PRESS KIT

EURO BLECH

2016 – From 25th - 29th October 2016, Hanover

MESSAGE from Mitsuo OKAMOTO, Chairman & CEO

Dear Valued Customers,

AMADA has prepared innovative solutions for you in our booth at EuroBLECH 2016, one of the flagship trade fairs in our sheet-metal industry. Making their global debut in Europe, we will be presenting new products and new process solutions based on state-of-the-art technologies such as fully automated bending solutions and the latest laser technology incorporating our unique fibre laser oscillator to achieve high-output, -speed, and -quality machining.

“V-factory” will be introduced as a preview to AMADA’s new IoT manufacturing. As a specific example, visitors can experience a live demonstration of the VPSS 3i engineering system, AMADA’s IoT solution covering the entire range of sheet-metal processing.

AMADA has reached its 70th anniversary this year and we have been expanding our base across Europe in recent years to prepare for our 100th anniversary. You can see state-of-the-art solutions at EuroBLECH and at our various AMADA Technical Centres throughout Europe. AMADA presents its latest innovations, as well as the associated advantages and improvements, all of which have been developed true to our motto “growing together with our customers” in order to continuously optimize the benefits our products bring to them.

Yours sincerely,

AMADA HOLDINGS CO., LTD.
Chairman & CEO
Mitsuo Okamoto

The entire production process with AMADA machines and latest processing technologies

Productivity is the key to the competitiveness for every company. Production technologies are the source for innovation, differentiation, ensuring the final clients' loyalty and facilitating the capacity to acquire new clients for our customers. AMADA not only creates machines but also answers specific needs by delivering "tailor-made" solutions. We're proud to say that, at EuroBLECH 2016 and worldwide, we strive to help our customers face their economic challenges.

Our main concept at EuroBLECH 2016 will be "Creating the customers value using AMADA's latest machines and processing technologies." We will introduce fibre laser-cutting and -welding machines, a combination machine, press brakes, and the new VPSS 3i software, which can simulate all the processing operations at once. In addition, we will show some sample-workpieces with accumulated know-how of processing technology.

AMADA will be showcasing more innovations than ever before at the industry's flagship trade fair EuroBLECH. Also on display will be an overview of AMADA's IoT, "V-factory" which is being shown as a 'Smart Factory' concept. Ten machines will be on show in live operation over an area of some 2,000 square meters. And every one of them represents a further development to an existing solution or a completely new innovation.

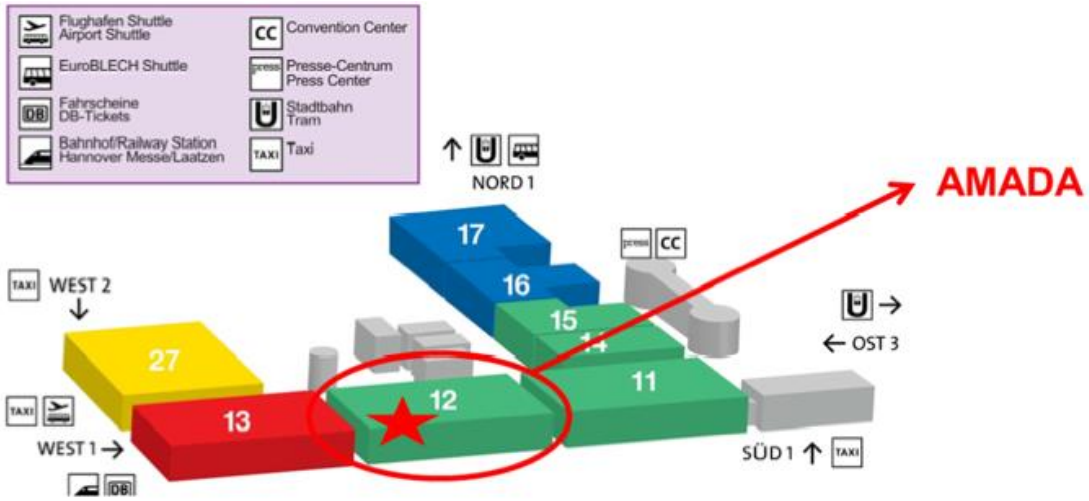
Come and visit our booth!

