

Electron Beam Melting Machine



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Electron Beam Melting Machine (Y150)



- The forming process is open source, and the development of new material system is convenient and quick.
- Less powder loading per heat, low cost of machine use and maintenance.
- Smaller forming chamber size is optional and material selection is more flexible.
- Applicable materials: Titanium and titanium alloy; Tungsten, molybdenum, tantalum, niobium and other refractory metals; Titanium aluminum alloy; Brittle and difficult processed materials; Copper and copper alloy; Zirconium alloy; Nickel-base superalloy; Ceramics and metallic composites.

Performance

Manufacturing method	Powder Bed Fusion
Process	Hot process
Electron beam correction	Automatic(Focus, Astigmatism, Distortion)
Max. build size	150×150×180mm ³
Beam power	3kw
Electron accelerating voltage	60kv
Beam current	0-50mA
Filament life	>60h
Cathode type	Directly heated tungsten cathode
Min. beam diameter	≤300μm
Max. powder bed preheat temperature	1100°C
Ultimate vacuum	5×10 ⁻³ Pa
Build accuracy of components	±0.2mm
External dimension	2000×1200×2150 mm ³
Machine weight	1.5t
Data format	STL

Electron Beam Melting Machine (Y150 Plus)



- Equipped with high-precision indirectly heated electron gun so that satisfy the finer electron beam spot and higher forming accuracy, it is specially designed for the precise manufacturing of complex components such as orthopedic implants.
- Less powder loading per heat, low cost of machine use and maintenance.
- Applicable materials: Titanium and titanium alloy; Tantalum; Zirconium Niobium alloy and other medical materials.

Performance

Manufacturing method	Powder Bed Fusion
Process	Hot process
Electron beam correction	Automatic(Focus, Astigmatism, Distortion)
Max. build size	170×170×180mm ³
Beam power	3kw
Electron accelerating voltage	60kv
Beam current	0-50mA
Filament life	>500h
Cathode type	Indirectly heated tungsten cathode
Min. beam diameter	≤100μm
Max. powder bed preheat temperature	1100°C
Ultimate vacuum	5×10 ⁻³ Pa
Build accuracy of components	±0.1mm
External dimension	2000×1200×2150mm ³
Machine weight	1.5t
Data format	STL

Electron Beam Melting Machine (T200)

