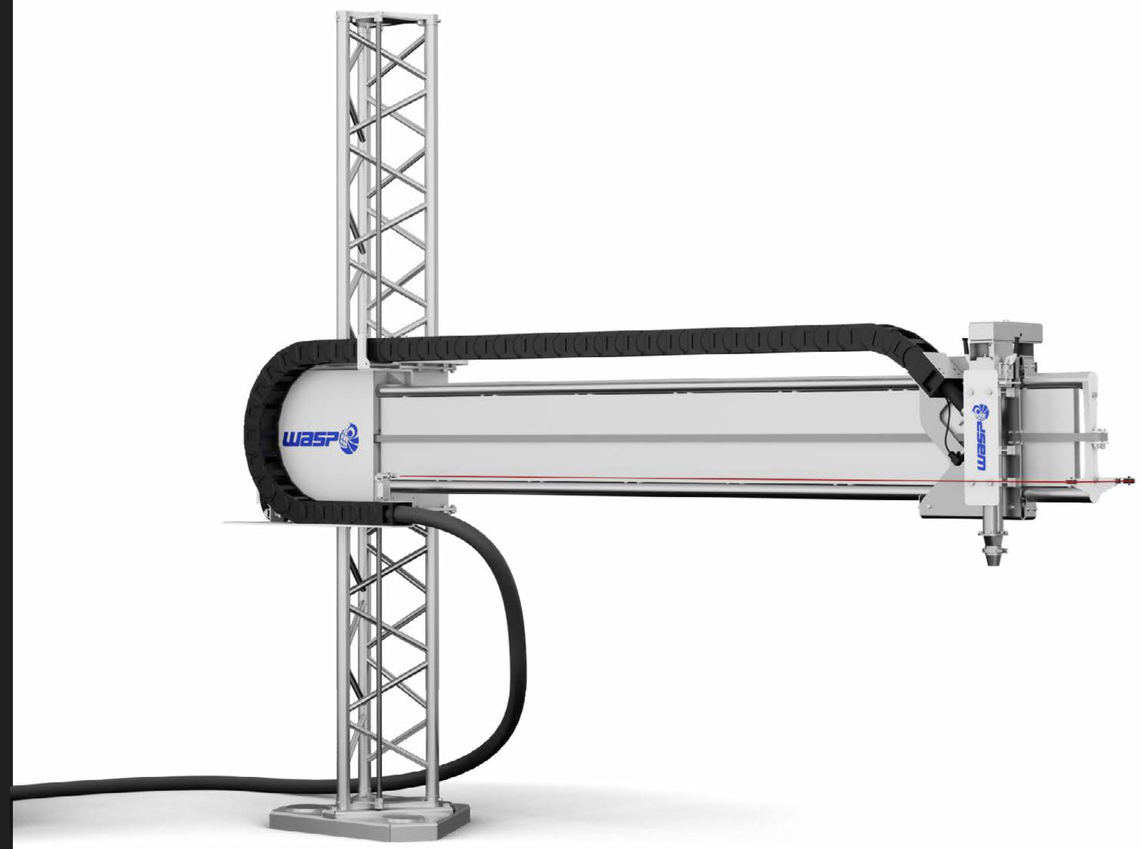
The WASP Printer for Architecture

WASP ***Crane***



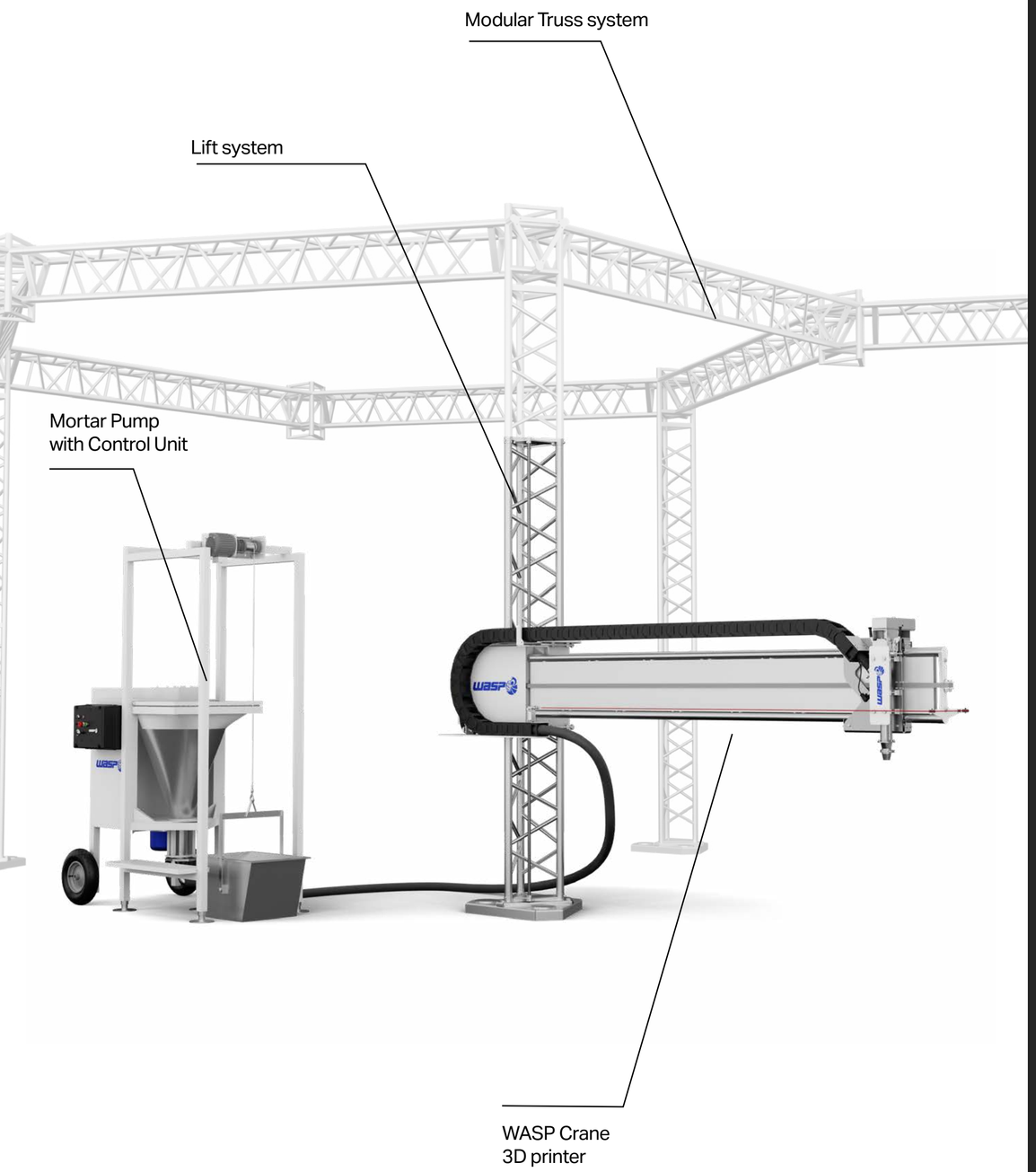
Crane WASP is a large scale 3D printer designed and manufactured by WASP specifically for the architectural field research.
We are now offering the results of our experience to universities and research laboratories that are interested in new additive manufacturing technologies.

WASP Crane
3D Printer Optimized for building

With this big dimension 3D printer is possible to create concrete products thanks to an innovative extrusion system equipped with a special mortar pump and a screw-driven extruder.

Furthermore the MDF pallet bed and the removable front lower beam allow to remove, once the printing activity is completed, the printed objects both via pallet truck and forklift.

Delta WASP 3MT INDUSTRIAL 4.0 LDM can be connected to Wi-Fi network so that you can manage your printer from smartphone, tablet or PC. Inside the printer there's now a camera for monitoring the print even from remote.



An integrated system that includes the 3D printer WASP Crane, the Continous feeding system and a patented Truss system that allows to print in infinite configurations.

Integrated system to 3D print Architecture

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Architecture

Modular structure

Different set up configurations to match building needs

Ease of installation

The printer installation can be handled by two technicians in 3 hours

Multi-material

Natural mixtures - Cementitious mortars - Concrete

Twin screw extruder

Equipped with pressure sensor to manage print and retraction

Safety first

Collision detection system with safety rope emergency stop switch

Modular Truss System

A patented system to print in infinite configurations

The MDF pallet bed and the removable front lower beam allow to remove, once the printing activity is completed, the printed objects both via pallet truck and forklift.

