

WHAT MULTISTATION.COM CAN ALSO PROVIDE?

Since 1987, Multistation, a French independent company, has been integrating innovating and disruptive solutions in digital manufacturing, supplying internationally heavy and complex machine-tools and equipment for automation of composites, rapid prototyping and additive manufacturing. Our customers are the best names coming from the transport sector, automotive, aero-structure and engines for aerospace and spatial, railways, shipbuilding as well as the energy, power generation, windmill... luxury, healthcare, medical, academic and defense industries.

MICROFACTORIES and FABLABs, E SHOP

- ➔ For 5 years, in our concept store down town Paris, the PROTO3DSHOP, we have offered "turn-key" custom-made microfactories and fablabs towards all types of audiences, like academic, coworkers, geeks or makers, as well as suppliers of innovation or regions in development.
- ➔ Low tech 3D printers, fused Deposition modelling, DLP... and complete range of 3D scanners
Rapid casting, vacuum casting machines for resin duplication, metal casting (embedding, melting...)
Laser, waterjet or blades cutting machines for any material, cadcam software
Laser or milling engraving machine, desk milling machines, table lathe, thermoforming
Vinyl cutting machine, sewing and embroideries machines.

E shop: www.proto3dshop.com

COMPLEX AND HEAVY MACHINE TOOLS

- ➔ From complex prototype to mass production machining, for industry ...
- ➔ 5A milling machines for aerofoils, blades measuring machines, riveting machines GEMCOR, Large milling machines MIKROMAT, vertical lathe MARIO CARNAGHI, edge milling LINSINGER, large lathes GEORG, deep boring WOHLBERG, deep drilling UNIOR.
- ➔ Machines for railways maintenance LINSINGER, SAFOP...
- ➔ Machines for composite automation: filament winding EHA, autoclaves, routing machines.

SECOND HAND MACHINES



MULTISTATION SECOND LIFE has been, for 10 years, a confidential e-platform specializing in second-hand plastic and metal additive manufacturing equipment as well as in high performance machine-tools. Follow our availabilities, good opportunities guaranteed!

EXHIBITION, TRAINING and DEMO CENTERS

In the heart of Paris Montparnasse, two nearby locations: the PROTO3DSHOP, a rapid prototyping demonstration center for microfactories and fablabs and the **Progressive Light Weight Design & Metal Additive Manufacturing center**, where, each month, topological optimization sessions JOT (*Journées de l'optimisation topologique*) and Power of Powder Days are being proposed. 3D PRINT road shows are regularly organized in different cities. Contact us to know more about our solutions!

Feasibility study-diagnosis-benchmarking-in house seminar-
procurement-sales-renting-training-technical
support and maintenance... new and second hand

www.multistation.com
+33 (0)2 99 16 35 35
multistation@multistation.com
twitter @multistationsas
E shop: www.proto3dshop.com



BACK OFFICE

BP 80126 - 35801 DINARD Cedex - FRANCE
Tél: +33 (0)2 99 16 35 35
Fax: +33 (0)2 99 46 41 41
E mail: multistation@multistation.com

