

## AREA 51: TECHNICAL ARSENAL (2026)

**Facility:** Gozo Graphics Industrial Hub, Gozo, Malta

**Classification:** Micro-Factory & Hardware Accelerator

**Jurisdiction:** European Union (GDPR & IP Protected)

### 1. ADDITIVE MANUFACTURING (3D PRINTING)

Technology	Machine Model	Build Volume (X,Y,Z)	Key Capabilities
Industrial FDM (Large)	Dowell DM1220-16 Pro	<b>2000 x 1600 x 1200mm</b>	Monolithic parts, 150°C heated bed, industrial enclosures.
High-Speed Batch	Bambu Labs P1S/A1 Fleet	256 x 256 x 256mm	Rapid production of mechanical sub-assemblies.
Precision Prototyping	Mingda A128 / AnyCubic	Various up to 400mm	Versatile R&D for engineering components.
Technical Textiles	PrintPro UV DTF	300mm Wide	<b>TPU 3D Embossing</b> and tactile branding on flexible surfaces.

- Materials:** PLA, PETG, ABS, Carbon-Fiber PA, Polycarbonate, TPU, Resin.

### 2. SUBTRACTIVE & METAL FABRICATION (CNC)

Technology	Max Bed / Power	Precision / Speed	Material Applications
Multi-Head CNC Router	<b>4000 x 2000mm</b>	9kW / High Speed	Tool changer, oscillating blade, creasing tool. Ideal for wood & composites.

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<b>4-Axis Precision CNC</b>	3000 x 1500mm	Water-Cooled	Suitable for <b>Non-ferrous metals</b> (Alu, Brass) and high-density plastics.
<b>Acrylic Suite</b>	Dedicated Workshop	Forming & Bending	Full acrylic fabrication for enclosures and displays.

### 3. PRECISION LASER & MARKING

Technology	Power / Source	Max Area	Performance
<b>Fiber Laser Cutter</b>	<b>3000W Jinan</b>	3000 x 1500mm	High-speed cutting of Steel and Stainless Steel.
<b>MOPA Fiber Marker</b>	100W Industrial	300 x 300mm	<b>Color-marking</b> on Titanium/SS; Deep engraving & Serialization.
<b>Dual-Source CO2</b>	300W + 150W	3000 x 1500mm	Thick substrate cutting + Optical Eye for printed graphics.
<b>Laser Welding</b>	Jinan Fiber Welder	N/A	High-strength industrial joining for hardware frames.

### 4. ADVANCED TEXTILES & LUXURY PRINT

Technology	Width / Type	Inks / Features
<b>Direct-to-Fabric</b>	3.2m Roll-to-Roll	Dual Ink (Cotton/Polyester). Industrial soft goods & upholstery.
<b>Hybrid UV Rigid</b>	2.2m Width	<b>CMYK+RGBO + White + Varnish + Foil.</b> Prints on glass, metal, wood.



Technology	Width / Type	Inks / Features
Fluorescent Line	3.2m UV / 60cm DTF	High-Viz and Fluorescent safety/fashion applications.
Fine Art (Archival)	Epson SC-P9500	<b>Hahnemühle Gold Certified.</b> 12-color pigment for museum quality.

## 5. REVERSE ENGINEERING & DESIGN

- 3D Scanning:** Metrology-grade scanning for Scan-to-CAD workflows.
- Design for Manufacture (DFM):** In-house support for optimizing files for 3D printing and CNC paths.
- Documentation:** Fully equipped media studio for documenting the R&D and manufacturing journey.