

SOLUTION

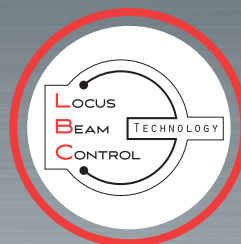
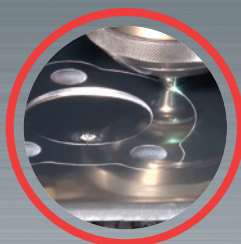
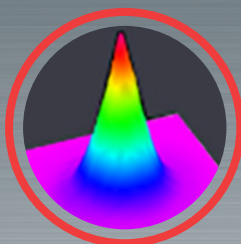
LASER CUTTING



VENTIS AJ SERIES



LBC TECHNOLOGY - WORLD'S FIRST NEXT GENERATION FIBRE LASER



VENTIS AJ SERIES

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.

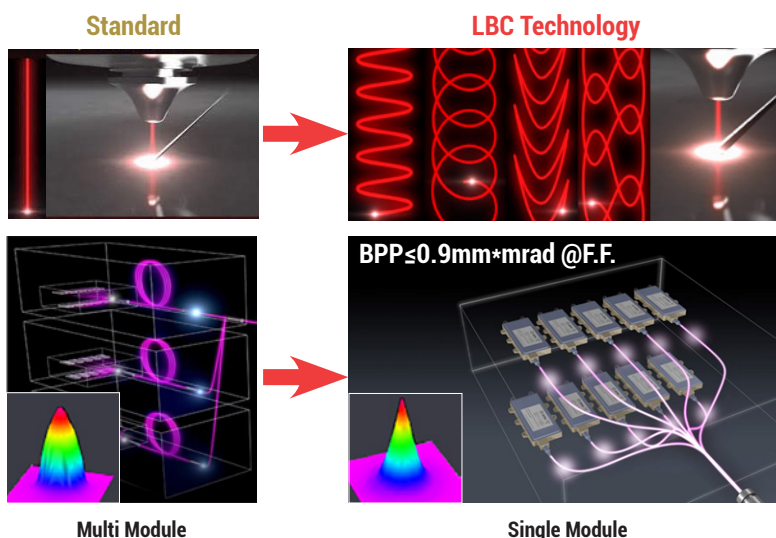
Dross free capabilities, cutting speeds equivalent to much higher power machines and cut width (kerf) control are all achievable. Combined with AMADA's new, in-house developed 4kW single diode module fibre laser engine, the VENTIS has a very high quality laser beam which is perfectly suited to LBC Technology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



Photograph may include optional equipment

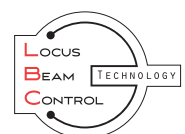
INNOVATIVE LBC TECHNOLOGY

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



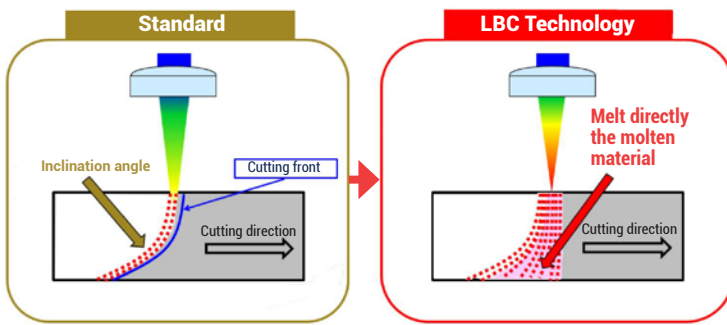
Utilising a 4kW, single diode module AMADA fibre laser engine, the full energy of the laser beam can be used to process all materials by manipulating the beam movement to exactly match the material and thickness being processed.

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

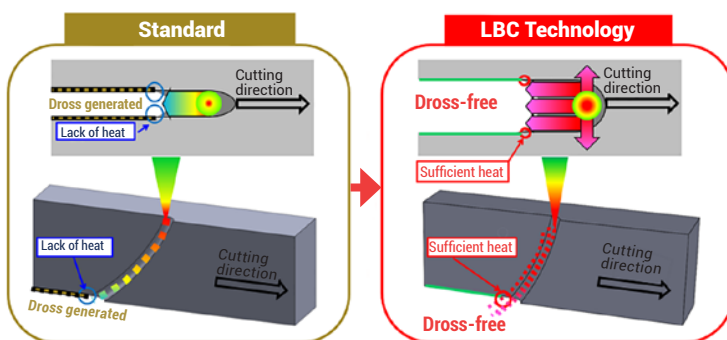


Laser cutting involves melting the material with a laser beam from the top surface and removing the molten material with assist gas. The challenge is to melt the material remaining on the cutting front inclination angle ('General' image).

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

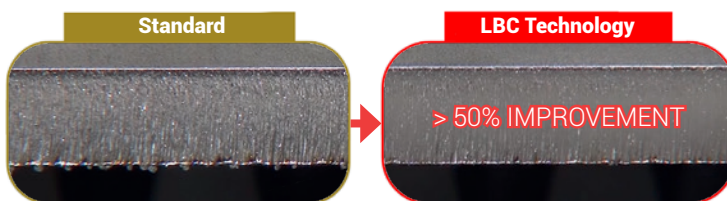
The main benefits are when processing with nitrogen because cutting speeds are very high. This leads to increased productivity and lower cost-per-part.

2 QUALITY MODE



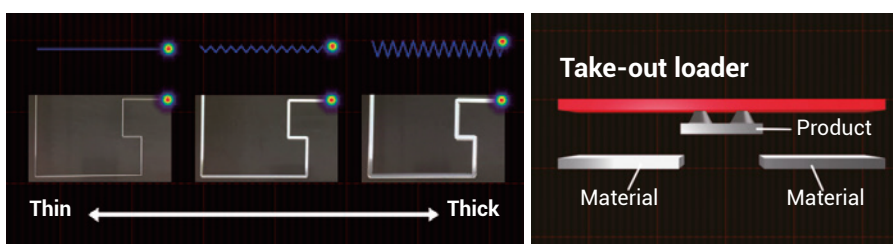
The heat generated by the laser beam reduces as it gets further from the top surface of the material. Therefore, there is not enough heat at the bottom of the cut to efficiently melt and remove the material.

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.

DIMENSIONS

Unit: mm

VENTIS-3015AJ + shuttle table (LST-E)
(L) 10060 x (W) 2840 x (H) 2432

VENTIS-4020AJ + shuttle table (LST-E)
(L) 11482 x (W) 3340 x (H) 2432



MACHINE SPECIFICATIONS

			VENTIS-3015AJ	VENTIS-4020AJ
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	4070 x 2050 x 100
Maximum processing dimensions	X x Y	mm	3070 x 1550	4070 x 2050
Maximum simultaneous feed rate	X/Y	m/min	170	
Repeatable positioning accuracy		mm	± 0.01	
Maximum material mass		kg	920	1570
Processing surface height		mm	940	
Machine mass		kg	9200	12300

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-3015E	LST-4020E
Max. material dimensions X x Y	mm	3070 x 1550	4070 x 2050
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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