AMADA at EuroBLECH:
Useful information:

From the 25th to the 29th October 2016, Hanover

Opening hours:
Tuesday to Friday from 9:00 am to 6:00 pm, Saturday from 9:00 am to 3:00 pm

Hall 12 – Booth D06/F06



CONTACT US IN EUROBLECH: Information Desk: +49 (511) 896481-11

PRESS RELEASE 1

AMADA ACIES-AJ punching & fibre laser cutting combination machine

Eco-friendly continuous operation system

As an addition to the ACIES combination series (originally with a CO_2 laser source), the ACIES-AJ, with a servo-electric drive and fibre laser technology, is characterized by cut quality, speed and energy efficiency. This machine is equipped with several functions to realize long-term, continuous operation.

This new machine, available with 2 kW or 4 kW fibre laser power, benefits from lower running costs while maintaining high speed efficient processing of thin and reflective materials. High productivity and energy savings are therefore guaranteed. A fully covered brush bed prevents from scratches and allows a high quality processing.

To protect effectively from the laser light, the laser is enclosed in a full table cabin with a second X origin position. Tools set up errors are drastically reduced thanks to the ID Tool system which also promotes the optimum tool maintenance process.

Automation of part picking and sorting reduces production time and increases efficiency and automatic nozzle changer enhances continuous operation.

Key characteristics of exhibited machine

Punching force	300 kN
Punching drive	Twin servo-electric
Laser power	4 kW
Working range	3000 mm x 1500 mm
Turret	32st-4AI
Tool storage	300 tools

Key characteristics of exhibited automation machine

Material size	Min. 900 mm x 900 mm Max. 3000 mm x 1500 mm
Thickness	0.5 t – 6.0 t
Stacking weight	3000 kg/pallet
Shelf height	10 shelves

Illustration

Amada's ACIES-AJ with full automation systems provides high quality, continuous production.

Photo credit: AMADA HOLDINGS

PRESS RELEASE 2

AMADA LCG AJ series fibre laser cutting machine

Expanding the fibre laser machine line-up

Amada exhibits the new line-up of LCG-3015AJ flatbed laser cutting machines equipped Amada developed 6 and 9 kW fibre laser oscillators. Offering high cutting speed, low running costs and the ability to cut copper, brass and titanium, the LCG-AJ sets a new benchmark for performance and price at this level of investment, ensuring optimum productivity and value.

New machines have been added to the LCG AJ line-up in order to make it a comprehensive range now including 2, 4, 6, 9 kW powers. The LCG-AJ 6 and 9 kW have a lightweight Y-axis carriage with low center of gravity providing a 30% weight reduction.

With a positioning speed of 170 m/min, the fastest in class, they are also low energy consumers thanks to the efficiency of Amada's fibre laser technology. Finally, the automation of part picking and sorting reduces production time and increases efficiency.

Key characteristics of exhibited machines

Laser power	6 kW, 9 kW
Working range	3000 mm x 1500 mm
Positioning speed (X-Y simultaneous)	170 m/min

Key characteristics of Automation

Stacking area (X x Y)	3050 mm x 1525 mm
Maximum part weight	70 kg
Stacking area	1.0 mm - 9.0 mm
Maximum part size	X: 1500 mm, Y: 1200 mm

Illustration

Photo credit: AMADA HOLDINGS

Amada's LCG AJ series now includes 2, 4, 6 and 9 kW fibre laser oscillators to cover every customers requirements.

PRESS RELEASE 3

AMADA ENSIS AJ 3kW fibre laser cutting machine

Fibre Laser Cutting with Expanded Capabilities

To improve and enhance the groundbreaking ENSIS technology, Amada will show a 3 kW version at EuroBLECH 2016. This machine will build on the success of the 2 kW version with improved cutting speeds and quality. To boost the existing high specification level of the ENSIS, the new machine will also be fitted with an 8 station nozzle changer and the new 'WACS II' system for thick mild steel processing.

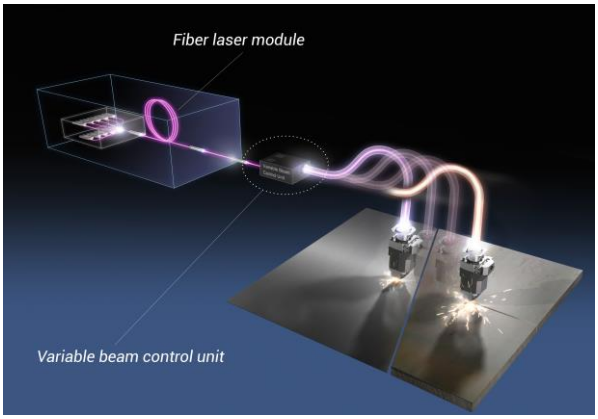
“Less is more” is the design principle of the fibre laser cutting machine ENSIS-3015AJ. This machine has several attributes.

