

FINISHING SOLUTIONS 1972  
**giardinagroup**

# SPRAY PAINTING

GENERAL CATALOGUE



*Ready to order*



***“A prestigious partnership and a clear, strong message to our industry”.***

**Stefano and Riccardo Mauri**, Giardina Group

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“Dualtech Forma” is the perfect combination of the highest design standards, which boasts **Pininfarina** as one of its most celebrated leaders, with the values that have always symbolised Giardina Group solutions. A prestigious partnership, through which Giardina Group has entrusted **Pininfarina** with the task of designing the Italian group’s new automatic sprayer.

A collaboration between two Made in Italy companies, interpreters of a unique know-how, which in an industrial painting solution have been able to concentrate innovation, research and customer care: a strong contribution to Giardina Group’s business strategies for achieving even more success worldwide.

**Pininfarina** has chosen a design for “Dualtech Forma” that is intended to impart three key values.

**ESSENTIALITY**, through a streamlined and simplified design, with a reduced number of components.

**DIVERSITY**, which is expressed with an immediately recognisable style.

**INNOVATION**, thanks to a design capable of outlining the technology that Giardina Group offers in the relevant sectors.



**DUALTECH**  
**forma**  
DESIGN BY  
*pininfarina*

*SB (Single Belt, self-cleaning).  
DRY disposal system (suction with dry filters).*



Watch the video

***“A milestone in the history of the Giardina Group and a benchmark for the painting industry!”.***

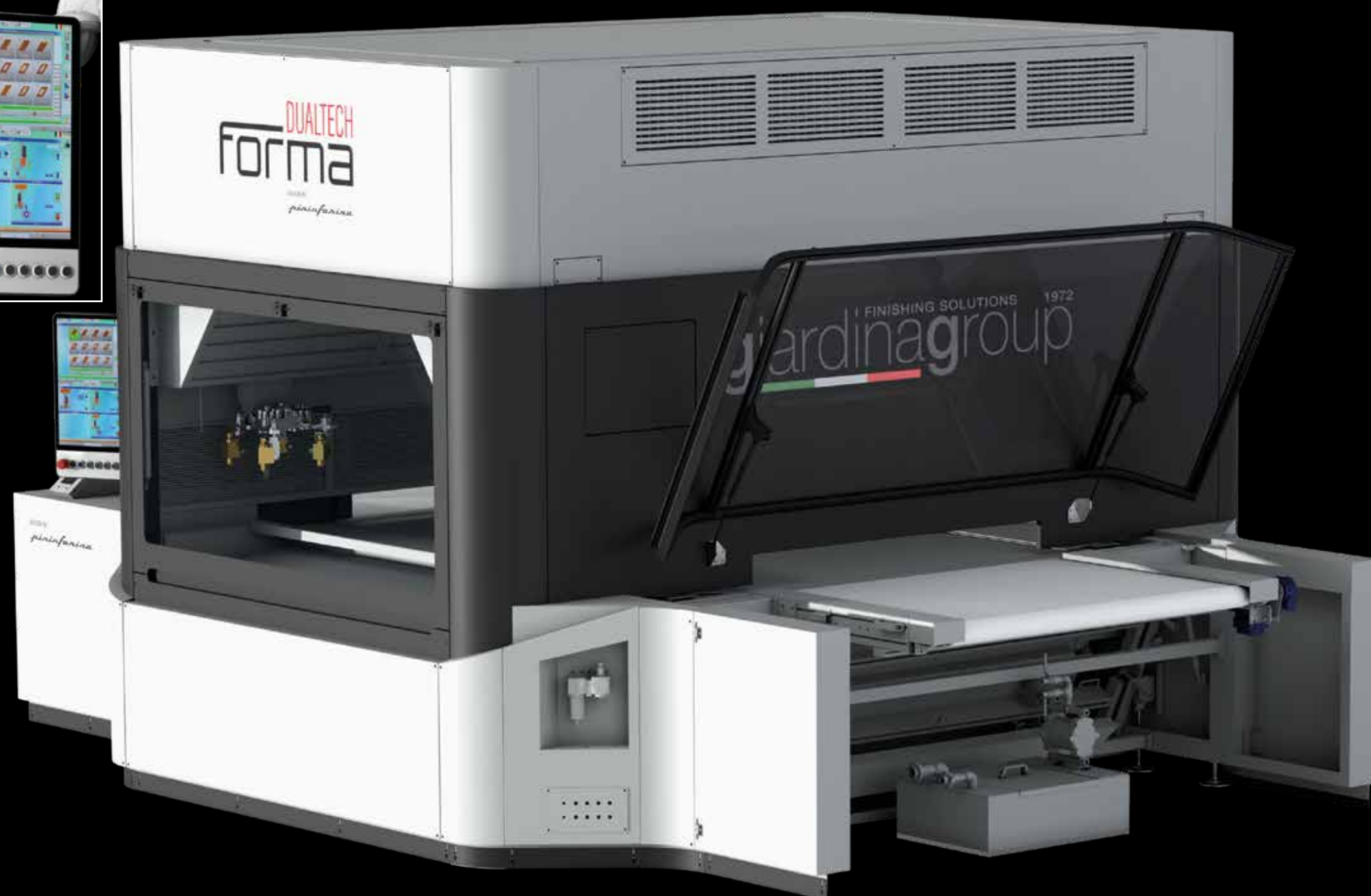
**Fabio Calorio**, Pininfarina  
Head of UX&ID Sales and Global Brand Extension

