

DISCOVERY

issue n° 24



Choosing the right bending cell
.....

Service makes the difference
.....

Bevel cutting with new Phoenix FL-6525
.....

“Optimising workflow with WAS automation”

FE+, Belgium

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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.

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Tom Hennejonck, Technical Manager
LVD Southeast Asia

"To get to know the market, subsidiaries and customers, I installed machines myself and visited customers."

DISCOVER

WHEN CUSTOMERS BECOME PARTNERS



“To reach net zero emissions by 2050, sustainability has become increasingly important in construction and manufacturing.”

Industria
Carpenteria
Metallica, Italy

“Our goal is to increase turnover by 30-35% through mass production of parts with Dyna-Cell.”

Dear reader,

Innovation is at the heart of LVD, but service is its soul.

Selling machines is not a one-time affair but an ongoing journey.

Our goal is to deliver not only products that exceed expectations but also experiences that foster trust and loyalty, making a lasting impact.

For FE+, Booth Dispensers and Industria Carpenteria Metallica, our dedication to service has made the difference. They appreciate that we think along with them in their journey towards achieving their goals.

Helping customers is also the mission of Tom Hennejonck. As the link between the Southeast Asian branches and the Belgian head office, he familiarises local sales and service teams with LVD technologies, enabling them to give customers the best possible support.

As you go through these pages, you'll find testimonials that speak not just of triumphs but also of learning curves.

At LVD, we not only learn from our experiences but also highly appreciate your feedback, which drives us to explore innovative alternatives and solutions.

Carl Dewulf
President & Managing Director

Innovation and interaction

Our Experience Center in Belgium has been a hub of activity this year. Among the highlights are the XXL Technology Days for companies specialised in large-format sheet metalworking and International Tech Days with several 100 participants from 19 countries. Attendees enjoyed a factory tour and cutting-edge technology, both within our XP Center and on-site at customers. More to come in 2024 – follow our social media and visit our website for upcoming dates <https://www.lvdgroup.com/en/events>

XXL Technology Days:



International Tech Days:



LVD headquarters transformation

Last year marked the start of a comprehensive refurbishment at the Gullegem head office. Originally constructed in the early 1960s, the building has undergone several expansions throughout its history.

The structures were entirely stripped down and reconstructed with sustainability in mind. A new extension, complete with parking facilities, serves as the welcoming entrance.

A sustainable and contemporary work environment is established through the implementation of LED lighting, thermal insulation, solar energy heat pumps, triple glazing, sun blinds, air conditioning, electric charging stations, ...

Large vertical glass panels, light-coloured furniture and ceilings and wide corridors, offer a feeling of space. Elegant low furniture has taken the place of tall, shadowy cupboards, as the pursuit of a paperless environment continues across all departments.

A lot of attention was also paid to the common spaces, including a first-floor terrace where employees can unwind, socialise and recharge their batteries.



Staying sustainable

LVD promotes the reduction of waste and encourages environmentally-sound practices:

- 34 % of LVD's total electricity consumption is powered by solar energy.
- We have reduced water consumption by 27% in 10 years.
- Consumption of heating oil has been halved in the same period.
- Use of water-based paint for machinery and equipment has increased with 80%
- Enhanced dyeing procedure by reducing solvent in paint, minimising emissions in spray booths, and using a single coat of paint.
- Recovery in bulk of wooden boxes used for shipping parts of large-format laser cutting machines within a range of 1,500 km.
- Installation of electric charging stations, 100% electric company cars
- Virtual machine prototypes to eliminate unnecessary components and analyse energy consumption.
- Variable frequency drives for press brakes, energy reduction systems (ERS) for punch presses and the use of intelligent nesting software.



COMPLETE BENDING RANGE

INDUSTRIA CARPENTERIA METALLICA - ITALY

Italian sheet metalworking company ICM specialises in small custom batches and mass production using LVD technologies.

Hood in AISI 304 made by ICM

The roots of ICM - Industria Carpenteria Metallica - go back to 1983, when a group of young people were suddenly out of work due to the bankruptcy of the company Nuova Carpenteria Meratese. Taking matters into their hands, they acquired the company. In this entrepreneurial adventure, they wanted to channel the know-how they had accrued in metalworking.

Productivity leap

The early years are marked by major investments to renew the now obsolete fleet of machines by introducing the first turret punch presses, which allowed the company to leap in productivity and resulted in the first collaborations with prestigious clients. In 1991, they named the company Industria Carpenteria Metallica and, a few years later, moved to its current location in Paderno D'Adda.

Dario Betti, son of one of the founders and current owner: "To date, ICM is a subcontractor. Our typical clients are large Italian companies that often make tailored products. Our production is very diverse, often comparable to making samples, with all the critical issues that this entails."

Quality, flexibility and quick delivery have enabled ICM to cultivate profitable relationships with more than 50 customers from a variety of sectors and to generate sales of 2.5 million euro in the past fiscal year, the result of processing more than 600 tons of sheet metal per year.

"We differentiate ourselves from our competitors by our high level of technology and customer-oriented approach," Betti continues. "We are almost perceived as artisans, capable of making even one batch

with industrial quality and precision. Since we want to use that expertise for mass production as well, we invested in our bending department."

Two production philosophies

ICM handles every step of the sheet metalworking process, from the sheet to the assembled product. The company has a laser cutting system and a punch press, both with load/unload automation, a complete bending department, four welding stations and a polishing machine. Other finishing processes are entrusted to partner companies.

The bending department was recently updated with all LVD machinery. "The older machines could not keep up with the pace of the automated cutting systems. We evaluated the solutions on the market, including LVD," the owner says.

“We chose LVD since, in our opinion, it saves us material and time thanks to its technological advances, first and foremost the *Easy-Form® Laser* (EFL) adaptive bending system. All this is provided at the right price and is also supported by an efficient Italian subsidiary always available when needed. After seeing the first two machines at work, we have continued to invest in LVD bending technology, adding three more in the following years.”

