

The entry level of high performance additive manufacturing

# Roboze Plus PRO



Metal Replacement like you have never seen it before

# Roboze Technology



## Accuracy and Repetability

Roboze's **patented gear motion system**, the **Beltless System**, has always been synonymous with repeatability and accuracy. The **Roboze Plus PRO** guarantees **printing precision of 0,59 mil** (15  $\mu\text{m}$ ) and repeatability of the printed parts



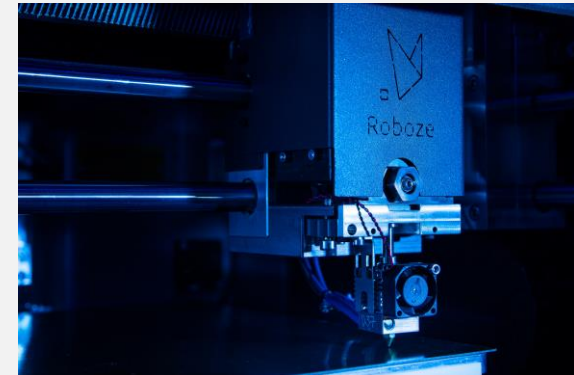
## Process Automation

The **complete automation** of all stages of the process reduces manual operations. From **the loading** of the material to the **self-calibration** of the build plate. Achieve the best by doing less.



## Ultra Quality and Ultra Fast Production

Produce **ultra-detailed** components in **PEEK** and **CARBON PEEK** and **ToolingX CF** with the **UltraQUALITY** profile. If you need equipments to accelerate the digitization of your warehouse, with the **UltraFAST** profile you get parts **up to 2x faster** than any other system on the market both in **Carbon PA PRO** and **Ultra PLA**.



Professional Series

# Roboze Solution



## Roboze Plus PRO

**The entry level of high performance additive manufacturing**

Functional prototyping and small series production with the widest range of superpolymers on the market

