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Sheet Metalworking, Our Passion, Your Solution

By Jean-Pierre Lefebvre
Chairman

In September 2007, the LVD Group embarked on a global branding initiative designed to unite all sales subsidiaries and products under the LVD brand name.

The new branding strategy was implemented to achieve a consistent brand image of LVD and to make it easier for customers to do business with LVD worldwide while providing international growth for the brand.

As a growing and more diversified company, the importance for a stronger, more unified branding strategy is paramount. A clear and consistent brand helps you recognize who we are and what sets us apart from other industry brands. As we cultivate recognition as an

international brand, our goal is to ensure that new and existing customers understand the breadth of our Laser, Punch, Bend and Integrated solutions.

A new product branding system emphasizes our key product families, including our patented Easy-Form® press brakes and Orion, Axel and Impuls laser cutting systems. The Strippit product brand – renowned for innovation in punching technology – is now prominently featured on every punch press sold worldwide.

Our branding initiative goes beyond these obvious changes. In the most basic way, strengthening the LVD brand is a promise to provide greater value to all our customers.

This strategic step in our corporate history reinforces our commitment

to you with values shared by all our subsidiaries across the globe. These values include a promise to formulate solutions and a pledge to deliver those solutions with a friendly, personal approach that is uniquely LVD.

As we continue to implement our branding strategy, rest assured that the values LVD was founded on, that have fueled our growth, remain intact. At the heart of our organization, we remain a family owned business committed to the service of our customers and to delivering the finest possible equipment to meet today's manufacturing needs.

As a united LVD, we share a common goal to turn our passion for engineering and manufacturing superior sheet metalworking products into your solution.



www.lvdgroup.com

LASER

PUNCH

BEND

INTEGRATE

Sheet Metalworking, Our Passion, Your Solution



ADVANCING THE ART-TO-PART PROCESS

By Carl Dewulf, President and
Managing Director, LVD Company nv

LVD was first in the sheet metal fabrication industry to develop its own controller for press brakes, the MNC8000 control. We were the first to develop a graphical control in the mid 1980s, and were also the first to introduce a Windows, PC-based control, the CADMAN® CNC for press brakes.

Today we are proud to take these accomplishments a step further with the introduction of the next generation of CADMAN CNC control: CADMAN® Touch.

The state-of-the-art CADMAN Touch advances the Art-to-Part process by combining the power of the CNC control with the speed and simplicity of touch screen programming, minimizing the effort and time it takes to produce a quality formed part.

We have engineered the control with infrared touch screen technology in a robust industrial design that can withstand the toughest shop environment.

CADMAN Touch builds on the strength of our proprietary CADMAN control, incorporating its powerful features such as automatic optimization of the part program. Like its predecessor, it is able to create and store interactive databases for bend allowance, angle corrections and spring-back, and

then search and apply these user-generated databases each time a part program is generated.

What's been enhanced is the easy to use nature of the control. CADMAN Touch has a new, intuitive user interface that lets the operator go from drawing (art) to part in fewer steps. Because it is so effortless to use, even complex parts are easy to bend.

At LVD, making bending easy is our continued goal. CADMAN Touch is another example of how we use our bending expertise and over 50 years of press brake development to deliver products that work harder for you.

Turn to page 2 to learn more about CADMAN Touch.

New CADMAN® Touch Control Puts Power at Your Fingertips



The icon-driven control makes programming quick and easy.



The user interface is modern and intuitive.

LVD's next generation CADMAN® Touch control employs the latest in infrared touch screen technology on a Windows® XP embedded PC based control unit, combining the power of the CNC control with the speed and simplicity of touch screen programming.

CADMAN® Touch is:

Powerful – A multitasking control features on board integration with LVD's CADMAN B 3D offline software. This seamlessly links LVD's intelligent bending database on and offline, automatically optimizing the efficiency of the press brake from first to last bend.

Intuitive – A totally new and intuitive user interface minimizes input to the control, so the operator moves from drawing to part in fewer steps.

Fast – CADMAN Touch has been designed to minimize operator input from drawing to part, taking you from 'Art to Part' faster.

Flexible – 2D and 3D files can be input directly at the machine control, allowing the flexibility to program parts both on and offline.

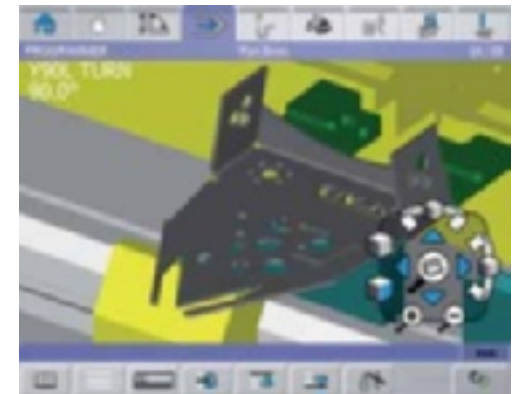
Easy to use – An intuitive icon-driven interface ensures that operators find using CADMAN Touch easy and productive.