Today, ICM's bending department includes an *Easy-Form 220/42* and

two PPEd press brakes, a ToolCell 220/30, and a *Dyna-Cell 40/15 Pro* robotic bending cell with EFL, all managed through *CADMAN®-B* bending software.

The transition from the previous supplier to LVD - often causing problems due to the different approach and established habits on the part of operators - has not been problematic.

Betti explains: “Our operators have immediately welcomed the change; the machines feature a fully

digital and highly intuitive control for manufacturing parts. Thanks to *CADMAN-B* bending software, we can make the most complex parts by importing tooling and bending programs directly from the engineering department.”

Tool changes for small batches

The automated tool changing press brake ToolCell answers the need to bend small and medium batches with a high product mix, requiring many tool changes. It provides a bending force of 220 tons over a bending length of 3050 mm. Precision is ensured by the solid one-piece welded structure and the *Easy-Form Laser* system.

“With the ability to receive bending programs and tooling already from the engineering department and thanks to the automatic setup, the operator can optimise their own time.”

“We assign to Dyna-Cell all batches that exceed 100 units and fall within the machinable footprint.”



Dario Betti, owner ICM, and Andrew Battistini, LVD Italy sales director



Dyna-Cell robotised bending cell

The *Dyna-Cell* combines the advantages of productivity and automation in a compact design. The strength of the robotised press brake is its unique programming, the ability to set up production in as little as 20 minutes, coupled with the productivity achievable through 24/7 production.

“The *Dyna-Cell* is perfect for making small and medium batches,” says the owner. “We assign to that machine all batches that exceed 100 units and fall within the machinable footprint. The orders come from the world of hopper cattle feeders, electrical panels and firefighting products.

“LVD’s service is excellent in both pre and after sales. Our operators have a

direct channel with LVD Italia so that any concerns or problems can be resolved as quickly as possible.”

Asked what future he hopes for ICM, Dario Betti replied: “Like any entrepreneur, my dream is to see the company grow: our goal within

5 years is to double the warehouse and increase turnover by 30-35% through the development of mass production of parts in which LVD is and will continue to be a partner.”

*Alessandro Ariu and Simone Franza,
LAMIERA*



ToolCell 220/30



ToolCell with Easy-Form Laser

The supplier's opinion

Andrew Battistini, LVD Italy sales director, explains:

“Starting a partnership with a company by taking over an existing brand is not easy.

ICM was able to seize our strengths and integrate them into its own production process, thus obtaining the greatest possible benefits: firstly, *Easy-Form Laser*, then the *CADMAN* software, and finally the *ToolCell* and the *Dyna-Cell* robotic cell.

To date, the company represents an important case study for us: in fact, it is the typical Italian SME that makes products of all thicknesses intended for countless sectors by making the most of LVD technology.

Profile

Company Industria
Carpenteria Metallica

Since 1983

Industry:

different industries: livestock machinery, printing machines and machine tool guards

Works with:

iron, stainless steel,
brass, galvanized steel,
polycarbonate and fiberglass
in thicknesses ranging from
0.5 to 25 mm

LVD Installations:

ToolCell 220/30
Easy-Form 220/42
PPED-7 135/30
PPED-7 50/20
Dyna-Cell

LVD Software:

CADMAN-SDI, CADMAN-B,
CADMAN-JOB

Website:

www.icm-srl.com

Watch
the testimonial



PHOENIX FL-6525

UNLEASHING THE CUTTING EDGE



The Phoenix fiber laser cutting machine combines dynamics and versatility, an intuitive control and advanced automation options. The latest model, Phoenix FL-6525, entails these features in a larger format with the extra option of bevel cutting.

Performance from thick to thin

The outstanding performance of the Phoenix is a direct result of its meticulously crafted frame design, powerful fiber laser source, and state-of-the-art cutting head. Its versatility and adaptability make it an ideal choice for a wide range of industries, from heavy fabrication to precision engineering.

Thanks to its shuttle tables, Phoenix perfectly combines with automation, such as *LA Load/Unload*, *Compact Tower* and *TAS/WAS* warehouse solutions, maximising machine capacity.

Why Phoenix FL-6525?

- XXL laser cutting
- Additional flexibility with optional bevel head
- Powerful straight cutting up to 20 kW and bevel cutting up to 12 kW
- Uninterrupted operation thanks to shuttle table system

Phoenix range

MODELS

Phoenix FL-3025:
Phoenix FL-4020:
Phoenix FL-6020:
Phoenix FL-6525:

SHEET SIZE

3050 x 1525 mm,
4065 x 2035 mm
6160 x 2035 mm
6400 x 2500 mm straight cutting
6100 x 2000 mm bevel cutting



Expanding horizons with bevel cutting

The new Phoenix FL-6525 can also be equipped with a bevel head, opening up a new realm of possibilities.

The optional bevel head introduces an additional level of flexibility to your manufacturing process. With precise control over the angle and depth of the bevel, you can effortlessly create intricate designs or prepare material for subsequent welding operations.

This functionality is particularly invaluable in industries such as automotive, aerospace, and construction, where bevel cuts are integral to achieving precise fits and

seamless assemblies. When straight cutting, the maximum sheet size is 6400 x 2500, when bevel cutting, it is 6100 x 2000 mm.

Following the success of the *Taurus* XXL fiber laser, the Phoenix FL-6525 is LVD's second fiber laser machine offering bevel cutting as an option.

Exceptional dynamics

Phoenix FL-6525 achieves exceptional dynamics, particularly impressive considering its size, thanks to the gantry design and Siemens motors and drives.

The user-friendly interface allows for easy navigation and programming for operators of all skill levels.

Phoenix FL-6525 is also equipped with comprehensive safety features - advanced sensors, real-time monitoring systems, and automated shut-off mechanisms - ensuring the team can work in a secure and controlled environment.

Phoenix FL-6525 is available in 6, 10, 12 and 20 kW with straight cutting head and in 10 and 12 kW with bevel cutting head. With the new model, you can effortlessly take your projects to new heights of precision and creativity.

