Successful collaborations never come about by chance. Whether a question of proximity in the same geographical area, shared mutual values or shared know-how and experience, they will often generate cutting edge projects that via chain reaction produce exciting results and new opportunities.

One example of this is the all-Italian partnership recently established between Flash Battery and Fassi Gru. The first is an Italian leader in the design and development of customised lithium batteries for the industrial machinery sector, the second a renowned manufacturer in the articulated crane segment with over 60 models to its credit in 30,000 configurations.

Customisation is key
The sharing of this orientation, together with the will to make its equipment greener, led Fassi Gru to turn to Flash Battery for the electrification of mid-range cranes (up to 35-40t/m). The need was to build a crane autonomous in terms of power supply, which could help curb the pollution and noise emissions of the endothermic truck supporting it.

Flash Battery proved to be a fully reliable partner able to accompany the manufacturer in its first approach to electrification by providing a complete consultancy service and making a battery pack customised both mechanically and electrically that meets the specific requirements of the hybrid equipment in terms of dimensions, operations and performance.

Efficient electrification
The pack made by Flash Battery is a 51.2V high-voltage battery with a capacity of 560Ah and 28.67kWh of energy, equipped with a built-in heating system and a compact and linear design that allows any necessary inspections to be easily carried out. It guarantees efficient electrification of the crane’s power supply system and, at the same time, keeps its performance unaltered.

The battery then has a double system for charging from a 220V mains while the vehicle is stationary or with an on-board AC generator that allows the vehicle to be charged whether stationary or running. Furthermore, both methods can be carried out with the crane in operation, an essential aspect as it allows the work time to be optimised.

Versatile performance
The first electrified model of the range, the F345RB.2.26 XE dynamic truck crane, has therefore fully adopted the versatility, performance and customisation of the Flash Battery lithium battery by combining it with Smart Hybrid Technology (SHT), developed by Fassi Gru with the aim of making its applications increasingly sustainable.

The purpose was to drastically reduce the pollution and noise emissions for use in residential areas, with a resulting savings in terms of consumption and the possibility to operate restriction free, even indoors.

The first prototype was made in 2020 and in only one year it led to the development of the pre-series, today already on the market and particularly appreciated in the North European countries and the USA.

“It was a joint collaboration, a synergy that made us veritable consultants for the building of the complete machine, where the manufacturer from Bergamo placed its trust in our know-how, even for the choice of the supplier of the motor and components,” said Marco Righi, CEO and founder of Flash Battery. “The enormous added value of this project was to have reached an outstanding joint result ever since the prototype phase and supplying an industrialised and optimised finished product in a market such as that of construction, where electric conversion is a trend enjoying exponential growth.”

Above: Customised Flash Battery powerpack for Fassi Gru
Right: The Fassi Gru dynamic crane featuring Flash Battery’s lithium powerpack solution