Highly reliable – IR touch screen technology used in the CADMAN Touch control is a robust industrial design, successfully at work in other LVD products.

Network compatible – Fully network capable, CADMAN Touch permits



2D and 3D files can be directly imported to the machine control without the need for offline simulation or programming.



Automatic optimization of the part program eliminates trial bending, and reduces the time required to produce a quality part.

integration to CADMAN-B 3D offline and workshop networks for program transfer and backup. This also enables access to LVD's Teleservice remote service system.

Press brakes equipped with the CADMAN Touch control will feature a jog button on the foot pedal, allowing the operator to 'jog' individual axes of the machine for fine adjustments.

CADMAN Touch is available on all PPEB and Easy-Form Series press brakes.

The Next Generation of CADMAN® CNC Control

- Powerful
- Intuitive
- Fast "Art to Part"
- Flexible
- Easy to Use

Orion 4020: Economical Large Sheet Processing

LVD's new Orion 4020 is a hybrid-style CO₂ laser cutting system engineered for economical processing of large sheets up to 4 x 2 meter.

Orion 4020 is an addition to the Orion product family, compact laser systems offering the best features and performance available in a value-minded package.

Orion laser cutting systems feature a highly rigid, high-precision rack-and-pinion drive system which provides precise motion and position control. This rigid design permits the machine to maintain high processing speeds without loss of cut quality.

Orion 4020 is equipped with a high-pressure cutting head that produces exceptionally clean cuts. A safety system protects the head from damage if it is in collision with the workpiece.

A total power control feature automatically adjusts the laser power in relation to the cutting speed, ensuring an optimal cut at every contour width and minimizing the heat-affected zone. The machine's edge function feature processes sharp corners cleanly, particularly in thicker materials.

Orion 4020 employs the highly reliable Fanuc GE RF excited fast axial flow CO₂ laser. The laser, CNC control, drives and motors are fully integrated, providing superior processing speed, high reliability, and low operating and maintenance costs.

The integrated Fanuc GE control provides perfect reproduction of programmed contours, producing acute angles at high speed. The laser power is matched to the vectorial speeds to achieve a constant cut width and a small heat-affected zone.

Optional CADMAN-L 3D offline programming software provides a comprehensive laser cutting CAM package.



Robotic Bending Cell Offers Cost-effective Mid-level Automation

RoboCell is LVD's new automated robot bending cell offering flexible and affordable mid-level bending automation for your workshop.

Ideally suited to the bending of small to medium sized components; available in 80-110 ton bending force and 2.5 - 3 meter bed configurations RoboCell combines an LVD press brake, multi-axis Kuka robot and LVD CADMAN® software technology to provide an integrated automatic bending solution.

RoboCell increases machine throughput by automatically loading, forming and stacking finished parts in an unmanned process, providing high-precision parts, shorter cycle times and lower production costs.

RoboCell key features:

Proven Technology – RoboCell utilises LVD's extensive 'Intelligent' bending database press brake technology and Kuka's industry proven robot technology.

Intuitive – RoboCell is equipped with LVD's new CADMAN® Touch CNC control which provides a new and intuitive user interface, minimizing input to the control so the operator moves from drawing to part in fewer steps.

Fast 'Art to Part' – All press brake and robot programs are generated offline by LVD's integrated CADMAN-B 3D (Robot) and Kuka Sim software.



Flexible – The LVD press brake within the RoboCell can be used with or without the robot. RoboCell is even flexible enough to allow the operator to 'prove' the first part by hand and with the press of a button switch to 'Robotised Bending' mode.

Designed for Automation and Manual Use – RoboCell has been designed to allow both automatic and manual operation of the press brake with a full 2 meters of space between the press brake and the robot.

Easy-Form® Laser – RoboCell is available with either LVD's PPEB or Easy-Form® Series press brakes. Easy-Form® Laser LVD's patented integrated adaptive forming system standard on the Easy-Form Series monitors and corrects in 'real-time' the bending angle of the component 'in process', compensating for all variations in material thickness, tensile strength and grain direction.

