

**AMADA at Blechexpo 2017**

**State-of-the-art machine technologies presented live**

At this year's Blechexpo, which will be held from 7th to 10th November in Stuttgart, AMADA presents its latest achievements in sheet metal processing at Booth 3307 in Hall 3. Here, on a floor with a total surface of 700 square metres, visitors are invited to discover no fewer than six systems and machines. A comprehensive overview of production solutions in the fields of laser cutting and welding, stamping and bending demonstrate in live operations how complex manufacturing jobs can be completed successfully – highly efficiently, flexibly and in outstanding quality.

**New dimensions in laser cutting and welding**

The best example of the completely new potential that is being made available in real-life applications is the AMADA ENSIS-3015AJ RI laser cutting system, based on the proven ENSIS laser beam source. Because of the new rotary index (RI) unit, the system now also permits the flawless machining of pipes and profiles. With the same laser beam source, the new FLW ENSIS laser welding cell opens up as well new perspectives. It not only bridges large gap sizes, but also permits high-speed welding without discoloration or deformation. As the most recent model in the proven series of laser cutting systems, the AMADA ALPHA V sets new standards in processing materials with sensitive surfaces to nearly perfection. Furthermore visitors will be able to see a real power pack in the form of the 9-kW version of the AMADA LCG-3015AJ laser cutting system. On this power level, it is possible to cut even thick materials – and this in a quality previously unheard of in the world of fiber lasers. For this it only needs three of the new, outstandingly powerful AMADA fiber laser modules, thus further reducing the risk of malfunction.

**Efficient punching and bending**

In the field of punching AMADA presents an even more efficient system: the new AE-2610NT punching machine. This recent model of the AE series now also provides an E-station and thereby enables the processing of even large format. Last but not least, visitors of the Blechexpo have also the opportunity to live to see an AMADA HG-ATC press brake with an Automatic Tool Changer (ATC). This feature minimizes setup times significantly, giving all its users a crucial competitive advantage, especially during manufacturing short runs. Countless further solutions from the field of automation, software and digitalization round off AMADA's trade fair exhibition of state-of-the-art production solutions for modern sheet metal working.

*approx. 2,600 char.*



*Press release 1*

**AMADA ENSIS-3015AJ RI laser cutting system:  
Perfect for even more applications**

The new AMADA ENSIS-3015AJ RI laser cutting system with its innovative rotary index (RI) unit and integrated material measurement now also permits the laser cutting of pipes and profiles. The system is based on the proven AMADA ENSIS laser beam source.

*Press release 2*

**AMADA FLW ENSIS laser welding cell:  
New dimensions in laser welding**

Equipped with the optimized ENSIS beam technology, the new AMADA FLW ENSIS laser welding cell bridges even large gap sizes. Welding nearly without any deposits and at an exceptional speed, it is entering a new era in laser welding.

*Press release 3*

**AMADA ALPHA V laser cutting system:  
For the optimized cutting of sensitive surfaces**

The new AMADA ALPHA V laser machine cuts materials with sensitive surfaces even faster, more reliably and more efficiently than before. Its burr-free and almost scratchless cutting quality sets new standards in laser cutting technology.

*Press release 4*

**9-kW version of the AMADA LCG-3015AJ laser cutting system:  
Perfection through thick and thin**

The 9 kW version of the AMADA LCG-3015AJ allows high-speed and top-quality laser cutting also of medium thickness materials – and provides a quality of cut never previously achieved by a fiber laser. Three 3-kW fiber laser modules form the basis for the 9-kW version of the AMADA LCG-3015AJ laser cutting system.

*Press release 5*

**AMADA AE-2610NT punching machine:  
Large-format punching**

A new tool turret coupled with the extension to large-format processing makes the new AMADA AE-2610NT a remarkable, high-performing punching machine. The focus is on the outstanding economic efficiency provided by the servo-electric drive.



*Press release 6*

**AMADA HG-ATC press brake:  
Automated bending**

The fully automatic tool changers (ATC) in AMADA's HG press brakes cut setup times drastically compared to conventional systems. This maximizes manufacturing efficiency, especially in the case of small runs of complex components demanding correspondingly frequent tool changes.