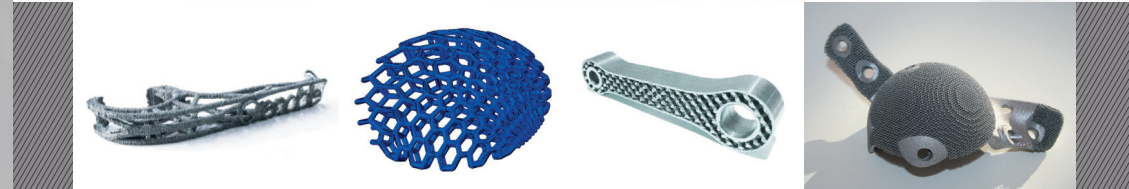
PROTO3DSHOP

14 rue de l'Armorique
75015 PARIS - FRANCE
E shop: www.proto3dshop.com

METAL ADDITIVE MANUFACTURING CENTER

66 Boulevard Pasteur
75015 PARIS - FRANCE
Tél: +33 (0)2 99 16 35 35

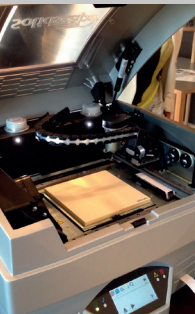
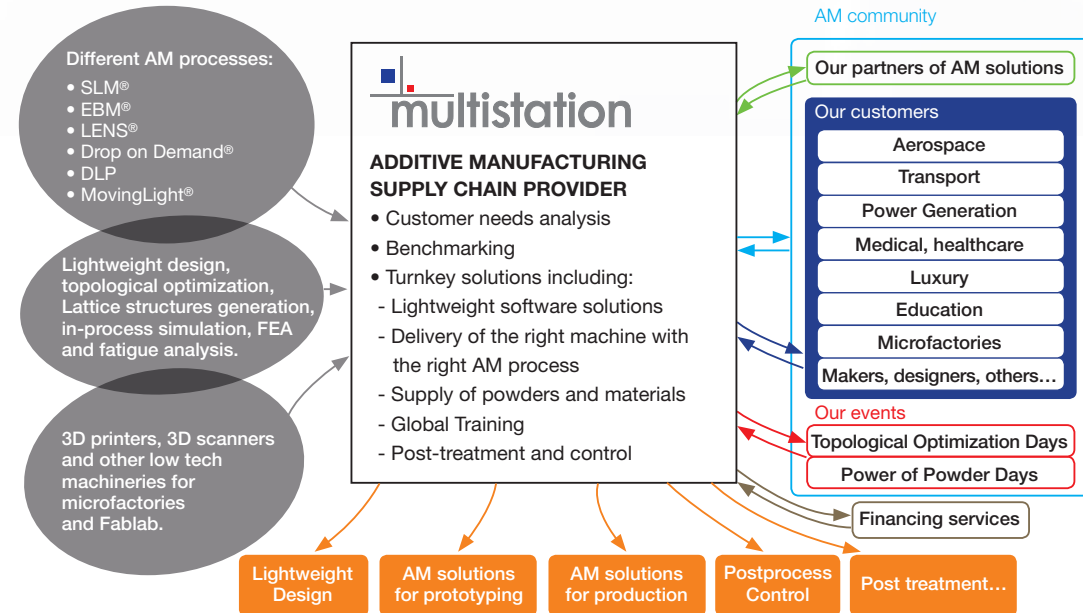
MULTISTATION, AN ENGINEERING COMPANY SERVICING THE ADDITIVE MANUFACTURING SUPPLY CHAIN



What is the additive manufacturing supply chain?

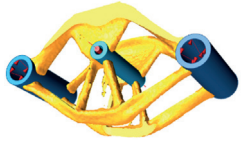
Since 1987, Multistation provides complete digital and additive manufacturing solutions. First, our **lightweight design activity** not only encompasses software for topological optimization and automatic generation of lattice structures, but also software dedicated to **in process simulation of additive manufacturing**.

In terms of **processes and material**, besides the renowned metal additive manufacturing technologies we provide, such as **EBM**® (ARCAM) and **SLM**® (SLM Solutions), we now offer **LENS**® technology (OPTOMEQ). For 15 years, we propose **Drop on Demand**® process with wax jetting (SOLIDSCAPE) for investment casting applications and now **MovingLIGHT**® process of **PRODWAYS**®. The **high-speed adaptive milling** finish of pieces produced via metal additive manufacturing will also be featured with our partners like KERN, as well as the control of these parts using x-ray tomography. We guarantee the delivery of certified powders and provide global training to end users.



