



October 23, 2018
AMADA HOLDINGS CO., LTD.

AMADA Showcases Innovative Fiber Lasers and Newly-developed LBC Technology at EuroBLECH 2018

On October 23-26, AMADA CO., LTD. (Isehara/Japan, President: Tsutomu ISOBE) proudly participates in EuroBLECH 2018 in Hanover, Germany. During the world's largest exhibition for the sheet-metal industry, AMADA demonstrates its newest laser technology, Locus Beam Control (LBC). In addition, AMADA introduced the VENTIS-3015AJ (4 kW) Fiber Laser Cutting Machine which is equipped with the newly-developed LBC Technology.

To meet a broad range of customers' needs, AMADA also demonstrates a variety of fiber laser cutting machines including the new ENSIS-3015AJ (9 kW). AMADA's proprietary ENSIS fiber laser technology utilizes a highly-innovative resonator to automatically change the beam mode to accommodate the material and thickness being processed. Now available in 3 kW, 6 kW, and 9 kW, the ENSIS-AJ Series ensures unmatched cutting versatility by seamlessly processing thin and thick materials.

The latest advances in sheet-metal processing enhanced by automation are also demonstrated through AMADA's automated press brakes and robotic fiber laser welding technology. Additionally, EuroBLECH attendees are able to witness production-enhancing benefits of AMADA IoT – V-factory ahead of its official launch date. V-factory displays the production environment on a single interface. As a result, customers can quickly and easily monitor machine status and gain optimal control of all production processes. To further enhance productivity, AMADA IoT support provides fast and reliable assistance with maintenance issues.

As the technology leader, AMADA continues to develop innovative machines solutions while optimizing customers' productivity through automation and AMADA IoT support.

Main machines demonstrated at EuroBLECH 2018

- 1. VENTIS-3015AJ (4 kW)**
Fiber laser cutting machine equipped with LBC technology
- 2. ENSIS-3015AJ (9 kW) + LST (Shuttle table)**
Energy saving, v-lot production, wide range fiber laser cutting machine
- 3. ENSIS-3015 AJ (6 kW) + ASF-EU + TK (Automated Material Handling)**
Energy saving, v-lot production, wide range fiber laser cutting machine

4. **ENSIS-3015 RI (3 kW) + LST** (Shuttle table)
Fiber laser cutting machine for sheet-metals, and pipe and structural steels
5. **V-factory including AMADA IoT solution**
Optimal shop floor control and preventative maintenance support system
6. **FLW-3000ENSIS M5 (3 kW)**
Robotic fiber laser welder
7. **HG-2204 ATC + SF75** (sheet follower system)
Press brake with automatic tool changer

*The information herein is subject to change without notice.

Locus Beam Control (LBC) Technology

Background

A notable advantage of a fiber laser compared to CO₂ laser in sheet-metal processing is faster cutting speed. However, maintaining superior edge quality and eliminating dross are also key issues. The ENSIS-3015AJ (6 kW and 9 kW) launched this year by AMADA, have both achieved unmatched high-speed cutting and superior edge quality.

Purpose and point of development

Based on ongoing customer demand for higher cutting speeds and higher quality processing of stainless steel and aluminium, AMADA continues to develop new fiber laser technologies such as LBC.

LBC Technology

LBC Technology is an innovative beam-forming technology to control kerf width (cutting width) for optimal efficiency based on the material type and thickness being processed. This technology combines two mirrors and an innovative collimation system that utilizes high-velocity vibration to achieve high-speed and high-quality cutting for a variety of materials and thicknesses. (Fig. 1) AMADA has also developed a high-brightness 4 kW fiber laser oscillator. The combination of LBC Technology and a high-brightness oscillator sets a new world standard for laser cutting speed and quality.

Main features**

1. Cutting speed is more than doubled and processing costs are reduced by 50% compared to conventional model (in mid-to-thick stainless steel and aluminium using nitrogen as an assist gas).
2. Superior edge quality and elimination of dross.
3. Significant bevel reduction (in thick mild steel using oxygen as and assist gas).

**Conventional model: By comparison with conventional 4 kW fiber laser cutting system

AMADA will begin selling VENTIS-3015AJ (4 kW) with LBC Technology in May 2019.

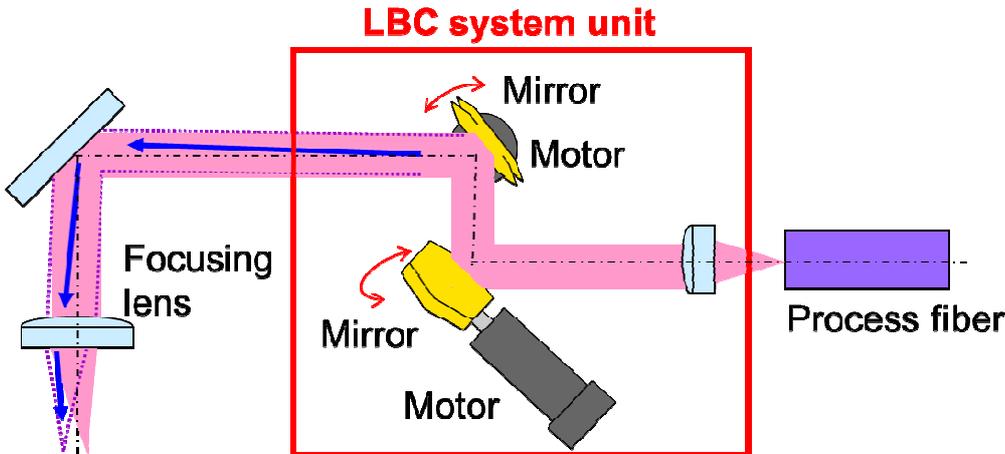


Fig. 1 Image of LBC system unit



About AMADA Group

Founded in Japan in 1946, The AMADA HOLDINGS (TSE: 6113) is a global comprehensive manufacturer of metalworking machines. The Group's main businesses include the development, manufacture, sales, leasing, repair, maintenance, checking, and inspection of metalworking machinery and equipment. The group has over 8,000 employees and about 130 bases in 30 countries and approximately 90 companies including its subsidiaries and affiliates. Our results for fiscal year 2017 were net sales of JPY300.6 billion and net profit of JPY29.8 billion.

The Group's core operations in metalworking machinery center mainly on three businesses focusing on sheet-metal machinery (AMADA), metal cutting and stamping press machinery, structural steel cutting machines and machine tools (AMADA MACHINE TOOLS), and precision welding (AMADA MIYACHI). In addition to its main businesses, the Group also provides total solution services ranging from computer software and peripheral devices for controlling metalworking machines to tooling and maintenance.