

# Technical Data MX-Med



# MX-Med

## Porous coating system

- Titanium porous structure application
- Developed to apply for orthopedic implant surface coating
- Used for artificial hip joint(FDA approved) & knee coating



## Creating Innovative Solutions for Challenges in Medical Industries

### IDEAL POROSITY

Surface roughness ensured with porosity higher than 60% and ideal porosity(Pore size : 100~400um) that strengthens interfacial bonding between coating layer and substrate as well as biological fixation with bones.

### SUPERIOR CUSTOMIZATION

Entirely customizable for cups, knees, shoulders, ankles and more as needed.

### USER FRIENDLY INTERFACE

Simple coating procedure with easy step and easy controllable pore shape, thickness, roughness.

### ECONOMICAL ADVANTAGE

Cost effective compared with the conventional method and rapid fabrication.

### OPTIMIZED PRINTING HEAD

Minimized printing head to avoid the interference with the objects and optimized coating parameters.

### COMPLEX PARTS PRODUCTION

Simultaneous 5-axis motion for porous coating.



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## MX-Med Specification

| Laser                                    |       | MX-Med                |
|--|-------|-----------------------|
| Type                                     |       | Ytterbium Fiber Laser |
| *Laser Power                             | W     | Max. 100              |
| Safety Standard                          |       | EN60825-1             |
| Stage                                    |       |                       |
| X, Y, Z Stroke                           | mm    | 300 x 300 x 230       |
| A, C1, C2 Stroke                         | deg.  | -100 ~ +5 / 360 / 360 |
| Worktable Quantity                       | EA    | 2                     |
| Module                                   |       |                       |
| *Optical Module (Dual-head applicable)   |       | Porous Coating Module |
| Beam Diameter                            | μm    | 200                   |
| Feeding System                           |       |                       |
| Powder Feeding Rate (for Ti-6Al-4V)      | g/min | 0.5 ~ 10              |
| Powder Hopper Volume                     | liter | 2.6                   |
| *The number of powder feeding systems    | set   | 1 (Max. 2)            |
| Software                                 |       |                       |
| Operating System                         |       | Window 7 or higher    |
| HMI Program                              |       | MX-OS                 |
| *CAM Software                            |       | MiXO Pro              |
| Electrical Specification                 |       |                       |
| Electrical Power Type                    | Hz    | 3P+N+PE (at 50/60)    |
| Main Machine Voltage                     | V     | 380                   |
| Full Load Current                        | A     | 60                    |
| Mechanical Specification                 |       |                       |
| Machine Dimensions (without accessories) | mm    | 2,150 x 1,800 x 2,550 |
| Machine Weight                           | ton   | 2.7                   |

(\*Optional Item)

