laser* angle control system, which guarantees highly accurate bending. The hydraulic *PPEB* press brakes offer high precision and optimum flexibility.

Gérard Cremer, Operations Manager Cutting & Bending at Faymonville, confirms: "We can configure these machines to suit our own requirements, by choosing the backgauge, the table-ram distance,

## *Profile*

**Company** Faymonville Group

**Since** the 19th century, first semi-trailers in the 1960s

**Industry:**
construction, cranes & equipment, lifting equipment, heavy & industrial transport: heavy-duty and long goods, wood, glass, wind & energy, agriculture, boats & ships, military and railway equipment

**Works with:**
iron, stainless steel, aluminium, brass, galvanised steel, polycarbonate and fiberglass

**Thicknesses:**
range from 1 to 30 mm on the press brakes, and up to 200 mm on other machinery

**LVD Software:**
CADMAN-B
CADMAN-SDI
CADMAN-JOB

**Website:** www.faymonville.com

horns or programmable sheet supports, and so on. The options are numerous. What's more, the servo-controlled hydraulic system ensures high-precision, energy-efficient operation."

**Optimised production**

As with its other subsidiaries, the company has also installed the *CADMAN* software suite at Faymonville Lentzweiler. It integrates machining processes, production control, communication and management. It provides real-time information for making informed choices to ensure an optimised production flow.

"The major change over the past two years has been the integration of the *CADMAN* software at Faymonville, leading to significant gains in both productivity and quality," says Cremer.

*CADMAN* includes the *CADMAN-B* module. After importing a 3D CAD part, this module performs the correct unfolding and determines the optimum bending sequence, tool and backgauge positions.

The *CADMAN-SDI* intelligent drawing importer enables CAD files to be imported quickly. All cost factors are displayed and can be exported to generate an accurate cost estimate.

*Cometto self-propelled vehicle*

**LVD Installations:**

**Faymonville Belgium:**
Easy-Form 135/30
Easy-Form 220/30
Easy-Form 400/40

**FEL Luxembourg:**
Easy-Form 135/30
Easy-Form 220/30
Easy-Form 640/61

**Faymonville Poland:**
2 x Easy-Form 80/15
2 x Easy-Form 220/30
2 x Easy-Form 320/40
2 x PPEB-H 1250/71 tandem
PPEB 320/40

**Faymonville Italy/Cometto:**
Easy-Form 320/40
PPEB-H 1600/86 EFL +
PPEB-H 1250/61 EFL tandem

Finally, *CADMAN-JOB* imports production orders from an ERP system, enabling bending jobs to be generated. It collects data and monitors jobs in real time.

"Initially, many parts were not properly bent. LVD machines helped us reduce the error rate by 50%. What matters is the ease of working with the machine, and for the quality of the vehicles, it is above all the precision and quality of the finished parts," concludes Robert Franzen.

*Robert Franzen, Process Engineer Digitalisation Faymonville*

Reprinted with permission:
Luc Franco, *Metallerie*, May 2024

**Watch the testimonial**

*Cooling water intake system*

# LARGE AND IN CHARGE

## STAINLESS STRUCTURALS - UNITED STATES

**Mattia Del Giacco, PhD, CEO of Stainless Structurals LLC, Conroe, Texas, had been considering a new laser when a salesperson from LVD North America dropped off a brochure at the company's office. "I casually walked by reception, and when I saw a particular detail on the brochure, I chased them out to the parking lot to have them come in and tell me more about it."**

The feature that piqued Del Giacco's interest? The Taurus laser cutting machine's open bed. "If you have an 80-foot-long enclosed machine, it actually becomes 160 feet long—and that's a huge amount of space wasted. I was very intrigued by the technology, and the quality LVD promised was high, as well. Special-length products (greater than 20 ft.) are one of our specific services. In addition, even for standard-length plates, having a longer bed can help increase efficiency," he says.

**Processing area**

LVD's Taurus fiber laser is engineered for extra-large cutting capacity with a modular design, allowing the machine to be expanded in increments of 13 ft. up to a maximum bed length of 137 ft. According to the company, "Taurus makes it easy to access cut parts and load raw material because only the cutting gantry is covered. The 13-ft.-wide gantry provides protection around the cutting head and nozzle changer. Taurus also features a second 19-in. controller on the gantry and a handheld control for jog actions," as well as bevel cutting.

Del Giacco says his fiber laser is approximately 78 ft. by 12 ft., processing both stainless steel and steel plates. Stainless Structurals was cutting these parts on a $CO_2$ laser prior to the installation of the Taurus.

