

CREATOR

3D Metal Printer for Precision Components

The CREATOR 3D metal printer offers all the advantages of additive manufacturing. Components and constructions in almost every geometric shape that cannot be manufactured using traditional manufacturing techniques can be created easily and quickly – without the need for additional tools.

At the heart of the system is a 250 W fiber laser that ensures a consistent process conditions and a fine resolution, high component density and surface quality due to its beam quality and performance stability.

The handling and processing of the printing data is realized directly via the CAD file – with the help of the 3D printing module integrated into the CAD/CAM software.



FEATURES & BENEFITS

- Portable controller provides the most intuitive graphical user interface running on a tablet
- Powder reservoir can contain almost double the powder quantity
- Maximum productivity by a unique circular coater design
- Simple and precise positioning of the building platform due to the zero-point clamping system
- Integrated filter system cleans the oxygen-free atmosphere within the construction chamber
- 250 W laser power source provided with built-in tuning

APPLICATIONS

- · Dental and Medical
- Jewelry
- Aerospace
- Engineering



| SPECIFICATIONS | CREATOR | CREATOR RA | | | |
|--|--|--|--|--|--|
| Laser Power Type | Yb: Fiber 250 W | | | | |
| Laser Wavelength (nm) | 1070 | | | | |
| Building Platform/Volume (diameter x height) | 100 mm x 110 mm (3.9 x 4.3 in.) | | | | |
| Reservoir Volume | 110 mm x 200 mm (4.3 x 7.9 in.) | | | | |
| Material Deposition | Scraper | | | | |
| Repeatability (µm) x: y: z: | 15 15 15 | | | | |
| Minimum Feature Size (μm) x: y: z: | 80 80 20 | | | | |
| Typical Accuracy (μm) | 40 | | | | |
| Ready-to-run Materials with Developed Print Parameters | Stainless Steel 17-4 PH Cobalt-Chrome CoCr Bronze CuSn8 | Titanium Ti6Al4V, AlSi10Mg + Non-Reactive Materials | | | |
| Extraction Unit | Non-Reactive Materials | Reactive and Non-Reactive Materials | | | |
| SPACE REQUIREMENTS | | | | | |
| Dimensions | 717 mm x 858 mm x 1794 mm (28.2 x 33.8 x 70.6 in.) | | | | |
| Weight | 350 kg (771.6 lbs) | 360 kg (793.7 lbs) | | | |
| FACILITY REQUIREMENTS | | | | | |
| Electrical Requirements | 230 V/1 Ph/50 Hz/16 A | | | | |
| Compressed Air Requirements | No | | | | |
| Gas Requirements | Nitrogen/Argon | | | | |
| Cooling | Air | | | | |
| CONTROL SYSTEM AND SOFTWARE | | | | | |
| Software Tools | APP SUITE™ | | | | |
| Control Software | CREATOR Controller | | | | |
| Operating System | Microsoft Windows | | | | |
| Input Data File Formats | STL, STEP, IGES, Object | | | | |
| Network Type and Protocol | Ethernet | | | | |
| ACCESSORIES | | | | | |
| Recycling System | Optional | | | | |
| HANDLING | | | | | |
| Material Loading | Manual | | | | |
| | | | | | |

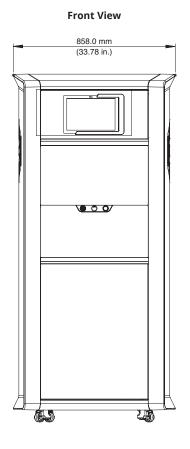


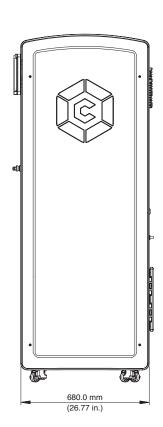
| SYSTEM | | CRE <i>A</i> | ATOR | | | | |
|------------------------|-----------------------------------|------------------------------|-------------------------------------|------------------------------|---------------------------------|-------------------------------|--|
| | CREATOR RA | | | | | | |
| MATERIAL | Tool Steel and Stainless Steel | Co-Alloys | Ni-Alloys | Cu-Alloys | Al-Alloys | Ti-Alloys | |
| MATERIAL PROPERTIES | High Hardness and Toughness | High Strength | High Corrosion Resistance | High Corrosion Resistance | Good Processability | High Corrosion Resistance | |
| | High Corrosion Resistance | High Toughness | Increased Strength | Good Machinability | Good Electrical Conductivity | Good Machinability | |
| | Good Machinability | Good Corrosion Resistance | Good Anti-friction | High Strength, Low Weight | Good Alloying Properties | High Strength, Low Weight | |
| | | Good Bio Compatibility | Excellent Mechanical Strength | Good Bio Compatibility | Light Weight | Good Bio Compatibility | |
| | | | G | Low Thermal Expansion | | Low Thermal Expansion | |
| APPLICATION FIELDS | Medical Implants | Dental | Aerospace | Aerospace | Automotive | Aerospace | |
| | Spindles and | Medical Implants | Rocket Motors | Automotive | Industrial | Maritime | |
| | Screws Pressure Die | High Temperature | Pumps | Jewelry and Watchmaking | Aerospace | Motor Sport | |
| | Casting Molds | remperature | Tooling | Industries | | Bio Materials for Implants | |
| | Maritime | | Gas Turbines | Medical Sector | | ' | |
| | Aerospace | | Reactors | | | | |



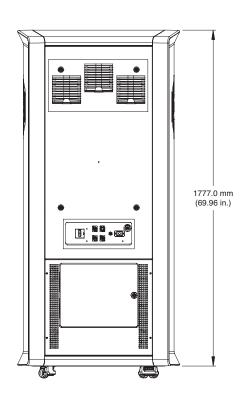
MECHANICAL SPECIFICATIONS

CREATOR





Side View



Rear View



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