First of all, the newly expanded range now includes 3kW in addition to the original 2kW version. Amada's unique beam control technology which automatically adapts the laser to the material thickness, eases the processing. With a positioning speed of 170 m/min, the fastest in class, it is also a low energy consumer thanks to the efficiency of Amada's fibre laser technology. It also benefits from full range cutting capabilities without changing the lens.

Key characteristics of exhibited machine

Laser power	3 kW
Working range	3000 mm x 1500 mm
Positioning speed (X-Y simultaneous)	170 m/min

Illustration



This cutting edge innovation is made possible through unequaled patented control of the laser beam as a function of sheet thickness, changing the beam shape to suit material/thickness requirements.

Photo credit: AMADA HOLDINGS

PRESS RELEASE 4

AMADA FLW-ENSIS fibre laser welding machine

Expansion of welding capabilities with AMADA ENSIS fibre laser technology

The FLW-ENSIS takes laser welding to a higher level of quality and capability, as well as reducing overall lead times. Our new solution incorporates an Amada developed 3 kW fibre laser oscillator, the unique ENSIS technology to enable deeper penetration welds than an existing 4 kW fibre laser oscillator and a new filler wire system. These innovations make continuous, wider range welding applications a reality.

The FLW-ENSIS benefits from Amada's unique ENSIS technology allowing a deeper penetration of the welds. The Amada developed 3 kW fibre laser oscillator achieves higher efficiency and lower running costs. The new 'Push-Pull' filler wire feeding system ensures clean, continuous welds of large gaps, while the rotating fixture table has been designed to increase load capacity and range of movements. Finally, the large working envelope of the robotic welding arm provides optimum capabilities.

Key characteristics of exhibited machine

Laser power	3 kW
Number of articulated axes	6
Robot axis travel	1500 mm
Maximum positioning speed	60 m/min
Maximum payload capacity	500 kg
Positioner table rotating axis	±720°
Positioner table tilting axis	±90°

Illustration

Photo credit: AMADA HOLDINGS

Amada's updated FLW-ENSIS fibre laser welding system now incorporates a 3 kW oscillator with unique ENSIS technology to provide deeper weld penetration than an existing 4 kW fibre oscillator.

PRESS RELEASE 5

AMADA MIYACHI solutions

Amada Miyachi Europe showcases fibre laser welding technology for precise, high-speed welding applications at EuroBLECH 2016

Amada Miyachi Europe announces that it will highlight its highly precise fibre laser welding technology at EuroBLECH 2016. Experts will be present on the stand to discuss the benefits of fibre laser welding for applications in the Automotive, Electronics & Solar Cells, IT & Multimedia, Medical, Aerospace and Defence industries. In addition, the Miyachi EAPRO Jupiter Fibre Laser Welding System and the AWS3 Active Welding System 3, an integrated resistance welding solution, will be on display in the stand.

Continuous wave CO_2 welding lasers have limited accuracy and undesired high heat input into the weld, while pulsed Nd:YAG laser welders are limited in terms of maximum welding speed, minimal spot size, and electrical to optical energy conversion efficiency. For the growing number of applications that demand higher precision control, lower heat input, and lower electrical energy consumption than are possible with these traditional laser welding technologies, Continuous Wave Fibre Laser Welding is a superior solution.

In a fibre laser welding system, the laser light is generated in an active fibre and guided to the workpiece by a flexible delivery fibre. The flexibility of the delivery of this laser beam ensures maximum quality in end products and highly efficient production. Fibre laser welding enables a number of materials processing applications such as welding of very small parts and fine structures, medium power fine metal welding at high speed or with single mode lasers, and high power laser welding of metals.

The AMADA MIYACHI EAPRO Jupiter Fibre Laser Welding System, to be on display at the show, is designed for fast, accurate and reliable welding. The fibre laser's power level and high beam quality allows power up to 700 W to be fired into very precise weld spots.

The AWS3 Active Welding System 3 is an integrated resistance welding solution that provides process control, monitoring, and quality analysis. Available in either servo-motorised or pneumatic versions, the AWS3 can be used alone as a benchtop system or easily integrated into a production line. The AWS3 features modular components that offer maximum flexibility, and is ideal for use in resistance welding of connectors, switches, cables, engine components, dashboard electronics and lighting components, as well as batteries, solar cells, and medical components.

