

UNIST 3D프린팅융합기술센터 장비 현황



POLYMER 3D PRINTER

PA12 · TPU · Resin ·
Ultem 1010/9085 · PEEK · ABS · PLA

Powder Bed Fusion

- P 770
- HT403P
- Fuse 1+ 30W
- HP Jet Fusion 5200

Material Extrusion

- CMBA 5025
- Multi-joint Large 3D Printing/Manufacturing Composite Process System
- F900
- EP-500
- Crosspro650
- Marktwo

Material Jetting

- J750

Vat Photo Polymerization

- microArch S230A
- Figure 4 standalone

» P 770

TECHNICAL DATA

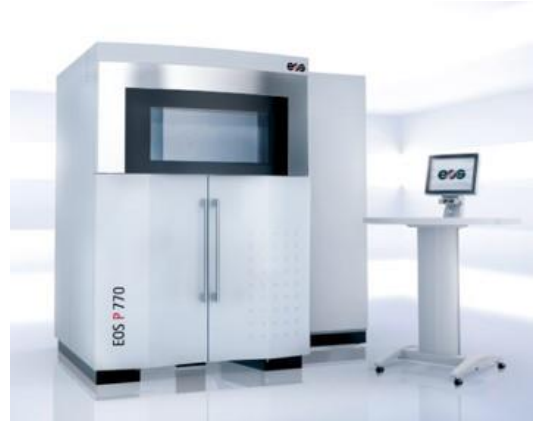
Manufacturer	EOS Gmbh
Building Volume	700 x 380 x 580 mm
Laser Type	CO2 Laser, 2 x 70 W
Laser Beam Diameter	500 - 600 µm
Scan Speed during Build Process Up	2 x 10 m/s
Layer Thickness	60 - 180 µm
Process Method	Powder Bed Fusion

SOFTWARE

EOS ParameterEditor, PSW3.8

MATERIALS

PA12 (Nylon-White)



» HT403P

TECHNICAL DATA

Manufacturer	Farsoon
Building Volume	400 x 400 x 450 mm
Laser Type	Fiber Laser, 1 x 300 W
Laser Beam Diameter	70 - 500 µm
Scan Speed	Max 20 m/s
Layer Thickness	60 - 300 µm
Process Method	Powder Bed Fusion

SOFTWARE

Build Star, Make Star

MATERIALS

TPU01GR, PA12 (Nylon-Black)



» Fuse 1+ 30W

TECHNICAL DATA

Manufacturer	Formlabs
Building Volume	165 x 165 x 300 mm
Laser Type	Ytterbium Fiber Laser, 1 x 30 W
Laser Beam Diameter	247 µm
Scan Speed	Max 12.5 m/s
Layer Thickness	110 µm
Process Method	Powder Bed Fusion

SOFTWARE

PreForm

MATERIALS

PA12 (Nylon-Black), TPU90A



» HP Jet Fusion 5200

TECHNICAL DATA

Manufacturer	HP
Building Volume	380 x 284 x 380 mm
Resolution	1,200 Dpi
Build Speed	Up to 5,058 cm³/h
Layer Thickness	80 µm
Process Method	Powder Bed Fusion / Multi Jetting

SOFTWARE

HP SmartStream 3D Build Manager

MATERIALS

PA12 (Nylon-Dark Gray), PA12-GB (Nylon+Glass Bead-Gray)



» CMBA 5025

TECHNICAL DATA

Manufacturer	3D Factory
Building Volume	5,000 x 2,500 x 1,500 mm
Building Rate	25 kg/h
Layer Thickness	0.5 - 8 mm
Process Method	Material Extrusion + CNC High Speed Machining

SOFTWARE

Simplify 3D, AI build, Python

MATERIALS

PC / PLA /ABS / CFRP / BFRP / PETG



» Multi-joint Large 3D Printing / Manufacturing Composite Process System

TECHNICAL DATA

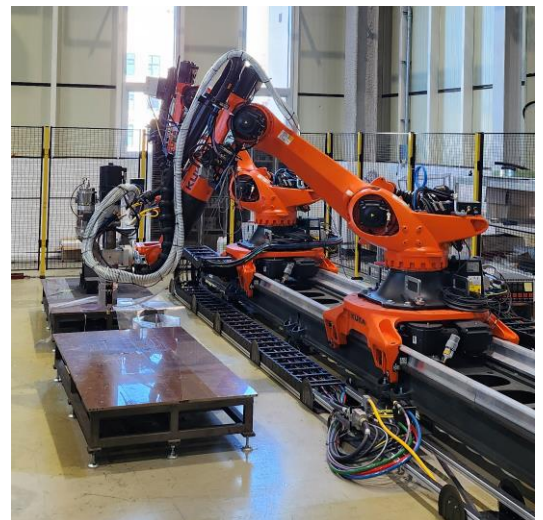
Manufacturer	3D Factory
Maximum Reach	2,701 mm
Maximum Payload	167 kg
Rated Payload	120 kg
Pose Repeatability (ISO 9283)	-0.05~0.05 mm
Pellet Extruder Amount	Max 30 kg/hr
High Speed Processing Spindle	24,000 rpm
Number of Axes	6
Mounting Position	Floor
Build Size	Up to 6,000 mm
Process Method	Material Extrusion + CNC High Speed Machining

