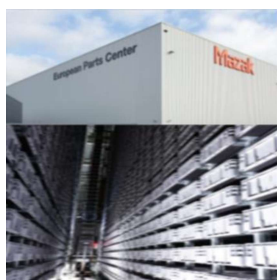




1.0 Mazak Overview



Yamazaki Mazak Minokamo 1 Plant
in Gifu-Prefecture, Japan.



THE GLOBAL STRENGTH OF YAMAZAKI MAZAK

Yamazaki Mazak is the world's largest manufacturer of machine tools. We produce systems for the precision manufacturing of metal parts including laser-cutting machines, CNC turning centers, horizontal and vertical machining centers, multi-tasking machining centers, turnkey cells and software solutions to help customers achieve lean, efficient manufacturing operations. We have developed unique products that realize unsurpassed productivity and established 80 Technology and Technical Centers all over the world to provide total solutions and optimum service support close to our customers.

MAZAK LASER TECHNOLOGY

Mazak Laser offers an extensive range of 2D and 3D laser-cutting equipment encompassing over 50 machine models. This innovative range of products enables Mazak to better meet your specific laser application needs. Mazak is a laser technology leader who can significantly improve production efficiency, competitive positioning and profitability. We utilize innovative engineering and intelligent automation to simplify operation and deliver more consistent machine performance.

MAZAK SUPPORT IN EUROPE

Mazak Laser Technology Center supporting our customers in over 30 countries. Our commitment to your continued productivity doesn't end with purchasing your Mazak machine. At Mazak, our extensive service network provides you with our expertise, whenever and wherever you need us.

MAZAK EUROPEAN PARTS CENTRE

Located in Belgium, the European Parts Centre has warehouse capacity of 4,600m² and is capable of shipping 97% of Mazak parts on the same day. The new facility can ship over 20,000 parts per month with orders being processed 365 days a year. The state-of-the-art warehouse is fully automated and equipped with a new "mini-load" system for small parts picking from 8,000 small trays, travelling from 70,000 locations within the warehouse, and a stacker crane system for 3,000 medium to large pallets.

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QUOTATION

2.0 System Summary



Mazak has engineered exclusive Intelligent Multi-control Torch technology that improves reliability, achieves high performance and enables advanced Intelligent Functions not available on many competitive models.



Intelligent Setup Functions like the nozzle changing system shown above help reduce operator errors, improve consistency of operation and lower operator dependency.

OPTIPLEX FIBER II

Optiplex Fiber II series machines deliver intelligent performance for maximum productivity.

The OPTIPLEX FIBER II is a 2D laser cutting machine designed in pursuit of high speed and high productivity. With high mechanical rigidity, high cutting performance, high accuracy and high accuracy retaining ability, the OPTIPLEX FIBER II is a highly reliable machine. The OPTIPLEX can take corrective and preventive measures, reduce the setup time, and so on, using intelligent functions, so it can be used for various types of machining. In addition, the OPTIPLEX FIBER II has features such as the use of a fiber laser oscillator requiring no laser gas, low power consumption, ease of maintenance, etc., so that it can be expected to contribute to a significant reduction in running and maintenance costs while performing machining with a high degree of efficiency.

- OPTIPLEX FIBER II is equipped with the cutting-edge MAZATROL Preview 3 control for high speed and high accuracy cutting, with touch screen;



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3.0 Intelligent Functions



Auto Focus Positioning eliminates the need to have the operator measure, adjust, and set the focal distance by automating the process.



Pierce Detection senses when the pierce breaks through the material as compared to a programmed pierce that would include added time to account for variations in the process.









Plasma Detection monitors plasma generation while cutting medium/thick stainless steel and automatically adjusts cut conditions to help avoid quality issues and cut failure.

INTELLIGENT FUNCTIONS IMPROVE EASE OF OPERATION & MACHINE EFFICIENCY

Mazak has developed a series of Intelligent Functions designed to automate machine setup and monitor the cutting performance. These Functions can dramatically simplify operations and automatically adjust cutting parameters to increase the quality of parts and overall throughput.

Intelligent Setup Functions

A wide variety of Functions are available for ease of operation and reduced setup time.