For more information, please contact sales@lvdgroup.com.

PUNCH WITH A SPARKLE

The next time you visit a pub, there's a fair chance that LVD machines have played a role in keeping your beer cold or your cola fizzy.

UK-based company Booth Dispensers specialises in designing and manufacturing water coolers, undercounter chillers and dispense units able to serve 80 pints of iccold beer per hour. At the heart of its sheet metalworking facilities are an LVD Strippit PX-1225 punch press and two PPED press brakes.

Tom Boardman of Booth Dispensers, explains that the PX punch press, with a single-head design allowing 360-degree rotation of any tool and extensive forming capabilities, is an ideal fit for Booth Dispensers manufacturing requirements. The company has been using this type of machine since 1999 when it purchased a Pullmax (now LVD) P5000 punch press – which is still running.

“We have our own design and development team, so a lot of what we make is tailored to the customer's requirements. There are some standard products, but a lot of what we do is bespoke.

“So generally, we are making parts to order rather than for stock. We work about a week ahead of what is required on the shop floor, so we need to be quite flexible in our manufacturing capabilities

– we aren't making the same things repeatedly.”

Components range from cabinets and enclosures to small brackets in batches of up to 100 off. The largest parts would be just under two meters long and the material would generally be 1 mm thick. “We aren't making massive batches, but it adds up to around 10,000 to 15,000 parts

per week, so again it means we have to be flexible.”

Tom explains: “We would always like to have a standard tool setup, but because our design department are constantly developing bespoke solutions for customers there are quite a few changes.”

The PX-1225 machine has 20 stations in its tooling carousel, and



Profile

Company Booth Dispensers

Since 1965

Industry:

soft drink industry, bars and breweries equipment

Works with:

thin materials, mainly galvanised and precoated

LVD Installations:

Strippit PX-1225

PPED-7 50/20

PPED-7 135/30

Website:

www.booth-dispensers.co.uk



Beer dispense unit

Water cooler

Booth Dispensers uses four of these for multitools, which takes the total number of tools available to around 32, most of the round punches are held in multitools.

“Having a tool carousel rather than a turret machine means changing the tools is quicker and easier. If the tools are already setup in the holders, it’s just a matter of swapping them over. This is a very quick process. You can index any tool so if you have a shape or slitting tool you can produce some fairly intricate shapes,” Tom says.

The single head punching system also allows to carry out a wide range of forming operations during the punching cycle, including thread forming, dimples and joggles – which would not be possible on a laser.

Complementing the punching machines are two LVD press brakes,

a *PPED 50/20* and a *PPED-7 135/30*. Tom says that he saw LVD’s press brakes when he visited LVD UK to discuss the purchase of the PX machine.

“We were impressed. It was a good purchase. Two years later we wanted to add another LVD machine and the 3m machine was an ex-demo model that was available immediately. We had it delivered within a month of enquiring about it.

“The machines are quick to setup, easy to changeover and they are twice as fast as the machines we had been using. The touch controls are intuitive and easy to use. You can see all the steps on the screen, and it takes you through a simulation of the bending process so that you can see it works properly.”

In conclusion, Tom says: “The partnership between Booth

Dispensers and LVD has been going over 20 years and we have always had a good relationship with them. The machines are very reliable, but it is good to know that the support and backup is there when you need it. Our team has just been over to LVD’s headquarters in Belgium to look at CADMAN software and a laser, so we are continuing the partnership and investing for the future.”

Watch
the testimonial



FROM WEST TO EAST

Seven years ago, Tom Hennejonck (40) left Belgium for Malaysia. There he provides technical support to sales and service colleagues in Thailand, Singapore, Indonesia and recently Vietnam and the Philippines.



The start of an adventure

“I was asked whether I was interested in a job as a technical manager for LVD Malaysia. I would be the link between the Southeast Asian branches and the Belgian head office and run the new Experience Center. In addition, also familiarise the local sales and service teams with the latest technologies, at the time mainly fiber laser, *Easy-Form* and the *CADMAN-JOB* software.”

“I had been with LVD for eight years, first in world service and later as an application engineer in the XP Center. As an industrial engineer, the

mix of technical work and travel was perfect for me. I had fond memories of a tour I had once made in Malaysia. The adventure called and I confidently said ‘Yes!’”

“The preparation for my job was quite a challenge. Until then, I had always worked for the laser cutting division, now I also had to master the bending and punching technology. I also had to arrange things at home and say goodbye to family and friends. In April 2016, I left for Malaysia with only two suitcases.”

Exploring the market

“At work I quickly found my feet;

training local colleagues, organising fairs and participating in the official opening of the Experience Center. To get to know the market, the subsidiaries and the customers as quickly as possible, I installed machines myself and also visited customers with sales. Those first two years I travelled a lot, one day I installed a machine in Indonesia and the next day I was at a trade fair in Thailand.”

“The effort has paid off, now the service teams need less support and I follow up on new countries, such as Vietnam and the Philippines. In addition, I am responsible for

integrating all LVD software packages and for recruitments. To keep up to date with all the latest developments, I am in close contact with LVD in Belgium, LVD North America and LVD CNC Tech in China.”

