

DIGITAL MICRO FACTORY 4.0

ADDITIVE MANUFACTURING

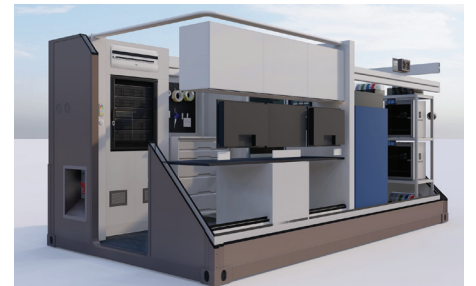
MODULAR

SCALABLE

PROJECTABLE



MAKE - REPAIR - INNOVATE



INTRODUCTION

The Micro Additive Manufacturing Factory, is an independent, modular, scalable, projectable device for manufacturing and repairing components that are essential to the continuity of critical activities or to people's health. This mobile unit is an industrial response to important challenges when working in isolated and extreme environments in the following fields: **INDUSTRY, ENERGY, DEFENSE, HEALTHCARE, HUMANITARIAN AID, EDUCATION, RECONSTRUCTION, etc.**

DEPLOYMENT EXAMPLES:

- Maintaining equipment in operational condition during military operations,
- Custom-made orthotic devices for a health service in a refugee camp,
- Rural fablab in a low-infrastructure country,
- Real-time production of spare parts on a ship, shipyard or offshore platform,
- Rapid restoration of infrastructure caused by a natural disaster,
- 24h production of mini-series of mini reconnaissance drones.

MAIN FEATURES

Reconditioned military shelters
14 or 20 feet ISO

CSC 20-foot ISO shipping container

Embedded systems control

Intelligent management of the entire equipment via a MODBUS IIoT infrastructure and a proprietary MES (Manufacturing Environment System).

Production management

Control, monitoring and historical logging of production parameters for each printer, with secure connection and remote control of the system on the Shelter's protected network.

Unbreakable network connectivity

Use of a connectivity module based on latest-generation link technologies with aggregation of all available data signals (mobile, fixed, satellite) across multiple operators to guarantee an breakproof, high-performance connection.

Controlled environment

Pressurized cabin. Freecooling Hybrid industrial air conditioning with multi-level HEPA/activated carbon air filtration, sand and salt filters. Direct printer extraction, intelligent ventilation and professional air purification.

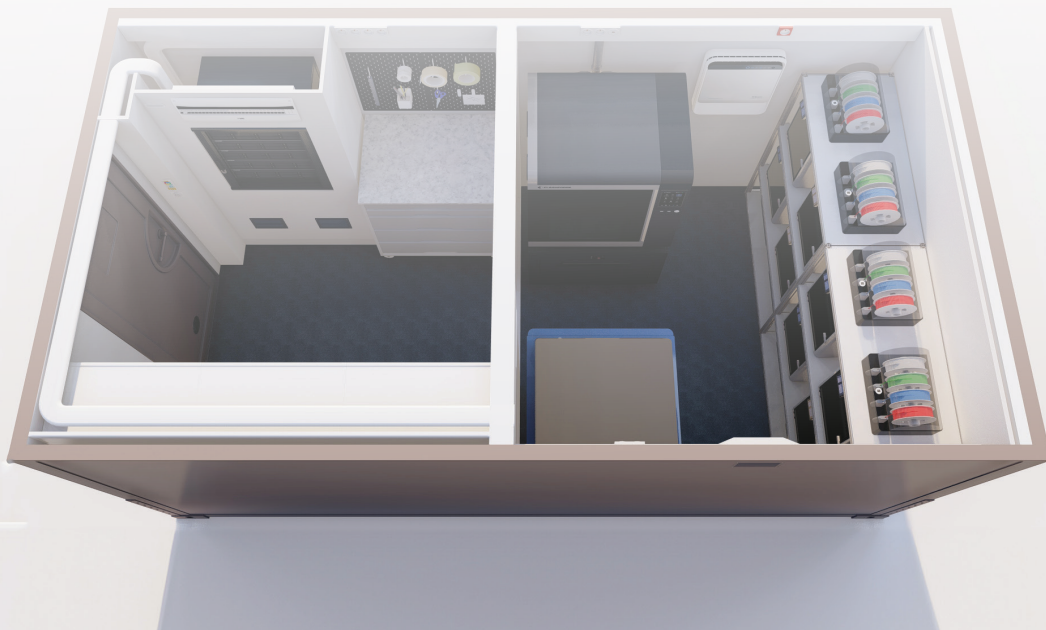
Control, real-time monitoring & archiving of environmental parameters: Temperature, Humidity, Fine & Ultrafine Particles, VOC, CO₂, NO₂, Sulfurous Odors, Atmospheric Pressure, Carbon Monoxide.