WASP Crane
Twin LDM XXL Extruder

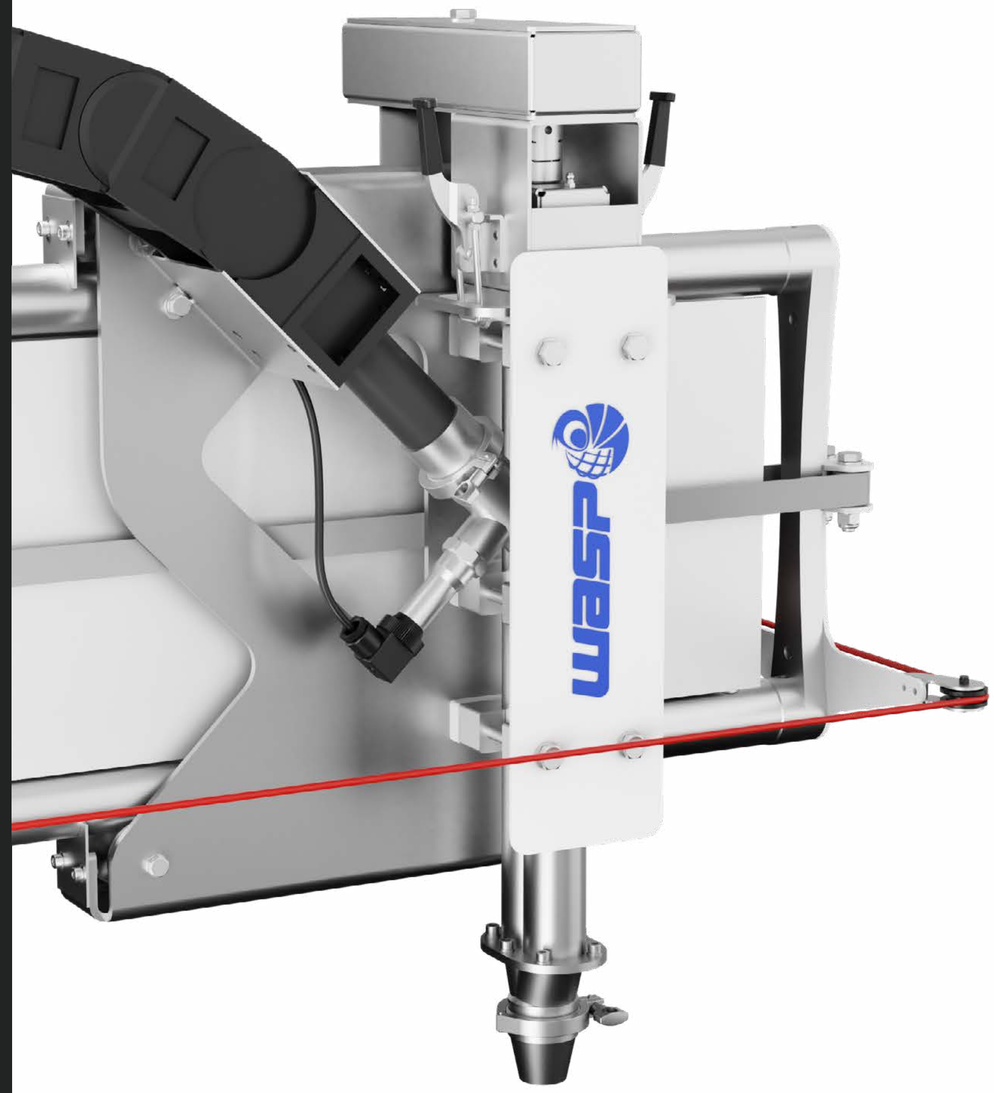
TWIN SCREW TECHNOLOGY

AC brushless servo motor
Point-by-point
high precision extrusion

Pressure sensor
Pumping system linked
Real-time pressure sensing with adjustable setpoint

Natural mixtures, cementitious mortar

Nozzle: Ø 25 - 40 mm



The special pump developed for WASP Crane

Continuous feeding system

With this big dimension 3D printer is possible to create clay products thanks to a very precise screw extruder that continuously rules the amount of outbound material.

Feeding tank 3-5 L

Clay

Ø 4 6 8 mm

Technical sheet

INFORMATION ON 3D PRINTER

Cilindric Print Volume* configurable:
Ø 6200 mm (up to 8200 mm) - H 2200 mm (up to 4200 mm)
Nozzle: 25 - 40 mm
Layer height: 12 - 20 mm
Aggregates granulometry : < 5 mm
Maximum print speed: 200 mm/s
Maximum travel speed: 200 mm/s

EQUIPMENT

CONTINUOUS FEEDING SYSTEM
Twin LDM XXL Extruder
Pumping system
Lift system

INTERFACE

Wi-Fi remote control interface
Remote support
TCP IP

PHYSICAL DIMENSIONS* configurable

Column height 320 cm (up to 520 cm)
Arm length 330 cm (up to 430 cm)

WEIGHT

3D Printer: 180 kg - The machine travels unmounted and
it is assembled in the work space.

SUPPLY

Input: 220/ 240 V 50/ 60 Hz
Absorbed power (3D printer): <1 kW

MECHANICS

Core and basement: steel
Truss pieces: aluminium

MATERIALS

Natural clay mixture, cementitious mortar

INFORMATION ON PUMPING SYSTEM

Load volume: 80 L
Length of supplied hose: 10 m
Maximum pressure: 35 bar
Maximum granulometry: 5 mm
Maximum flow: 250 l/h
Size (L x b x h): 120 x 140 x 150 cm
Size (including lift system): 120 x 200 x 240 cm
Weight: 300 kg
Frame material: Painted steel
Hopper material: Stainless steel
Input power: 220/240 V 50/60 Hz
Absorbed power: < 2.5 kW

With its huge closed work area and the multi-tool system Delta WASP 3MT INDUSTRIAL 4.0 LDM defines a new standard in the world of additive manufacturing of LDM (Liquid Deposition Modeling).

BUILDING INDUSTRY

EDUCATION CENTERS

ARCHITECTS STUDIOS

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WASP

www.3dwasp.com

https://www.3dwasp.com/en/3d-printer-house-crane-wasp

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