

Print super polymers and composites like no other

# Roboze One+400 Xtreme



**GORDIUSZ  
ALFA**

*Célhoz az eszköz*

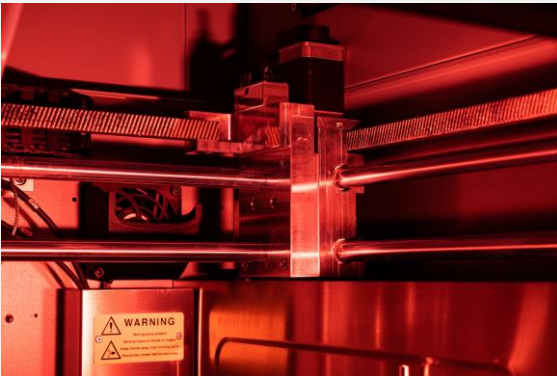
Metal Replacement like you have never seen it before

# Roboze Technology



## Accuracy and Repetability

Roboze's **patented gear motion system**, the **Beltless System**, has always been synonymous with repeatability and accuracy. The **Roboze One+400 Xtreme** guarantees **printing precision of 0,59 mil** (15  $\mu\text{m}$ ) and repeatability of the printed parts



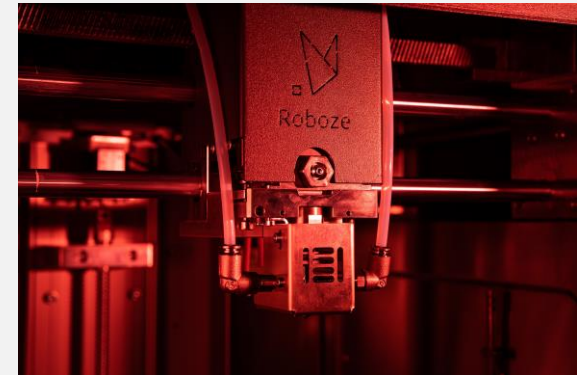
## Process Automation

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. The best by doing less.



## Ultra Quality and Ultra Fast Production

Produce **ultra-detailed** components in **PEEK** and **CARBON PEEK** with the **Ultra QUALITY** profile. If you need equipment to accelerate the digitization of your warehouse, with **Carbon PA** and its **Ultra FAST** profile you get parts **up to 2x faster** than any other system on the market.