Creative and flexible

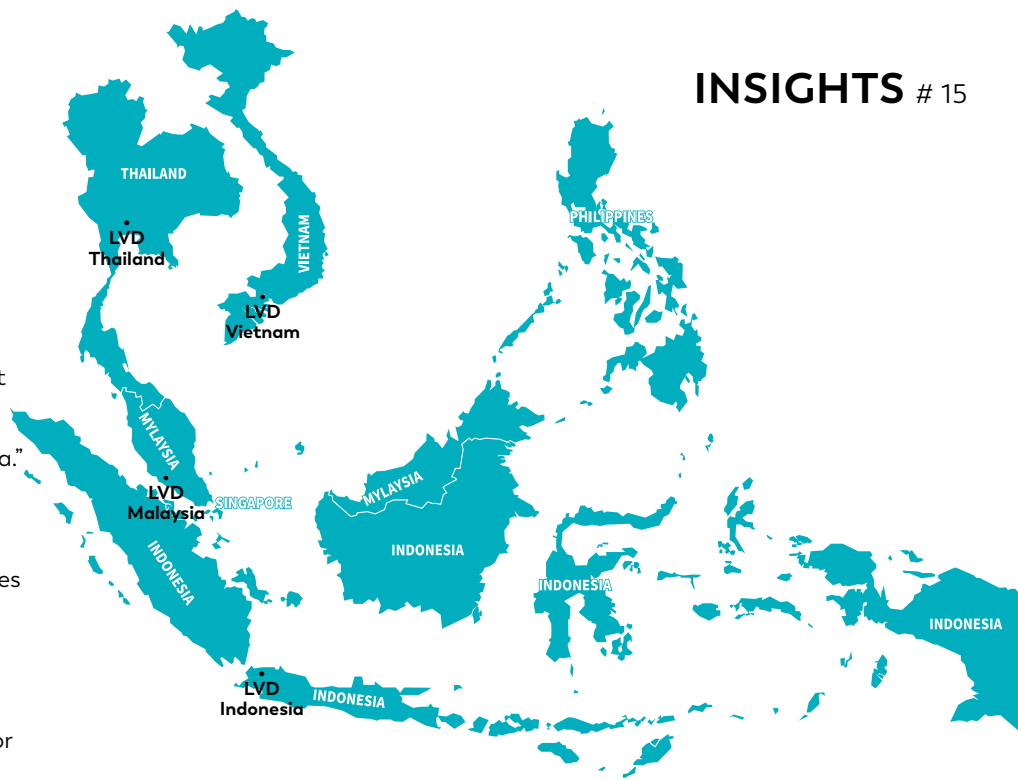
“However, selling high-tech machines in the Asian market is not easy. The companies here are very price-conscious and difficult to convince of the added value of automation or CADMAN integration, among other things. I am proud of the fact that as a team we have succeeded in selling the first fiber laser in Vietnam. Because we didn’t have a subsidiary at the time and the competition was fierce.”

“We achieved this through intensive discussions during multiple visits with the customer. We provided him a full cost study for his actual parts and we invited him to a demonstration of the actual machine cutting his parts within the specified time frame.”

“In 2020, the world came to a standstill due to the coronavirus. Asia was particularly affected. We couldn’t even travel until last year. But we quickly adapted and also learned to install complex machines, do test runs and provide training from a distance via video call, using webcams and remote support software.”

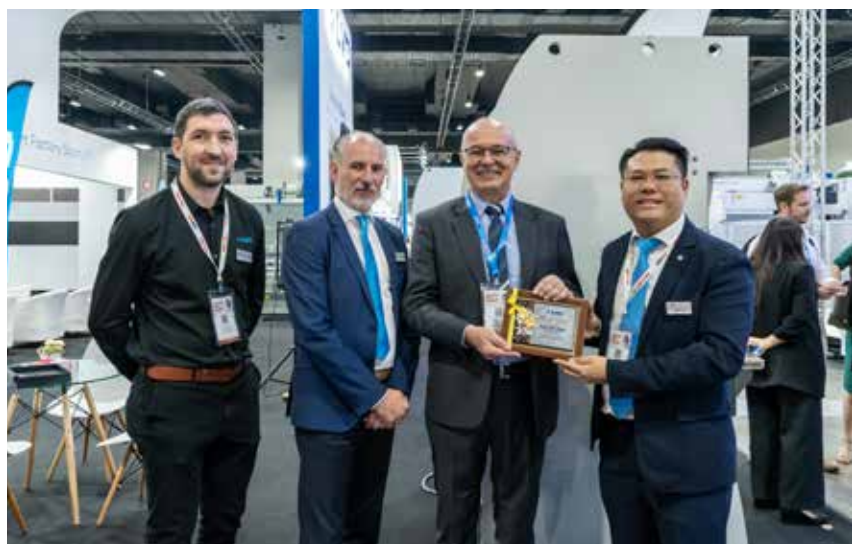
The best of both worlds

“After seven years, I feel completely at home here. First of all thanks to



my family; my Malaysian wife and our little daughter. Together we enjoy traveling around Malaysia, the nature is wonderful. I also love the bustling capital of Kuala Lumpur with its fantastic architecture, such as the Petronas Twin Towers, and its many restaurants and shops. All this half an hour from my door.”

“Honestly? Integrating in Malaysia has been easier than expected. I don’t completely have to miss out on Belgian culture either. Other Belgian families live here. We come together at Easter, Saint Nicholas, King’s Day, and then enjoy a cold beer and a tasty waffle. Yes, I have found my destiny here.”



At Metaltech 2023: Tom Hennejonck, Lieven Vanhoenacker (LVD International Sales), Peter Van Acker (Belgian Ambassador in Malaysia) and Joshua Tan (LVD Managing Director South East Asia)

SNAPSHOT

THE FUTURE LOOKS BRIGHT

Southeast Asia is one of the world's fastest growing economies with large-scale industrialisation and a growing pool of young workers. Malaysian lighting manufacturer Sirijaya Industries focuses on high-tech manufacturing and energy-efficiency.

A better future

"We produce lighting and component solutions tailored to different needs and circumstances. Energy, maintenance, building intelligence have become major criteria that we need to address," says Liew Kok Weng, Group CEO and Group Managing Director of Sirijaya Industries.

"To reach net zero emissions by 2050, sustainability has become increasingly important in construction and manufacturing around the world. It involves addressing environmental challenges by saving energy, reducing maintenance, reducing the carbon footprint to create long-term value for the nation while minimising the negative impact on the planet.

"We are committed to contribute to a better future, a more flexible and sustainable world.

"Smart lighting systems are connected to control and exchange data, using cable support systems to guide the power and data cables into electrical installations or communication systems. Our target sectors are office and commercial buildings, schools, universities, hospitals, modern retail, residential properties as well as street lighting."

