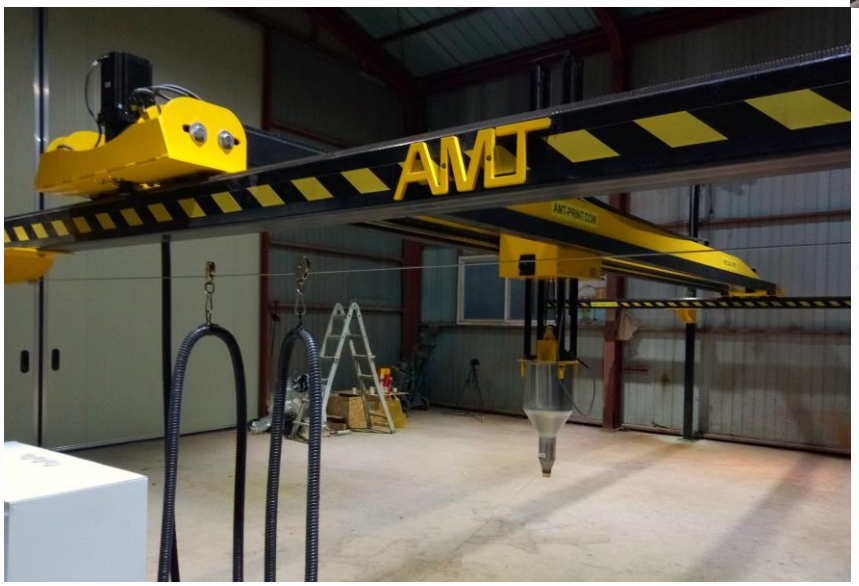
AMT



EQUIPMENT FOR
THE 3D CONSTRUCTION PRINTING
BY THE MARKET LEADER

3D CONSTRUCTION PRINTERS
OUR ACHIEVEMENTS

- ✓ First company in the world to launch the serial production of 3D construction printers (COP-printers, Construction Objects Printing);
- ✓ Our printers printed the first residential house and the biggest 3D-printed building in Europe and the Russia, the world's first 3D fountain;
- ✓ The biggest 3D-printer developed, capable to print multi-storey buildings;
- ✓ Designed mixtures for construction 3D printing;
- ✓ Equipment working in 11 countries, has a certificate CE

3D CONSTRUCTION PRINTERS
OUR ADVANTAGES

The manufacturer #1 and expert in 3D construction printing. We produce professional equipment designed for operating in real conditions, for high loads.

- ✓ Printing all kinds of concrete
- ✓ Laying capacity up to 2.5 m3 / h
- ✓ 3D printer operated by 2 persons
- ✓ Operational life: up to 60 000 working hours
- ✓ High-quality components. Printers are certified in Russia and the European Union
- ✓ Training of staff, warranty, technical support
- ✓ Equipment installation, technology implementation, construction project support

3D CONSTRUCTION PRINTERS
TECHNOLOGY

Three-dimensional construction printing (COP, Construction objects Printing) includes the following sequence of stages: creation of 3D model of the object, division of the model into horizontal layers, layer extrusion of the construction mixture in accordance with the model, solidification of the material until the formation of the object (product).
Building printers are printing with solutions based on cement (Portland cement), sand (silicon dioxide, olivine, zircon, alumina, mullite, quartz glass, chamotte), gypsum.
To obtain the necessary properties of the mixture various mineral additives, fiber, plasticizers, accelerators (retarders) of solidification and anti-frost additives can be used.

The choice of components for the building mixture is determined by the operating conditions of building structures and the given physical and mechanical properties of the future product: density, strength, heat resistance, thermal conductivity, resistance to mechanical stress in a significant temperature gradient, etc.

Dry mixture is being prepared with these components, and adding water, knead until a homogeneous mass. There is an option to prepare the printing mixture using fast-curing compositions.
Technical result: creation by 3D printing of building structures of complex or unique geometric shape with specified physical and mechanical properties.
Construction printing allows you to provide the design of the cavity for reinforcement, filling with heat-intensive compounds and a lining of communications.