Extremely ergonomic, the new **painting area** has been completely redesigned to allow convenient front and rear access.

The spraying room is made of carbon steel profiles and pre-painted sheet metal panels; the air taken from the environment by an electric fan is filtered and evenly distributed inside the spray booth.

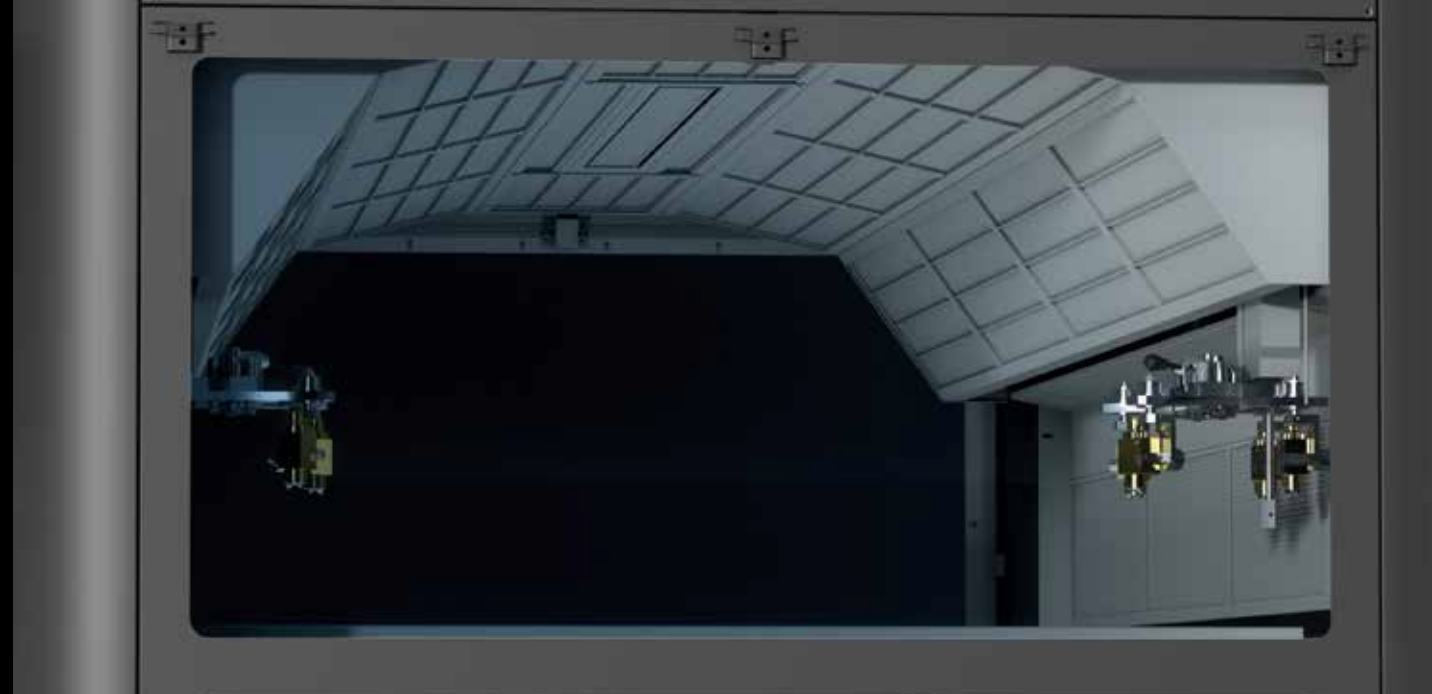
The air **distribution plenum** ensures an efficient flow, thus reducing the paint overspray. "Dualtech Forma" is fitted with two additional air distribution plenums located at the inlet and outlet of the spray booth, so as to keep the spray booth under vacuum, thus preventing the overspray from escaping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

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.