The path to success

Started in 1983 with the production of plastic lamp holders and lighting accessories with a staff of only five people, the company expanded its business with fluorescent lighting in the 1990s, and cable support systems in 2009. Today, the Sirijaya Group of Companies operates from a 46,000 sqm facility on a plot of 93,000 sqm.

"Sirijaya employs 350 employees, with a sales turnover exceeding RM 100 million (20,336,000 EUR) of which 55% are lighting and electrical

components and 45% are cable support systems. We are relatively young in the market but we have been able to gain experience and build a reputation both domestically and internationally," explains Liew Kok Weng.

"Several factors have contributed to our success," he continues. "First of all, our highly customer-oriented approach, whether commercial or residential. Also the fact that we work with valued suppliers to develop the right product."

Cutting-edge technology

"Before 2009, we worked with conventional punching machines and press brakes. The production floor was complete chaos, too many processes were running, there was too much material handling and WIP along the production lines. Not to mention the excessive energy consumption, man-hours and material wastage and the waste of

time in preparing the punch form and machine setup.”

In 2009 Sirijaya Industries expanded the machine park with three LVD shears, 15 press brakes and two CO₂ laser cutting machines. Liew Kok Weng: “The impressive results of the machines far exceeded our expectations in terms of set-up time, ease of operation and material savings. This success, supported by the growing demand for faster delivery, convinced us to invest again.”

In 2022 the company bought a Phoenix FL-3015 fiber laser cutting machine with 10-pallet Compact Tower. “It was a necessary step to increase efficiency and quality and to lower the costs.”

Fortune favours the bold

With the implementation of the Phoenix with Compact Tower, Sirijaya transformed its manufacturing capabilities. “The Phoenix offers excellent cutting results at high speeds in different metals and composites for a wide range of applications. 95% of our materials have a thickness of less than 2 mm.

“The tower automation reduces downtime and allows operators to focus on other important tasks. Compared with our existing CO₂ laser without Compact Tower, the production speed has doubled. We are now able to handle mixed production and configure to order when needed. We deliver quality products that even sometimes exceed customer expectations,” he explains.

“Finally, we can count on LVD’s customer support, training and maintenance ensuring the machine always operates at its best.”

“Sirijaya and LVD have been walking hand in hand for more than 15 years and I believe that this relationship helps both companies to grow significantly, laying the foundations for a very bright future.”

Liew Kok Weng concludes: “I like to think that fortune favours the bold, and that we have been both capable and lucky, being able to ride the waves of change with a business strategy that found a good balance between experience, investments and cutting-edge technology.”



Liew Kok Weng, CEO Sirijaya Industries

Profile

Company Sirijaya Industries

Since 1983

Industry:
industrial and commercial,
street lighting

Works with:
aluminium, stainless steel,
mild steel in thicknesses
ranging from 0.5 to 2.5 mm

LVD Installations:
3 x CS 6/31 shears
10 x 40/20 and 5 x 100/30
press brakes
Phoenix FL-3015
with Compact Tower-10

LVD Software:
CADMAN-L and CADMAN-JOB

Website:
www.sirijaya.com



GLOBAL REACH

United States

O'Neal Manufacturing Services (OMS), one of the largest family-owned metal fabrication companies in the U.S., has been partnering with OEMs and contractors requiring light gauge, precision sheet metal contract manufacturing solutions for more than 100 years. For OMS, named 2022 Fabricator of the Year, a *Strippit VX-1530* punch press provides the flexibility and productivity for high-volume manufacturing.



Mexico

Inoxidables de San Luis has the largest inventory in Mexico of all kinds of stainless steel products. The company prides itself on offering flexible solutions for its customers. Using the *Phoenix FL-6020* 20 kW, it cuts stainless with clean, smooth edge quality in a variety of thicknesses and at high speeds – up to 2.5 times faster than a 10-kW source when using nitrogen.



United Kingdom

LNS Turbo has doubled its manufacturing capacity for swarf management systems with a *Phoenix FL-3015* 4 kW laser with 10-station *Compact Tower* and 135-ton *Easy-Form* press brake coupled with *CADMAN*® software suite. This has allowed the company to push forward on a new strategic path focused on OEMs and dealers for business growth.



Brazil

Usi-Tubos got its start as a tubular parts supplier and has diversified to offer sheet metal solutions for industries from aviation to earth moving. A pioneer in ISO 9001 certification, it's committed to continuous improvement. Recent investment in a large-format *Taurus 12* 10 kW laser, heavy-duty *PPEB-H 800/81* and *PPED 320/40* press brakes take its production capacity to the next level.



Lithuania

Stansefabrikken UAB, part of the Norwegian Stansefabrikken Group, is a contract manufacturer of sheet metal products. The corporate mission to be “the chosen partner” requires a high level of responsiveness to its customers. This coupled with a strong drive toward sustainable production solutions influenced investment in automation with *Dyna-Cell* and *Ulti-Form* robotic bending cells.



Germany

A manufacturer of switchgears for more than 60 years, **Greiner Schaltanlagen GmbH**, has a history of investing in top production equipment. A *Strippit M* punch press, *Easy-Form 170/30* press brake and LVD laser cutting equipment helps the company live its motto of “quality that convinces.”



India

Sulax Technologies Pvt Ltd manufactures precision sheet metal components and sub-assemblies for wide-ranging applications – elevators, escalators, metros, railways, renewable energy, and more. In its modern manufacturing facility, the user friendly *Easy-Form 9 80/15* press brake featuring LVD’s exclusive *Easy-Form® Laser* adaptive bending technology achieves precision accuracy and repeatability for every job.