PRINTER INSTALLATION

The printer is delivered disassembled to the construction site or installed in the shop;

The equipment is being installed. Access to electricity and water is required.

PREPARING TO PRINT

Download the project file to the control computer;

Preparation of the mixture;

The flow of the mixture in the extruder of the printer.

PRINTING

The operator runs the 3D printer and controls the operation;

The second employee delivers the mixture and carries out reinforcement.

3D CONSTRUCTION PRINTERS
S-6044 Model

Printer S-6044 — small-format portal COP-printer for shop production, allowing to print small concrete forms up to 12 cubic meters, i.e. various elements for buildings, gazebos, all kinds of landscape buildings, ponds and swimming pools, flower beds, barriers and fences, children's towns. It is also suitable for printing stoves, fireplaces, barbecues, barbecues and other fire-resistant products with coalition mixtures.

Characteristics: The S-6044 printer is the most compact 3D-construction printer. Refers to the category of professional workshop equipment, service life of 30,000 working hours.

The basic equipment is complete: the printer includes a control computer with preinstalled licensed software. Configuration of the printers is custom-tailored, for example, printer can be wall-mount, pillar-mount or combined. The printer prints with basic composition mixes series 300 - 500 cement based, it is also possible to use mixes with mineral additives.

Producer

AMT LLC. Russia. The equipment is certified in the territory of Eurounion (CE) and the Customs Union (declaration of Conformity of the Customs Union). Serial production. Custom tariff number TC 8479100000.

Motor type	Parallel-shaft reduction gear stepper motor
Printing speed, cubic meters/hour	0,6
Operating field, mm	3500x3600x1000
Speed/positioning precision	12m/min / 2mm
Working power, kW	1,6
Printing layer, mm	10x30 (height/width)
Concrete expenditure for 1 m2 of the wall at 4-layers printing	0,12 m3.
Period of the guarantee / Operational life	12 months / 30 000 working hours

3D CONSTRUCTION PRINTERS
S-6044 Model Long / Long 2 versions

The S-6044 Long / Long 2 printers are a medium-format COP-printers, based on the S-6044 printer model with an enlarged operational field, which allows printing various construction members for residential buildings and any landscape products up to 36 sq.m / 55 sq.m.

Characteristics: The S-6044 Long / Long 2 printers are easy to operate and maintain, it takes 16 hours for the staff training to work on the printer. Thus it relates professional equipment with working resource of 60 000 hours.

The basic equipment is complete: the printer includes a control computer with preinstalled licensed software. Configuration of the printers is custom-tailored, for example, printer can be wall-mount, pillar-mount or combined. At the customer's request, the working height of the printer can be increased up to 8 m. The printer prints with basic composition mixes series 400-500 cement based, it is also possible to use mixes with mineral additives.

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Producer	**AMT LLC. Russia. The equipment is certified in the territory of Eurounion (CE) and the Customs Union (declaration of Conformity of the Customs Union). Serial production. Custom tariff number TC 8479100000.**
Motor type	Parallel-shaft reduction gear stepper motor
Printing speed, cubic meters/hour	0,6
Operating field, mm	3500x7500x1200 (Long) / 7400x7500x2700 (Long 2)
Speed/positioning precision	12m/min / 2mm
Working power, kW	4,0
Printing layer, mm	10x30 (height/width)
Concrete expenditure for 1 m2 of the wall at 4-layers printing	0,12 m3.
Period of the guarantee / Operational life	12 months / 60 000 working hours

3D CONSTRUCTION PRINTERS
S-300 Model

The S-300 printer is a large-format portal COP-printer with enhanced performance for printing elements of buildings, structures on foundations with an area of 120 sq m and a height up to 5.4 m.

Characteristics: Printer S-300 in the base assembly is equipped with electric lifts 6 meters high, which allows you to build a 2-storey building and is equipped with an arm with a propulsive print head for faster printing (up to 25 sq.m./hour).