## TECHNICAL DATA

- Basic usable working width: 1,300mm.
- Synthetic conveyor width: 2,000mm.
- Length of dry or longitudinal water curtain filters: 2,000mm.
- Gun movement system (max 4+4) driven by brushless motor.
- Reciprocating arm spacing: 1,880mm.
- 4-gun painting circuit (up to 4 independent circuits on request).





# 600 | DUALTECH SERIES



SB (Single Belt, self-cleaning with doctor blades).  
 DRY (suction with paper filter) or WET (with water curtain) disposal system.

The “Dualtech 600” oscillating sprayer is the milestone of modern oscillating machines, developed to ensure the **highest performance level in terms of speed and productivity**, without compromising on paint quality, and to provide flexibility, ease of use and unbeatable quality in painting.

It is designed to spray stain, primers and finishes onto all flat and shaped surfaces and on edges, and is available with “**Dry**” (dry filtration) or “**Wet**” (water filtration) disposal system.

Among the “Dualtech 600” advantages are the “Dualtech” spraying system and the “Dualfast” quick gun change system, an efficient **overspray reduction** system and a **product recovery and belt cleaning** system that is one of the most effective in the world due to its low consumption of cleaning fluid, reduced belt wear and quick and easy maintenance.

The **spraying room** is made of carbon steel profiles and pre-painted sheet metal panels. The air distribution plenum ensures an efficient flow, reducing the formation of overspray; two **additional air distribution plenums** (at the inlet and outlet of the spray booth) keep the booth under vacuum, thus preventing the overspray from escaping and ensuring that the extracted air is fully filtered.

In both the “Dry” and “Wet” versions, the solid particulate disposal system is provided by three separate filtration stages.



## TECHNICAL DATA

- Basic usable working width: 1,300 or 1,600mm.
- Synthetic conveyor width: 2,200mm.
- Gun movement system driven by brushless motor.
- Reciprocating arm spacing: 2,500mm.
- Painting circuit with up to 6+6 guns (4 independent circuits on request).

More information on pages 16 and 17

# 500 DUALTECH SERIES



Watch the video

*SB (Single Belt, self-cleaning with doctor blades).  
DRY disposal system (suction with paper filter).*

The “**Dualtech 500**” oscillating sprayer is the ideal solution for spraying matt and glossy quality finishes onto flat or shaped surfaces (including the edges) for high and medium levels of productivity.

Extremely flexible and easy to use, it is available in a version with 2,000mm wide **self-cleaning synthetic conveyor belt** and “**Dry**” **disposal system** large enough to guarantee excellent solid particulate disposal.

Among the “Dualtech 500” advantages are the “**Dualtech**” spraying system and the “**Dualfast**” quick gun change system, in addition to the **product recovery and belt cleaning** system that is one of the most effective in the world due to its low consumption of cleaning fluid, reduced belt wear and quick and easy maintenance.

The ventilation system is designed with a **large spray booth**, all in a compact and functional layout that makes it a reliable and versatile work tool, from small batches to large production volumes.

The **spraying room** is made of carbon steel profiles and pre-painted sheet metal panels. The air distribution plenum ensures an efficient flow, reducing the formation of overspray; two **additional air distribution plenums** (at the inlet and outlet of the spray booth) keep the booth under vacuum, thus preventing the overspray from escaping and ensuring that the extracted air is fully filtered.



## TECHNICAL DATA

- Basic usable working width: 1,300mm.
- Synthetic conveyor width: 2,000mm.
- Gun movement system (max 4+4) driven by brushless motor.
- Reciprocating arm spacing: 1,880mm.
- Painting circuit with up to 4+4 guns (4 independent circuits on request).

More information on pages 16 and 17



# 400 DUALTECH SERIES



Watch the video



SBC (Single Belt Paper), DRY disposal system (suction with paper filter).  
SB (Single Belt, self-cleaning with doctor blades), DRY (suction with paper filter)  
or WET (with water curtain) disposal system DB (Dual Belt), DRY (suction with paper filter)  
or WET (with water curtain) disposal system.

The “**Dualtech 400**” oscillating sprayer is undoubtedly the most successful version of the range of spraying solutions offered by Giardina Group, the perfect synthesis of 50 years of experience in spray painting focusing on quality, reliability, flexibility, technological innovation and ease of use.