Illustration

AWS3 system servo motorized

Jupiter 220 Laser Welding System

Jupiter Laser Ablation System

Photo credit: AMADA MIYACHI Europe

PRESS RELEASE 6

AMADA Bending solutions

New bending features for higher productivity

**Forming and, more particularly, bending metals is an essential step in the production of mechanical assemblies made from sheet metal.
As well as the demand for increased precision, bending accuracy and the integrity of the metal surfaces, this procedure requires plenty of physical effort and, until now, frequent manual intervention. These various tasks have an extensive impact on operator safety and speed of execution and they end up impacting the productivity and profitability of a business.**

Amada incorporates these process-based factors into its research and development. At EuroBlech 2016, you can see how Amada focuses on all these 'dimensions' in its bending solutions.

Higher productivity with higher safety? FAST Technology!

European legislation imposes safety conditions on the operation of machines, which stipulates a reduction in the speed of moving parts that put the operator at risk.

Amada has tackled this point to develop a solution to remove the risk factors linked to these moving parts, while retaining maximum productivity rates that exploit top machine speeds.

The solution drastically cuts down the loss of time between bends, when the operator has to wait for the positioning stops to move into place. We have recorded time savings of around 12% on a 'fast' machine, based on the production of one piece with seven folds. There is even an impressive 36% time-saving to be had compared to another commercially available model processing a comparable part.

The "trick" that makes this happen has a name: FAST (Finger with Active Security Technology). These new stop fingers that can be fitted onto Amada bending machines have an active safety device built-in that limit risk to operators if they come into contact with moving parts, even at full speed.

This safety feature and "productivity provider" will be introduced and explained at EuroBlech 2016 on the HFE 3i 1003 machine exhibited on the stand. This machine will be equipped with the new generation of AFH tools and of course will be connected to the relevant software VPSS3i BEND, that both contribute to the productivity of this solution pack.

Higher productivity is also a question of ergonomics

Some essential tasks on bending machines can be dangerous, like feeding in large sheets of metal. Similarly, loading and working with bending tools also poses a risk; it also takes up a significant amount of time, which affects the productivity of the equipment.

Amada's HG-ATC machine offers unrivalled results. We have recorded time savings of more than 50% when automatically loading tools, compared to other commercially available machines, sometimes even soaring to nearly 80%.

In light of these results, it is easy to see why the HG-ATC has won over so many users who have, in turn, increased their customer base. This machine will be presented at EuroBLECH 2016 in its latest version, HG 2204 ATC, which can now be equipped with SF75 sheet followers. These make it easier for the operator to handle larger parts.

As well as reducing the time it takes to change tools thanks to the ATC (Automatic Tool Changer), the safety and comfort of operators using this highly productive machine are now significantly standalone machines..

Higher productivity goes through logistics as well

Automation and robotisation lighten the load for operators, enhance productivity and increase production rates. Again, in the interests of productivity, Amada designs add-ons to improve workstations.

At EuroBLECH 2016, Amada has chosen to introduce one of its latest-generation robotic solutions: the HG-1003ARs, equipped with the new AC300 unloading module.

This automated bending process perfectly illustrates all the productivity and safety enhancements you can achieve with a press brake, while boosting and improving operator safety. This leaves more time for other tasks like preparing for the next component.

"3i"…Intelligence, Interaction and Integration

It goes without saying that all of these bending solutions incorporate all the latest digital technology developed by Amada over a number of years, in line with industry innovations gearing up towards the factory of the future, "Smart Factory" or "Industry 4.0"

All the latest evolutions of the Amada bending solutions that will support sheet metal working business are waiting for your attention at EuroBLECH 2016.

Illustration

HFE-3i1003 and FAST (Finger with Active Safety Technology)

HG-2204ATC and SF75 (Sheet followers)

HG-1003ARs and AC300 (Unloading module)

Photo credit: AMADA Europe

PRESS RELEASE 7

AMADA Software solutions

Complete & flexible approach to smart manufacturing

EuroBLECH 2016's theme, "the new generation of sheet metal working", highlights how the metalworking industry has to adapt its production processes to the market trends. Lot sizes decrease steadily, the demand for assembly work increases, extreme flexibility and speed are requested in the processing of materials and thicknesses that are always changing. All this must be done at the most competitive price possible along with maximum quality and profitability. With 70 years of experience, Amada will showcase this October a complete & flexible approach to smart manufacturing, in order to make new opportunities out of these challenges.