"Probably the biggest advantage of the fiber compared to the $CO_2$ laser is the speed of the cut," he says. "It also has less kerf, which is more apparent in thicker material with a $CO_2$ laser." He also comments on the convenience of the bevel cutting. Instead of moving parts over to a time-consuming secondary bevel process that requires skilled labor. "If you can bevel it in the laser, most of the time, that part can be used as is. This machine can go up to 45 degrees, which is fine for most

applications. In addition, it can perform a Y-shaped cut, which is very useful when welding material."

The fiber laser's long bed can handle multiple plates at a time, minimising the machine's downtime. "While we are loading on one side, it's cutting on the other side. When it moves over, we move to the other side to unload and reload—a continuous process," notes Del Giacco. While a short-bed machine needs to stop for unloading and loading, the Taurus can keep cutting. "That's a huge advantage. It's also an advantage for maintenance because personnel can maintain one area of the machine while the other is still operating."

**Big jobs, big parts**

Stainless Structurals serves a variety of industries that need large parts cut, including aerospace, architecture, energy and power, oil and gas, and transportation. The company has worked on structural profiles for The James Webb Space Telescope Chamber A at NASA's Johnson Space Center in Houston, laser-welded profiles featured on the Space Needle, and 30,000 pounds of laser-welded channels, beams and a custom cross-section for a New York City subway station.

One recent project that Del Giacco says could "only be done with a machine like the LVD Taurus" required manufacturing special shapes 600 in. long for a cooling water intake system in Albany, New York. According to a company case-study, the "large cooling water systems have to meet government regulations involving the environmental impact."

To meet both state and federal law, the customer, Intake Screens Inc., had to design a system that would reduce both entrainment and impingement as well as provide protection to fish species. For a system submerged in water, 304/L grade stainless steel was an clear choice.

For this project, Stainless Structurals produced over 10 tons of 304/L stainless steel custom beams that were used as part of the supports and side rails for the retractable screens and slidegates. The system keeps the fish in the river, the screens free of debris and allows for screen inspection without shutting down operations."

**Service comes standard**

Del Giacco says that LVD "delivered on the quality of the product." During installation, the company provided a technician on site, as well as a library of webinars and digital content that explains the software and how to perform maintenance. "Even nowadays, they are quick to respond when we have a question," he adds. "It was a big surprise for me because I have had bad customer experiences with other major companies, waiting days and days for help. But, with LVD, we are having a great experience."

Reprinted with permission:
*Modern Metals*, May 2024

## *Profile*

**Company** Stainless Structurals LLC

**Since** 2005

**Industry:**
aerospace; architecture, building & construction; chemical, pharmaceutical & petrochemical; defense; energy and power; environmetal; food & beverage; manufacturing; mining & quarrying; oil & gas; textiles, pulp & paper; transportation

**Works with:**
stainless steel, carbon steel

**LVD Installation:**
Taurus 20 – 20 kW

**LVD Software:**
*CADMAN-L*

**Website:**
www.stainless-structurals.com

# A DIFFERENT KIND OF BENDING

## *More choice for your application*

LVD now offers semi-automatic and fully automatic Multifold panel benders for forming applications. A newer technology than die bending, panel benders are inherently more automated than traditional press brakes and capable of forming a range of profiles and even complex part geometries with exceptional speed and high accuracy. In their favor, traditional press brakes offer a lower cost of investment and can efficiently tackle high profiles and thick materials.

**A different kind of bending**

The panel bender uses up- and down-acting blades that can move in both X and Y direction instead of the punches and dies used in traditional bending. Clamping tools secure the workpiece firmly in place. During forming, the workpiece remains in a horizontal position and only the blades (tool) move. There is no need for an operator to guide the workpiece, and the machine automatically positions and handles the tool setup.

This design allows for:

- Fully automated bending
- Fast bending cycles for high productivity
- Flexibility to bend any radius and handle hemming operations without special tooling
- Less tooling wear even after years of use due to minimal friction between tool and material
- No tool marking of the workpiece

**Universal bending tool**

Multifold can form a range of profiles using a universal set of servo-operated up-and-down folding blades. This includes positive and negative bends, open and closed hemming, up and down hemming, offset bends, narrow profiles and radii.

An integrated tool setting system automatically sets up and changes tools based on the application. Sheet gauging is carried out at the gauging station prior to bending. When a batch changes, based on the next panel program, top tools are automatically set for the workpiece size by the servo-operated system. As a result, Multifold benders can produce a wide range of parts quickly and independently.

**Highly automated = highly productive**

Panel bending is highly automated

**Industries:**
Cleanrooms, steel furniture, firedoors, control boxes, frames, HVAC, elevators, mail boxes, and façade construction

technology offering precise control over the bending process and high productivity. Multifold machines provide a fully automatic forming operation with loading, feeding, gauging, tool setting, folding, positioning, rotation, and unloading.

