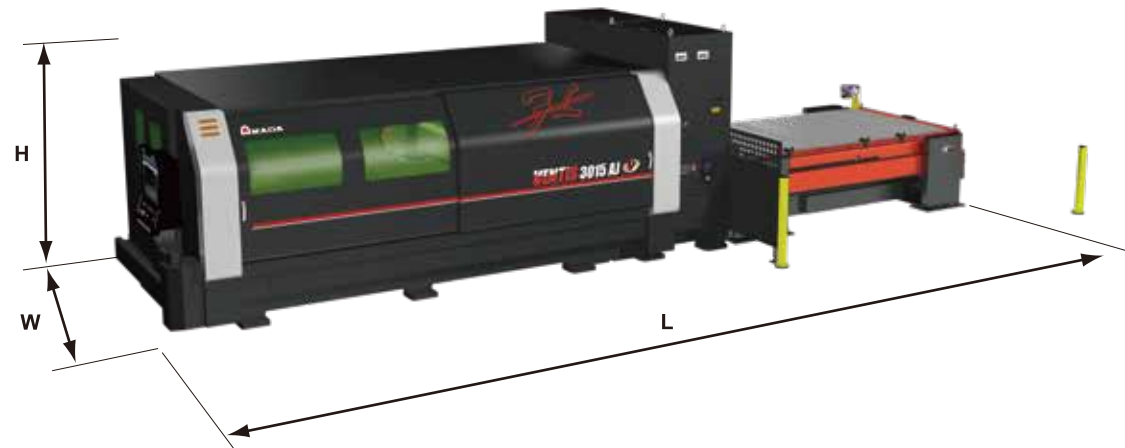


■Dimensions

Unit: mm

■ VENTIS-3015AJ+Shuttle table (Model : LST3015G) (L : 10060 × W : 2840 × H : 2432)

■ VENTIS-4020AJ+Shuttle table (Model : LST4020G) (L : 11482 × W : 3340 × H : 2432)



■Machine specification

Model	VENTIS-3015AJ	VENTIS-4020AJ
Registered model name	VN3015AJ	VN4020AJ
Max. axis travel X×Y×Z mm	3070×1550×100	4070×2050×100
Max. sheet size X×Y mm	3070×1550	4070×2050
Max. material weight kg	920	1580
NC model	AMNC 3i Plus	
Control method	X, Y and Z axes (Simultaneous 3 axes control) +B, CF axes	
Oscillator	AMADA AJ-4000S	
Rated laser power W	4000	
Chiller	RKE5502B-VA-UP2BP	
Dust collector	PXN-6XA	
Axes travel method	X/Y axes: Rack and pinion Z axis: Ball screw	
Rapid feed rate X×Y Combination m/min	170	
Min. setting unit mm	0.001	
Machine weight (main body only) kg	9200	12300

■Oscillator specification

Model	AJ-4000S
Oscillator method	LD diode-pumped fiber laser
Rated laser power W	4000
Stability %	Less than ±2.0
Pulse peak output W	4050
Pulse frequency Hz	1~10000
Duty %	0~100
Wavelength nm	1080±4

*Specifications, appearance, and equipment are subject to change without notice.

*Please use the registered model name for applications related to the administration of the machine or device described in this catalog (installation notification, export, financing, etc.).

*The hyphenated spellings like VENTIS-3015AJ and VENTIS-4020AJ are used in some parts of this catalog for the sake of readability. This also applies to other machines.

*The specifications described in this catalog are for the Japanese domestic market.

⚠ For Your Safe Use,
Be sure to read the operator's manual carefully before use.

●Use of this product requires hazard prevention measures to suit your work
For details, see the safety guide on the homepage of AMADA (www.amada.co.jp)

⚠ This laser product uses a class 4 invisible laser for processing and a class 3R visible laser for positioning.

●Class 4 invisible laser: Avoid eye or skin exposure to direct or scattered radiation. Never look into the radiation nor touch it.
●Class 3R visible laser: Avoid direct eye exposure.

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www.amada.com

inquiry

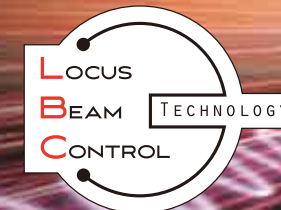


E114-HQ01en

Mar. 2021



Fiber Laser with LBC Technology **VENTIS AJ** SERIES



AMADA

4kW Best Performance!