VPSS 3i complete suite

Listening to its customers' voices as well as the market needs, Amada developed the VPSS 3i Software Suite. Based on reverse engineering and virtual prototyping concepts, the VPSS 3i suite allows unified programming of all Amada technologies (blank, bend and weld). It efficiently simulates and verifies each production step to prevent any possible error, to ensure the best production results.

Created to answer the customers' needs and for their success, Amada's VPSS 3i suite aims to become the backbone of their factories and the reliable support to their production. The VPSS 3i suite and all associated software are part of Amada's wider approach to Smart Manufacturing: V-factory.

V-factory

Amada's V-factory project embraces the whole production cycle in order for the customer to manage and optimize their entire factory. By introducing a high degree of intelligence, through smart scheduling for example, Amada's virtual factory significantly reduces costs and waste of time and resources.

Amada's digital software solutions ensure the best performance from every Amada machine, and the Navi EU module also allows the integration of other manufacturers machines just as efficiently.

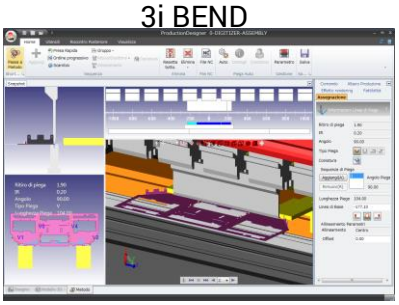
Amada's visionary digital approach is etched in the principles of Industry 4.0, providing a basic tool for companies who want to easily adapt to current and future market demands. Amada aims to remain a reference point as a provider of complete manufacturing solutions to its current and future clients.

Amada's V-factory was conceived as a set of complimentary technological building blocks, covering three levels: smart shop floor control, advanced processing technologies and optimized workflow services. This concept thus aims to let metalworking manufacturers integrate their factories at their own speed, with each building block still offering distinctive, cutting edge results.

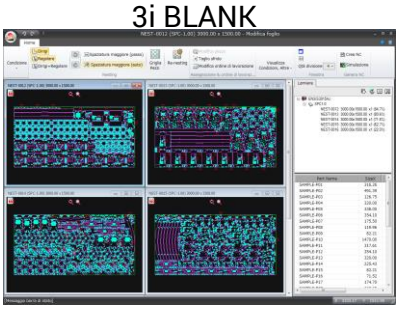
Amada's V-factory and 3i solutions, standing for interactivity, integration and intelligence, prove that once again, Amada is staying abreast of industry trends. This tailored approach to smart manufacturing aims to fit sheet metal manufacturers' needs, for their success and the success of their own customers.

Illustration

3i BEND



3i BLANK



3i WELD

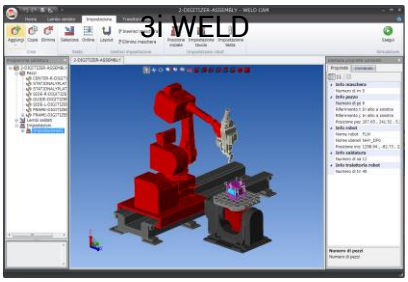


Photo credit: AMADA HOLDINGS

About AMADA

The AMADA Group is one of the world's leading manufacturers of sheet metal working machines. AMADA offers a comprehensive range of cutting, bending, punching and laser technologies. The portfolio is complemented by modular automation components, software applications and a wide range of tools. In addition, AMADA offers its customers a wide variety of additional services. The AMADA Group was founded in 1946 in Japan by Isamu Amada.

About AMADA Europe

The AMADA Group is one of the world's leading manufacturers of sheet metal working machines. Founded in 1946 in Japan, AMADA has been present in Europe for more than 40 years. AMADA Europe facilitates the corporate strategy and coordination of the European corporate units. AMADA Europe also ensures that the main brand core values are highly respected at all times: close partnership with customers, innovation, human- and environmental-concerns. With 4 production plants, over more than 30 countries, AMADA's long-lasting commitment into the leading-edge industrial technologies within Europe is guaranteed.

About AMADA MIYACHI Europe

Amada Miyachi Europe is a leading manufacturer of equipment and systems for laser welding, laser marking, laser cutting, resistance welding, hermetic sealing and hot bar reflow soldering & bonding. Amada Miyachi customize our products around specific micro-joining applications for all our customers around the globe. Amada Miyachi Europe product markets include medical devices, battery, automotive, solar industry, electronic components and aerospace. We are an ISO9001 certified company.

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