



Roboze

Roboze One Xtreme

Accelerate your production with
finished and functional components



#PrintStrongLikeMetal #OnDemand

Roboze One Xtreme

Additive Manufacturing Solution



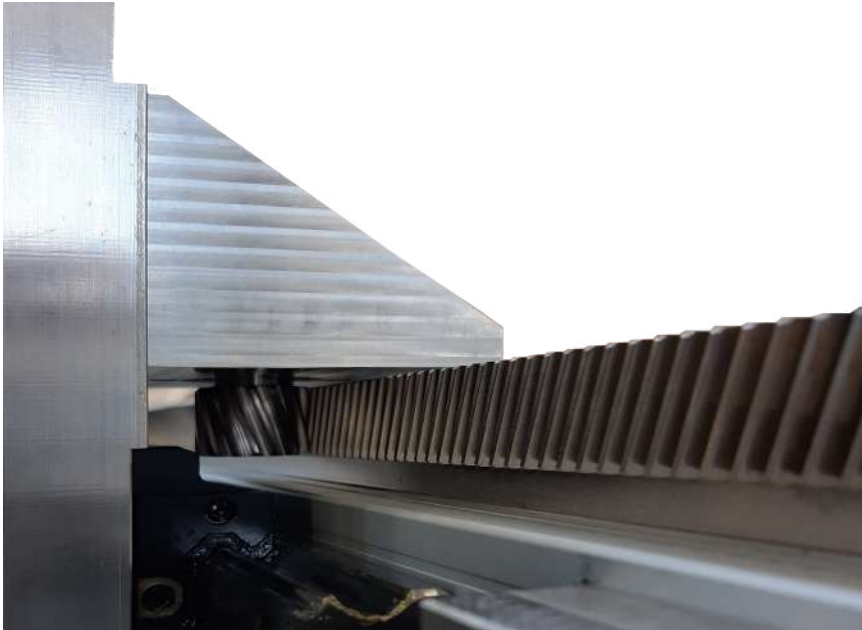
Roboze One Xtreme allows the production of finished components and parts to replace metals with a system that is closer to the needs of the **manufacturing industry**.

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

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 $\pm 15 \mu\text{m}$ and **movement repeatability** of $\pm 5 \mu\text{m}$, 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.

Versatility of 3D printing materials

Roboze Polymers Pyramid



CARBON PA
PA + carbon fiber

Tensile Strength

Test Method: ASTM D638
Value: 138 MPa



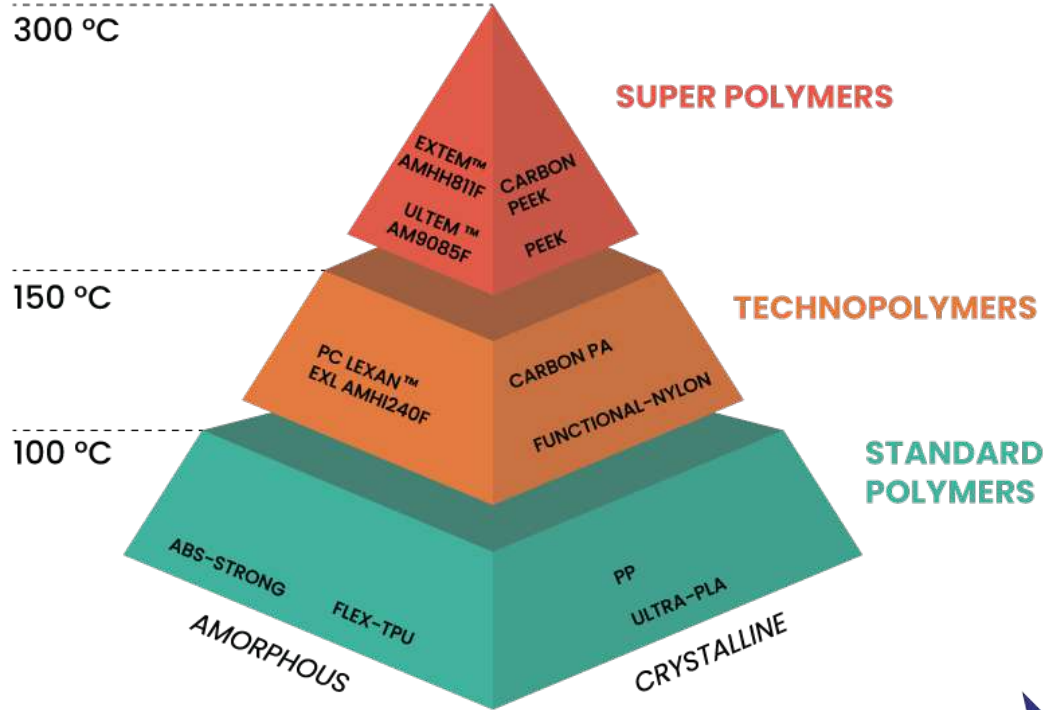
FLEX-TPU
Thermoplastic polyurethane



ULTRA-PLA
Polylactic Acid



FUNCTIONAL-NYLON
Polyamide



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.



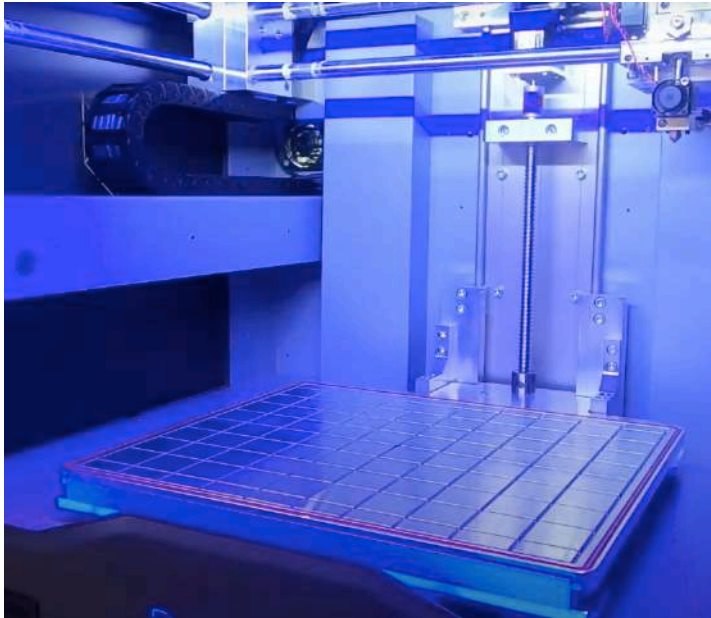
Automotive Collector
In Carbon PA



Built Sheets

Quality Process Automation

Automatic Build Plate Leveling and Z Calibration



Automatic calibration of the Z axis

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;



Automatic buildplate leveling

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.

Roboze One Xtreme

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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