PROGRESSIVE DESIGN AND SIMULATION TOOLS

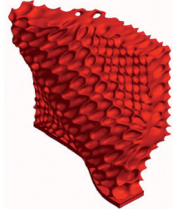
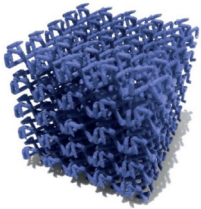
TOPOLOGICAL OPTIMIZATION



Solidthinking® Inspire & Evolve

- Topological optimization
- Concept design tools
- Export data directly to Evolve, a design and reverse engineering tool
- High quality photorealistic rendering

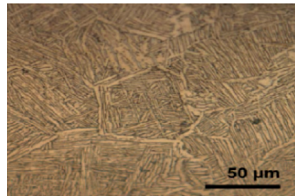
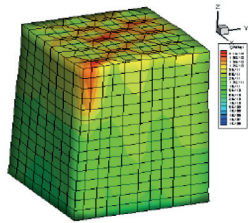
LATTICE STRUCTURES GENERATION



3S, Selective Space Structures of Netfabb®

- Lattice design
- Design your own cell or pick ones from the library
- Conformal, volumes or progressive lattice available (or both)
- Part repair

IN-PROCESS SIMULATION



3DSIM®

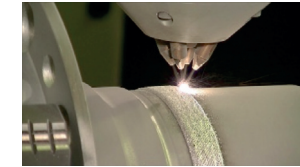
- AM In-process Simulation
- Built time reduction and support structure optimization
- Process parameters improvement
- Dynamic Meshing Strategy
- Solver "Process -> Structure"
- Solver "Structure -> Properties"
- GPU based simulations

Static and dynamic Finite Element Analysis (FEA) and fatigue analysis.

DIRECT METAL DEPOSITION



LENS 450, MR-7, 850R and Lens Engine



Optomec LENS

- Ultra-fast process, 0,5 kg/h
- Big sizes until 900 x 1500 x 900 mm
- Part repair, coating, production...
- Any material, material gradient possible
- Standalone machines or Lens Engine adaptable on 3, 4 or 5 axis existing milling machine (OEM or endusers)

DLP MOVINGLIGHT® PROCESS



PROMAKER Line



PRODWAYS

- DLP MovingLight® Process for photosensitive resins
- Large size model till 1000 X 500 mm
- Technology for mass production
- Competitive running costs
- Cost of LED lower than laser

WAX JETTING: DROP ON DEMAND



Studio, 3Z Max, Max2



Solidscape

- High resolution printer : minimum layer 6µm
- Volume 150 x 150 x 100 mm
- Castable wax
- Excellent surface quality

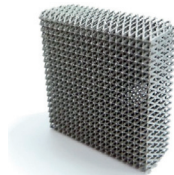
3/4

INDUSTRIAL ADDITIVE MANUFACTURING

SELECTIVE LASER MELTING



SLM125, SLM280 et SLM500



SLM Solutions

- Multi-lasers, power ranges from 400 w to 1kw
- Volume from 125 x 125 x 75 to 500 x 280 x 365 mm
- Any weldable materials
- Open system: parameters, materials, ...

ELECTRON BEAM MELTING



ARCAM Q10, Q20 and A2X



Arcam AB

- Medical and aerospace oriented
- Mechanical properties between casting and forge
- Volume from 200 x 200 x 180 mm to Ø350 x 380 mm
- Pre-heated power bed
- Titanium and Inconel oriented

POST-TREATMENT AND CONTROL

FINISHING MILLING



KERN Micro

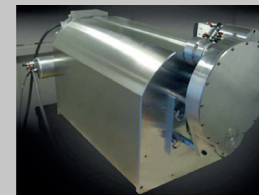


Courtesy of FIT AG

Kern Micro Machining Center

- Machining volume in correspondence with AM capacity
- Compact solutions
- Adaptive milling for highly complex shapes

X-RAY TOMOGRAPHY



Nikon 450 kV microfocus X-ray source

- High accuracy tomographs
- For various materials including metal
- Inside view of lattice and complex shapes