24h surveillance and secure access.

Power management

220-230V single-phase / 380-400V three-phase, generator, solar panels, hybrid system, etc.

Integrated system for monitoring and automatically regulating the power consumption of each system, maximizing their use with constrained power sources.



Modular

Internal layout designed to accommodate up to 3 operators and various digital manufacturing systems, depending on the configuration.

Scalable

Control and supervision of embedded devices via an IIoT infrastructure to facilitate interoperability and the integration of new technology.

OUR STANDARD CONFIGURATIONS

FACTORY

Fabrication-Repair Microfactory guaranteeing industrial production quality due to the validation of a special process to meet ISO/ASTM 52903-2 standards.

The ability to manufacture spare parts on site is essential to meet the demands of emergency situations, whether health-related, environmental or conflict-related. This competence ensures operational continuity, minimizes production downtime and limits external sourcing constraints. Local production enhances the robustness of industrial systems, while optimizing supply and distribution chains.

EXTRACT FROM STANDARD EQUIPMENT:

- Professional scanning system & reverse engineering software
- Semi-industrial large-format printers
 - High-performance polymers
 - 1 INTAMSYS FUNMAT 310
 - 1 INTAMSYS FUNMAT 410
 - 1 FLASHFORGE CREATOR 4
- Latest-generation rapid prototyping printers
 - 4 BAMBULAB X1C / X1E
 - or 4 FLASHFORGE Adventurer 5
- High-performance filaments

FARM : Farm for mini-series production

A 3D printing farm helps distributed manufacturing, speeding up production and reducing lead times. It optimizes the creation of prototypes and the production of mass orders. Its unrivalled flexibility enables production to be tailored to specific needs.

Cost-efficient in the long term, it enables local production, revolutionizing traditional supply chains by making them more agile and responsive.

EXTRACT FROM STANDARD EQUIPMENT:

- Professional scanning system and reverse engineering software
- Print farm management software
- Latest-generation rapid prototyping printers
 - 16 BAMBULAB X1C / X1E
 - or 16 Flashforge Adventurer 5

FABLAB

The rural Fablab provides access to cutting-edge equipment, encouraging rapid innovation. It enables agile prototyping and reduces innovation costs.

It strengthens entrepreneurship and boosts local development.

EXTRACT FROM STANDARD EQUIPMENT:

- Professional 3D scanning system & reverse engineering software
- 3D Printers : Bambulab X1C/X1E or Flashforge Adventurer 5
- Laser cutting machine, CNC milling machine, soldering station, electronics kits, CAD software, 3D scanner, digital embroidery machine, cutting plotter, traditional tools, safety equipment, electronic test equipment (oscilloscope, multimeter, etc.).



Projectable and operational in isolated and extreme environments

Multi-transportable system: Aero Transportable for rapid deployment in distant areas or in the event of an emergency / Flatbed Truck & All Terrain Vehicle / Double Axle Trailer for local or regional operations / Container Carrier for distant locations, etc.

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Available in 3 versions
From €199.000 Taxes incl.



Digital solutions integrator



📍 La Citadelle des Savoir-Faire
83 rue des Mines Innovantes Bruay-sur-l'Escaut
www.citadelledessavoirfaire.com

🌐 www.machines-3d.com
☎ +33 6 12 62 69 05
✉ christophe@machines-3d.com