

# SOLUTION

LASER CUTTING

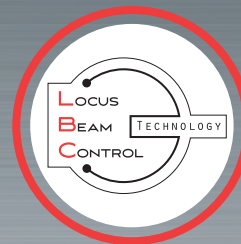
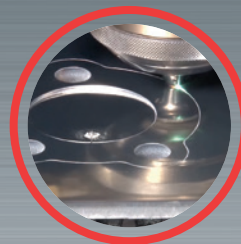
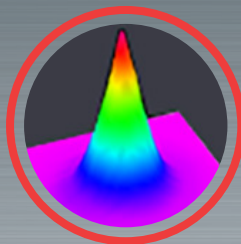


## VENTIS 3015 AJ

*Fiber Laser*



LBC TECHNOLOGY - WORLD'S FIRST NEXT GENERATION FIBRE LASER



**AMADA**

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*Fiber Laser*

## LBC TECHNOLOGY - WORLD'S FIRST NEXT GENERATION FIBRE LASER

### HIGHER PRODUCTIVITY, HIGHER QUALITY, LESS POWER

#### GROUND BREAKING LBC TECHNOLOGY FOR LASER PROCESSING

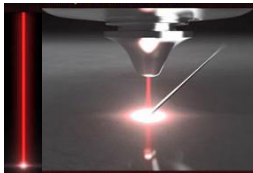
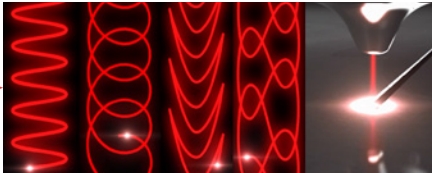
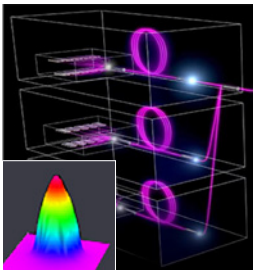
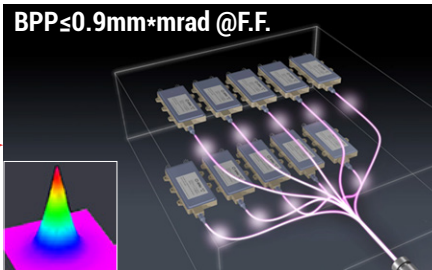
The VENTIS fibre laser is the world's first material processing laser to utilise AMADA's Locus Beam Control (LBC) technology. With the ability to manipulate the laser beam pattern whilst processing, LBC Technology creates possibilities never before accomplished with solid state laser cutting machines.

Dross free capabilities, cutting speeds equivalent to much higher power machines and cut width (kerf) control are all achievable. Combined with AMADA's new, in-house developed 4kW single diode module fibre laser engine, the VENTIS has a very high quality laser beam which is perfectly suited to LBC Technology applications..



### INNOVATIVE LBC TECHNOLOGY

#### LASER BEAM PATTERN CONTROL COMBINED WITH A NEW SINGLE DIODE MODULE ENGINE

<p><b>Standard</b></p> 	<p><b>LBC Technology</b></p> 
<p><b>Multi Module</b></p> 	<p><b>BPP ≤ 0.9mm*mrad @F.F.</b></p> <p><b>Single Module</b></p> 

Utilising a 4kW, single diode module AMADA fibre laser engine, the full energy of the laser beam can be used to process all materials by manipulating the beam movement to exactly match the material and thickness being processed.

AMADA's new 4kW fibre laser engine uses the industries highest power, single diode module with no combiner. This provides the world's highest beam quality in the 4kW class, realising the full benefit of AMADA's LBC Technology.



# 3 ADVANTAGES OF LBC TECHNOLOGY

## 1 PRODUCTIVITY MODE

Laser cutting involves melting the material with a laser beam from the top surface and removing the molten material with assist gas. The challenge is to melt the material remaining on the cutting front inclination angle ('General' image).

LBC Technology makes it possible to directly remove the molten material on the inclination angle.

The main benefits are when processing with nitrogen because cutting speeds are very high. This leads to increased productivity and lower cost-per-part.

## 2 QUALITY MODE

The heat generated by the laser beam reduces as it gets further from the top surface of the material. Therefore, there is not enough heat at the bottom of the cut to efficiently melt and remove the material.

LBC Technology allows the high density laserbeam power to be utilised across the side faces of the cutting kerf, providing sufficient heat at the bottom of the cut to give dross free possibilities.

Very high quality stainless steel and aluminium processing is possible, which significantly reduces or eliminates any secondary operations required after cutting.

## 3 FLEXIBLE CONTROL OF CUTTING WIDTH: KERF CONTROL

It is possible to vary the cutting kerf width to make it easier to remove parts either manually or with an automated picking system. Thanks to the control of the cutting width that prevents pickup error, the take-out unit allows long term stable operation.

Unit: mm

## DIMENSIONS

**VENTIS-3015AJ + shuttle table (LST)**  
(L) 10060 x (W) 2860 x (H) 2432



## MACHINE SPECIFICATIONS

			VENTIS-3015AJ
Numerical Control			AMNC 3i
Controlled axes			X, Y, Z axes (three axes controlled simultaneously) + B axis
Axis travel distance	X x Y x Z	mm	3070 x 1550 x 100
Maximum processing dimensions	X x Y	mm	3070 x 1550
Maximum simultaneous feed rate	X/Y	m/min	170
Repeatable positioning accuracy			± 0.01
Maximum material mass			920
Processing surface height			940
Machine mass			9100

## OSCILLATOR SPECIFICATIONS


			AJ4000S
Beam generation			Laser diode-pumped fibre laser
Maximum power	W		4000
Wavelength	µm		1.08
Maximum processing thickness*	Mild steel	mm	25
	Stainless steel		20
	Aluminium		16
	Brass		10
	Copper		8


\* Maximum value depends on material quality and environmental conditions

## SHUTTLE TABLE SPECIFICATIONS

		LST-E
Max. material dimensions X x Y	mm	3070 x 1550
Number of pallets		2

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 VENTIS3015AJ. Use this registered model names when you contact the authorities for applying for installation, exporting, or financing. The hyphenated spellings like VENTIS-3015AJ 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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