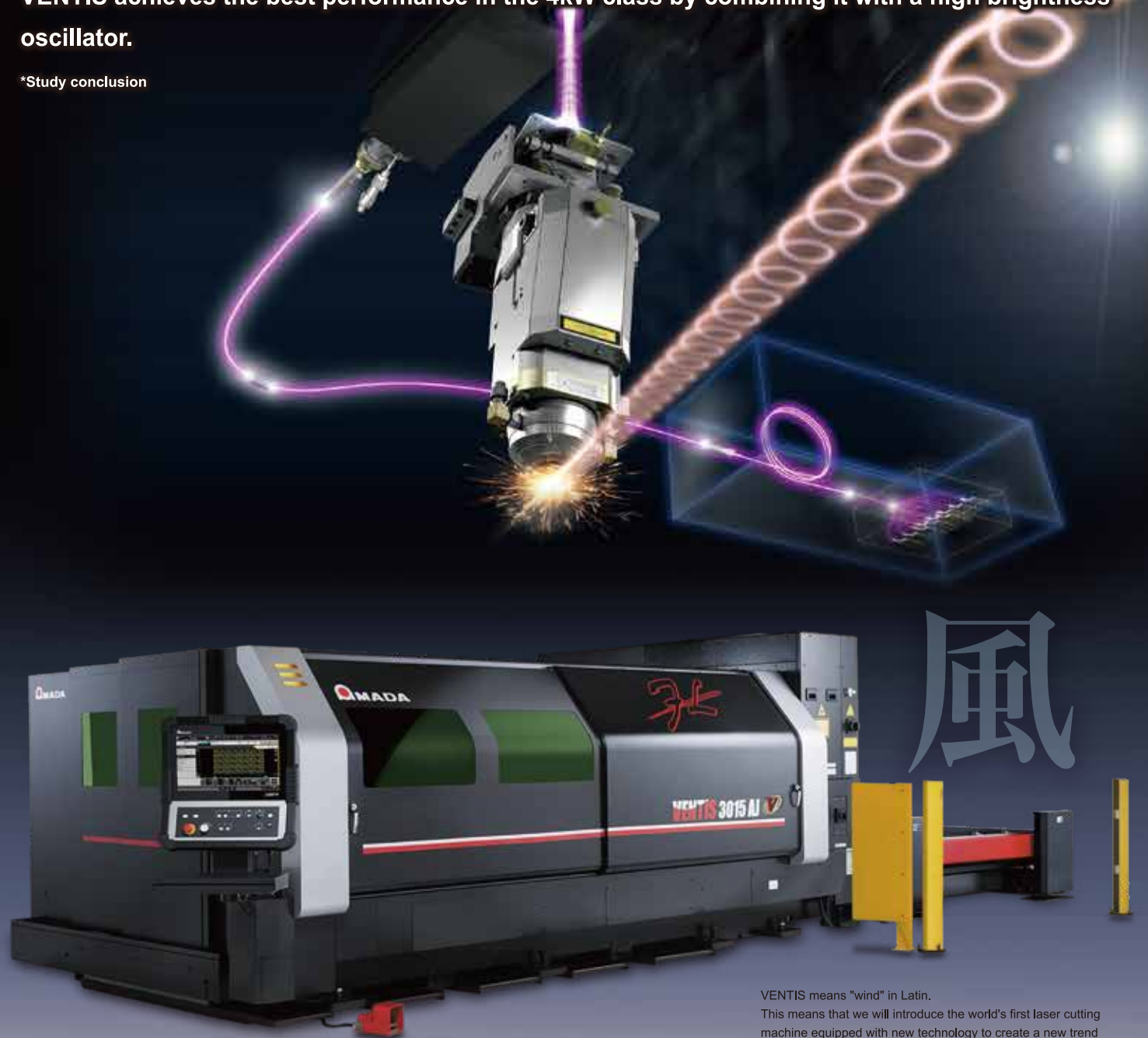
High brightness oscillator and LBC Technology enable enhanced high speed and high quality processing

LBC is an abbreviation of Locus Beam Control and is the world's first technology* that enables free control of the laser beams locus patterns.

Various locus patterns can be selected according to the material type and thickness.

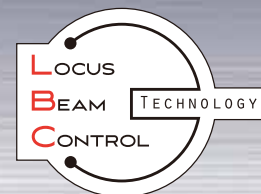
VENTIS achieves the best performance in the 4kW class by combining it with a high brightness oscillator.

