

## Settore Additive Manufacturing

Aziende Additive Manufacturing	PRODUCTS	Applications
<p>PRIMA ADDITIVE SpA  <a href="https://www.primaadditive.com/">https://www.primaadditive.com/</a></p> <p>Via Torino-Pianezza, 36 -            10093 COLLEGNO (TO)            ITALIA</p> <p>Fanno parte di PRIMA            INDUSTRIE SpA, gruppo            con circa 1.800 dipendenti.</p> <p>Fatturato 2019 del gruppo            186 mln euro</p>	<p>Prima Additive invests in 3D printing technology developing and offering innovative laser systems for both of the main metal Additive Manufacturing processes: <b>Powder Bed Fusion</b> (PBF) and <b>Laser Metal Deposition</b> (LMD).</p> <p>Prima Additive responding to different industrial and research needs provides the right type of machine for each application ensuring through a network of business partners, services and suppliers a successful integration and operation of Additive Manufacturing machinery at your site.</p> <p>Aiming to make metal additive manufacturing part of your production and research apparatus, Prima Additive has designed and offers complete solutions including machines, pre &amp; post processing equipment, applications development, digital services and support.</p> <p>The long-standing experience and expertise of the mother company (Prima Industrie) on laser systems and customer support is the main factor that guarantees a success story for every customer.</p> <p><a href="https://www.primaadditive.com/products/">https://www.primaadditive.com/products/</a></p>	<p><b>AUTOMOTIVE / MOTORSPORT</b></p> <p>Turbocharger parts            Exhaust valves            Structural parts            High temperature fasteners            Housings            Engine and drivetrain parts</p> <p>Aerospace &amp; Defence:            Propulsion system parts            Turbines parts            Engine combustion chamber            Heat exchanger tubing            Aircraft ducting systems            Jet engine exhausts systems            Engine thrust-reverser systems</p> <p><b>MACHINE AND TOOL BUILDERS</b></p> <p>Thin-walled &amp; complex parts            Mounting            Tools and moulds</p> <p><b>CONSUMER PRODUCTS</b></p> <p>Rapid prototyping            Jewelry and watches            Limited product customization            Different design tests</p>

## ENERGY

Pump motor shafts  
Gas turbine components  
Pressure vessels

## MEDICAL

Prostheses and implants  
Medical instruments and models  
Hearing aids and dental implants

<https://www.primaadditive.com/industrial-sectors/>

ROBOZE srl  
<https://www.roboze.com/en/>

**HEADQUARTERS EMEA**  
Roboze S.P.A.

Via Vincenzo Aulio n.  
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**HEADQUARTERS USA**  
Roboze INC

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Texas 77064 Houston,  
United States

Nascono come start up,  
azienda innovativa hanno  
aperto un laboratorio negli  
USA. Stampanti per  
materiali termoplastici  
rinforzati

### **BELTLESS SYSTEM**

We have changed the rules of the game, bringing **mechanical precision** to the **FFF 3D printing technology**.

To do this it was necessary to rethink everything, starting from the most important aspect. The kinematics of the axes. By eliminating the **belts**, and introducing a **direct mechatronic movement** of the X and Y axes entrusted to **hardened steel rack and pinion**, we have finally introduced real work **precision**. How can we say precise a movement that relies on rubber belts, subject by their very nature to problems of various kinds including deformation, repeatability of movement, wear and tear, the need for continuous calibrations? It can't be done.

In a typically direct handling system such as the **Beltless system** from **Roboze**, the **positioning accuracy** and **repeatability** of the movements is ensured by the gear teeth, in our case the helical gear also ensures **smoothness of movement**, **quietness** and **positioning precision** equal to 0.4 mil (0.01 mm).

Forget the straps. It's in the past!

### **HVP EXTRUDER**

Designed and manufactured by **Roboze**, the **HVP** (High Viscosity Polymers) **extruder** represents an engineering jewel deriving from the **knowledge** and **quality** of the **Roboze** R&D department and the capabilities of the CNC machines present in the **Roboze** plant.

The **HVP Roboze extruder** has a narrowing in the **internal extrusion channel** which allows to accelerate the speed of **high viscosity polymers** during the **extrusion process**. Moreover, together with the achievement of the **optimal temperature**, it reduces its viscosity and controls the swelling phenomenon, increasing the **printing speed** of such **polymers** as **PEEK**.

The result is an absolutely unbeatable **print quality** in the engineering of plastic materials such as **PEEK**, with impressive **precisions** and incredible **mechanical properties**.

- **Aerospace and Defense**
- **Motorsport**
- **Oil&Gas**
- **Consumer Electronics**
- **Automotive**
- **Plastics Industry**
- **Manufacturing Industry**

### **HEATED CHAMBER**

In order to face any shrinkage phenomena of techno polymers in the extrusion phase and avoid any thermal stress of the printing material, in particular in case of large prints, the Production systems by Roboze are equipped with an active heating system of the printing chamber with a heated and controlled environment, capable to reach 356°F (180 °C). In comparison with the other systems, the innovative ROBOZE chamber gets hot in just more than one hour, drastically reducing the time necessary to prepare the printing procedure. Roboze heated chamber is designed to guarantee the uniformity throughout its volume.