**For further information:**

**AMADA GmbH**  
Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn  
Phone: +49 2104 2126-0  
E-mail: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

**[www.amada.de](http://www.amada.de)**

**Please provide specimen copy if reproduced**

**About AMADA GmbH**

The AMADA Group is one of the world's leading manufacturers of sheet metal working machines. AMADA GmbH 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. The German subsidiary AMADA GmbH has been operating since 1973.



## **The new AMADA ENSIS-3015AJ RI laser cutting system Perfect for even more applications**

**The new AMADA ENSIS-3015AJ RI laser cutting system with its innovative rotary index (RI) unit and integrated material measurement now also permits the laser cutting of pipes and profiles. The system is based on the proven AMADA ENSIS laser beam source.**

The new ENSIS-3015AJ RI is AMADA's latest laser cutting system based on the proven ENSIS laser beam source. As a logical further development of the AMADA FO-3015M2 RI CO<sub>2</sub> laser system, it offers maximized production efficiency, accelerated speed and extraordinary cutting quality. A completely new feature is the profile and pipe processing unit in the form of the innovative rotary index (RI). This unit permits the fast, simple, precise processing of pipes and other profiles. The 3-kW fiber laser based on AMADA's variable beam control automatically adapts to the specific type and thickness of the material and cuts normal steel, stainless steel and nonferrous metals such as aluminum, copper, brass or titanium without difficulty. What is more, the rotary index unit redesigned and optimized for ENSIS, features a new generation of tubular axes. This improves speed and precision again, while the optimized pipe guide ensures practically scratch-free processing.

### **Optimized practical processes**

The new, integrated material measurement unit for the fast, precise measurement of pipe reference surfaces enables the processing of pipes and profiles at the AMADA ENSIS-3015AJ RI in an easy and efficient way. In addition there is no longer any need to change lenses and nozzle changes are performed fully automatically. That's why the AMADA ENSIS-3015AJ RI permits a nearly interruption-free production that combines high speeds with optimized cutting quality.

The system's other highlights include a carbon collecting tray for the cut pipes and profiles as well as the practical sliding doors. These features ensure optimum access to the machine, while also proving reliable protection against reflections and slag projections.

### **Automated for even better performance**

With the AMNC 3i control unit, the new AMADA ENSIS-3015AJ RI also offers exceptional ease-of-use. It ensures simple, intuitive operation, helps minimizing setup times and reliably evaluates the machine data. The already outstanding economic efficiency of the AMADA ENSIS-3015AJ RI can be increased further by the many automation options.

*approx. 2,600 characters*



## Technical data ENSIS-3015AJ Rotary Index

Laser	AMADA fiber laser with variable beam control
Laser output	3000 W
Working area	3000 x 1500 mm
Positioning speed (simultaneous X-Y)	170 m/min
Equipment	Integrated tube and profile processing

## Illustration



The ENSIS-3015AJ RI stands for smooth, trouble-free production at high speed and with optimum cutting quality.

Source: AMADA GmbH

## For further information:

### **AMADA GmbH**

Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn

Phone: +49 2104 2126-0  
E-mail: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

[www.amada.de](http://www.amada.de)

Please provide specimen copy if reproduced



## The new AMADA FLW ENSIS laser welding cell **New dimensions in laser welding**

**Equipped with the optimized ENSIS beam technology, the new AMADA FLW ENSIS laser welding cell bridges even large gap sizes. Welding nearly without any deposits and at an exceptional speed, it is entering a new era in laser welding.**

The latest development in AMADA's FLW series, the new FLW ENSIS laser welding cell, processes far larger gap sizes than generally possible by using laser welding technology. The system is based on the proven 3-kW fiber laser with variable beam control and the innovative weaving technology whose integrated rotating optics allow the laser beam to move from side to side. In the FLW ENSIS, this AMADA system has once again been optimized. With the so-called "Ring Mode Beam" the welding beam fans out in a ring shape, which allows to optimally bridge even large gap sizes – all this in combination with the weaving technology and the push pull filler wire guide.

### **No deposits, deformation or discoloration**

Another highlight of the new FLW ENSIS laser welding cell lies in the fact that actually no deposits, deformations or discolorations are visible on the lower surfaces of even thin sheet metal. This outstanding quality feature results from the precisely defined energy penetration of the fiber laser, whose strength and range in the welding process can be accurately adjusted – always precisely adapted to the material of the component that is to be processed.

