

DIGITAL MICRO FACTORY 4.0



DEFENSE - INDUSTRY - HUMANITARIAN - EDUCATION

Modular, Scalable and Deployable **Micro Additive Manufacturing Factory**, ensuring industrial production quality, through the validation of a special process that combines the use of custom machine parks, a qualified process, a controlled environment and production management, in order to meet the upcoming ISO/ASTM 52903-2 certification for Additive Manufacturing of Plastic Materials using material extrusion.



MODULAR

- Modular design enabling adaptive integration into 14" or 20" shelters or refurbished CSC containers.
- The internal layout is designed to accommodate various production units: wire deposition printing, resin and metal.

SCALABLE

- Control and supervision of onboard devices an Industrial Internet of Things (IIoT) infrastructure using the Modbus communication protocol to facilitate interoperability and the integration of new technological components.

DEPLOYABLE IN EXTREME ENVIRONMENTS

- Aerotransportable mobile device, transportable on a carrier vehicle (GBC 180...) and towable on a double axle trailer.





Real-time monitoring and control of embedded systems through an IIoT (Industrial Internet of Things)

Special production process currently undergoing qualification to meet the upcoming standard.

- ISO/ASTM 52903-2

Air Treatment

Production area (specific pollution zone) separated from the office area with multiple levels of air filtration: cabin filtration, direct extraction, intelligent ventilation and purification.

Energy Management

Integrated system for monitoring and automatic regulation of the electrical consumption of each system, maximizing their utilisation within the constraints of power sources such as generators and solar panels.

Air Quality

Control, monitoring, logging, and management of 14 environmental parameters: Temperature, Humidity, Fine & Ultra-Fine Particles (PM10/2.5/1), VOCs (Volatile Organic Compounds), CO2, NO2, Sulfurous Odors, Atmospheric Pressure, Noise, Light... Carbon Monoxide Alarm.

Production Management

Monitoring and logging of production parameters for each printer (status, plate/chamber/nozzle temperature, video, power consumption...)

Network Connectivity

Use of a professional-grade connectivity module, based on state-of-the-art communication technologies, with aggregation of all available data signals (mobile, fixed, satellite) from multiple operators, to ensure a robust high-performance, unbreakable connection.

3 versions available from 200.000€_{HT}

- V1 : Micro-Factory
- V2 : Print Farm
- V3 : Countryside Fablab



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 3 62 02 40 40
✉ sales@machines-3d.com