The result is the possibility to manage the temperature during the printing phase, with a unique and unbeatable output quality.

### **3D PRINTING MATERIALS**

**Roboze technologies** to meet the needs of sectors ranging from **Aerospace** to **Motorsport**, offer **cutting-edge 3D printing materials**.

**Roboze technopolymers**, with high **thermal** and **mechanical resistance** like **Carbon PEEK**, or **polymers** with very high mechanical properties such as **Carbon PA**, are able to **replace metal alloys** in extreme applications.

Product **customization**, **renewable design**, **resistance** and **durability** of the finished product: these are the guarantees of **Roboze 3D printing** technologies and its **thermoplastics**.

- PEEK
- CARBON PEEK
- Carbon PA
- Ultem™ AM9085F

<p>3NTR  <a href="https://3ntr.net/">https://3ntr.net/</a>  28047 – Oleggio (Novara)</p> <p>Piccola azienda con meno di 50 dipendenti, produce stampanti per materiali termoplastici con un ottimo rapporto qualità prezzo</p>	<p>Is that simple: we at 3ntr are selling reliable tools to companies that are industry leaders, or to small and medium businesses with ambitious projects.</p> <p>The industrial businesses working on the international markets have been able to test 3ntr systems: they have found that our machines works just fine, giving them outstanding ROI.</p> <p>But don't trust our words: ask for a sample and compare to any additive solution (FDM/FFF) out there.</p> <p>3ntr machines are built from a team of professionals with one target: giving users a perfect tool to prototype and produce with total safety and freedom of design.</p> <p>True multimaterial prints, 24/7 operation, sturdy built and reliable, with an integrated software package and easy user interface.</p> <p>Multiple chances for different types of manufacturing: we at 3ntr don't box you into proprietary solutions, but offer you a wide portfolio of solutions to give you full power and control over your design.</p> <p>We love comparison: challenge us!</p>	<p><b>3ntr</b> permette di stampare più polimeri contemporaneamente, ad esempio polimeri rigidi e morbidi.. Applicazioni ad ampio spettro per vari settori:</p> <ul style="list-style-type: none"> <li>-Alimentare</li> <li>- Automotive</li> <li>-Chimico</li> <li>- Meccanico</li> <li>- Contenitori per elettronica</li> </ul> <p>Scopri di più:  <a href="https://3ntr.net/it/polimeri-per-stampa-3d/">https://3ntr.net/it/polimeri-per-stampa-3d/</a></p>
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<p>LMA srl  <a href="https://lmasrl.com/en/">https://lmasrl.com/en/</a></p> <p>10044 Pianezza  (TO) - ITALY  T   +39 0119672053</p> <p>Fatturato 2019 – 24 mln  euro</p> <p>Costruiscono  componenti metallici in  additive manufacturing.</p>	<p>A GROUP OF PEOPLE WHO SHARE A COMMON  GOAL CAN ACHIEVE THE IMPOSSIBLE  PROBLEM SOLVING &amp; FLEXIBILITY</p> <p>Certainly the challenge of the new millennium. A new industrial revolution that is changing not only production, but also design, making geometries that were, until recently, unthinkable, possible. LMA has quickly grasped the importance of this new challenge by venturing in the design and production of components through such technology. National and international players are interested in the results of the studies and initiatives that LMA is carrying out in collaboration with major Italian universities. Constant cooperation with the Polytechnic universities of Turin and Milan guarantees, in fact, an indissoluble link with the world of research.</p>	<p>LMA responds to civil and defence market needs manufacturing extremely high precision mechanical parts used on fixed or rotating wing aircraft, as well as on satellites and missiles for the most important national and international clients.</p>
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<p>APR srl  <a href="http://www.apr.it/index.php">http://www.apr.it/index.php</a></p> <p>10064 Pinerolo – Torino</p> <p>Fatturato 2019 - 9 mln euro</p>	<p><b>R&amp;D AND INNOVATION</b></p> <p>APR is committed to improve its competitive level by exploring new manufacturing methods and implement them after having assessed their effectiveness and reliability, according to customers' approval.</p> <p>And more, APR is willing to pursue the strategy of participating in important Collaborative Aerospace Projects seeking two kinds of <b>CROSS-FERTILIZATION</b>:</p> <ul style="list-style-type: none"> <li>- close interaction between primary aerospace players, Industrial and Academic, and SME;</li> <li>- the needs and expectations of the Aerospace community frequently anticipate those of other industries, on high-level applications.</li> </ul> <p>In addition, a SME can get significant plus from Collaborative Projects, where only lead-players can explore and integrate:</p> <ul style="list-style-type: none"> <li>- wider science horizons</li> <li>- long-term market trends and environment expectations</li> <li>- the management of complex Systems</li> </ul> <p>Thanks to this, APR increased its technology level by:</p> <ul style="list-style-type: none"> <li>-putting innovation and R&amp;D results into every day activity;</li> <li>- benchmarking its technology level with state of the art players;</li> <li>-achieving collaborations with Universities and R&amp;D centers;</li> <li>-networking with horizontal and vertical clusters of SMEs in Italy and abroad;</li> </ul> <p>APR is a recognized development center for <b>strategic applications</b> to its first-class customers.</p> <p>Thanks to a constant dialog with customers' R&amp;D departments, APR is developing innovative solutions with</p>	<p>Aerospace  Energy  Medical industry</p>
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High Performance Polymers in a continuous effort to reduce costs and weight.

