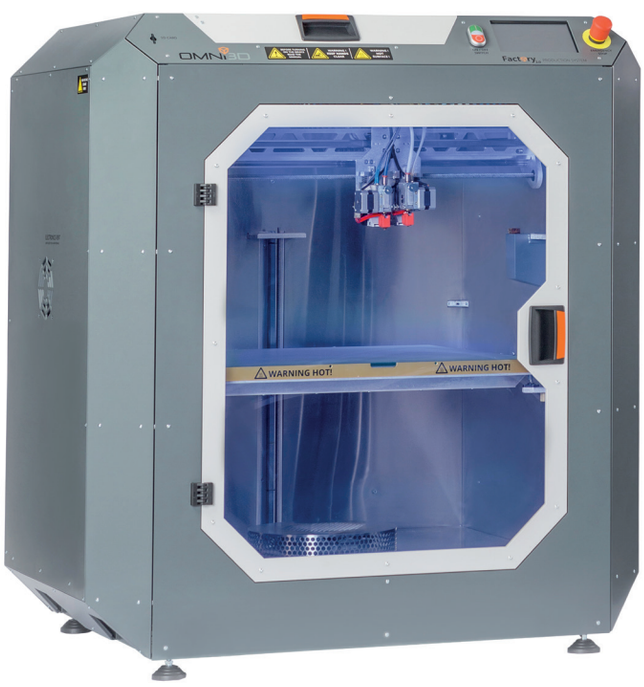
OMNI3D
Industrial 3D printing

Factory 2.0 NET

FACTORY 2.0 NET



FULLY AUTOMATIC PRINTER CALIBRATION

Those are only selected functions which will optimize your work and allow you to make 3D printouts fast and effectively.

DUAL HEAD WITH LIFT-WHEN-INACTIVE SYSTEM AND WITH FILAMENT FLOW SENSOR

The 3D printer has been additionally equipped with a system of lifting an inactive head. Optionally high-temperature head to 500°C.

REMOTE CAMERA SUPERVISION

You can observe the progress of the printout on a remote preview in a panel on the website.

PRINTER FARM MANAGEMENT

The possibility of remotely building and managing a printer set. The printer can be managed through a dedicated web page, so you can easily start printing and control the process remotely.

ENCLOSED AND HEATED CHAMBER

It makes it possible to effectively print large objects from industrial thermoplastic materials, for example ABS.

BUILD VOLUME 460 x 460 x 600 mm

You can print big elements or a few smaller ones at the same time.

TECHNICAL SPECIFICATIONS

Print technology	FFF (fused filament fabrication)
Build volume XYZ	460 x 460 x 600 mm
Chamber	enclosed, isolated, and actively heated
Min. layer height	50 µm
Build platform	heated, glass surface
Number of printing heads	2 – electronic lifting system
Drive type	screw drives in all axes
Nozzle diameter	0,4 mm (optionally 0,6 / 0,8 mm)
Filament diameter	1,75 mm
Max. printing speed	86 cm^3/h
Dimensional accuracy	+/- 0,2% *
Automatic platform calibration	yes
Air filtration	CARBON + HEPA (optional)
Max. head temperature	360 °C (optionally 500 °C)

Max. platform temperature	170 °C
Max. chamber temperature	70 °C
Communication	SD card, Ethernet, WiFi
User interface	7” LCD touch screen, website + camera
Software	Simplify3D
Predefined print settings	Yes, for filaments from Omni3D and for selected filaments from external producers
Compatible files	.stl, .obj, .3mf, .gcode, .factory
Power Supply	230 V / 50 Hz (optional 110 V / 60 Hz)
Max. power consumption	2,2 kW
Printer dimensions	120 x 107 x 77 cm
Printer weight	190 kg
Safety certification	CE
Warranty	12 months (with the option of prolonging)

* Dimensional accuracy depends on whether the model has been appropriately scaled before printing it out – so as to compensate material shrinkage, model geometry, and layer height.