	Auto Nozzle Changing. Optimizes assist gas usage and maximizes the feedrate for each job (8 nozzles)
	Auto Focus Positioning. Maximizes part quality and produces maximum feedrate
	Focus Detection. Automatically calibrates reference position
	Auto Profiler Calibration. Keeps a stable distance between material and nozzle during cutting operation
	Auto Nozzle Cleaning. Increases the time between necessary operator intervention
	Beam Diameter Control. Stable cutting is realized – improved cutting speed for thin worksheets and increased cutting performance for thick sheets



Intelligent Monitoring Functions

OPTIPLEX Fiber II is equipped with sensors in the Multi-control Torch that monitor piercing and cutting operations to improve throughput and part quality. If an anomaly is detected, the operation is adjusted or paused to automatically achieve effective cutting conditions.

	Pierce Detection. Minimizes pierce times for greater throughput
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	Plasma Detection. Monitors and helps stabilize stainless steel cutting, reducing dross
	Burn Detection. Monitors cutting and notifies you of bad cut conditions in mild steel

Intelligent Cutting Functions

Automatic functions incorporating Mazak's expertise accumulated over many years that ensure high quality and high efficiency laser cutting. The OPTIPLEX Fiber II series is equipped with the following INTELLIGENT CUTTING FUNCTIONS:

	Fine Power Ramping. It controls acceleration and/or deceleration speed automatically, not dropping speed too much to avoid dross.
	Flash Cut. Monitors and helps stabilize stainless steel cutting, reducing dross

Maximum cutting thickness

Material / Power	6kW
Mild steel, O ²	25mm
Mild steel, N ²	6mm
Stainless steel, N ²	20mm
Aluminum, N ²	20mm
Copper, O ²	12mm
Brass, N ²	12mm





4.0 Standard Features

MACHINE FRAME

The OPTIPLEX FIBER II laser machine frame starts with a solid cast iron precision-machined base for accuracy, system repeatability and durability. The cast iron base supports the motion drive system, electrical systems and the MAZATROL PREVIEW 3 CNC. Ergonomically designed with access doors along the Y-axis, the work zone is easily accessible. The solid cast design does not require the main machine frame to be secured to the facility foundation.

MOTION SYSTEM

The motion drive system utilizes high-speed direct drive helical rack and pinion motors for X1 – X2 & Y axis. The ridged bridge gantry design uses precision guided ways on X & Y. The Z axis is a digital servo drive system.

CONTROL UNIT

The OPTIPLEX Fiber II features the cutting-edge MAZATROL PREVIEW 3 Control Unit that utilizes a 15 inch touch screen which reduces the number of hard buttons. The Mazak PREVIEW 3 interface displays in both 2D & 3D Color graphics for process monitoring. The touch screen monitor allows for fast and easy access to all Intelligent Monitoring Functions and Intelligent Setup Functions. The ergonomic design allows for adjustable height and rotation.

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FIBER LASER RESONATOR AND FIBER OPTIC DELIVERY SYSTEM



Mazak's exclusive Multi-control Torch is the key feature that enables a host of automated Intelligent Functions



The OPTIPOD houses the automatic nozzle changer and other features utilized for Intelligent Setup Functions

The new Solid State Ytterbium Laser utilizes advanced diode pumped technology which provides high quality laser power with extended operational life. This solid state Laser operates with 40% less electricity as a result of greater efficiency levels of excitation. This technology provides maintenance free operation yielding dramatically reduced cost of operation. The laser beam is delivered to the Mazak Multi-control Torch. Mazak optimizes Fiber Technology by integrating the Solid State Fiber Resonator with the Mazak PIEVIEW3 Controller, Mazak Multi-control Torch and Mazak Intelligent Monitoring and Setup features. This combination of technology sets Mazak Optiplex Fiber apart from all other systems.

MAZAK MULTI-CONTROL TORCH

Mazak's exclusive Multi-control Torch was a key development that enables Mazak's Intelligent Setup and Intelligent Monitoring Functions. They directly increase the productivity of the end user by allowing the machine to optimize the torch setup automatically per program. This optimization can dramatically improve cut speeds, increase throughput and requires less operator intervention, delivering more predictable processing day after day. The combination of Fiber beam diameter and focus control provides a wide range of improved cut performance in all material types and thicknesses. The eight-position nozzle changer facilitates unattended operation while ensuring the proper cut quality and maintaining the lowest possible gas consumption.

INTEGRATED CUTTING TECHNOLOGY

A cutting technology chart is inside the CNC to simplify the selection of cut parameters. You just input material and thickness, and you automatically get the best cutting condition such as laser power, frequency, gas pressure etc. Difficult piercing techniques or trace calibration ON/OFF is also automatically set

OPTIPOD

The OPTIPOD incorporates components utilized for the Intelligent Setup Functions including Auto Nozzle Changing, Auto Focus Position, Focus Detection, Auto Profiler Calibration, Beam Diameter Control and Auto Nozzle Cleaning.



