

RAPID MANUFACTURING SYSTEMS DEDICATED TO DENTAL LABORATORIES

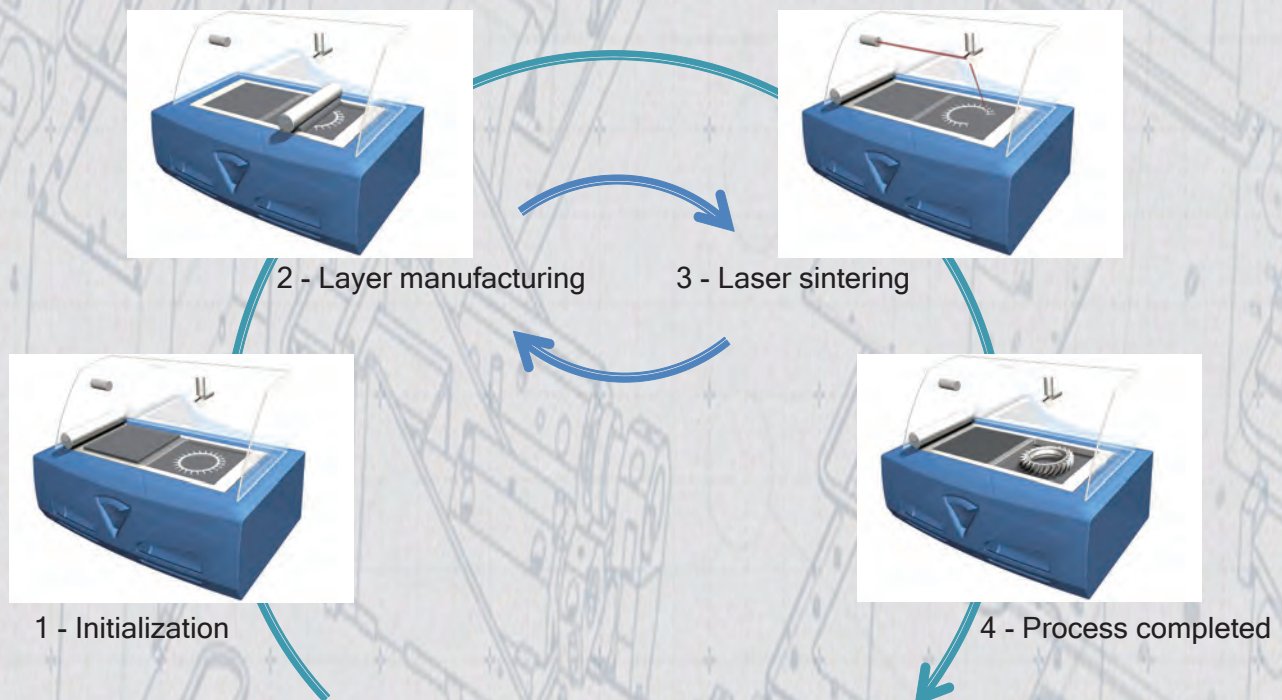
Founded in 2000, Phenix Systems designs, manufactures and markets laser sintering additive manufacturing equipments.

Thanks to its catalogue of patents and its highly specialized know-how in the use of the fine powders, Phenix Systems has become a recognized member of the sector for additive manufacturing equipments.

The parts are directly created from their three-dimensional perception in CAD software. Each representative section of the part is laser sintered in solid phase with or without instantaneous consolidation at the meeting point, depending on the material being used.

Since 2005, our machines for dental application manufacture metal frameworks daily in production centers and dental labs present on international markets. PXS Dental and PXM Dental systems, directly manufacture, without tooling, fixed and removable prosthesis in Cobalt-Chromium.

PHENIX PROCESS



PHENIX SYSTEMS is a registered trademark. Specifications subject to change without notice.

PXS DENTAL

PXS Dental offers a solution for the rapid manufacturing of prosthesis using laser sintering of metal powders which can directly be used by dental laboratories.

The production module is managed from a workstation, like a printer. It allows laboratories to have access to technology previously restricted to production centers.

The PXS Dental system is able to produce:

- 45 fixed prosthesis: 4.00(h)
- 90 fixed prosthesis: 7.15(h)
- 45 fixed prosthesis, 1 lower removable and 1 upper removable: 9.30(h)



TECHNICAL DATA

Fiber laser	P=50 W - $\lambda=1070$ nm
Building volume	100 x 100 x 80 mm
Material	Nickel free Cobalt-Chromium ST2724G
Repeatability	x=20 μ m ; y=20 μ m ; z=20 μ m
Loading system	Manual
CAD/CAM Software	Phenix Dental
Control software	PX Control
CAD read format	STL
Dimensions	L = 1,20 m; l = 0,77 m; H = 1,95 m
Weight	About 1000 kg
Energy (power supply requirements)	Max. 5 KVA - 230 V Mono
Pneumatic	6-8 bars
Certification	CE

Class 1 laser machine in standard production
CEI 60825-1 (2007) ISO 11553-1 (2009)



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PXM DENTAL



PXM Dental is the latest addition to the «PX» range. This rapid manufacturing system of dental prosthesis using laser sintering, totally suits production centers with large manufacturing volumes.

This system was designed for a manufacturing environment for functional prototypes or complex parts in series. It contains a laser power adapted to a manufacturing volume larger than PXS Dental.

The PXM Dental system is able to produce:

- 200 fixed prosthesis: 5.00(h)
- 100 fixed prosthesis, 3 lower removables and 3 upper removables: ... 9.00(h)
- 6 lower removables and 6 upper removables: 10.00(h)



TECHNICAL DATA

Fiber laser	P=300 W - λ =1070 nm
Building volume	140 x 140 x 100 mm
Material	Nickel free Cobalt-Chromium ST2724G
Repeatability	x=20 μ m ; y=20 μ m ; z=20 μ m
Loading system	Semi-automatic
CAD/CAM Software	Phenix Dental
Control software	PX Control
CAD read format	STL
Dimensions	L = 1,20 m; l = 1,50 m; H = 1,95 m
Weight	About 1500 kg
Energy (power supply requirements)	Max. 8 KVA - 400 V Tri
Pneumatic	6-8 bars
Certification	CE

Class 1 laser machine in standard production
CEI 60825-1 (2007) ISO 11553-1 (2009)



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CAD / CAM SOFTWARE : PHENIX DENTAL V4



- Positioning of your 3D models on the manufacturing plate
- Automatic generation of production supports
- Calculation of laser trajectories
- Anti-collision detection
- Display of laser trajectories layer by layer
- Creation of manufacturing files



MATERIAL : ST2724G

Sin|Tech

- Cobalt-Chromium ST2724G developed by the company SINT-TECH, certified ISO 9001 and ISO 13485
- Nickel free material
- CE Certification **CE** 1014

ADVANTAGES OF PXS DENTAL AND PXM SYSTEMS

- Reduction of unit production cost
- Open system
- Nickel free Cobalt-Chromium
- Optimal mechanical features
- Quick and easy to use
- STL format

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