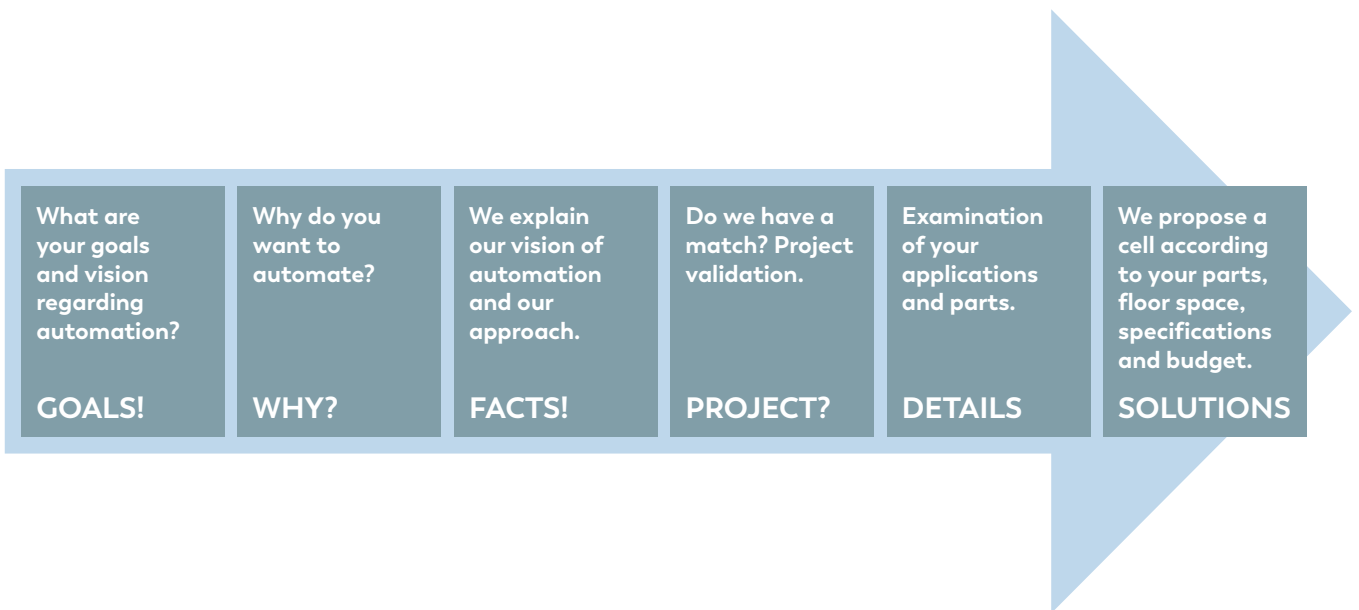


Czech Republic

As the largest manufacturer of agricultural machinery and producer of components for industrial vehicles in the Czech Republic, **Agrostroj Pelhřimov**, counts among its customers the world’s leading agricultural and truck equipment brands. Its *XXL Taurus 16 10 kW* laser delivers extra-large cutting capability to efficiently work with challenging high-tensile steel with high accuracy and consistent reliability.

SELECTING THE RIGHT BENDING CELL

Robotic bending cells deliver constant part quality, high productivity and enable people to focus on other value adding jobs within the workshop. But how to choose the right cell according to your budget and technical needs ? At LVD, we start with a conversation.



Why do you want to automate?

Is it for large/heavy part manufacturing? Ergonomic reason? To increase productivity? Shortage of – experienced - operators? Batch operation? Big volumes? Part quality? More efficiency in material handling? These exploratory talks give us valuable insights into your ideas about automation, as well as your motives and preferences. Based on this info, we can validate the project.

Dive into your world

There is not one solution for every part size and weight. We examine your applications and focus on the most frequently produced parts. This analysis includes studying the minimum and maximum sizes, material thicknesses, weight, and forms. Additionally, we take into account your largest, heaviest, and thickest part, as well as typical quantities and yearly batch sizes. This comprehensive study ensures a tailored and efficient solution for your needs.

Final solution

Following the initial analysis, we proceed with a demonstration. We bend parts using the robotic cell that you have selected. These pre-acceptance parts will be documented in your quotation. This approach guarantees that you will receive precisely the cell you envisioned, providing you with confidence in the final solution.

BUDGET FRIENDLY



D-Cell 50/20

- hydraulic PPED press brake
- universal gripper
- max part: 600 x 400 mm
- 4 kg



Dyna-Cell 40/15

- electric Dyna-Press Pro press brake
- universal gripper
- max part: 600 x 400 mm
- 4 kg

FLEXIBLE



Easy-Cell 80/25

- Easy-Form press brake
- manual gripper change
- max part: 1600 x 1200 mm
- 25 kg

AUTONOMOUS



Ulti-Form 135/30

- automatic tool change
- universal gripper
- max part: 1200 x 800 mm
- 25 kg



Ulti-Form 220/40

- automatic tool change
- automatic gripper change
- max part: 3000 x 1250 mm
- 75 kg

*Discover
if robot
automation
is for you.
Contact us.*



Why choose an LVD bending cell?

- **Advanced CADMAN-SIM software:** generates bending and robot program, defining all gripper positions and ensuring collision-free operations. In-depth robot knowledge of the operator and robot teaching are not required.
- **Universal gripper:** adapts to each part, ensuring continuous bending operations. Additionally, the robotic cell range includes models with various grippers for an extensive array of part sizes.
- **Operation flexibility:** choose between robotic or manual bending depending on the application.
- **Positive ROI:** LVD cells strike a perfect balance between system functionality and cost

FE+ - BELGIUM

THE PLUSES OF AUTOMATION

Penny Tsikli, plant manager FE+ and Wim Kuysters, managing director of Laborex

For FE+, a Laborex Group company, LVD's after-sales support was the decisive factor in its purchase of a laser cutting machine with warehouse automation. "After all, what good is a machine that stands still, or whose maintenance costs a lot of money?", says Wim Kuysters, managing director of Laborex.

Parts cleaning machines

Since 1960, the Belgian Laborex Group has been designing and manufacturing machines to clean industrial parts and protect them against corrosion. It involves both customised and standard systems for treating parts ranging in size from a few grams to several tons.

To build those systems, the company initially purchased a wide variety of sheet metal from suppliers. Until it decided to invest in its own press brake, punching and shearing machinery to increase flexibility.