This includes an integrated 3D design and unfolding module, which allows easy importing of 2D and 3D designs, automatic unfolding and generation of flat patterns from 2D or 3D files. CADMAN-L 3D also incorporates fully automatic, semi-automatic or manual nesting and optimizes cutting and machine parameters to maximize sheet utilization. Advanced features include cutting path optimization, common line cutting and high-speed communications via networking to maximize machine productivity.

Orion 4020 is available with a 2.5 or 4 kW laser source.



Vari-VEE

Automatic Variable Lower V-Die

LVD's Vari-VEE die provides automatic adjustment of the V-width from 60 to 320 mm in increments of 20 mm, reducing setup time and providing flexibility for a range of bending operations, including forming of long parts, different material thicknesses and high strength materials such as Hardox or Weldox without cracking.

The Vari-VEE variable V-die is internally force compensated and allows the bending of sharp angles up to 50° for the maximum V-width. This is especially critical when forming high strength materials such as Weldox because of significant spring back. The radius on the V-die is a hardened insert which is machined with LVD's patented Stone® compound curve for optimal rolling and friction reducing properties.

The Vari-VEE die is ideal for bending operations that demand:

- Bending of different thicknesses of materials
- Frequent die changes
- Bending thick materials with large Vee widths
- Bending different radii on the same component
- Bending high strength materials which tend to crack while bending

Vari-VEE is integrated and compatible with LVD's patented Easy-Form® Laser in process angle correction system, providing first part, good part accuracy even on thicker materials.



An automatic variable lower V-die, Vari-VEE provides incremental adjustments of the V-width to reduce setup time when forming long parts, different material thicknesses and high strength materials.

RECENT Installations

LVD equipment is installed in manufacturing facilities across the globe, including some of the best-known manufacturing companies in the world. Recent installations include the following:

Belgium



CNH Case New Holland – Europe, a leading manufacturer of agricultural machinery has added five Easy-Form® press brakes and an Axel automated laser cutting system to their manufacturing facilities across Europe. The new machines will meet CNH's objectives of increased capacity while achieving and maintaining stringent quality standards.

PR China



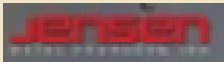
Optimax Tech.Co., Hangzhou, a new company part of the market-leading Xizi trust, has recently installed five new LVD machines including three press brakes, one punch press and a shear at its new factory in Zhejiang province. The suite of LVD machinery will be used to manufacture parts for Optimax's key clients, including American Otis, Japanese MHI and American GE.

France



Ammann Yanmar, Saint Dizier, has added an Easy-Form® 220/30 press brake with 800 mm opening and 550 mm stroke to its newly expanded manufacturing facility. The press brake allows the company to integrate the manufacture of formed and mechanical welded components.

United States



Jensen Metal Products, Inc., Racine, Wisconsin, has installed an Axel 3015 L Linear 4 kW laser cutting machine with double tower system. The equipment allows the precision fabrication shop to process parts lights-out, shortening delivery times. Jensen Metal specializes in close tolerance, low to high volume fabricated components, weldments and assemblies.

Scotland



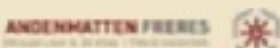
Wallace McDowall Ltd., Monkton, a leading UK sheet metalworking subcontractor, has recently installed an Axel linear 3015 laser cutting system featuring three load stations and two towers, as well as an Easy-Form® 135/30 press brake. The equipment complements and their existing LVD Orion laser cutting system and PPRM press brake.

Germany



Amazonen-Werke, Hasbergen-Gaste, a leading German agricultural machinery manufacturer has installed its fifth LVD Easy-Form® press brake in less than three years. Amazone uses Easy-Form® Laser adaptive bending technology to ensure "first part - good part" results and consistent batch quality across its range of high quality agricultural machinery.

Switzerland



Andenmatten Freres s.a., Romanel-sur-Morges, a leading European subcontract component manufacturer, has recently installed three Easy-Form® press brakes and an MVS hydraulic shear. The equipment replaces four machines from another European competitor and will be used for Andenmatten's fast lead time, high quality subcontract business.

Adaptive Forming Takes Lean to Higher Level for Custom Elevator Manufacturer

Delta Elevator Co. Ltd., Ontario, Canada (www.delta-elevator.com) manufactures, installs, services and maintains elevators. A privately held company, it is one of a few fully integrated elevator companies in Canada. Founded in 1967, the company is located in Kitchener.

Delta produces a range of passenger, handicap and freight elevators. In a highly competitive market, Delta differentiates itself with a high quality custom product, strong service and fast delivery.

that weighed 76 different factors including cost, warranty, service, accuracy, repeatability, setup time, various performance characteristics, various features, ease of programming, training, footprint, recommendations of other users," said Guderian. "LVD came out on top."