### **Welding in record time**

What is more, the FLW ENSIS excels through its exceptional welding speed which is generally significantly faster than at conventional laser welding systems. The FLW ENSIS welds different materials together in just half the time taken by conventional approaches. An example in this context is manufacturing housings where it's necessary to weld the outer edges and apply metal plates to reinforce the back of the component. When it comes to overlap welding operations, the FLW ENSIS is again noticeably faster than conventional techniques and only takes a fraction of the time required to complete the entire welding process. The welds that are applied during this process are at least as durable and resilient as joints produced using spot welding. However, the FLW ENSIS also excels in the field of butt-welding or flux-cored welding, during which it is even possible to switch between welding with and without filler wire without interrupting operation. Last but not least, the M5 version of the machine comes with a shuttle table system, that greatly reduces cycle and stoppage times.

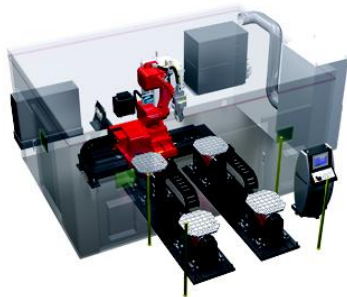
*approx. 2,600 characters*



## Technical data FLW-3000ENSIS M5

Laser	AMADA fiber laser with variable beam adjustment
Laser output	3000 W
Robot	6-axis industrial robot
Linear robot track	4000 mm
Equipment	Two rotary tilting tables, which can be moved as a shuttle table system
Special feature	Protective cabin of the highest safety category to allow low-personnel operation

### Illustration



The FLW-3000ENSIS M5 welding cell is the ideal solution for bridging especially large gap sizes.

Source: AMADA GmbH

### For further information:

#### **AMADA GmbH**

Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn

Phone: +49 2104 2126-0  
E-mail: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

[www.amada.de](http://www.amada.de)

Please provide specimen copy if reproduced



## The new AMADA ALPHA V laser cutting system For the optimized cutting of sensitive surfaces

**The new AMADA ALPHA V laser machine cuts materials with sensitive surfaces even faster, more reliably and more efficiently than before. Its burr-free and almost scratchless cutting quality sets new standards in laser cutting technology.**

One of the greatest advantages of the new ALPHA V is its high cutting speed which has been considerably increased compared to the predecessor model. The machine now features an AF3500i-C resonator. It provides the performance required for an efficient cutting process, while the new "HyperFine Mode" ensures even greater productivity and maximum cutting quality. The key: The new AMADA ALPHA V not only permits the high-speed and high-quality cutting of conventional materials. In addition, the system delivers outstanding results when cutting material with sensitive surfaces. It processes stainless steel or aluminum components with highly polished or brushed surfaces to absolute perfection, with no back spattering and minimized scratching.

### **Increased process reliability**

At the same time, the AMADA ALPHA V also excels through a range of additional new practical features. For example, the once common problem of welding the finished part to the material support has been eliminated. A variable cutting gap adjustment permits the individual regulation of the cutting gap at all times. All this is complemented by a generously-sized, end-to-end brush table and user-selectable roller support for the absolutely reliable positioning of all workpieces in accordance with process requirements. Optional rollers at the table edges protect the brushes during loading. Parts removal is now also even easier at the AMADA ALPHA V because of the larger opening angle of the work chute.

### **Economic efficiency**

At the same time, the new AMADA ALPHA V also offers exceptional cost-effectiveness. The maintenance intervals of the beam guidance components have been considerably extended. Further cost reductions are achieved by the system's reduced power consumption which may require up to twenty percent less energy than conventional CO<sub>2</sub> lasers. In addition, the laser cutting system is now even easier and more convenient to operate than before because of the use of the AMNC-3i control unit. The new AMADA ALPHA V is the perfect solution for high-performance, reliable, economically efficient laser cutting, even when processing materials with sensitive surfaces.

*approx. 2,600 characters*





## Technical data LC-2415 ALPHA V

Laser principle	Semi-flying optics
Laser	CO <sub>2</sub> laser with hyper-fine mode
Laser output	3500 W
Working area	Large format
Positioning speed (simultaneous X-Y)	113 m/min

## Illustration



The new ALPHA V combines maximum cutting quality with outstanding productivity, even when working with easily damaged materials.