*Study conclusion



VENTIS means "wind" in Latin. This means that we will introduce the world's first laser cutting machine equipped with new technology to create a new trend (winds of change).

Fiber Laser with LBC Technology
VENTIS AJ SERIES



High brightness oscillator: Advantages of a single module

Conventional Fiber Laser 4kW

Multi module

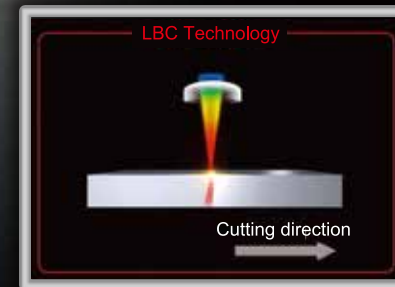
VENTIS

Single module

Material: SUS304
Thickness: 1.0mm
Product size: 435x135mm
Process time: 1min. 1 sec.

High speed processing is achieved with the high brightness laser beam. Processing speed increases by 10% when compared to a conventional 4kW fiber laser!

Effect of LBC Technology



Equivalent to a 6kW fiber laser when processing aluminum

A5052 Max. cutting thickness: 16.0mm

Process	Time	Reduction
CO ₂ laser 4kW	3 hrs, 14 min, 12 sec.	
Fiber laser 4kW (conventional)	2 hrs, 4 min, 48 sec.	35% reduction
VENTIS	52 min, 48 sec.	57% reduction

A5052 Thickness: 8.0mm

Process	Cost	Reduction
CO ₂ laser 4kW	18,395 yen	
Fiber laser 4kW (conventional)	14,204 yen	22% reduction
VENTIS	4,726 yen	66% reduction

High speed and low cost processing of stainless steel

SUS304 Max. cutting thickness: 20.0mm

Process	Time	Reduction
CO ₂ laser 4kW	24 min, 25 sec.	
Fiber laser 4kW (conventional)	16 min.	33% reduction
VENTIS	9 min, 4 sec.	43% reduction

SUS304 Thickness: 6.0mm

Process	Cost	Reduction
CO ₂ laser 4kW	2,123 yen	
Fiber laser 4kW (conventional)	1,821 yen	14% reduction
VENTIS	816 yen	55% reduction

ECO Cut with high speed piercing for 16mm mild steel.

Mild steel Max. cutting thickness: 22.0mm

Process	Time	Reduction
CO ₂ laser 4kW	8 hrs, 57 min, 6 sec.	
Fiber laser 4kW (conventional)	9 hrs, 30 min, 30 sec.	
VENTIS	3 hrs, 12 min, 32 s.	66% reduction

SS400 Thickness: 16.0mm

Process	Cost	Reduction
CO ₂ laser 4kW	25,123 yen	
Fiber laser 4kW (conventional)	14,622 yen	41% reduction
VENTIS	3,245 yen	77% reduction

Pierce time 2 sec. CO₂ Laser 4kW 8 sec. Reduced to 1/4!

*Compared to our CO₂ 4kW and conventional fiber laser machine 4kW

Significant dross reduction in stainless steel SUS304 Thickness: 8.0mm

Before

After

90% or more reduction of dross height compared to a conventional fiber laser 4kW!

●Calculating running cost Calculate by Electricity: 20 yen/kWh, Laser gas: 22,000 yen/7m³, Oxygen: 20,000 yen/132m³, Nitrogen: 20,000 yen/107m³
Cost for consumables and maintenance parts is included in running cost based on AMADA's recommended period for replacement

VENTIS-AJ Solution Packages

Automation solution that maximizes the VENTIS-AJ's capabilities

8 hours Model

Standard model

VENTIS-AJ+ASFH

Continuous operation for thin-to-medium-thick materials with 2-ton pallets.

- Automatic operation from material supply to product stacking: Max. cutting thickness 12mm
- Product pallet: 2pcs, material pallet: 2pcs, process pallet: 2pcs (standard configuration)

● Solution that does not stop the machine

■ Automated process setups

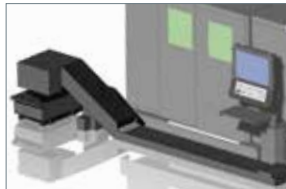


Single-lens operation



Nozzle Changer
*Option 16 stations

■ Automated scrap unloading



Y conveyor (option)

■ Automated product stacking



Chain-type fork unit

■ Maintenance support



Cleaning brush

● Easy operation



AMNC 3i Plus



Fiber Laser Machine
VENTIS-AJ

Fork type
Pallet changer
ASFH

Automated parts sorter for laser machines

TK 3015L

(can be attached to all models)