## Roboze One+400 Xtreme

**Print super polymers and composites like no other**

From ultra-detailed PEEK parts to tooling for production lines

**HIGH-PERFORMANCE  
MATERIALS**

**ULTRA QUALITY &  
ULTRA FAST PRODUCTION**

**REPEATABILITY  
PROCESS OVER TIME**

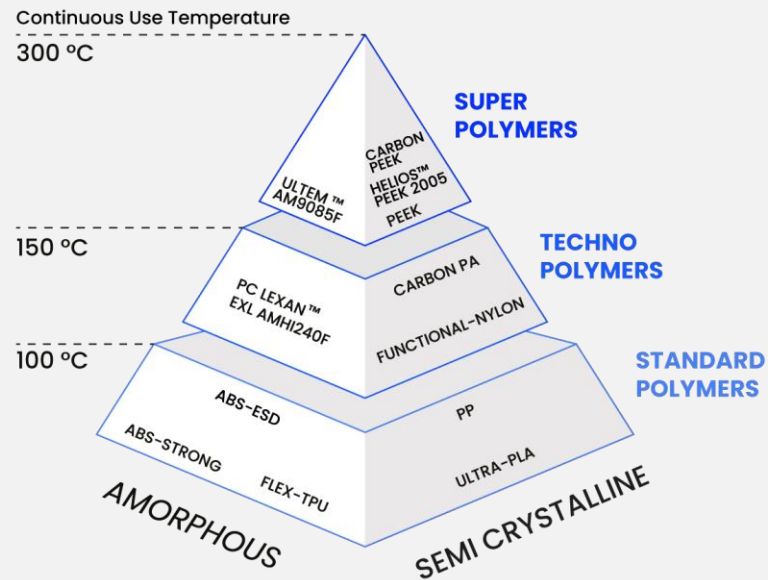
**15  $\mu$ m POSITIONING  
ACCURACY**

Professional Series

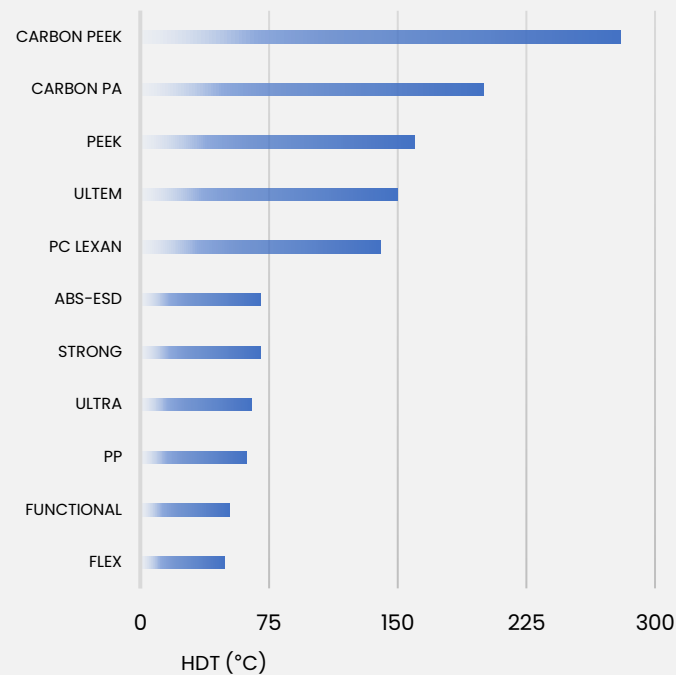
# Roboze Solution



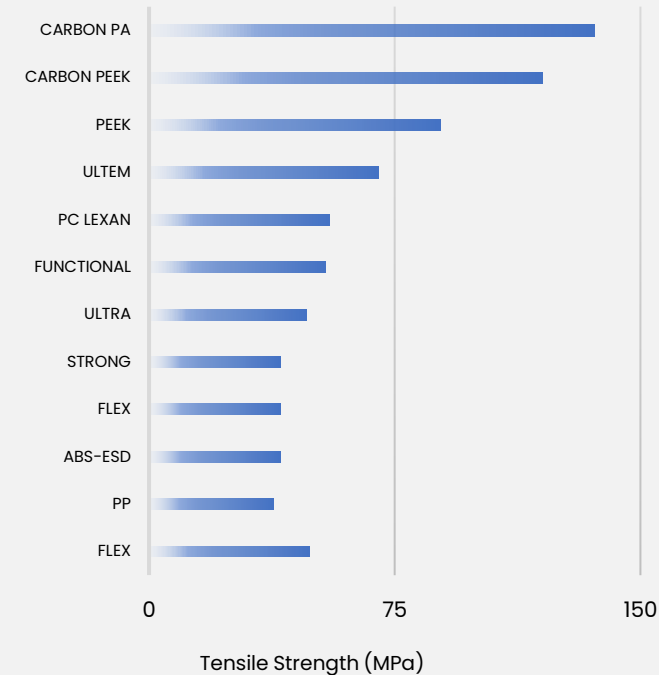
| Professional Series   |                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Roboze One+400 Xtreme |                                                                                                                                                                |
| Build volume          | 300 x 250 x 220 mm<br>11.8 x 9.8 x 8.7 in                                                                                                                      |
| Extruder temperature  | 500 °C / 932 °F                                                                                                                                                |
| Vacuum System         | Yes                                                                                                                                                            |
| Accuracy              | XY: 15 µm / 590.55 µin<br>Z: 25 µm / 984.25 µin                                                                                                                |
| Resolution            | Quality Profile: 0.18 mm / 0.007 in<br>Ultra Quality Profile: 0.12 mm / 0.005 in<br>Speed Profile 0.24 mm / 0.009 in<br>Ultra Fast Profile: 0.36 mm / 0.014 in |
| MATERIALS             |                                                                                                                                                                |
| ULTRA-PLA             | X                                                                                                                                                              |
| STRONG-ABS            | X                                                                                                                                                              |
| FUNCTIONAL-NYLON      | X                                                                                                                                                              |
| ABS-ESD               | X                                                                                                                                                              |
| FLEX-TPU              | X                                                                                                                                                              |
| PP                    | X                                                                                                                                                              |
| CARBON PA             | X                                                                                                                                                              |
| PEEK                  | X                                                                                                                                                              |
| CARBON PEEK           | X                                                                                                                                                              |



1. High-Heat resistance



2. Mechanical Properties



# Roboze Materials



**PP**  
Polypropylene

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



**FUNCTIONAL-NYLON**  
Polyamide 6

Low wear and low friction coefficient  
Good chemical and mechanical resistance



**ABS-ESD**  
ABS + Carbon Nanotubes

Electrostatic discharge protection with a surface resistivity of  $10^7 \Omega$  (the typical range is  $10^6$ - $10^9 \Omega$ )



**FLEX-TPU**  
Thermoplastic polyurethane

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



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

Good processability  
Impact resistance  
Low water absorption



**ULTRA-PLA**  
Polylactic Acid

High surface quality  
Easy to print  
Sustainable and hypoallergenic

# 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: **280°C**



## Carbon PA

PA + Carbon Fibers

High tensile strength

High tensile modulus

Good thermal resistance

### Tensile Strength

Test Method: ASTM D638  
Value: **93 MPa**

Roboze 3D Printing to be competitive and generate profits

# Industrial Production Challenges

## HV CONNECTOR

ELECTRICAL



PEEK



57.9 g



52 €



16 h 30 min

100% Infill



## BRACKET

MANUFACTURING



CARBON PA



968 g



169 €



20 h 42 min

100% Infill



Our official reseller:



**GORDIUSZ  
ALFA**

[www.gordiuszalfa.hu](http://www.gordiuszalfa.hu)

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