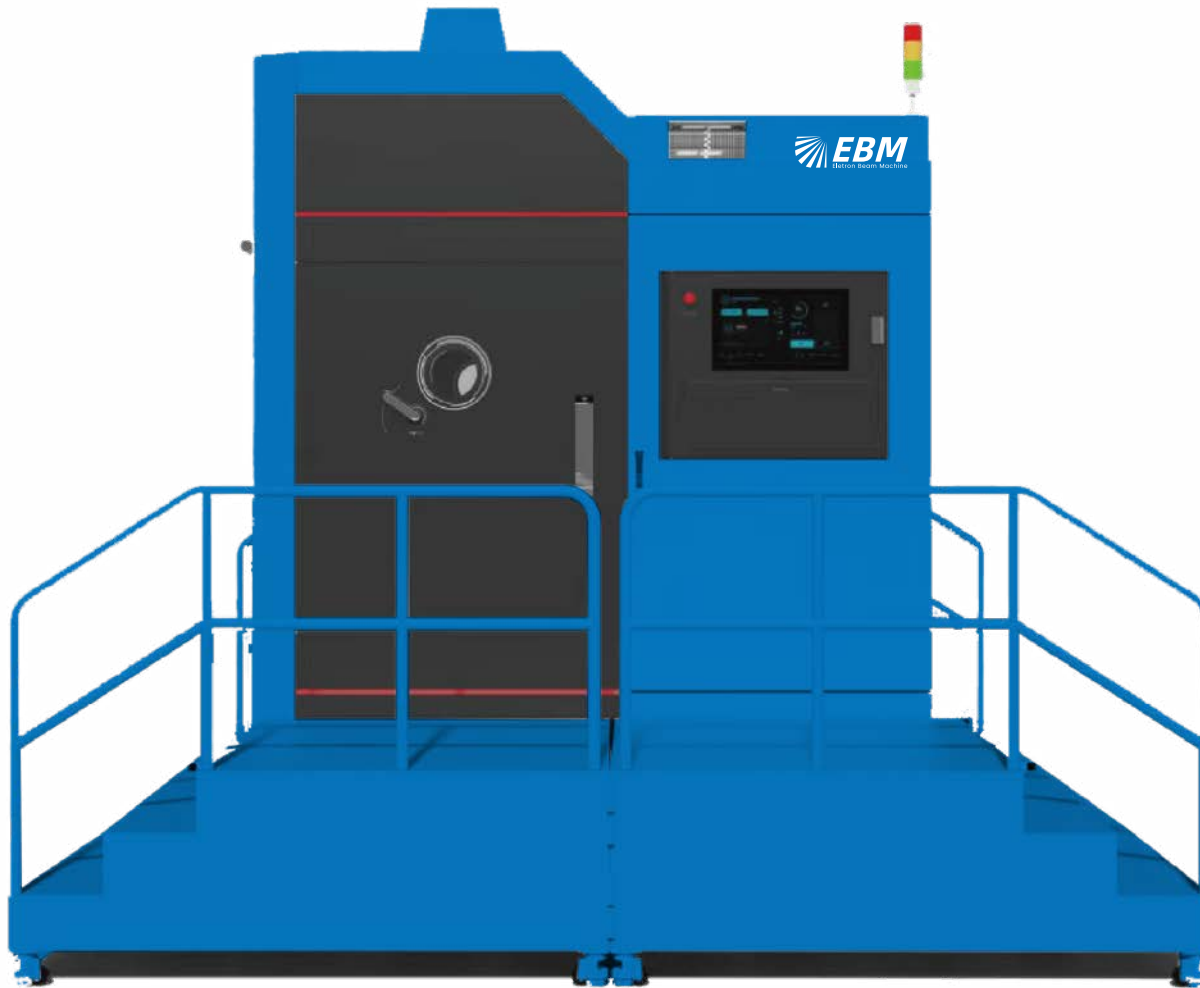


- Equipped with a high-power, high-precision and long-life indirectly heated electron gun that can quickly preheat the powder bed of 200×200 mm² up to 1300°C above.
- Larger printing size can fully exert the advantages of stacked printing, which can satisfy the demand of high precision, low cost and mass production of complex parts, such as orthopedic implants, TiAl blade and other crack-sensitive materials, tungsten and niobium and other refractory metal and alloys.
- Applicable materials: Titanium and titanium alloy Tantalum Zirconium niobium alloy and other medical materials; Titanium aluminum alloy; Brittle and difficult processed materials; Tungsten niobium, and other refractory metals and alloys.

Performance

Manufacturing method	Powder Bed Fusion
Process	Hot process
Electron beam correction	Automatic(Focus, Astigmatism, Distortion)
Max. build size	200×200×450mm ³
Beam power	6kw
Electron accelerating voltage	60kv
Beam current	0-100mA
Filament life	>500h
Cathode type	Indirectly heated tungsten cathode
Min. beam diameter	≤100μm
Max. powder bed preheat temperature	1300°C
Ultimate vacuum	5×10 ⁻³ Pa
Build accuracy of components	±0.1mm
External dimension	2400×1900×3600mm ³
Machine weight	4.5t
Data format	STL

Electron Beam Melting Machine (H400)



- Larger build size, heat source power and higher melting efficiency can satisfy the manufacturing demand of large-size complex parts and the mass production of small and medium-size complex parts in aerospace, nuclear industry, weapons, automotive and other industries.
- Applicable materials: Titanium and titanium alloy; Copper and copper alloy.

Performance

Manufacturing method	Powder Bed Fusion
Process	Hot process
Electron beam correction	Automatic(Focus, Astigmatism, Distortion)
Max. build size	400×400×400mm ³
Beam power	6kw
Electron accelerating voltage	60kv
Beam current	0-100mA
Filament life	>500h
Cathode type	Indirectly heated tungsten cathode
Min. beam diameter	≤300μm
Max. powder bed preheat temperature	750°C
Ultimate vacuum	5×10 ⁻³ Pa
Build accuracy of components	±0.3mm
External dimension	3900×5200×3500mm ³
Machine weight	7.5t
Data format	STL