An automatic pick and place system loads the sheet from a selection of up to six different stack locations onto the auto-feed-unit. The sheet is automatically transferred from the auto-feed-unit to the gauging table. Multifold machines can also be equipped with an optional offloading and stacking unit.

**Big benefits for the right situation**
Panel bending technology offers impressive advantages:

- Is up to two to three times faster than die bending
- Provides accurate bending results
- Provides forming versatility without the need for extra tools

Multifold panel benders are ideal for folding large panels up to a 3.2-meter bending length, but panel bending is not just for forming large panels and shelving. The technology can be applied to steel furniture, elevators, fire doors and cleanrooms. If the application calls for short flanges, radius bends, high precision and high repeatability of different bends, panel bending is worth considering.

**Investment value**
While panel bending systems usually require a higher initial investment than most press brakes, this highly automated and versatile technology can take the place of multiple bending machines, and, in the case of Multifold models, are offered in standard configurations which can be customised per your needs and budget.

In addition, the servo-operated system requires minimal service and is virtually maintenance-free. At fixed intervals, all moving parts are automatically lubricated via a centralised lubrication system.

LVD's comprehensive bending product portfolio allows you to select the right technology for your situation whether it's a stand-alone press brake or a fully automated panel bending system. Let us help you determine whether panel bending is right for you.

## *Why panel benders?*

- Handling large-scale panels
- Full automation for high productivity
- Cost-effective machine
- One set of tools for a variety of profiles


MENU
100%
OCEAN
WASTE
PLASTIC


materialized by LVD since 1952

# ITAB

Rethink Retail Together is the ethos of Norway's **ITAB,** one of the country's largest interior construction contractors that designs and manufactures shop fittings, checkouts, consumer flow management, lighting systems and digitally interactive solutions for retail spaces around the world from grocery stores to café and service stations.

ITAB focuses on "solution design" – an agile and dynamic approach driven by co-creating the retail space with the customer. With ever-changing consumer expectations and shopping needs, ITAB helps customers maximise ROI by delivering a differentiated store experience at the lowest cost.

ITAB achieves savings through manufacturing methods that optimise productivity. Recently installed at its Norwegian production site is a *Dyna-Press* Pro electric-drive press brake and *Ulti-Form* robotic bending cell.

Together with its partners and customers, through best practices and advanced manufacturing equipment and processes, ITAB is reimaging the retail experience.

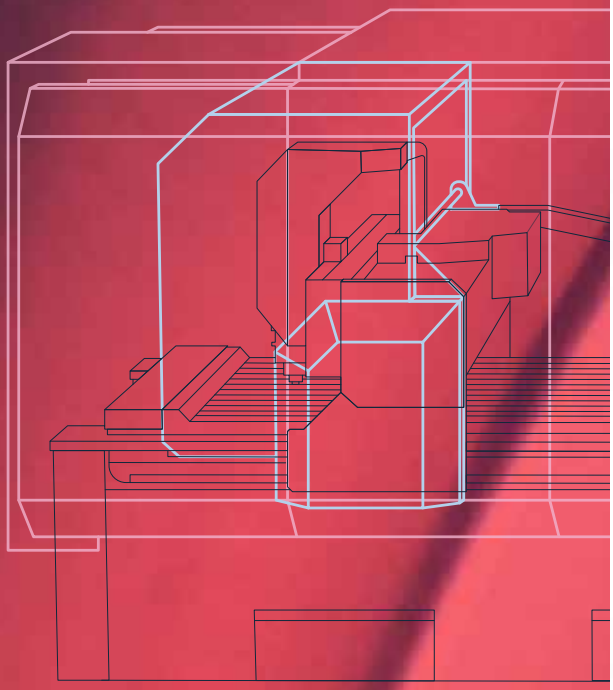
**www.itab.com**

# LaserTWO

## FLEXIBLE IN-HOUSE LASER. BEST COST PER PART.

Designed with a modular, no-nonsense approach, LaserTWO strikes the perfect balance between price and functionality.

With a full range of powers available, the system gives you the flexibility to bring laser cutting in-house and optimise your cost per part.



**Discover LaserTWO**

LaserTWO can be built up from a basic no-cover version to a fully enclosed model:

### No covers* • single bed

Simplicity meets functionality: Minimalist design with easy access to the cutting area.

### Local covers • single bed

Safety first: Local covers and light guards ensure operator safety.

### Full covers • shuttle bed

Maximised efficiency: Full covers and a shuttle bed system for enhanced productivity.

*Non-CE markets only

Shaping **flows.**

LVD