Automated parts removal and sorting operations

- Manual parts removal and sorting operations eliminated
- Lead time reduces due to parts stacking
- Max. parts weight: 150kg
- Max. parts size: 2500 x 1250 mm - Max. cutting thickness: 12mm



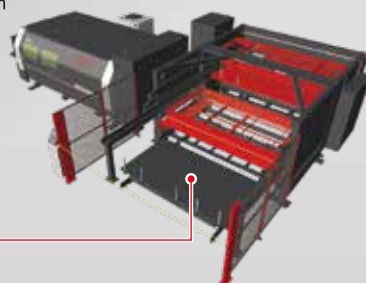
4 hours Model

Compact model

VENTIS-AJ+MPL(C)

Continuous for thin-to-medium-thick materials

- Automatic operation from material supply to parts stacking: Max. cutting thickness 12mm
- Manual feeding operation utilizing shuttle function
- Product pallet: 1pc, material pallet: 2pcs, processing pallet: 2pcs



Manipulator
MPL(C)

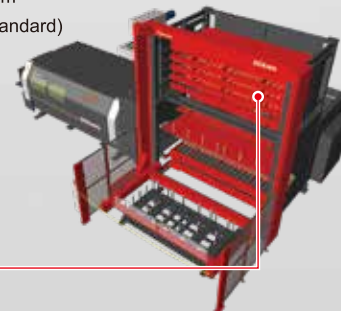
8 hours Model

Thick material model

VENTIS-AJ+AS

Continuous operation for thick materials

- Max. cutting thickness: 25mm
- Processing pallet: 10pcs (standard)



Pallet changer
AS

16 hours Model

Twin tower model for various materials

VENTIS-AJ+AS-TFS

For production with various thin-to-thick materials

- ASFH (product pallet: 2pcs, material pallet: 2pcs, processing pallet: 2pcs)
- +AS (processing pallet: 10pcs)
- Twin tower type (standard)



24 hours Model

Continuous/Various material expansion model

VENTIS-AJ+MPL(C)+MARS

For various-mix, various-volume production with different material types

- Automatic operation from material supply to parts stacking: Max. cutting thickness 12mm
- The number of shelves and towers can be customized
- Compatible with multiple blanking machines



Visualize, Monitor, Evolve V-factory supported machine

Machine operation and maintenance status is visualized by connecting the VENTIS series to AMADA's IoT system "V-factory". Production is easily managed with data. Furthermore, stable operation of machines can be achieved by assistance of IoT support. AMADA will support its customers by manufacturing with the concept of "Visualize, Monitor and Evolve".



My V-factory

Machine operation status and condition can be visualized.



IoT Support Front

AMADA connects to the customer's machine to provide support during operation.

AMNC 3i Plus

AMNC 3i Plus supports customers with high performance NC devices that can be operated like a smartphone, and also functions as a V-factory compatible interface.



VENTIS-AJ SERIES



Programs are easily loaded to streamline the nesting process



Cutting condition can be changed easily



Operation of automation / Inventory management of material



Display of operation results/process history

■ Operating ■ Stand by ■ Planning ■ Alarm

Other functions

All options

OVS

The pitch of the two holes is measured, and the processing origin deviation from the NCT is automatically corrected.



V-monitor

The camera view installed inside the machine can be checked on a smartphone or PC at any time. The recorded video at the time of the alarm can be checked on the NC.



3-color signal tower

Signal light and buzzer allow you to check the machine operational status from a distance.



Nozzle changer

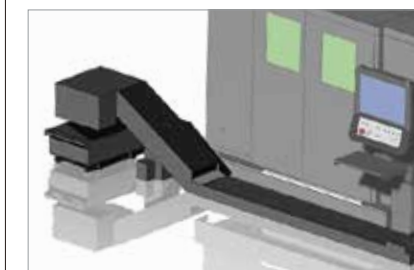
The nozzle is automatically changed according to the cutting condition. Continuous, automatic operation from thin-to-thick materials is available. (standard: 8pcs, option: 16pcs).



Y Conveyor

Scrap or small parts are transported to the machine rear (or front) side.

*Scrap or small parts are carried out to the rear when the machine is right-handed.



Large capacity scrap tray

The capacity of the scrap tray has been increased by approximately 1.8 times, and the split-type tray allows for easy cleaning.

