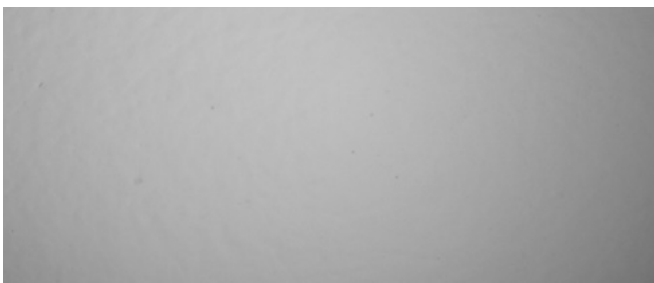
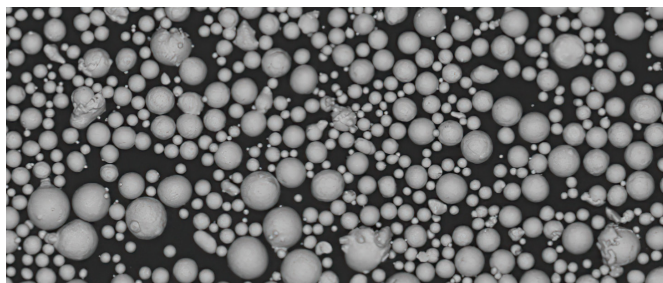


CPTi Pure titanium

[High strength, low density, excellent corrosion resistance and toughness, good plasticity]

Material Introduction

CPTi is a pure titanium powder that does not require heat treatment for strengthening. Its excellent formability makes it easy to weld and brazing. In addition, its long-term operating temperature can reach 300 °C.



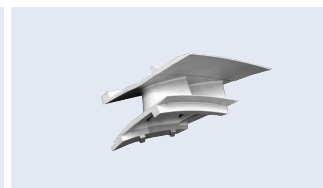
Applications

Biomedical: artificial joints, dentures, and implant support frames, etc.

Aerospace: aircraft and engine parts.



Dental frameworks



Aircraft blades

Chemical Composition (wt.%)

Ti	Fe	C	O	N	H	/
Bal.	≤0.25	≤0.1	≤0.15	≤0.03	≤0.015	/

Physical Property

Granularity(μm)			Sphericity	Loose density (g/cm ³)	Tap density (g/cm ³)	Flowability (s/50g)
D10	D50	D90				
≥15	30-40	≤63	≥0.9	≥2.4	≥2.8	≤35

Parameters

Laser power(W)	Laser speed(mm/s)	Scanning spacing(mm)
250	1250	0.1

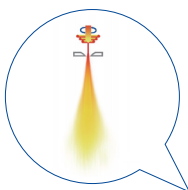


Mechanical Property

Test Temperature		Heat-Treated	
Room Temperature	Tensile Strength/MPa	Yield Strength/MPa	Elongation/%
	≥ 350	≥ 250	≥ 30.0

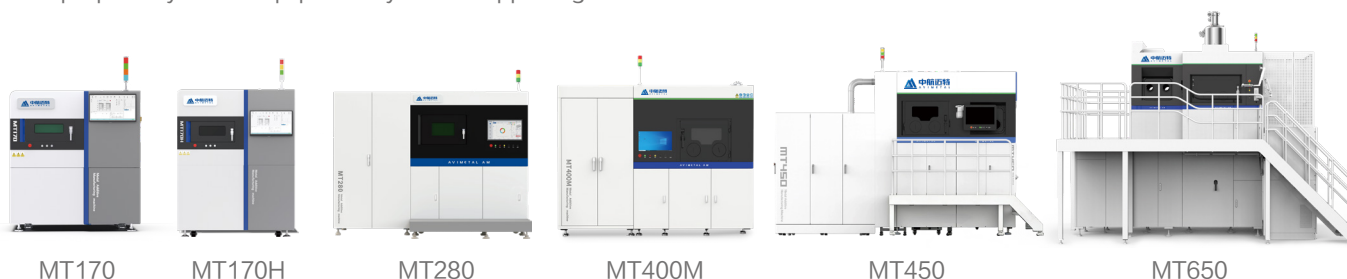
Advanced Powder Metallurgy Technology

The powder metallurgy technology and equipment production line—
Electrode Induction Gas Atomization (AVI-EIGA)



Adapting Devices

10+ proprietary LPBF equipment systems supporting build sizes from 100 mm to 1500 mm.



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