5.0 Standard Technical Specification

Item	Specyfification	Remarks
Machine model	Optiplex 3015 FIBER II	
Power	6,0 kW	
Type	Fiber	
Max. machining size	1500 x 3000 mm	
Rapid traverse	X/ Y: 120m/min Z: 60 m/min	
Axis drive system	4-axis X1-/X2-/Y-axis: Rack-and-pinion drive Z-axis: ball screw drive	
Positioning precision	X-/Y-axis: $\pm 0.05/500$ mm Z-axis: $\pm 0.01/100$ mm	
Repeatability	X/ Y/ Z-: $\pm 0,03$ mm	
Machining torch	With lens of focal distance 150 mm	Withstand pressure of the protective window: 3.0 MPa
Z-axis profiling	Non-contact type, Z-axis follow type	
Worksheet support type	Odległość między grzebieniami Skok 100mm (standard) Skok 50mm (opcja)	Knife edge 44 pcs./pallet
Lighting device	Fluorescent lamp	
Oscillation indicator	Yellow signal lamp (ready for laser oscillation) Red signal lamp (laser beam is emitted)	
Assist gas changer	Number of gas types: 3 (Oxygen, air, and assist gas) Set pressure: 0.02 to 2.5 MPa (Note 4) Supply pressure: 0.99 MPa (Oxygen) 0.83 MPa (Air) 3.0 MPa (Assist gas)	Setting unit: 0.01 MPa
Assist gas pressure NC control function	Programming can set assist gas pressure. Set pressure: Max. 2.5 MPa	
Mass	15 500 kg	Including chiller unit, oscillator, transformer and 2-pallet changer
Noise level	Maks. 80 dBA	

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6.0 Machine and Options Prices

STANDARD EQUIPMENT

The following items are included as standard equipment for the machine.

BASIC OPTIONS

AS664 Automatic nozzle changer (8 holders)
AS670 Auto-calibration function
AS684 Automatic nozzle cleaning
CV222 Scrap bucket
EL110 Power transformer for the European market
ES300 Side air blower
LN706 Multifunctional head
NO612 Sheet corner coordinate detection
SD119 Intelligent monitoring system
SD120 Manual tool set
SD130 Foundation plate set
SD154 Non-contact height measurement system with resume function
SD168 Manual sheet clamping holders (2x2 pallets)
SD186 Preparation for 6kW resonator
SD200 Assist gas selection
SD216 NC control of assist gas pressure
SD260 Lens cleaning kit
SD282 Resonator operation signal lamp
TL307 Comb set (100 mm pitch)

DOCUMENTATION

SD073 Set of manuals in English (CD)

NOZZLES

SD303 Adapter for Mazak high-precision nozzle
NZ310 High-precision pencil nozzle Mazak (Hp) 1.0 mm / 3 pcs
NZ056 High-precision pencil nozzle Mazak (S) 2, 2.5, 3 mm
NZ057 High-precision pencil nozzle Mazak (S) 3.5, 4 mm

CUTTING HEAD

LN005 Lens for Multi-Control head
LN610 Cartridge with focusing lens
LN602 Protective glass for Multi-Control head

ASSIST GAS INSTALLATIONS

TL321 Third assist gas installation (3.0 MPa supply)

MACHINE COLOR

SD728 Standard Mazak color (white front, black sides)

WINDOWS

CC096 Laser radiation shielding window (1 pc)

SAFETY

ES230 Preparation for dust collector
SD030 Work area lighting



Positioned to ensure operator safety and ease of machine operation.

SD748 CE marked machine (EMC + Level D)

AUTOMATION

AS050 Automatic machine shutdown

Machine power is automatically cut off after the processing program is completed.

PALLET CHANGER

PC010 Pallet changer (2 pallets)

NC OPTIONS

FT575 NC work resume

MZ200 Displacement detector

NC083 Mazatrol Preview 3 control

NC319 15" TFT LCD color monitor (XGA)

NO869 LAN port

NO870 USB port for desktop PC

ADDITIONAL OPTIONS

PLLO007 Donaldson DFPRO-4 Spark dust collector

RB165 Sheet lifter with CE marking

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PRICE

MODEL

6000W OPTIPLEX 3015 FIBER II (6.0 kW) resonator IPG YLS-6000 CUT and chiller LC1.01-A.3.5/6

ADDITIONAL EQUIPMENT

PLO007	Donaldson DFPRO-4 Spark dust collector	included
RB165	Sheet lifter with CE marking	included



SERVICES

CI001	Transport with insurance	included
CI002	Installation and operator training	included

Total price : €170 000

The price does not include unloading costs. The buyer is responsible for the unloading.

