Rev.2_201015

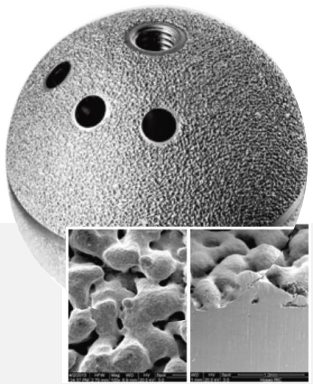
Technical Data

MPC (Metal Porous Coating)

MX-Med

InssTek

Creating innovative solutions for challenges in medical industries



SEM of Porous Coating by MX-Med

MX-Med provides excellent mechanical properties and Porosity fulfilling industrial production requirements.

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 easily controllable pore shape, thickness, roughness

ECONOMICAL ADVANTAGE

Cost effective compared with the conventional method and rapid fabrication

MINIMIZED HEAD MODULE

Minimized head module to avoid the interference with the objects and optimized coating parameters including Ti alloy

COMPLEX PARTS PRODUCTION

Porous coating possible using the simultaneous 5-Axis motion

Medical Application

Porous coating of artificial hip joint and Knee Replacement

MX-Med

MPC(Metal Porous Coating) Technology

Features

Titanium Porous Structure Application

MX-Med (MPC : Metal Porous Coating) is developed to apply for orthopedic implant surface coating

The system is currently being used for artificial knee & hip joint coating

Group	Specification			
	No.	Item	Specification	Unit
1. Laser	1.1	Type	Ytterbium Fiber Laser	-
	1.2	Laser Power	Max. 300	W
	1.3	Safety Standard	EN60825-1	-
2. Stage	2.1	X, Y, Z Stroke	300 x 300 x 230	mm
	2.2	A, C1, C2 Stroke	-100 ~ +5 / 360 / 360	Deg.
	2.3	Worktable number	2	EA
3. Module	3.1	Optical Module	SPM 200	-
	3.2	Beam Diameter	200	μm
4. Feeding System	4.1	Powder feeding Rate (for Ti6Ai4V)	0.8~6.8	g/min
	4.2	Powder Hopper Volume	Approx. 0.35	liter
	4.3	Number of Powder Feeder and hopper	2	Set
5. Software	5.1	Operating System	Window 7	-
	5.2	HMI Program	MX-OS	-
	5.3	CAM Software	Specialized CAM for MPC	-
	5.4	Feedback System	DMT® Closed-Loop Control	-
6. Electrical Specification	6.1	Electrical Power type	3P+N+PE (at 50-60 Hertz)	-
	6.2	Main machine voltage	380	V
	6.3	Full load current	60	A
7. Mechanical Specification	7.1	Machine Dimensions (without accessories)	1,900 x 1,750 x 2,550	mm
	7.2	Machine Weight	2.7	Ton

InssTek

InssTek Inc. +82.42.935.9646 sales@insstek.com
154 Sinseong-ro, Yuseong-gu, Daejeon, Republic of Korea 34109