SOFTWARE

Simplify 3D, AI build, Python

MATERIALS

PC / PLA /ABS / CFRP / BFRP / PETG



» F900

TECHNICAL DATA

Manufacturer	Stratasys
Building Volume	914 x 610 x 914 mm
Layer Thickness	0.18, 0.25, 0.33 mm
Nozzle Diameter	0.4 mm
Dimensional Accuracy	±0.0015 mm/mm
Maximum Nozzle Temperature	Up to 410 °C
Maximum Chamber Temperature	Up to 225 °C
Process Method	Material Extrusion

SOFTWARE

GrabCAD Print

MATERIALS

ABS, Ultem 1010 / 9085 (PEI)



» EP-500

TECHNICAL DATA

Manufacturer	Linc Solution
Building Volume	500 x 500 x 500 mm
Layer Thickness	0.05 - 0.35 mm
Nozzle Diameter	0.4 mm
Dimensional Accuracy	±0.08 mm/mm
Maximum Nozzle Temperature	Up to 510 °C
Maximum Chamber Temperature	Up to 250 °C
Process Method	Material Extrusion

SOFTWARE

Prusa, Cura

MATERIALS

PEEK, PEEK-CFR(Carbon), ABS



» Crosspro650

TECHNICAL DATA

Manufacturer	3D Enter
Building Volume	600 x 500 x 650 mm
Layer Thickness	0.05 - 3 mm
Nozzle Diameter	0.3, 0.5, 0.7, 1.0 mm
Dimensional Accuracy	±0.1-0.2 mm/mm
Maximum Nozzle Temperature	Up to 400 °C
Process Method	Material Extrusion

SOFTWARE

Simplify3D

MATERIALS

PLA series



» Marktwo

TECHNICAL DATA

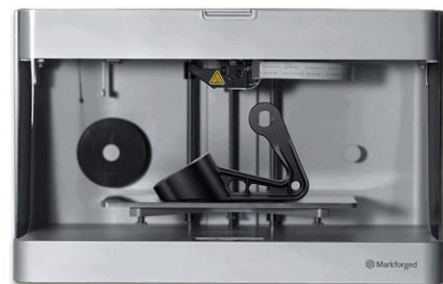
Manufacturer	Markforged
Building Volume	320 x 132 x 154 mm
Layer Thickness	0.10 - 0.20 mm
Nozzle Diameter	0.4, 0.9 mm
Dimensional Accuracy	±0.25 mm/mm
Maximum Nozzle Temperature	Up to 300 °C
Process Method	Material Extrusion + CFR

SOFTWARE

Elger Cloud

MATERIALS

PA12CF (Onyx)



» J750

TECHNICAL DATA

Manufacturer	Stratasys
Building Volume	490 x 390 x 200 mm
Building Rate	1.2 - 4.8 mm/h
Layer Thickness	0.014 - 0.027 mm
Precision Optics	F-theta lens, High-speed scanner
Dimensional Accuracy	±0.002 mm/mm
Process Method	Material Jetting

SOFTWARE

GrabCAD Print

MATERIALS

Rubber-like (Agilus30), ABS-like (Vero series, Vero Clear)



» microArch S230A

TECHNICAL DATA

Manufacturer	BMF
Building Volume	50 x 50 x 50 mm
Layer Thickness	0.005 - 0.02 mm
Light Source	UV - LED (450 nm)
XY Printing Resolution	0.002 mm
Process Method	Vat Photo Polymerization

SOFTWARE

VoxelDance additive

MATERIALS

Photosensitive Resin, Ceramic



» Figure 4 standalone

TECHNICAL DATA

Manufacturer	3D Systems
Building Volume	124.8 x 70.2 x 196 mm
Layer Thickness	0.01 - 0.1 mm
Light Source	UV - Light (405 nm)
XY Printing Resolution	0.065 mm
Process Method	Vat Photo Polymerization

SOFTWARE

3D Sprint®

MATERIALS

Plastic, Rubber, etc.