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Machine History and Reference Photos:

Year of Manufacture: 2017 (installation 10.2017)

Condition: Good (used)

Operating Hours: approx. – the machine is in continuous operation

CNC POWER ON TIME: 15,200 hours

LASER POWER ON TIME: 14,100 hours

Functionality: Fully functional



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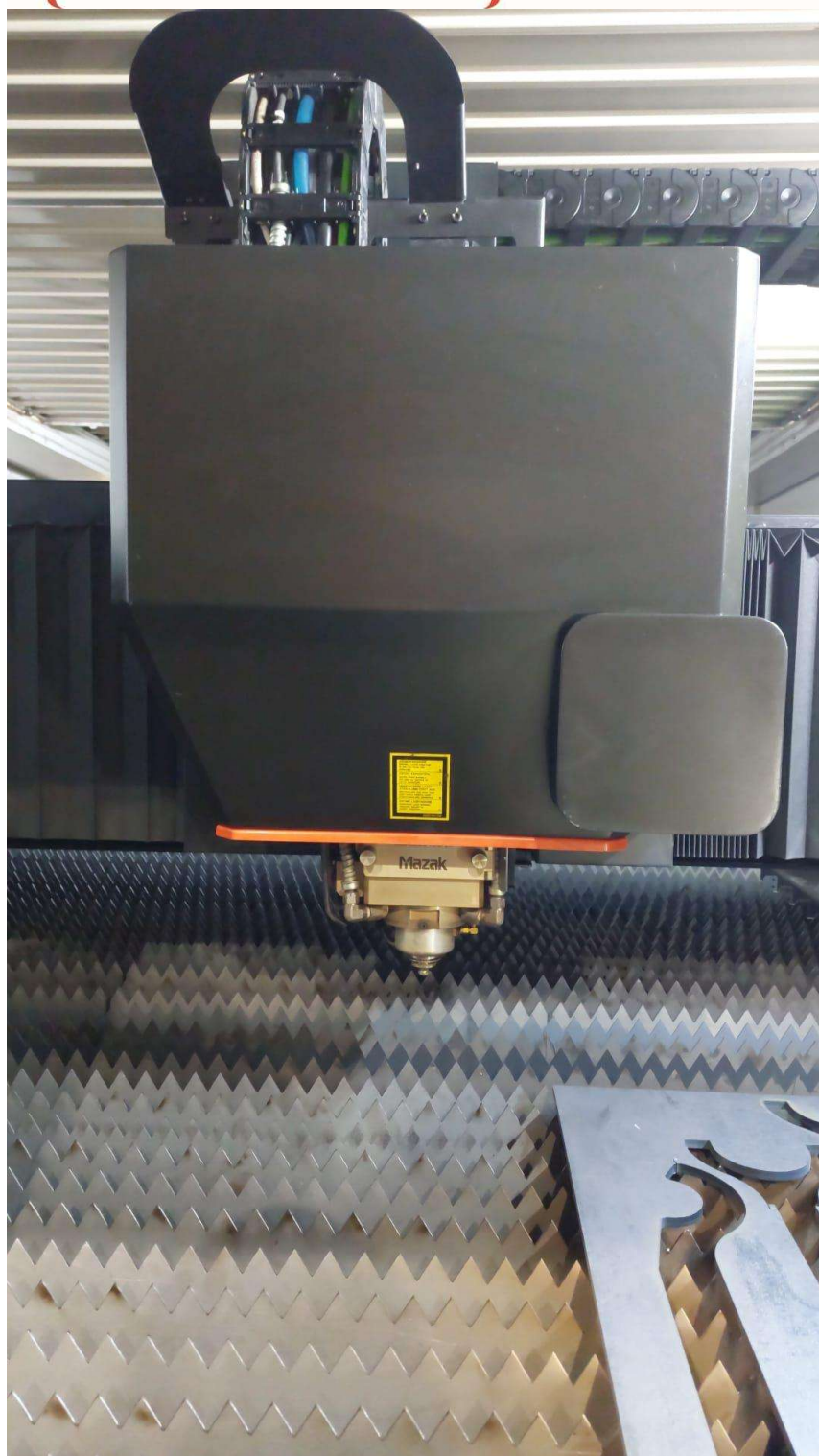


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QUOTATION



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