"Besides the production for ourselves, over time we increasingly supplied other companies. In 2003, this led to the establishment of a separate private limited company – FE+ – which, after purchasing more machine tools, has grown into a full-fledged sheet metal working company," says Kuysters.

One point of contact

That growth forced the company a few years ago to look for a fast and energy-efficient fiber laser cutting machine to replace its CO₂ laser. It also needed an automated

warehouse to cut manual labour costs.

"We preferred the cutting machine and warehouse to be from the same manufacturer for a single point of contact in case of problems. The coupling between these, especially with the press brake as the next production step, was crucial. The limited space in the production hall was another important consideration.

"LVD was a trusted partner for us, particularly because of their strong aftersales support, which



Phoenix with WAS automation



“This system provides us with a space saving of 80% compared to before.”

had made a difference before. With their *Phoenix FL-3015* laser cutting machine, linked to a five-tower automation warehouse system (WAS), they came up with a compact solution with a good workflow. And this while the technical specifications were comparable to those of other players,” FE+ plant manager Penny Tsikli explains.

Sophisticated workflow

Compared to CO₂ technology, the fiber laser cutting machine cuts the same parts in a third of the time. FE+ deploys the new machine for processing stainless steel, aluminium, steel and copper. The cutting area is 1.5 by 3 m and depending on the material type, sheet thicknesses vary from 0.2 to 30 mm.

“On the right side, raw sheets are loaded into the warehouse. From the second tower, the material is presented to the integrated load/unload to supply the laser cutting machine. After processing, the cut parts go back into the warehouse. The pallets of parts can then be retrieved from the leftmost tower on an unloading table, where the operator can remove them from the sheet. During sorting, the operator validates the parts and reports them back to the software to make them available for the next operation. Finally, the skeleton is removed, or the residual sheet is pushed back into the warehouse along the left side,” Kuysters demonstrated the setup’s workflow.

“This system provides us with a space saving of 80% compared to before. Thanks to the large, orderly storage, we can also deliver to our customers faster and are less subject to material price fluctuations. In addition, it has significantly improved safety, as we’ve reduced the use of forklifts.”

“LVD’s *CADMAN*[®] software is linked to our ERP package, so we now have visibility of stock at all times and can optimise our stock management. *CADMAN* also creates production programs and enables precise pre- and post-calculation. As a result, we realise major time savings in engineering, production as well as administration,” Tsikli adds.

Profile

Company FE+

Since 2003

Industry:

industrial cleaning machines for Laborex and general subcontracter

Works with:

steel, stainless steel and copper, in thicknesses ranging from 0.4 to 30 mm

LVD Installations:

PPEB 135/30
Easy-Form 220/40
Easy-Form 80/20
Phoenix FL-3015 with WAS
warehouse automation

LVD Software:

CADMAN-SDI, CADMAN-B,
CADMAN-L and CADMAN-JOB

Website:

www.feplus.be



Laborex floodwasher

Laborex
spray washer

Further growth

FE+ invested in the laser cutting machine and warehouse with the ultimate goal of delivering higher volumes of high-quality parts, reliably and at competitive prices. This combination should therefore support the company's further growth.

"Currently, work for external parties represents 90% of our turnover, but we want to increase this share further. Specifically, we want to see our annual turnover increase from 2.2 to 3 million euros next year. This purchase should make this possible," the company managers add.

ing. Wouter Verheecke, Metallerie

Watch
the testimonial



DIGITAL COURSE

LASERTECHNIK BRANDENBURG - GERMANY



Sheetmetal subcontractor Lasertechnik Brandenburg/Havel GmbH is working towards a fully digital workflow based on LVD's CADMAN®-software and an Octoflex ERP system. This will reduce the need for manual interventions, as jobs flow from orders received to finished parts and assemblies ready for dispatch to the customer.

Matthias Gartensleben, who founded the company in 2015, is the third generation of a family-owned metalworking business and decided to set up his own company when he finished his craft apprenticeship.

He was introduced to LVD and went to see a company that was using an Impuls CO₂ laser. Having seen what LVD could offer as a complete package he decided that it was the right company to partner with on his new venture.

"We were very impressed by the product – lasers, bending and software as an integrated package – and thought, OK we will go with LVD," says Matthias.

"We did look at other possible suppliers but the cost performance calculation was decisive for LVD. So in 2015 we ordered an Impuls 6020 laser cutting machine along with a 6-m press brake with 640 ton pressing force, featuring LVD's *Easy-Form*® Laser adaptive bending system."

He says that the Impuls was a good workhorse, but the business grew quickly and, when he looked to expand the company by moving to a larger 16,000 m² site, he decided to invest in more LVD cutting and bending equipment.

"We decided on a 6-meter *Phoenix fiber laser* machine with a 10 kW laser source and additionally a 3-meter *ToolCell 220 Plus* press brake with automated tool changing.

Lasertechnik Brandenburg can cut and bend parts from millimetres across to 6 m by 2 m. It also has extensive welding capabilities, with around 70% of what it manufactures supplied as welded assemblies and fabrications. Production runs range from one-offs to small series production and the company has segregated working areas for stainless steel and aluminium.

The company serves markets as diverse as industrial machinery, playground equipment, car park systems and moorings and makes event boats as its own product. It has an in-house joinery shop and upholstery department to fit them out.

Digital work flow

Lasertechnik Brandenburg is currently in the process of implementing a digital work flow that will integrate its LVD machines and CADMAN software with its Octoflex ERP system.

Matthias Gartensleben says: “Digitalisation will allow us to simplify our processes and take out manual interventions in the work flow.”

This is still a work in progress, but the eventual aim is that when orders are put on the ERP system the 3D STEP files will first of all be automatically imported using the SDI (Smart Drawing Importer) module in LVD’s

CADMAN suite. This unfolds the parts and calculates cost drivers and imports them into Octoflex.

When the time comes to make the job, the files are exported from Octoflex to CADMAN-L and CADMAN-B which automatically produce the laser and bending programs offline. These are then sent to CADMAN-JOB which manages the flow of work to the machine and tracks the parts that are produced.

