Roboze

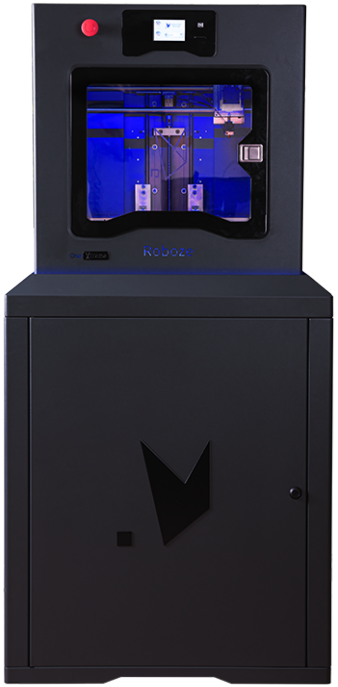
Roboze One Xtreme

Accelerate your production with finished and functional components

#PrintStrongLikeMetal #OnDemand

Roboze One Xtreme

Additive Manufacturing Solution



Roboze One Xtreme allows the production of finished components and parts to replace metals with a system that is closer to the needs of the **manufacturing industry.**

Why choose **Roboze One Xtreme: 7 technical materials** available, regenered and improved **Beltless System**, machine control and management of the **tollerances** and **repeatability** of the **3D printing** over time.

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Why print with Roboze One Xtreme?

Precision and reliability

The Beltless System uses **helical racks** and **pinions** in hardened steel as components of motion transmission. This coupling, with its high efficiency and easy maintenance, guarantees **positioning accuracy** of ± 15 µm and **movement repeatability** of ± 5 µm, ensuring a cumulative error close to zero even for long distances.

ADVANTAGES

- More accurate system than other components on the market;
- Reducing the risk of printing failure;
- It is not subject to long-term distortions;
- Repeatability of each print over time;
- User-friendly maintenance.

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Versatility of 3D printing materials

Roboze Polymers Pyramid

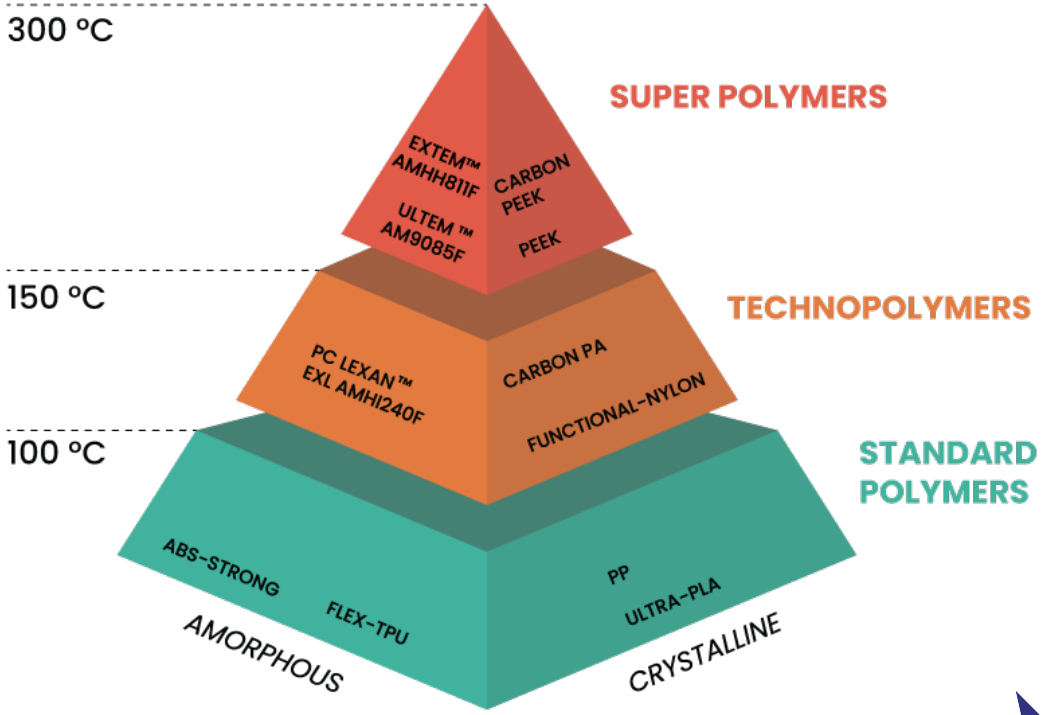
CARBON PA
PA + carbon fiber

Tensile Strength
Test Method: ASTM D638
Value: 138 MPa

FLEX-TPU
Thermoplastic polyurethane

ULTRA-PLA
Polylactic Acid

FUNCTIONAL-NYLON
Polyamide



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Quality Process Automation

Vacuum System

ADVANTAGES

- Special polymeric film for each filament;
- Optimized first layer adhesion;
- Easier and faster operations;
- Low tolerances;
- No deformations at high temperatures.

