

## INTEGRATED SOLUTION FIBRE LASER COMBINATION







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## ALL ELECTRIC PUNCHING SYSTEM WITH IN-HOUSE DEVELOPED FIBRE LASER ENGINE FORFLEXIBLE, LOWRUNNINGCOSTPRODUCTION



Equipped with a 3kW fibre laser engine manufactured in-house using the industries highest power single diode modules, the EML-AJ brings a new dimension to AMADA's highly successful EML CO<sub>2</sub> combination machine. Features designed specifically for minimal operator intervention allow full range processing of simple to complex parts. Various automation systems can also be utilised to provide long running, unmanned manufacturing. With a full table cabin enclosure and second origin setting point for quick, manual operation, employee safety and ease of operation are guaranteed.



## **MAIN FEATURES**

HIGH SPEED AND HIGH PRODUCTIVITY

#### AMADA MANUFACTURED FIBRE LASER

AMADA was the world's first laser manufacturer to develop its own fibre laser oscillator. Using high power, single modules a very high quality laser beam means higher cutting speeds and more productivity.



In order to enhance the production of fibre laser oscillators at AMADA's Fujinomiya facility, 18 clean rooms have been created specifically for manufacturing assembly and testing operations.



#### **3** CONTINUOUS MANUFACTURING

#### AUTOMATIC NOZZLE CHANGER

In order to provide full processing capabilities and maximum up-time of the machine, the EML-AJ is equipped with a 4 station automatic nozzle changer. This system not only changes the nozzle, but cleans it and calibrates the cutting head each time a change takes place to ensure consistent, reliable, long term production.



#### AMNC 3I NUMERICAL CONTROL

The AMNC 3i numerical control used on the EML-AJ series fibre lasers is a 21.5" HD touch screen system that provides simple, intuitive operation for higher productivity. It fits perfectly into the VPSS 3i digital suite concept.

Features include:

- · Smart phone type operation for zooming.
- On-screen nesting automatic NC generation.
- One touch operation for quick machine setup.
- Machine productivity and history record.

Smart phone type operation for zooming



One touch operation for many functions

#### **2** INTEGRATED FUNCTIONALITY

#### **MULTI-PURPOSE TURRET WITH TAPPING**

The EML-AJ is equipped with a multi-purpose, 44 station turret which includes a 4 station tapping unit.

This system allows taps of M2.5 - M8 to be used incycle and eliminates the need for a separate tapping unit. Cutting and forming thread taps can be used. If tapping is not required, the 4 stations can be used for standard punch tooling.





#### **4** A SAFE AND SPACE SAVING DESIGN

#### **TABLE CABIN & SETTING SECOND ORIGIN**

The processing area is enclosed with a table cabin and a shutter to completely prevent the laser beam from escaping outside.



Setting second origin provides operability equivalent to that of the conventional combination machine.





On-screen nesting and NC creation



Machine productivity record

#### DIMENSIONS

#### EML-2515AJ

(L) 5689 x (W) 6927 x (H) 2525

With PDC option: (L) 6808 x (W) 6927 x (H) 3010



#### **MACHINE SPECIFICATIONS**

EML-2515AJ		
al Control		AMNC 3i
ed working range (with reposition) X x Y	mm	3050 x 1525
m material thickness	mm	6.0
Rapid feed rate X/Y/Z*		(X) 100 / (YP) 80 / (YL) 100 / (Z) 80
Press capacity	kN	300
Press stroke (25.4 mm pitch / 5 mm stroke)	hpm	500
Tap (cutting/forming)		MPT Tap
Oscillator		AMADA-AJ 3kW
Laser protection		Table cabin
Accuracy	mm	± 0.07
	ISAJ al Control ed working range (with reposition) X x Y m material thickness Rapid feed rate X/Y/Z* Press capacity Press stroke (25.4 mm pitch / 5 mm stroke) Tap (cutting/forming) Oscillator Laser protection Accuracy	ISAJ         al Control         ad working range (with reposition) X x Y         m material thickness         m material thickness         Rapid feed rate X/Y/Z*         Press capacity         kN         Press stroke (25.4 mm pitch / 5 mm stroke)         hpm         Tap (cutting/forming)         Oscillator         Laser protection         Accuracy       mm

\* Maximum possible combined axis speed

# AJ-3000 Beam generation Laser diode-pumped fibre laser Maximum power W 3000

#### PUNCH / DIE CHANGER SPECIFICATIONS

PDC		OPTION 🏲
Maximum number of punch tools		220
Maximum number of dies		440
Largest tool diameter	mm	114.3

Specifications, appearance, and equipment are subject to change without notice by reason of improvement.



For your safe use

Be sure to read the user manual carefully before use. When using this product, appropriate personal protection equipment must be used.



Laser class 1 when operated in accordance to EN 60825-1

The official model name of the machines and units described in this catalogue are non-hyphenated like EML2515AJ. Use this registered model names when you contact the authorities for applying for installation, exporting, or financing. The hyphenated spellings like EML AJ are used in some portions of the catalogue for sake of readability.

Hazard prevention measures are removed in the photos used in this catalogue.

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Unit : mm

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