As a separate division, the dedicated HPP team can provide full service ' from idea to solution ', through its internal capability and Project Management activity. including:

- Rapid Prototyping & Rapid Manufacturing services;
- Mold & Die design & manufacturing;
- Full production by moulding injection.

APR directs the engineering process around the most known thermoplastic compounds, such as

PEEK

PPS

PEI

PAA, PPA

Ultem®

Vespel®



TIPS – 3DPRN

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Professional 3D printers and additive manufacturing tools.

Prototyping, mass printing, large volumes, simultaneous printing. 3DPRN products are designed and manufactured entirely in Italy to meet all your needs.

Each printer is equipped with proprietary 3DPRNWARE software for fast and accurate management, capable of enhancing every detail. Dedicated to a professional user looking for solidity and versatility of use.

Stampanti per occhiali

Stampanti per grandi volumi (1000x1000x1000)

Stampanti multi materiale

Stampanti con estrusore e fresa in un’unica stampante

General Industry  
Glasses Industry  
Mechanic Industry

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Service solutions,  
collaborano con ROBOZE

Caracol-AM, your one-stop for the best of additive manufacturing servicing.

As a one-stop service provider we offer different solutions: product re-design and concept development, large scale prototypes, line production of finished parts, support in creating and managing remotely new AM clusters at the client site, 3D Printing training and workshops.

We bring your vision to life. Any size, any shape.

We adopt the most innovative design techniques, extending our product range to applications with complex geometries, we process high-tech materials, such as carbon fiber, for advanced mechanical performance, and, on top of working with state-of-art printers, we developed a proprietary robotic system to print on a larger scale.

**Our technologies allow to span from extreme precision to large dimensions:**

- Proprietary AM Robotic System
- FDM Industrial Printers for Production
- SLA Industrial Printers for Production

**How we work with our partners**

**Preliminary Studies**

Assess partner's needs, customize offer and enable the introduction of 3D printing within their production system.

**Engineering for AM Production**

Optimizing design of component for 3D Printing applications, identifying the right materials and technology.

**Prototyping**

Production of the first units to undergo necessary form, fit and functionality testing.

**Line Production**

Manufacturing of final piece (up to 20'000 units) – the component's design can be adjusted during the process.

<p>ELLENA SpA  <a href="http://www.ellenaspa.com/">http://www.ellenaspa.com/</a>          /          Brandizzo - Torino</p>	<p>Ellena progetta e realizza processi con soluzioni tecniche (re-design e/o unione di particolari) di additive manufacturing che semplificano i montaggi e le finiture meccaniche al cliente.</p> <p>Ellena studia la produzione con lo sguardo rivolto alle fasi successive all'additive, portando benefici e ottimizzazione. Il Servizio di Ellena offre la realizzazione di prodotti completi, finiti con il meglio delle tecnologie disponibili.</p> <p>Peculiare il ruolo del reparto di montaggio, in grado di assemblare gruppi meccanici, pneumatici ed oleodinamici, realizzato in una struttura da 1.000 mq dedicati all'assemblaggio e al testing. Una struttura polifunzionale dotata di Camera Bianca per assemblaggi speciali, lavaggio ad ultrasuoni e camere di prova automatiche per test idraulici oltre i 2.000 bar, ed una cabina di test a liquidi penetranti e magnetoscopio.</p>	<p>Aerospaziale          Petrolchimico          Meccatronica          Veicoli industriali</p>
<p><b>LABORMET2</b>  <a href="http://www.labormetdue.it/">http://www.labormetdue.it/</a>          Torino</p> <p><b>Service per controllo qualità con specializzazione nel settore additive metallo.</b></p>	<p><b>Service di tomografia, controlli qualità, metallografia, microscopia ottica ed elettronica, analisi di immagine, prove fisiche e meccaniche, test di simulazione ambientale, analisi chimica, metrologia nei settori della ricerca, della produzione e della qualità</b></p>	<p>Lavorano per aziende italiane che esportano.          Sono interessati a lavorare con aziende estere.</p>
<p>CIM 4.0  <a href="https://cim40.com/">https://cim40.com/</a>          Torino</p>	<p>Il centro di competenza Competence Industry Manufacturing 4.0 (CIM4.0) offre un supporto strategico e operativo alle imprese manifatturiere orientate alla digitalizzazione dei processi industriali nell'ottica dell'Industria 4.0. Punto di riferimento in Italia per l'additive manufacturing.</p>	