Automotive Collector
In Carbon PA

Built Sheets

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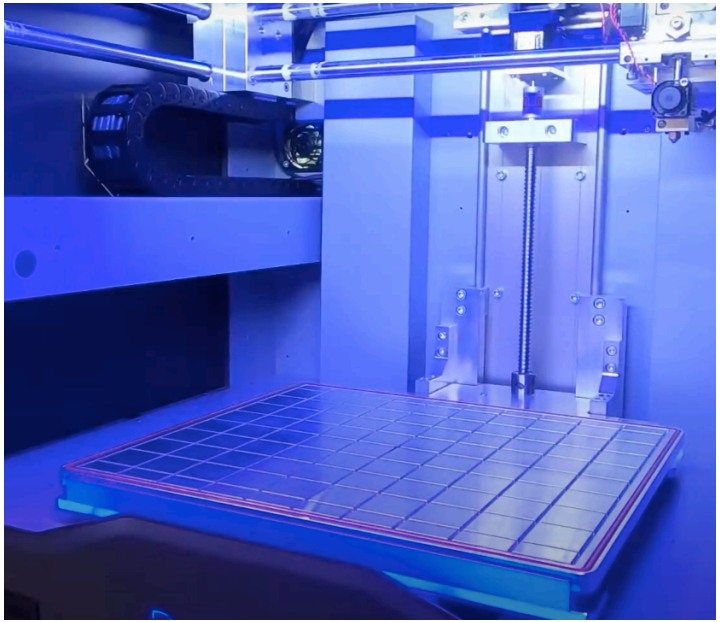
Quality Process Automation

Automatic Build Plate Leveling and Z Calibration



Automatic calibration of the Z axis

Automatic buildplate leveling

ADVANTAGES

- Automatic calibration of the Z axis corrects any thermal expansion of the plate and mechanical deformations;
- Eliminating the manual operations;
- Greater printing accuracy;
- Repeatable process and capable to remain the same over time;

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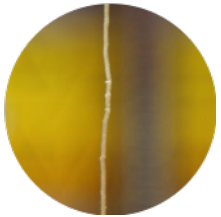
HT Filament Dryer

Time and Waste Reduction

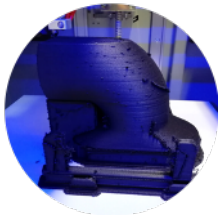
Issues while extruding:

Poor adhesion

Bubbles



Bad surface



Stringing

Warping

Oozing

DRYING PROCESS

1. Heat source;

2. Transfer of the water molecules from the core to the surface of the filament;

3. Water molecules removal.

ADVANTAGES

- Maximum temperature: 120 °C - 248 °F;
- System for the automatic loading of the filament, equipped with End of filament sensors;
- User friendly.

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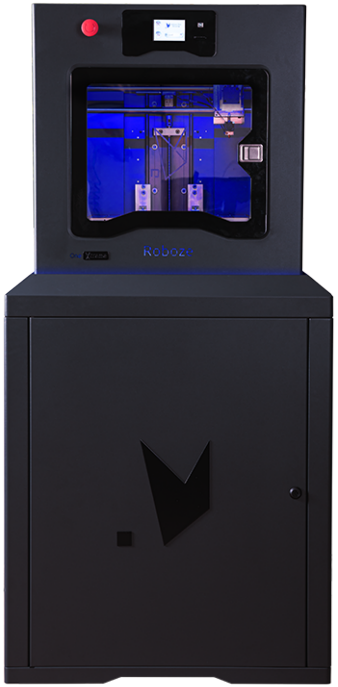
Overview



Build Volume	300 X 250 X 200 mm 11.8 x 9.8 x 7.9 in	
Number of Extruders	1	
Extruder Temperature	300 °C/572 °F	
Bed Temperature	100 °C/212 °F	
Vacuum Plate	Yes	
Accuracy	XY: 15 µm/590.55 µin	Z: 25 µm/984.25 µin
Resolution	Quality profile 0.18 mm/0.007 in	Speed profile 0.24 mm/0.009 in
Accessories	Roboze HT Dryer; Support System Cabinet; Roboze HT Oven (optional*)	
Materials		
ULTRA-PLA	X	
STRONG-ABS	X	
FUNCTIONAL-NYLON	X	
ABS-ESD	X	
CARBON PA	X	
PP	X	
FLEX-TPU	X	
PEEK		
CARBON PEEK		
PRINT SPEED	4000 mm/min - 157 in/min	

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