



# COMAU UNVEILS HIGHLY SPECIALIZED LASER LABORATORIES TO EVOLVE BATTERIES AND MOTORS FOR THE ELECTRIFICATION SECTOR

- Dedicated in-house labs create and optimize laser welding processes for electric motors and batteries
- Comau laser welding ensures a precise and effective joint even when using diverse materials that have hugely different intrinsic characteristics
- Labs are equipped with Comau NJ-220 robots and the innovative LHYTE (Laser Hybrid Technology) system, developed by Comau in partnership with Prima Electro
- The labs also facilitate experimentation with new operational techniques to save time and costs

**Turin, April 7, 2020** – Comau, a global leader in the development of advanced systems and products for the industrial automation sector and a pioneer in advanced laser welding processes and applications, has created highly specialized laser laboratories to support companies as they develop, implement and optimize the laser processes involved in constructing and assembling e-motors and batteries. With two labs in Grugliasco (Turin) – one specialized in batteries and the other dedicated to e-motors, together with additional labs in Shanghai and Detroit, Comau has reinforced its 360° e-value chain by offering a wide range of laser processes for various industrial sectors such as automotive, aerospace, general industry, energy, oil and gas.

Comau aims to increase the efficiency, speed and value of production, thus enabling companies to offer highly competitive operational solutions for electrification sectors. As such, its specialized laser laboratories are equipped with Comau NJ-220 robots, which are capable of working simultaneously and on

different types of applications and powered by the innovative LHYTE (Laser Hybrid Technology) system, developed by Comau in partnership with Prima Electro. LHYTE is suitable for many different applications thanks to a patented solution which makes it possible to automatically alternate between fiber and diode lasers to ensure optimal high-precision joining, which is vital in the assembly of an e-battery or e-motor. LHYTE can also handle the complexity of working with different melting temperatures of materials such as copper and aluminum while guaranteeing a strong joint seal with a low level of electrical resistance.

*“We can create any type of battery pack for any power level and are able to assemble the entire electrical battery, from the welding of individual cells which make up a module, to the stacking of the various modules contained in a battery pack, right through to the laser welding of the entire case,” explains Giovanni Di Stefano, Chief Technology Officer – Electrification, at Comau. “We are also developing a similar solution for hairpin motor laser welding at our newest lab”.*

Comau’s laser laboratories can be configured, equipped and adapted to suit the process required and the type of product to be manufactured. In addition to accommodating a range of applications, Comau also develops and optimizes every phase of the laser welding process, from the prototype phase to the production of pre-series, when requested by the client. Projects are supported by a dedicated group of engineers who develop or identify the best welding solution for each customer, with services ranging from feasibility studies right through to process optimization.



## About Comau

Comau, a member of the FCA Group, is a worldwide leader in delivering advanced industrial automation products and systems. Its portfolio includes technology and systems for electric, hybrid and traditional vehicle manufacturing, industrial robots, collaborative and wearable robotics, autonomous logistics, dedicated machining centers and interconnected digital services and products able to transmit, elaborate and analyze machine and process data.

With over 45 years of experience and a strong presence within every major industrial country, Comau is helping manufacturers of all sizes in almost any industry experience higher quality, increased productivity, faster time-to-market and lower overall costs. The company's offering also extends to project management and consultancy, as well as maintenance and training for a wide range of industrial segments.

Headquartered in Turin, Italy, Comau has an international network of 7 innovation centers, 5 digital hubs, 8 manufacturing plants and employs more than 9,000 people in 14 countries. A global network of distributors and partners allows the company to respond quickly to the needs of customers, no matter where they are located throughout the world.

Through the training activities organized by its Academy, Comau is also committed to developing the technical and managerial knowledge necessary for companies to face the challenges and opportunities of Industry 4.0.

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