Producing consistently accurate parts without trial and error bending was a key factor for Delta, and pivotal in its selection of a press brake was an adaptive bending system.



John Guderian, P. Eng., CQE, is vice president of manufacturing for Delta Elevator Co. Ltd., a privately-owned Canadian business founded in 1967.

"We're in a very mature, competitive business with a lot of multinationals," said Vice President of Manufacturing, John Guderian, P. Eng., CQE. "We've positioned ourselves on the high end, with customized, low volume type of work."

One of the ways Delta remains competitive is through lean manufacturing. When Delta looked to reduce setup times on bending operations and further its lean manufacturing principles, it replaced an existing press brake with an Easy-Form® Laser 170/40 press brake from LVD.

"We're always looking for ways to make our operation leaner," said Guderian. "That means reducing setup times and controlling quality at the source. The problem with our old press brake was that it usually took several attempts before the operator achieved an accurate bend. With the large amount of custom work that we do this was just not an acceptable way to operate."

Looking to replace its conventional bottom forming method, Guderian and his staff researched press brake models considering a host of criteria.

"We constructed a decision analysis chart

"Our elevators end up in some very classy buildings," explained Guderian. "The stainless steel trim and fascia need to fit perfectly, and with the price of stainless steel these days, a trial and error approach is not an option."

The accuracy of a bend depends on a number of parameters related to the quality and mechanical characteristics of the material, which can change with each material batch and from sheet to

"...we ran tests on other equipment and found that LVD's Easy-Form® Laser was the most accurate and easy to use."

sheet. Delta found that its mechanical press brake could not adequately compensate for material variations, thus impacting bending quality.

"To minimize waste, we save cut-off pieces to run some of our larger volume stock parts," explained Guderian.

"A batch of punched parts is often made from a large number of sheet cut-offs with different grain direction, hardness, and even thickness. Our old press brake had a lot of trouble dealing with these variables and we consequently had a high degree of variation in our bend angles."

Delta wanted to employ a method for angle measurement and real-time angle correction in order to achieve accurate bending results from the first piece and consistent parts throughout a production run.

"Other press brake manufacturers have adaptive bending technology, but we ran tests on other equipment and found that LVD's Easy-Form® Laser was the most accurate and easy to use," said Guderian.

The Easy-Form Laser system Delta employs uses measurement at the front and back of the die to determine the exact value of the angle of the workpiece. The system projects straight lines composed of multiple light points onto the workpiece and the vertical part of the die, providing a measurement calculation every 20 milliseconds.

The sensing device transmits information in real time to the CNC control unit, which processes it and subsequently recalculates the correct depth adjustment to obtain the correct angle.

Using the Easy-Form system, Delta is assured of constant bend angles from the first bend. Changes in material characteristics no longer influence the bending results, as the system allows the machine to adapt to variation in material consistency and compensates for any changes in radius as a result of grain direction changes.

"We run every part using the Easy-Form system so every part ends up being within 0.3 degrees of nominal regardless of grain direction, material hardness, etc.," said Guderian.

The press brake also features self-seating hydraulic clamping, which has significantly reduced Delta's tooling changeover time.

"As a lean company, we strive to keep our batch sizes very small," said Guderian. "Since we have a very high product mix – for example, fine, stainless steel trim for cabs versus heavy structural elevator hoistway components – we end up doing a lot of tool changes.

"Our old press brake had 3 meter long dies that required two people to change them," Guderian added. "Whenever

CUSTOMER

Service News

RETROFITS & UPGRADES

LVD's MNC 85 Upgrade package permits PPI press brake users to replace their existing control with the latest touch screen control technology to simplify and speed programming.

The next generation CNC touch screen control – a Linux Unix based system – allows programming parameters to be quickly and easily input via a 10" TFT color screen. Programs can be saved to a USB memory stick.



The MNC 85 Upgrade package includes:

- Touch Screen control
- Software
- Bosch servo valves (replace Moog valves)
- Installation and start-up
- Training
- 1 year warranty on all installed components

Hardware specifications include:

- 667 MHz processor
- 256 MB RAM-memory
- USB port for memory stick and network connection for storing programs and tooling data
- 10" TFT touch screen 800 x 600 pixels

The package also offers these options:

- Retrofit of encoder guidings for improved performance
- Addition of Lazer Safe press brake guarding system, the most modern safety technology available today

To find out more about how you can improve the performance of your PPI press brake with an MNC 85 upgrade, contact LVD at info@lvd.be.