The printer is expanded to include a high pressure washer and a **synchronized** concrete mixes' supplier station (specially designed for S-300 / S-500 printers). The basic configuration is complete: the printer includes a control computer with preinstalled licensed software. The printer S-300 prints basic construction mixes on the cement series 400-500, it is also possible to use mixes with mineral additives.

Producer	**AMT LLC. Russia. The equipment is certified in the territory of Eurounion (CE) and the Customs Union (declaration of Conformity of the Customs Union). Serial production. Custom tariff number TC 8479100000.**
Motor type	Stepper motors with planetary gearboxes
Printing speed, cubic meters/hour	2,5 (25 sq.m./hour)
Operating field, mm	11500x11000x5400
Speed/positioning precision	12m/min / 2 mm
Working power, kW	12
Printing layer, mm	10-30 x 40-80 (height/width)
Concrete expenditure for 1 m2 of the wall at 2-layers printing	0,12 – 0,25 m3
Period of the guarantee / Operational life	12 months / 60 000 working hours

3D CONSTRUCTION PRINTERS
S-500 Model

The S-500 printer is a large-format portal COP-printer with enhanced performance for printing buildings up to 80 meters high with an area up to 340 sq.m. (special equipment). **This is the biggest 3D construction printer in the world so far.**

Characteristics: Printer S-500 in the base assembly is equipped with electric lifts 16 meters high, which allows you to build a 5-storey building and is equipped with an arm with a propulsive print head for faster printing (up to 25 sq.m./hour).

The printer is expanded to include a high pressure washer and a **synchronized** concrete mixes' supplier station (specially designed for S-300 / S-500 printers). The basic configuration is complete: the printer includes a control computer with preinstalled licensed software. The printer S-300 prints basic construction mixes on the cement series 400-500, it is also possible to use mixes with mineral additives.

Producer	**AMT LLC. Russia. The equipment is certified in the territory of Eurounion (CE) and the Customs Union (declaration of Conformity of the Customs Union). Serial production. Custom tariff number TC 8479100000.**
Motor type	Stepper motors with planetary gearboxes
Printing speed, cubic meters/hour	2,5 (25 sq.m./hour)
Operating field, mm	11500x11000x15000
Speed/positioning precision	12m/min / 2 mm
Working power, kW	12
Printing layer, mm	10-30 x 40-80 (height/width)
Concrete expenditure for 1 m2 of the wall at 2-layers printing	0,12 – 0,25 m3
Period of the guarantee / Operational life	12 months / 60 000 working hours

VALUE ADDED ON DEMAND

Flexible partnership model for foreign markets

shorter ⟷ deeper

	Basic pack	Launching on site	Print on demand	Technology implementation	Long term implementation and support	Long term cooperation in construction
Always Included	• Supplying 3D construction printer. • Education on Yaroslavl base. • Tech support.	• Supplying 3D construction printer. • Education on Yaroslavl base. • Tech support.	• Supplying 3D construction printer. • Education on Yaroslavl base. • Tech support.	• Supplying 3D construction printer. • Education on Yaroslavl base. • Tech support.	• Supplying 3D construction printer. • Education on Yaroslavl base. • Tech support.	• Supplying 3D construction printer. • Education on Yaroslavl base. • Tech support.
		• Launch assistance • Printing the pilot project	• Printing the pilot project	• Launch assistance • Printing the pilot project	• Launch assistance • Printing the pilot project	• Launch assistance • Printing the pilot project
		• Education on the clients base		• Education on the clients base	• Education on the clients base	• Education on the clients base
			• Printing the major project	• Printing the major project	• Printing the major project	• Printing the major project
					• Ongoing advisor or staff on the clients base	• Ongoing advisor or staff on the clients base
						• Joint venture (* in some countries)
Additional services	• Architectural design • Constructive project • G-codes' preparation	• Architectural design • Constructive project • G-codes' preparation	• Architectural design • Constructive project • G-codes' preparation	• Architectural design • Constructive project • G-codes' preparation	• Architectural design • Constructive project • G-codes' preparation	• Architectural design • Constructive project • G-codes' preparation

«Additive Manufacturing Technologies»

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