Source: AMADA GmbH

## For further information:

**AMADA GmbH**  
Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn

Phone: +49 2104 2126-0  
E-mail: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

**[www.amada.de](http://www.amada.de)**

**Please provide specimen copy if reproduced**



## The new 9-kW AMADA LCG-3015AJ laser cutting system Perfection through thick and thin

**The 9 kW version of the AMADA LCG-3015AJ allows high-speed and top-quality laser cutting also of medium thickness materials – and provides a quality of cut never previously achieved by a fiber laser. Three 3-kW fiber laser modules form the basis for the 9-kW version of the AMADA LCG-3015AJ laser cutting system.**

The new 9-kW version of the AMADA LCG-3015AJ completes the range of proven AMADA fiber laser systems for the high-performance segment. The high output permits the very high-speed and top-quality processing of thin and mid-thickness materials. However, the system also supports the precise, reliable processing of exceptionally thick sheets as well as the work in areas where nitrogen is used as an assist gas. The high laser beam quality and the so-called “silky cut” method permit cutting qualities previously unachievable with lower-powered fiber laser systems.

### **Latest generation of laser modules**

The AMADA LCG-3015AJ 9 kW owes its strength to the new, third generation AMADA resonator. It contains just three 3-kW fiber laser modules which combine to form the most powerful unit currently available on the market. The smaller number of fiber laser modules makes the system significantly less susceptible to malfunctions than conventional fiber lasers, which contain multiple modules connected in sequence together with the corresponding number of plug-in contacts. In this way, the lean AMADA laser unit of the LCG-3015AJ 9 kW minimizes stoppage times during practical operation and once again improves machine availability.

### **Alternative to the CO<sub>2</sub> laser**

The AMADA LCG-3015AJ 9 kW can be regarded as a appropriate, high-performance alternative to CO<sub>2</sub> lasers. It excels in terms of energy consumption: Although the output power has increased by a third compared with the 6-kW laser, the energy consumption of the 9-kW version is not significantly higher. By contrast, a similar increase in power in a CO<sub>2</sub> laser would require significantly higher consumption levels. Another advantage: The AMADA fiber laser has a modular structure and its short wavelength means that there is no need for a deflecting mirror. Efficiency can be increased further through automation options such as the MP-Flexit loading and unloading unit or the ASF-EU loading and unloading tower. Automatic part sorting is done by the Takeout-Loader (TKL).

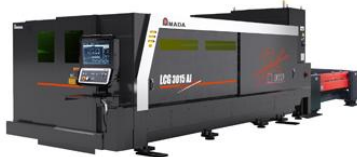
*approx. 2,600 characters*



### Technical data LCG-3015AJ

Laser	Amada fiber laser
Laser output	9000 W
Working area	3000 x 1500 mm
Positioning speed (simultaneous X-Y)	170 m/min

### Illustration



The LCG-AJ is available in the performance classes 2,000, 3,000, 4,000, 6,000 and 9,000 Watts.

Source: AMADA GmbH

### For further information:

**AMADA GmbH**  
Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn

Phone: +49 2104 2126-0  
E-mail: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

**[www.amada.de](http://www.amada.de)**

**Please provide specimen copy if reproduced**



## The new AMADA AE-2610NT punching machine **Large-format punching**

**A new tool turret coupled with the extension to large-format processing makes the new AMADA AE-2610NT a remarkable, high-performing punching machine. The focus is on the outstanding economic efficiency provided by the servo-electric drive.**

The new AMADA AE-2610NT punching machine represents a high-speed, simple and economical addition to the proven AE series. It is therefore perfectly suited for parametric operation and consequently, for example, for the manufacture of control cabinets, housings, doors and claddings. The tool turret with its 3-track structure, which now comprises 45 stations, permits a wide range of applications. For the very first time, there is also the E station size with an diameter of 114.3 mm for round and forming tools of comparable dimensions. As a result, the AE-2610NT now forms and punches even large geometries. At the same time, the appearance of the final punched product is also improved because there's a smaller number of initial punch marks at the contour.