Delta Elevator is an industry leader in built-to-order passenger and freight elevators.

the operator wanted to change dies, he had to go find someone to help him. He would often have to wait until that person finished doing whatever they were doing, and the whole thing would end up taking a lot longer than it should have. Now, with small, segmented dies and punches the operator can quickly change the tools himself. We opted for the hydraulic clamping option, so

"...every part ends up being within 0.3 degrees of nominal, regardless of grain direction, material hardness, etc."

he just pops the tools in and hits the clamp button. A minor tool change now takes about one minute and changing 3 meters of die takes about 5 to 6 minutes."

Delta's ongoing commitment to lean manufacturing calls for cross training

of its workforce, and the press brake's intuitive features make it easy to use and learn.

"We decided to train three operators, since we were planning on another shift and we also wanted one backup," explained Guderian. "As it turns out, with the increased efficiency, we didn't need to start a second shift."

By achieving first part, good part accuracy and reducing setup and tool changeover time Delta is able to keep its manufacturing environment as lean as possible, maintaining reduced inventory levels and producing parts in less time.

"In the past, the shop was typically given three weeks to produce something," said Guderian. "Now we're getting the work orders usually about a week in advance, and issue them to the floor a week in advance and sometimes less."

For Delta, the precision press brake with adaptive bending system has proven an investment worthy of its lean transformation.



LVD's Easy-Form® press brake advances Delta Elevator's lean manufacturing approach helping to reduce setup times and ensuring accurate bending from the first part.

SPOTLIGHT: POLAND

Advanced Solutions for Sheet Metalworking

ZUGIL PUTS LASER POWER AT THE HEART OF MANUFACTURING

Zugil, a leading manufacturing concern in Wielun, Poland, uses a 4kW LVD Impuls laser to provide a central profiling service across the company. The benefits of using the laser have been so great, and the demand from within the company so strong, that it has now ordered a second LVD Impuls with a 6kW laser. And, says Production Director Andrzej Idaczyk, if demand continues to grow at the current rate it will soon be ordering a third machine.

“The machine has been very reliable and if we do need anything attended to the quality of service from LVD gets better and better every day.”

Although Zugil is perhaps best known as an international supplier of electroplating and painting equipment, this is only on aspect of the company's operations. Altogether the company has four separate manufacturing departments and, as well as the paint lines, it also makes steel structures such as mobile phone masts, electromechanical equipment such as electrical cabinets and ATMs, and chassis frames for construction equipment – a fifth department handles logistics and services for the four manufacturing divisions.

The company employs around 1300 people and up to 80% of its production is destined for export, with Zugil's main markets being Scandinavia and Western Europe – with customers including internationally renowned companies such as Volvo and Atlas Copco.

Mr Idaczyk says that before Zugil invested in the laser, each department had its own conventional gas and plasma cutting equipment, but they had some big limitations.

“Above all, you just can't achieve the required quality on these machines. Maybe it is not so bad on external



Zugil's high-powered 6 kW laser systems can process thick materials, including 20 mm plate. This gives the company flexibility to handle its broad range of production, including steel structures such as mobile phone masts, electromechanical equipment, and chassis frames for construction equipment.

contours, but you just can't do small holes and apertures on these machines. And sometimes the job calls for a cut edge quality that can't be obtained in one operation using conventional methods, but you can do all these jobs on the laser without the need for any secondary operations such as drilling or milling. So not only do you get better quality, you also reduce the processing time.”

There were a number of key criteria when it came to choosing the LVD laser.

First of all it had to be big enough to take the standard plate size of 6 m by 2 m that Zugil tries to use wherever possible, and it had to be equally efficient on small components weighing a few kilograms as it was on full plate sized structural elements weighing a few hundred kilograms.

Secondly it had to be robust enough to be driven hard, four shifts a day. Here Mr Idaczyk says that the machine has been reliable and robust too.

“We only turn it off on Christmas Day and Easter Day. The machine has been very reliable and if we do need anything attended to the quality of service from LVD gets better and better every day.”

The shuttle table configuration also means that Zugil gets the maximum possible up-time as it can be unloading parts and loading the next sheet while the machine is still cutting.



Zugil's Production Director, Andrzej Idaczyk, moved the company from conventional gas and plasma cutting equipment to laser cutting machinery with an investment in two LVD Impuls laser systems.

But Mr Idaczyk says that the thing that clinched the decision to buy the LVD machine was technology.

“We had several quotes, but it was LVD's technology that convinced us – particularly regarding the beam delivery system. Because of the compensation axis the cutting parameters are the same anywhere on the table, so even if you are working on a six by two metre plate you can be sure of consistent quality at any point on the component.”