FILAMENTS COMPATIBLE WITH FACTORY 2.0 NET

ABS-42
This is a standard filament of great versality. It is highly durable and mechanically strong and is also known for its ease of processing.

ABS-20s
Modified ABS material with increased flexibility. It is both hard and impact resistant, ideal for models used in industry. It is also very light and durable, so it is perfect for producing tools, setting equipment, final elements, etc.

ASA-39
This material is used in projects where there is a need for resistance to atmospheric conditions, especially UV resistance. It is also filament with high-quality wall finish and high strength.

PC-ABS-47
A filament of high mechanical strength and temperature resistance. It guarantees durability and printing stability.

PET-G-32
Material with low shrinkage. It can be used to create highly accurate models. It is suitable for the food industry and medical applications as it can be sterilised.

HIPS-20
A filament used mainly to create supports during printing with all materials (except nylon). This material is also used in the metal industry to print lost molds due to its ease of firing.

PA-6/66 HD
High strength nylon. It is characterised by hardness, elasticity and bounce. It has properties similar to materials used by engineers to produce finished products.

CF-PA-12
Nylon with added carbon fiber. It has exceptional durability as well as high stiffness and tensile strength – over 2.5 times more than the ABS-42. CF-PA-12 has also the low material shrinkage and high thermal resistance.

PLA-36
Biodegradable polymer, made from renewable resources. Universal, used in many industries. It is characterized by high precision and aesthetics of made models, ease of printing and excellent adhesion between layers.

TPU-93A
Flexible material with a hardness of 93A Shore. It has such features as low processing shrinkage, high durability and good bonding of layers, making it suitable for the production of tool components, e.g. those in contact with the car body, flexible hoses, holders and housings.

PVA
Support material, dissolvable in water. The filament enables printing supports in enclosed spaces, thanks to which there are no geometric restrictions on the printed models. PVA cooperates well with PLA and PET-G (it does not require high temperatures).

WS-20
Support material, dissolvable in water. This filament has increased resistance to high temperatures, which makes it compatible with the ABS-20s filament.

GF30-PA6
Nylon with added fiberglass. It is characterized by low processing shrinkage and good resistance to UV and to chemical agents. For those reasons, it is used for producing tools and high-durability equipment for electronics.

ThermecZED (PPS)
This polymer has exceptional chemical and heat resistance (no solvent in the temperature up to 200°C reacts with that material). It is also flame-retardant, and it has good mechanical properties.

CF-PEKK
Advanced construction polymer with added carbon fibers. That combination improves its structural stability, enhances its mechanical properties, and ensures great stiffness and abrasion resistance.

PEKK
This highly efficient material has been created for the most demanding industrial applications. It is characterized by high heat resistance, very high tensile strength (above 100 MPa), and very high compressive strength. It is UL94 V0 falamability and resistant to almost all organic and inorganic chemical agents.

Vinyl 303 (PVC)
Polyvinyl chloride has many advantages: it is resistant to chemical agents, oils, acids, and weather. It has great resistance to chemical corrosion and fire, high mechanical, thermal stability, and low moisture absorption.

COOPERATION WITH OMNI3D

1

PRE-IMPLEMENTATION AUDIT

Return on investment, cost-benefit analysis - these are just some of the elements of the audit prepared by 3D printing professionals.

2

SAMPLE PRINT

Check the print quality. Make a sample print of your model.

3

RANGE OF POSSIBILITIES

Equipment purchase, 3D printing on demand or printer rental. Choose the best option for your business.

4

TRAINING & SUPPORT

Client installation, employee training, technology support, and service.

sales@omni3d.com, +48 61 666 12 34

OMNI3D Sp. z o. o., ul. Świętego Michała 43, 61-119 Poznań, Poland

www.omni3d.com

Fundusze Europejskie Inteligentny Rozwój

Rzeczpospolita Polska

Polska

Unia Europejska Europejski Fundusz Rozwoju Regionalnego