



Kings 3D SLM Printers Dental Applications

Company profile

Shenzhen Kings 3D Overview:

- Leader in advanced 3D printing solutions since 2008.
- Operates South China's largest R&D and manufacturing base for 3D printing machines and materials.
- Has one of China's largest customized 3D printing service centers.
- Specializing in dental, automotive, energy, aerospace & defense, molds & tools, and research & study.
- Exceptional growth in dental industry, specializing in professional 3D digital solutions for oral healthcare.

overview

Kings M100E/H is a cutting-edge 3D printer tailored for the dental labs. With its refined design and upgraded build cylinder, it delivers exceptional precision and efficiency, specializing in processing materials like Titanium (Ti), Cobalt-Chrome (Co-Cr), Stainless Steel (SS) and more. Ideal for R&D and production in dentistry, Kings M100 excels in crafting small precision parts such as crowns, dental bridges, denture frameworks, implants, and more.



Technical Data

100E/H	
External Dimensions (L x W x H)	735 x 920 x 1780mm (≈28.94x36.22x70.04 in)
Build Cylinder Size (L x W x H)	100 x 100 x 100mm (≈3.94x3.94x3.94 in)
Layer Thickness	0.02mm-0.2mm (≈0.000787-0.00787 in)
Scanning Speed	15m/s
Laser Type	M100E: Domestic laser 500Wx1 M100H: IPG laser 500Wx1
Galvanometer	High Precision Scanning System
Inert Gas Protection	Argon / Nitrogen
Operating System	64 bit Windows 10
Comprehensive Software	Kings 3D Self-developed Control System
Data File Format	STL or Other Convertible Format
Power Supply	220V AC 50/60HZ 32A Single Phase
Operating Ambient Temperature	15-30°C
Powder Delivery	Double Cylinder One Way Powder Feeding

Kings M150E/H/ED/HD/T

- > All closed looped powder handling system high precision & high quality



Advantages

More economic



Thermal control system

- Reliable water chiller
- Prolong printer lifespan



Compact size

- Space-saving
- Low production costs



Seamless printing chamber

- Avoid metal oxidation
- Better printing quality



Upgraded air filtration system

- Filtration rate 99.90%
- Efficient powder recovery

More efficient



High-end optical components

- High precision & fine details
- High printing quality



Customized for dentistry

- 150x150mm build size
- 200 crowns for 4h



Double airflow fields

- Enhanced printing outcome
- Optical system protection



Self-developed materials

- Extensive variety
- Cost-effective & efficient

Easier



Fully Pop-up Piston

- Easy powder replacement
- Avoid materials mixture



Self-developed Software

- Easy Navigation
- Tailored Printing Packages



Kings services

- Thorough consultation
- Complete tech support



Modular design

- Simple trouble-shooting
- Flexible layout

overview

After multiple technical advancements, the Kings M150 series printers exhibit outstanding performance, boasting low operating costs and high precision. Tailored to meet the stringent requirements of the dental industry, our metal printers ensure unparalleled precision, reliability, and efficiency, making them the top choice for dental professionals seeking superior quality in 3D printing solutions.



Technical Data

M150E/H/ED/HD/T	
External Dimensions (L x W x H)	M150E/ED/H/HD: 1280 mm×860 mm×1780 mm (≈50.39×33.86×70.08 in) M150T: 1462 mm×894 mm×1795mm (≈57.56×35.2×69.25 in)
Build Cylinder Size (L x W x H)	M150E/ED/H/HD: 150x150x150mm (≈5.91x5.91x5.91 in) M150T: 150 mm×150 mm×120 mm (≈5.91x5.91x4.72 in)
Layer Thickness	0.02mm~0.2mm (≈0.000787x0.00787 in)
Scanning Speed	15m/s
Laser Type	M150E: Domestic laser 500W×1 M150ED: Domestic laser 500W×2 M150H: IPG laser 500W×1 M150HD: IPG laser 500W×2 M150T: IPG laser 500W×1
Galvanometer	High Precision Scanning System
Inert Gas Protection	Argon/Nitrogen
Operating System	64 bit Windows 10
Comprehensive Software	Kings 3D Self-developed Control System
Data File Format	STL or Other Convertible Format
Power Supply	220V AC 50/60HZ 32A Single Phase
Powder Delivery	M150E/ED/H/HD: Double Cylinder One Way Powder Feeding M150T: Double Cylinder Two Way Powder Feeding
Operating Ambient Temperature	15-30 °C
Materials	CoCr, 316L, Ti6Al4V, AlSi10Mg, In 718, CuSn10, 18Ni300, and more materials