An important factor for Zugil is that the machine is centrally operated and provides a service to every department. In the past, each department used its own conventional cutting machines, but the company finds it is much more efficient to have one central machine. The overhead costs are lower, there is less maintenance required and the costs are spread proportionally over every department. It is a self-financing resource, but in contrast to an outside service provider the customers are not charged a margin on top of the true cost.

The only problem has been that as the benefits of the laser have become clear, demand has started to outstrip capacity.

LVD TECHNOLOGY KEEPS INOFAMA'S CUSTOMERS SATISFIED

Inofama has been producing machinery and equipment for the agricultural sector for more than 120 years. But, although it has strong historical roots, the production equipment it is investing in represents the latest in advanced technology. It operates an LVD Impuls 4020 flat-bed laser with an integrated rotary axis and will soon take delivery of an LVD 4m bed Easy-Form® CNC press brake with LVD's patented Easy-Form® Laser adaptive forming system .

Up until the 1990s, Inofama's production went to the local market and to countries of republics of the former USSR, but it now serves a diversity of customers, predominantly in the Polish, German,

French and Danish markets. It produces equipment ranging from water tanks, pens and barriers through to cattle and car trailers, recycling bins and steam treatment equipment for the potato harvest industry.

As Inofama's Technical Director, Janusz Łuczak explains, the drive to adopt modern manufacturing methods started in the late 1990s when the company invested in two press brakes from another supplier. Based on its experience with these machines the company decided to buy the LVD laser to reduce setup times and increase quality. The LVD press brake will soon complement this to give highly accurate profiled and formed components.

“It is important for us to have this level of quality, and to have quick processes that let us achieve it,” says Mr Łuczak.

The LVD Impuls 4020 laser has a 4 kW power source and two shuttle tables that can take plate sizes up to 4 m by 2 m. The twin table system means that parts can be unloaded and a new plate loaded while the machine is cutting, so there is minimal downtime between jobs. The integrated rotary axis can take tubes and profiles from 30 mm to 500 mm in diameter and, like the shuttle tables, can index in and out of the cutting zone so that parts can be loaded and unloaded during the cutting cycle.

The press brake incorporates LVD's Easy-Form® Laser system to overcome any problems of inconsistent bend angle due to factors such as variations in material thickness or strength. During bending, it monitors the bend angle using a non-contact laser system and



Technical Director, Janusz Łuczak, has helped advance Inofama's capabilities by introducing advanced fabrication technology to the 120-year-old business.

LVD PROVIDES HIGH PRECISION BENDING CAPABILITY TO COMPANY PIMSTAL

Over the past five years Pimstal has become one of Poland's leading suppliers of laser cutting services. Now it is creating long-term stability by diversifying into its own products and offering a full manufacturing service to long-term customers. As part of this strategic move it has invested in an LVD PPEB CNC press brake with Easy-Form® Laser bend angle measurement and is moving to a new, larger facility.

"If you are just offering services you can lose your customers at any time," says Pimstal's owner Michał Wawrzonowski. "A competitor can come along and undercut you, or your customer can buy a laser themselves. The number of lasers in Poland is increasing and more companies can afford them. So you know that



Managing Director, Michał Wawrzonowski, has strategically positioned Pimstal for long-term stability by diversifying into its own products.

if you are just selling laser capacity the margins will be tight."

His aim is to change the structure of the company's business so that more turnover is generated from its own products and long-term, higher added-value contracts.

"At the moment the biggest part of our work is still laser cutting, followed by semi-finished cut and formed parts, but the volume of business coming from our own products and manufacturing services is growing.

"You can succeed in the market mainly by thinking rather than just working".

