

**Pioneer.
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MX-Fab
Technical Data

Rev.1_210101

MX-Fab (Standard)

DED Machine with DMT & 5-Axis AM CAM

Features

- Accurate & Stable feeder for multi material
- All in one system for fabrication
- Accurate CVM powder feeding system applied
- Easiest installation
- Efficient inert gas control system
- Compact size & efficient build volume



MX-Fab Specification

Group	MX-Fab Specification				
	No.	Item	MX-Fab1	MX-Fab3	Unit
1. Laser	1.1	Type	Ytterbium Fiber Laser (Rack Mount Type)		-
	1.2	*Laser Power	1,000 (*Max. 2,000)		W
2. Stage	2.1	X, Y, Z Stroke	500 x 600 x 400	800 x 1,000 x 700	mm
	2.2	A, C Stroke	-100 ~ +100 / 360	-100 ~ +100 / 360	Deg.
	2.3	Worktable size	300	500	∅
3. Module	3.1	*Optical Module	SDM 800	SDM 800	-
4. Feeding System	4.2	Powder feeding Rate (for Ti-6Al-4V)	0.05~50	0.05~50	g/min
	4.3	Powder Hopper Volume	Approx. 1.0	Approx. 1.0	liter
	4.4	*Number of Powder Feeder and hopper	2 Set (*Max. 6 Feeder)	2 Set (*Max. 6 Feeder)	Set
5. Software	5.1	Operating System	Window 7		-
	5.2	HMI Program	MX-OS		-
	5.3	*CAM Software	MX-CAM Software		-
	5.4	Feedback System	DMT® Closed-Loop feedback control system		-
6. Mechanical Specification	6.1	Machine Dimensions (without accessories)	1,450 x 1,950 x 2,350	1,850 x 2,600 x 3,200	mm
	6.2	Machine Weight	Approx. 3.0	Approx. 5.0	Ton
* 7. (Option) Atmosphere Control System	* Inert Gas Chamber (Machine size and Elec. Power will be changed)				
	7.2	Leak Rate	Class 2		-
	7.2	Gas	Argon (>99.999)		%
	7.3	Purification System	Min O2 Level <= 50		ppm

■ Each specification (such as machine size, weight and etc.) of MX-Fab can be modified for machine developing procedure

(*Optional Item)

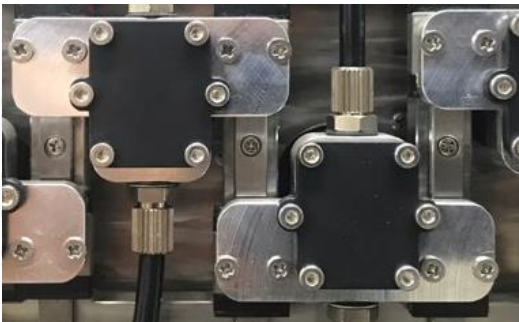
CVM Powder Feeding System

Stand-Alone and integrated system



Features

- Hexa-powder feeding system
- Real time feedback control
- Feed rate range 0.05~50g/min (based on Ti)
- Multi material fabrication
- Minimum quantity control Easiest installation

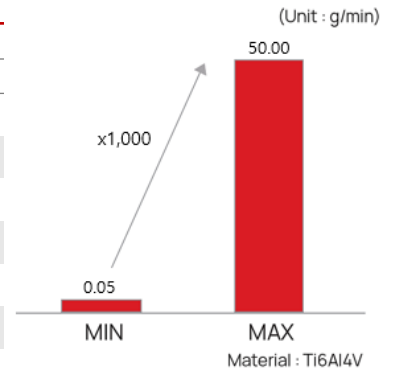


CVM Hexa-Powder Feeding System

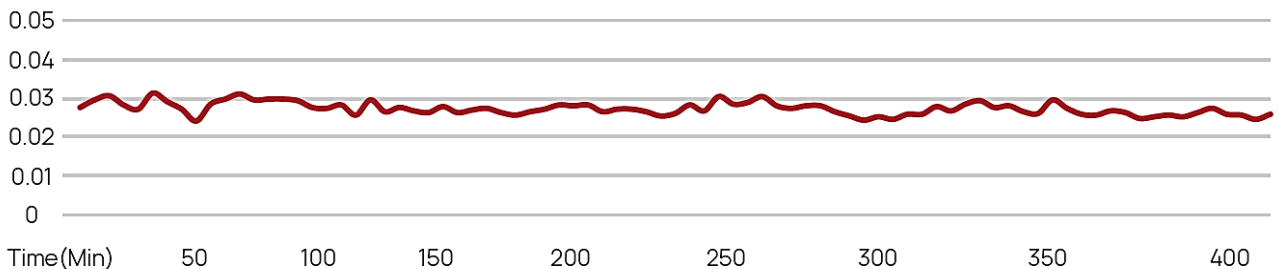
CVM(Clogged Vibration Method) powder feeder is new type of powder feeding system. It has impressively stable powder feed rate, perfect lifetime and broad feeding rate range, from 0.05g/min to 50g/min for single CVM Feeder block based on titanium. Applicable for gravity powder supply method and direct powder supply method with gas.

Group	CVM Feeder Specification			
	No.	Item	Specification	Unit
1. CVM Powder Feeder	1.1	Feeding rate	0.05~50g/min	-
	1.2	Powder hopper volume	1	Liter
	1.3	*Standard Feeding System	2 Feeders (*Max 6)	Set
2. Mechanical Specification	2.1	Feedback	ECT Sensor	-
	2.2	Dimension	800 x 800 x 1200	mm
	2.3	Machine weight	250 (With 6 Feeders)	Kg

(*Optional Item)



Ti Powder Feeding Test for 7 hours (Target Valve : 0.03g /min)





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