

STANDARD SPECIFICATION

Machine Specifications

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| Axis processing movement | Stationary table with X-Y-Z Movement (Flying Optics) |
| Maximum work piece size X-Y | 1525 mm x 3050 mm |
| Work table height | 900 mm |
| Axis travel X-Y | 1580 mm x 3100 mm |
| Z axis travel | 150 mm |
| Rapid traverse rate X-Y | 60 m/min |
| Rapid traverse rate Z | 60 m/min |
| Design | Bridge Gantry Style |
| Axis drive system X1/X2 - Y | Helical rack & pinion |
| Axis drive system Z | Belt drive |
| Positional accuracy X-Y | +/- 0.05 / 500 mm |
| Positional accuracy Z | +/- 0.01 / 100 mm |
| Repeatability X-Y-Z | +/- 0.03 mm |
| Cutting head | Mazak Multi-Function Torch |
| Z axis profiler | Non-contact type/ Z-axis follow type |
| Lighting system | LED light |
| Operation status indicator lights | Yellow/laser source on Red/Laser beam on |
| Programmable assist gas ports | Number of gas types: 3 (Oxygen, air and assist gas) Set pressure: 0.02 |
| System weight | 12,500 kg |
| | 12500 kg (2.0kW) |
| | 12800 kg (3.0kW) |
| | 12850 kg (4.0kW) |

Laser Generator Specifications

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| Generator style | LD Excited Yb fiber |
| Power stability | +/- 2% |
| Laser wave length | 1.07 μ m |
| Laser power mode selection | CW, Pulsed |

Chiller System

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| Circuit cooled | Torch, Laser |
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Control Specifications

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| Name | MAZATROL PREVIEW 3 |
| CPU | 64 bit |
| Data input | Touch Screen |
| Monitor | 15" XGA Color TFT |
| Graphic preview display | 3D Tool path |

STANDARD EQUIPMENT

These items are supplied as standard.

GENERAL MACHINE OPTIONS

SD216 Assist gas pressure NC control

AS678 Auto focus positioning

AS684 Auto nozzle cleaning

The torch head can be moved to the nozzle cleaning brush by program command which removes spatter that has adhered to the nozzle.

AS670 Automatic calibration function

Cutting distance position (gap between the nozzle and worksheet surface) must be maintained for dross free cutting. When installing a new nozzle, the gap distance is properly maintained with the use of auto profiler calibration. This function maximizes the time between necessary operator intervention.

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| SD200 | Auxiliary gas selector |
| NO513 | Fast shape pattern input |
| SD130 | Foundation kit (plates) |
| TL307 | Knife edge (100mm pitch) |
| SD168 | Manual workpiece clamp (2 * 2 pallets) |
| LN727 | Multi-control torch 2.0 (MCT2) |
| SD154 | Non contact profiler with retry function |
| AA130 | Non spec laser resonator lockout |
| AS685 | Nozzle cooling function |
| SD120 | One set of adjusting tools |
| SD282 | Oscillation indicator lamp |
| EL110 | Power transformer for European Market |
| SD189 | Without laser resonator |
| NO612 | Worksheet end detection co-ordinate |

MACHINE WINDOWS

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| CC096 | Laser light shielding window (1 piece) |
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MANUALS

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|-------|-------------------------|
| SD073 | One set of manuals (CD) |
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GAS PIPING

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| TL321 | 3rd assist gas piping (supply 3.0Mpa) |
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MACHINE COLOUR

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| SD728 | Mazak standard colour (flat white/silky black) |
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HEALTH & SAFETY

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| SD030 | Work light Located on the top of the machine to assist operators in the safe and effective setting up and use of the machine |
| ES230 | Preparation for dust collector |
| SD748 | Machine is with CE mark |

FACTORY AUTOMATION SYSTEMS

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| AS050 | Automatic power off by breaker trip Electric power is automatically turned off at the end of the machining program |
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NOZZLES

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| SD303 | Mazak high accuracy nozzle adapter (3 pieces) |
| SD317 | Mazak high accuracy pencil nozzle (single) 1.2, 1.5, 2mm |

PALLET CHANGER

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| PC010 | 2 pallet changer Facilitates the setting up of the next workpiece during machining. |
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SCRAP/PARTS CONVEYOR

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| CV222 | Scrap bucket |
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NC CONTROLLER

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| NC319 | 15" XGA Colour TFT Monitor |
| NO869 | LAN Port |
| NC083 | Mazatrol Preview 3 Control |

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| FT575 | NC retry function |
| MZ200 | Relocation detector |
| NO870 | USB port for personal computer |

The Mazatrol Preview 3 CNC features torch screen operation for improved response and ease of operation. The programming of simple shapes is easily done by selecting cutting patterns.

ADDITIONAL EQUIPMENT

MODEL

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| 0000W | Optiplex Nexus 3015 Fiber Base machine |
| UKRE050 | Chiller LC170.01-A.3.5/6 Water/air chiller suitable for YLS lasers up to 7kW of laser power. Chilling capability 17kW, R470C, double circuit for laser and optics. |
| UKRE203 | Delivery of Resonator |
| UKRE201 | Feeding Fiber diameter 100µm, Length 20mt HLC-8 connector (QBH compatible) |
| UKRE202 | Protective cap |
| UKSP340 | Starter kit |
| UKRE070 | XP1-XP1 adaptor cable |
| UKRE080 | XP2-XP2 adaptor cable |
| UKRE020 | Ytterbium Fibre Laser Resonator YLS-3000-CUT-YM-YM17 - power 3000W CW - BPP max 2.2mm*mrad - feeding fibre diameter 100µm - length 20m - HLC-8 connector (QBH compatible) |

GENERAL MACHINE OPTIONS

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| AS662 | Auto nozzle changer (8 tools) Nozzle change can be done automatically within a program. The optimum nozzle for piercing or cutting as well as a spare nozzle can be automatically changed for continuous automatic operation. Storage capacity: 8 nozzles. |
| SD118 | Intelligent monitoring and focus detection |
| TL360 | Manual clamp (1 piece) |

RESONATOR/CHILLER

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| SD184 | 3kW resonator preparation |
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EXHAUSTERS

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| UKEX020 | Laser extraction - DFPRO 4 reverse jet cartridge dust collector - ultra web flame retardant filter media - ART452 fan set - 4kW motor - 75dba free outlet - spark trap - EZ bin - 70dba pulse noise attenuation - compressed air regulator - total control board - air volume 3,000m³/hr @ 260 dpa total resistance |
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