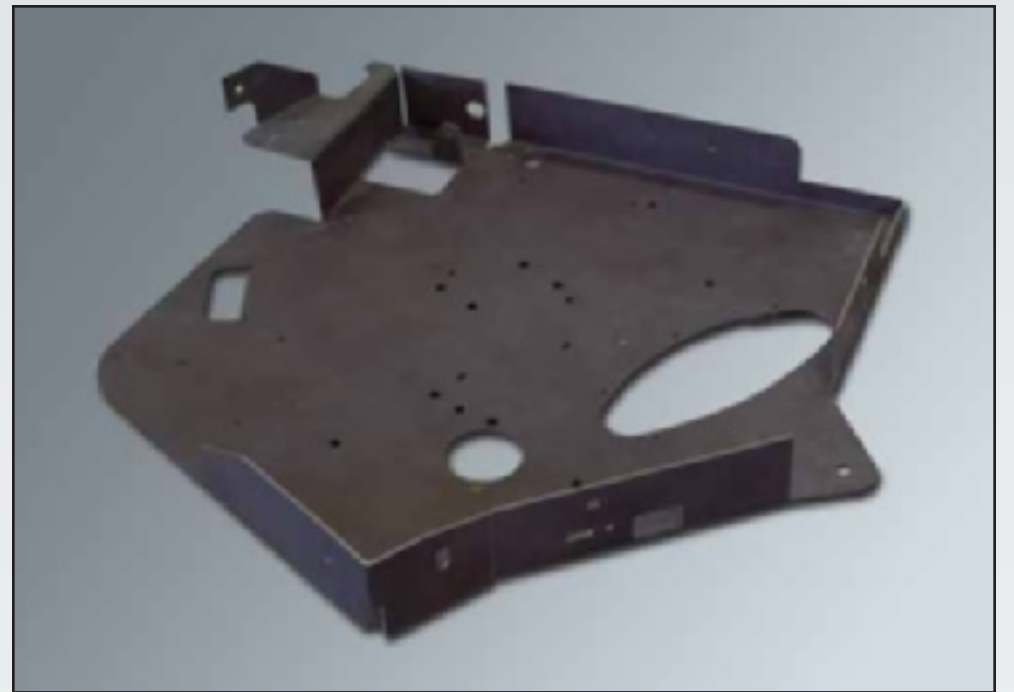
People in Poland often think that if you reduce the price that be more competition on a market you have to reduce the profit. But we say you should think about how you can make things in a different way, to cost less."

As an example he quotes Pimstal's own 'SPRINT' balustrade system – a flat pack product developed for the dynamic Polish construction sector. These are designed to take advantage of the company's existing manufacturing capabilities, so they are laser cut to bolt together with no welding – saving time and money. At the same time the products include patented features that mean competitors can't copy them.

For Pimstal the real advantage of this type of work is that it creates long-term stability in the business rather than relying on the uncertainties of providing a straightforward cutting service.

This thinking has also been reflected in the creation of a new department specifically focused on serving long-term manufacturing contracts. One of the contracts it has already won is for the Swedish company Danfoss and involves the complete manufacture of covers for ground-source heat pump units for domestic heating systems.

"If you are just operating as a laser cutting service and you want to increase your turnover you have to invest in new machines. If you buy a machine that can do twice as much work you double your turnover. But by developing our own products and pursuing long term manufacturing contracts we can in-



Pimstal relies on its LVD press brake to bend components both for long-term manufacturing contracts and subcontract work, bending parts from 0.7 mm up to 1.5 mm thick, as well as processing plate up to 10 mm thick and 2.5 m long.

crease our turnover by up to five times using the equipment we already have," says Michał Wawrzonowski.

Up to fifty different components go into each cover and the current production plan is for 400 cabinets a month. That will double to 800 next year and double again to 1600 the year after.

The LVD press brake is bending parts from 0.7 mm up to 1.5 mm thick, but it is also used for Pimstal's subcontract bending service where it processes plate up to 10 mm thick and 2.5 m long.

"You can succeed in the market mainly by thinking rather than just working"

Michał Wawrzonowski says that the need for the new press brake was clear.

"We saw around one or two years ago that requirements were getting higher on

bending, and that more customers were asking for more complex components. The press brake we already had wasn't capable of doing the job. We started looking for a new press brake supplier and, based on a visit to the Poznan machine tool show and recommendations from other companies we recognised that LVD was a market leader in the press brake sector. This was confirmed for us by LVD Polska's approach to helping potential customers – which set them apart from other suppliers.

"We are very happy with our LVD press brake and it is much more accurate and productive than our old machine. The new press brake is fully equipped with features that ensure the highest possible quality – including automatic crowning control and the Easy-Form Laser bend angle measurement system. This measures the angle during bending to compensate for any material variation and ensures that every bend is correct from the first part to the last. The machine can bend in any axis, so we can produce the most complex components."

makes adjustments to ensure that every bend is correct. This is a great help when nesting parts onto material such as hot rolled steel where the strength can vary depending on which direction you are bending it in. Whatever the orientation of the nested part the Easy-Form® Laser compensates for this.