**HIGH-PERFORMANCE  
MATERIALS**

**ULTRA QUALITY &  
ULTRA FAST PRODUCTION**

**REPEATABILITY  
OVER TIME**

**15  $\mu$ m POSITIONING  
ACCURACY**

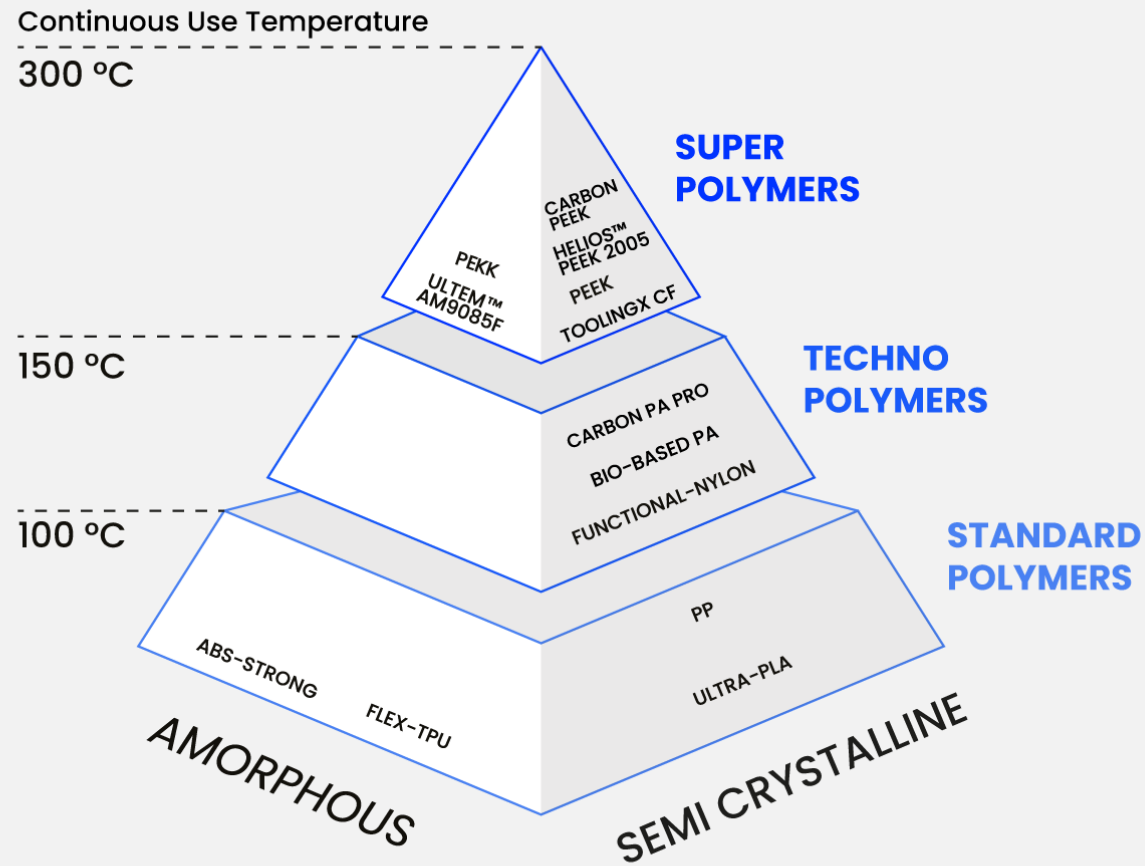
Professional Series

# Roboze Solution



Professional Series	
	Roboze Plus PRO
Build volume	300 x 250 x 220 mm 11.8 x 9.8 x 8.7 in
Extruder temperature	500 °C / 932 °F
Bed Temperature	150 °C / 302 °F
Vacuum System	Yes
Accuracy	XY: 15 µm / 590.55 µin Z: 25 µm / 984.25 µin
Resolution	Quality Profile Ultra Quality Profile Speed Profile Ultra Fast Profile
MATERIALS	
ULTRA-PLA	X
STRONG-ABS	X
FUNCTIONAL-NYLON	X
FLEX-TPU	X
PP	X
CARBON PA PRO	X
PEEK	X
CARBON PEEK	X
PEKK	X
TOOLINGX CF	X

# Engineered for Production



# Roboze Materials



## PEEK

Polyether ether ketone

Extreme chemical resistance

High thermal resistance

Self lubricating

### Continuous Use Temperature

Test Method: ASTM D3045  
Value: **250°C**

## Carbon PEEK

PEEK + Carbon Fibers

High compression strength

High mechanical properties

Ideal for metal replacement in the most extreme environments.

### HDT (load 1.82MPa)

Test Method: ASTM D648  
Value: **250°C**

## Carbon PA PRO

PA + Carbon Fibers

High tensile strength

High tensile modulus

Good thermal resistance

### Tensile Strength

Test Method: ASTM D638  
Value: **171 MPa**

## PEKK

Polyetherketoneketone

Low crystallization rate

Excellent printability

Good interlayer adhesion

### Flame Retardant

Test Method: UL94  
Value: **V0**

## TOOLINGX CF

PPS + Carbon Fibers

High stiffness

Chemical resistance

Low surface resistivity

### Water Absorption

Test Method: ISO 69  
Value: **<0.05%**

# Roboze Materials



**FUNCTIONAL-NYLON**  
Polyamide 6

Low wear and low friction coefficient  
Good chemical and mechanical resistance



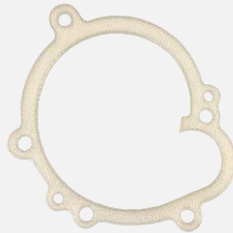
**STRONG-ABS**  
Acrylonitrile-butadiene-styrene

Good processability  
Impact resistance  
Low water absorption



**PP**  
Polypropylene

High chemical resistance, bump and abrasion.  
electric insulation properties.



**FLEX-TPU**  
Thermoplastic polyurethane

Abrasion and fatigue resistance  
High elasticity and good hardness  
Atmospheric agents and ozone resistance



**ULTRA-PLA**  
Polylactic Acid

High surface quality  
Easy to print  
Sustainable and hypoallergenic

Roboze 3D Printing to be competitive and generate profits

# Industrial Production Challenges

## PAPER PULP MOULD

MANUFACTURING



**TOOLINGX CF**



**810 g**



**157,5€**



**29 h 45 min**

**20% Infill**



## ACTUATION PLATE

ELECTRICAL



**PEKK**



**140 g**



**151€**



**7 h 6 min**

**100% Infill**







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