## Dualtech Forma automatic paint sprayer



In the spray painting sector, Giardina Group offers a range of solutions that has been expanded with a number of models: Rototech, Robotech, and Dualtech. The Dualtech Forma recently joined the range, aimed to tackle various spray painting issues from small productions to large volumes, in terms of quality, productivity, flexibility and sustainability.

The Giardina Group collaborated with Pininfarina, an Italian design house, to design the new automatic sprayer. Pininfarina focused on three aspects when designing: essentiality through a streamlined and simplified design, reducing the number of components; diversity, expressed with a recognisable style; and innovation. The automatic Dualtech Forma spray machine is ideal for medium to high production rates and is designed to spray stain, primers and finishes onto all smooth or shaped surfaces. It is equipped with an infeed and outfeed belt conveyor. The self-cleaning conveyor system for the parts inside the spraying area is made of a 2,000mm-wide and 2,800mmlong belt, closed in a loop to ensure greater transfer efficiency.

The Dualtech spraying technology, two opposing reciprocating units that can hold up to four guns each, provides an even application on all surfaces of the substrate to be painted, including the edges. The gun movement system is driven by a brushless motor. Dualtech Forma can consist of up to four independent painting circuits — one circuit has four guns — on request.

The extraction and disposal system is located on both the right and left sides of the belt. The new painting area is redesigned to be ergonomic, allowing convenient front and rear access. The spraying room is made of carbon steel profiles and prepainted sheet metal panels. The air taken from the environment by an electric fan is filtered and evenly distributed inside the spray booth.

Dualtech Forma is fitted with two additional air distribution plenums located at the inlet and outlet of the spray booth to keep the spray booth under vacuum, thus preventing the overspray from escaping and ensuring that the extracted air is fully filtered. The air distribution plenum ensures an efficient flow, thus reducing the paint overspray.

Two longitudinal 2,000mm filter media, made of galvanised sheet metal steel with capacitive honeycomb paper filter, capture the overspray. An electric fan installed next to the filtration box, with dry filters, ensures the evacuation of all overspray from the spraying room, preventing the expulsion of particulate matter.

The operator interface is provided by a 23in touch screen control unit for easy management of the production functions and data, display of alarms, start-up of saved work programmes and management of routine maintenance. The data,



processed by the management software, is transmitted to the guns as ON or OFF signals. The dimensional reading device for the parts to be painted scans every 5mm to optimise the painting phase and reduce consumption. Lastly, Dualtech Forma is equipped with an environment air supply and filtration unit, and can be fitted with an air heating and air conditioning system on request.