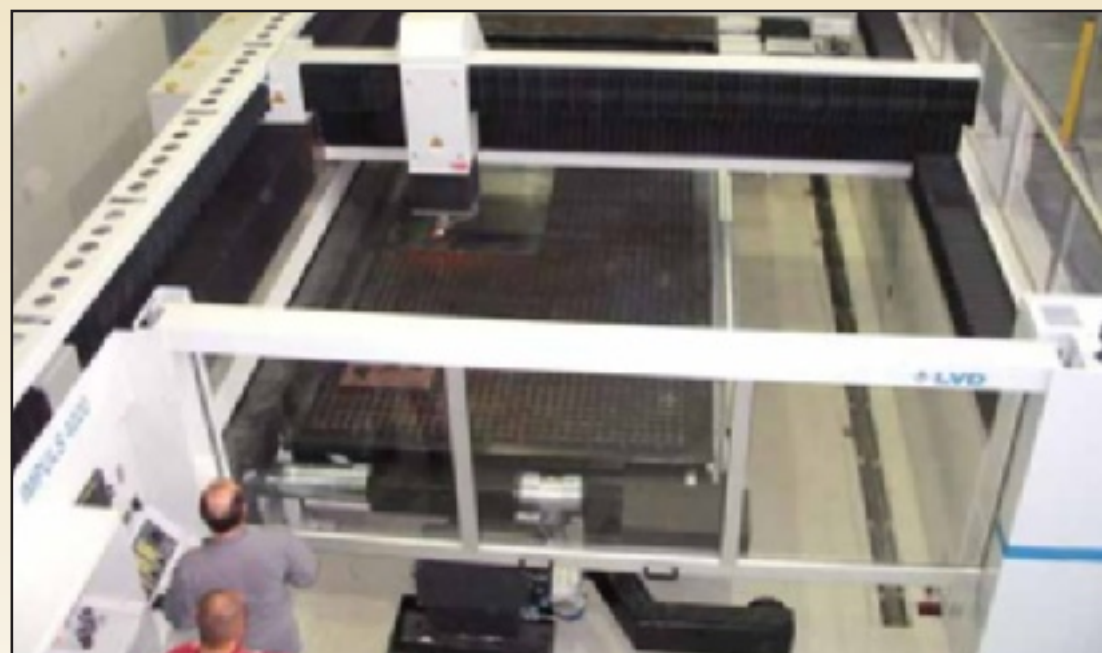
The laser processes material up to 20 mm thick, but generally in the range

"It is important for us to have this level of quality and to have quick processes that let us achieve it."

of 4 to 10 mm. The press brake will not only be processing material that has been cut on the laser, it will also be used for some thinner parts produced on the punch presses and some long members for trailers.

"We have to be prepared to do whatever our customers want us to do. That's why we wanted a flexible machine that could cope with any size of production run and give us good sheet utilisation," says Mr Łuczak. "And that's why we went for the rotary axis too. In the past we have had to turn down that type of work because we didn't have the equipment to do it."

"The laser has helped us get new orders that we would not have been able to do without it."



The Impuls 4020 laser cutting system combines rotary and flat plate cutting, providing maximum flexibility for processing of flat plate, pre-formed parts and tubes. Changeover from flat sheet cutting to rotary can be achieved without interrupting production.



LVD's Global Perspective

DISCOVERY

TRADE SHOW SCHEDULE

Machine Tools
Goteborg, Sweden - May 6 - 9

MTA Malaysia
Kuala Lumpur, Malaysia - May 7 - 11

Technical Fair
Belgrad, Serbia - May 12 - 16

Montreal Manufacturing Technology Show
Montreal, Quebec, Canada - May 12 - 14

Technical Fair
Belgrad, Serbia - May 12 - 16

Lamiera
Bologna, Italy - May 14 - 17

MSV Nitra
Nitra, Slovakia - May 20 - 23

Austech
Sydney, Australia - May 27 - 30

Metalworking
Moscow, Russia - May 29 - June 1

ITM Mach Tool
Poznan, Poland - June 9 - 12

MT&T
Jakarta, Indonesia - August 27 - 30

MSV
Brno, Czech Republic - September 15 - 19

Den Tekniske Messen
Oslo, Norway - September 22 - 25

FABTECH International & AWS Welding Show
Las Vegas, Nevada, USA - October 6 - 8

Intertool
Vienna, Austria - October 7 - 10

Tatef
Istanbul, Turkey - October 14 - 19

Euroblech
Hannover, Germany - October 21 - 25

Metavak
Gorinchem, The Netherlands - November 18 - 20

Metalex
Bangkok, Thailand - November 20 - 23

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Easy-Form® Laser Press Brake

perfect bending

Perfect bending can be difficult to achieve. At LVD we have THE solution.

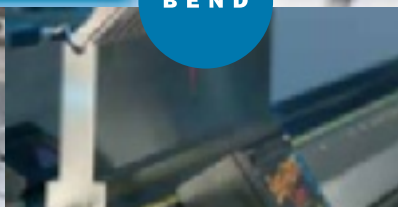
With an LVD Easy-Form® Laser Press Brake your parts will be perfect every time, from the first bend to the last – how many other systems can REALLY guarantee that?

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