Kings Dental Applications and materials



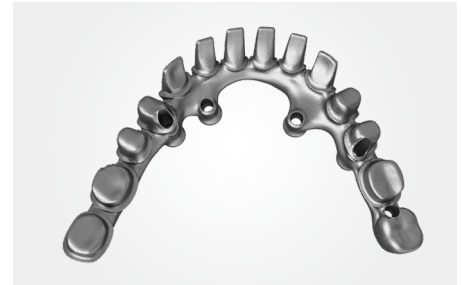
Part Name:
Frameworks/Partial

Function:
RPD



Part Name:
Dental crowns/bridges

Function:
Metal-ceramic crown



Part Name :
Malo implant bridge

Function :
Implants



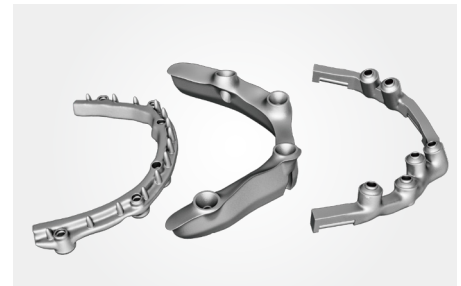
Part Name :
Ligual wire

Function :
Dental beauty



Part Name :
Maintainers

Function :
Dental beauty



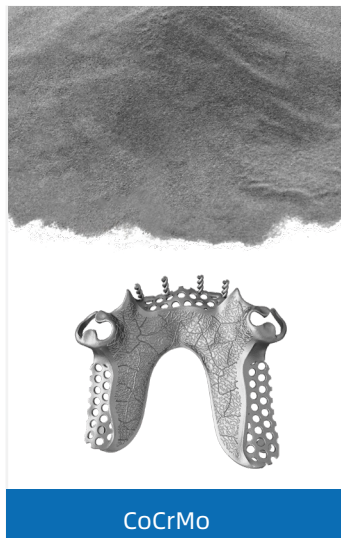
Part Name :
Guider

Function :
Guider the implants

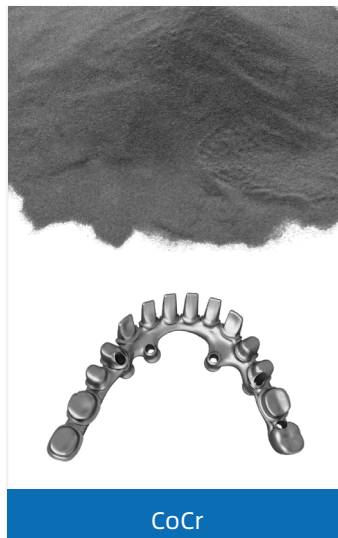
Materials



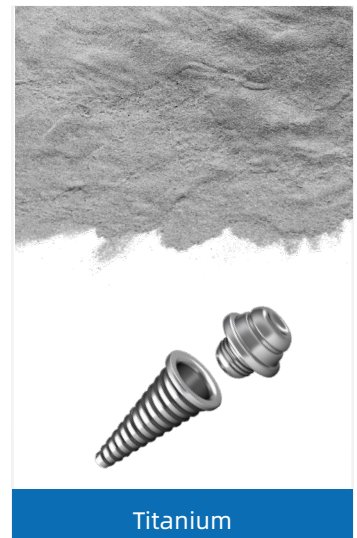
CoCrMoW



CoCrMo



CoCr



Titanium

Case Study



Dental Frame

■ Build Data

- Kings M150E
- Cobalt-Chrome
- 30 μ m layer thickness
- Weight 10g

■ Benefits of applying the Kings SLM Solution

- Efficient production of personalized dental frames with complex geometries
- Offers cost advantages over conventional manufacturing
- Enables customization



Malo Implant Bridge

■ Build Data

- Kings M150T
- Titanium
- 30 μ m layer thickness
- Weight 8.1g

■ Benefits of applying the Kings SLM Solution

- Efficient production of fit and function-focused Malo implant bridge
- Cost-effective compared to conventional manufacturing
- Malo bridge for Maxilla and Mandible with high precision



Dental Crown

■ Build Data

- Kings M100E
- Cobalt-Chrome
- 30 μ m layer thickness
- Weight 1g

■ Benefits of applying the Kings SLM Solution

- Efficient production of dental crown with high quality and fine details
- Productivity and cost advantages over traditional manufacturing
- Enabling mass customization

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