The next step is to integrate shop floor tablets to complete the information loop from the machines and the fabrication shop back into the ERP system.

“Digitalisation will allow us to simplify our processes and take out manual interventions in the work flow.”



Owner Matthias Gartensleben

“The shop floor tablets will allow us to keep track of jobs, parts and kits of parts through to the finished welded assembly. Every colleague will get a tablet, including in the fabrication department so that they can log in the jobs that have been completed and how long they took. The production manager can then always see where the parts are, what processes have been done, how long the processes have taken – all integrated with Octoflex and CADMAN JOB.

“We haven’t completed our digital integration yet. At the moment we are at about 80% and I think it will probably be another year before it is really running.

“The aim is to have in place the simplest way to specify the complete processes without the need for specialist input. We get the orders and the customers get the parts. That takes the workload off our colleagues.”

All his life, Matthias Gartensleben has spent a lot of time on boats and the water – canoe racing from a young age and riding all kinds of electric jetboards in his spare time. Now he is in the process of founding a group of companies offering products and services in this area. He has just finished building an event boat using the in-house facilities.

“Our goal is to cover all aspects of water sports and tourism within a five-year frame, ultimately transitioning from being solely a subcontractor to becoming a primary provider of our own products.”

Lasertechnik Brandenburg/Havel GmbH will serve as the nucleus of the Gartensleben group, which comprises Gartensleben Events, Piers, Solarship, and Cubes. Gartensleben Events will organise events on boats, while Piers will specialise in the construction and installation of moorings. Solarship will focus on the production of aluminum boats, and Cubes will produce modular building elements.

“With our mobile app you will be able to conveniently plan and book a boat event, reserve moorings and charging points and pay for your electricity, ensuring that everything is readily available precisely when you want it.”

Profile

Company:

Lasertechnik Brandenburg

Since 2016

Industry: agriculture, construction, electrical, automotive, conveyor industry, special and heavy mechanical engineering

Works with aluminium, stainless steel, mild steel in thicknesses up to 30 mm

LVD Installations:

Phoenix FL-6020

PPEB-H 640/61

ToolCell 220/40 Plus

LVD Software:

CADMAN-SDI, CADMAN-B, CADMAN-L and CADMAN-JOB

Website:

www.lasertechnik-brandenburg.de



NEW CADMAN-FLOW

INCREASES PROCESS EFFICIENCY

CADMAN-FLOW connects all CADMAN® software modules, improving process flow from art to part.

- Single point of entry to the complete software suite
- 50% less tool changes
- Automate your part programming workflow
- Completely new CADMAN engine
- Intuitively browse parts and their bend solutions



With CADMAN-FLOW, users can manage their production process and realise significant gains in productivity by linking their production steps and increasing throughput.

At its core is CADMAN-B v9, LVD's new CAM bending software. It generates a bend solution significantly faster with greater accuracy and less operator involvement.

Single entry point

CADMAN-FLOW is a single point of entry to a complete software suite: software for (robotic) bending, laser cutting and punching, Manufacturing Execution System (MES) and Smart Drawing Importer.

ERP and other systems access CADMAN-FLOW through one single interface (API). Users can import and verify parts and assemblies, create CAM programs, import production orders, and retrieve production information from the touch controls.

LVD engineered

Developed by LVD, CADMAN-FLOW reduces unproductive time during work preparation through tight integration between modules. The interface is simple and intuitive; the all-in-one platform guides the user from order to completed part in fewer steps and with fewer clicks. Users can view the status of



each part along its preparation to better manage, track, and share information across departments or teams.

Smarter bend solutions

CADMAN-B v9 is built from the ground up and designed to calculate bending solutions faster than ever before.

All-new algorithms score all possible bend sequences to determine the optimal bend solution, selecting the most suitable tools. They can even precisely position the *Easy-Form*® Laser angle measurement sensor based on part geometry. Backgauges are positioned automatically to best support the workpiece, eliminating unnecessary movements.

Automatic tool optimiser

With smaller batches sizes and increasingly complex parts, tool changes are more numerous. The new tool optimiser in CADMAN-B v9

drastically reduces tool changeover and can adjust the order of bend jobs, length of tool setup and even the type of tool over multiple parts, provided the bend allowance remains constant.

If one part requires a gooseneck punch and the next parts a straight punch, the optimiser will adjust to use the gooseneck punch for all parts. CADMAN-B changes the tool type automatically and conducts a full collision check. For bending two profiles, one one-meter long the other two-meters, the optimiser will immediately select two-meters tooling length.

Fewer tool changes, means optimising precious production time. In this way, the new CADMAN-B continues to streamline the sheet metalworking process to make smart manufacturing possible.



ESCEA

Smart manufacturing technology helps **Escea** push the boundaries of fireplace design; aesthetics, heat output, efficiency, home performance and installation flexibility.

Known for quality and innovation, **Escea** is recognised for a diverse product offering – from luxury multi-side gas fireplaces to outdoor cooking fires, and most recently, an indoor wood fireplace range. Headquartered in Dunedin, New Zealand, its 5900 sqm manufacturing facility serves markets across Australasia and North America.

Escea processes more than 20 tons of sheet metal per week, producing numerous components of varying materials. A make-to-demand methodology means constantly navigating changes in product demand – no two days are the same.

To handle the load, Escea relies on two LVD laser cutting machines, automated tower system, three *Dyna-Press* electric-drive press brakes, three *PPED* hydraulic press brakes in varying capacities and new *Easy-Form 115/40* press brake.

www.escea.com





Shaping flows.

In the past, a robot was only of interest for large volumes. Systems were expensive and required a highly skilled programmer.

Things have changed, certainly at LVD! Your operator can tackle any job with our robotic bending cells. LVD's CADMAN-SIM software automatically generates bend and robot programs and eliminates the need for robot teaching.

LVD's robotic cells reduce downtime and setup time to achieve faster flows. Easily and cost effectively.

Shape your flows with LVD.



Learn more about
our bending cells



robotised



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