### **Improved performance**

The extension of the working area, to operate large-format work is another new feature. In combination with the newly available tool sizes the AMADA AE-2610NT guarantees top-quality results every single time, even over a long service life. What is more, the high-accuracy mode, which further enhances machine precision at the touch of a button, ensures outstanding production accuracy. The system is operated using the multimedia AMNC control unit.

### **Low-maintenance energy efficiency**

Last but not least, the AMADA AE-2610NT punching machine excels through its cost-effectiveness. For example, its average energy requirement of 3.5 kW is just a third of that of conventional hydraulic systems. Maintenance effort and servicing costs are also significantly lower than for hydraulic systems because the servo-electric drive itself uses no oil as a drive medium and needs only a small number of low-maintenance components. The automation functions, for example using the AMADA MP SheetCat loading and unloading system, ensure maximum profitability even for small and mid-sized batches or for rush jobs. Overall, the AMADA AE-2610NT offers an excellent price/performance ratio and guarantees long-term cost-effective operation also because of the lower cost of acquisition.

*approx. 2,600 characters*



### Technical data AE-2610NT

Punching force	200 kN
Punch drive	Servoelectric
Working area	Large format
Tool turret	45 stations
Largest envelope diameter	114.3 mm

### Illustration



With the new E station size and adaptation to large-format work, the new AMADA AE-2610NT punching machine is perfect for parametric operation.

Source: AMADA GmbH

### For further information:

**AMADA GmbH**  
Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn

Phone: +49 2104 2126-0  
Email: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

**[www.amada.de](http://www.amada.de)**

**Please provide specimen copy if reproduced**



## AMADA HG-ATC press brake **Automated bending**

**The fully automatic tool changers (ATC) in AMADA's HG press brakes cut setup times drastically compared to conventional systems. This maximizes manufacturing efficiency, especially in the case of small runs of complex components demanding correspondingly frequent tool changes.**

With the HG-1003ATC and HG-2204ATC, AMADA supplies two press brakes of different sizes and forces that provide the right solution for nearly every application. Both of these systems are equipped with an Automatic Tool Changer (ATC). This takes all the upper and lower tools from the magazine and places them in exactly the required position in the press in a matter of seconds. The automatic tool changer cuts setup times by a good 70 percent compared with conventional systems. At an HG-1003ATC, for instance, it is possible to install a total of 32 tools in just 36 seconds.

### **Ideal even for single items**

This means that in practice, the entire setup process can be performed in a period of just 20 seconds to three minutes, compared with an average of some 40 minutes on conventional systems. A single HG press brake with Automatic Tool Changer (ATC) can therefore easily replace two conventional machines requiring manual setup. This applies both for the HG-1003ATC with a press force of 100 tonnes and a beam width of three meters and for the larger HG 2204 ATC with a press force of 220 tonnes and a beam width of four meters. Both systems are therefore perfect for short runs with frequently changing parts, and especially for complex components even when manufactured as single items. What is more, all the tools are safely stored away in the Automatic Tool Changer (ATC) and the risk of damage, for example when they are removed or installed, is eliminated.

### **Absolute reproducibility**

Both the HG-1003ATC and the HG-2204ATC are controlled using the VPSS Bend 3i software. When the required component has been loaded, the software automatically selects the appropriate machine model and calculates the ideal bending sequence and corresponding routing. All the programs are stored and can be called up again at any time. This means: Even the first component of a restarted series is produced in flawless top quality without any need for readjustments or detailed adaptations at the tool or the machine.

*approx. 2,600 characters*



### Technical data HG-1003ATC

Press force	1000 kN
Press beam length	3000 mm
Magazines for punches / dies	15/18
Maximum tool capacity	26,400 mm
Maximum length of single tool	113 m/min
Automatically driven foot pedal	Standard
Active angle measurement system	Bi-S

### Illustration



The Automatic Tool Changer (ATC) in the AMADA HG series of press brakes ensures minimum setup times.

Source: AMADA GmbH

### For further information:

#### AMADA GmbH

Amada Allee 1  
42781 Haan - Germany

Press contact: Nicole Goldhorn

Phone: +49 2104 2126-0

Email: [nicole.goldhorn@amada.de](mailto:nicole.goldhorn@amada.de)

[www.amada.de](http://www.amada.de)

Please provide specimen copy if reproduced