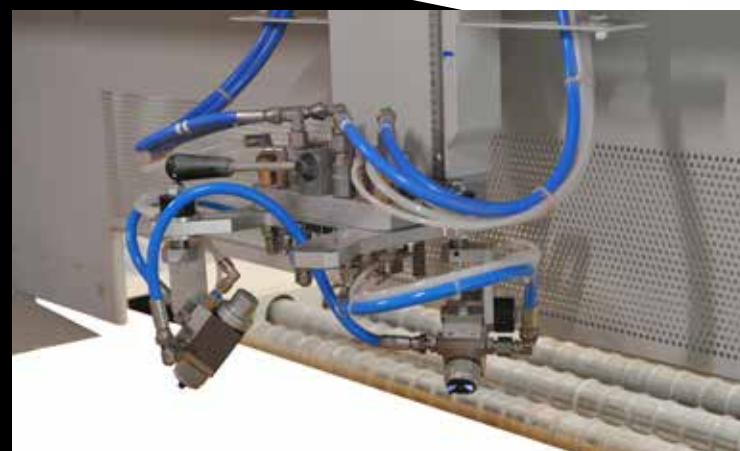
Ideal for medium productivity, “Dualtech 400” is designed to spray stain, primers and finishes onto all flat and shaped surfaces (including the edges), and is available in three versions: “**Single Belt**” (SB) with a 2,000mm wide **synthetic belt** equipped with the classic reliable product recovery and belt cleaning system by Giardina Group; “**Dual Belt**” (DB) with **self-cleaning synthetic belt** and **disposable paper system**, so that the operator can choose the most suitable system; “**Single Belt Paper**” (SBC) with **disposable paper system**.

All versions are available with a “**Dry**” (dry filtration) and “**Wet**” (water filtration) solid particulate **disposal system**.

“The “Dualtech 400” can be fitted with the “Dualtech” spraying system and the “**Dualfast**” quick gun change system.

The **spraying room** is made of carbon steel profiles and pre-painted sheet metal panels. The air distribution **plenum** ensures an efficient flow, thus reducing the paint overspray.

In both the “Dry” and “Wet” versions, the solid particulate disposal system is provided by three separate filtration stages.



## TECHNICAL DATA

- Basic usable working width: 1,300mm.
- Synthetic conveyor width: 2,000mm.
- Disposable paper width: 1,700mm.
- Gun movement system (max 4+4) driven by brushless motor.
- Reciprocating arm spacing: 1,880mm.
- Painting circuit with up to 4+4 guns (4 independent circuits on request).

More information on pages 16 and 17



The latest addition to the large family of automatic oscillating sprayers designed and built by Giardina Group is the **"Singletech 300"**, a sprayer with central **reciprocating unit** for spraying stain, primers and finishes onto all smooth and shaped surfaces (including the edges).

Designed to push the unique features of **single-arm** sprayers to their highest level, "Singletech 300" is the **"entry level" solution** for those that do not want to sacrifice the quality and performance of spray applications, with an even application onto all surfaces of the substrate to be painted and an efficient and effective overspray control.

It comes in three configurations: the **"Single Belt"** (SB, self-cleaning) version is fitted with a 2,000mm **synthetic conveyor belt**, which is in turn equipped with the classic reliable product recovery and belt cleaning system by Giardina Group. The **"Single Belt Paper"** (SBC paper) version involves the use of the **disposable paper system**. The third version – **"Dual Belt"** (DB, self-cleaning and paper) – allows the operator to choose whether to use the **synthetic belt** or the **disposable paper system**, so that the sprayer can always be used in the most ideal configuration.

The overspray reduction system inside the painting area can be a **"Dry"** (dry filtration) or **"Wet"** (water filtration) system.

The **spraying room** is made of carbon steel profiles and pre-painted sheet metal panels. The air distribution **plenum** ensures an efficient flow, thus reducing the paint overspray.

*SBC (Single Belt Paper),  
DRY disposal system  
(suction with dry filter).*

*SB (Single Belt, self-cleaning),  
DRY (suction with paper filter)  
or WET (with water curtain)  
disposal system.*

*DB (Dual Belt, self-cleaning and paper),  
DRY (suction with dry filter)  
or WET (with water curtain)  
disposal system.*



## TECHNICAL DATA

- Basic usable working width: 1,300mm.
- Synthetic conveyor width: 2,000mm.
- Disposable paper width: 1,700mm.
- Brushless gun movement system.
- 4-gun painting circuit (2 independent circuits on request).

# 600 | ROTOTECH SERIES



Watch the video

The “**Rototech 600**” is an extremely high-performance solution for evenly and uniformly spraying stain, primers and finishes onto any surface (including the edges) at **high speeds**. A technology designed for high and very high production levels in environments requiring a machine that can cope with **large workloads**.

The fast circular movement of the guns is made possible by a high or low pressure **rotary joint**, which ensures **even spraying** of stain, primers and finishes onto shaped or flat panels (including the edges).

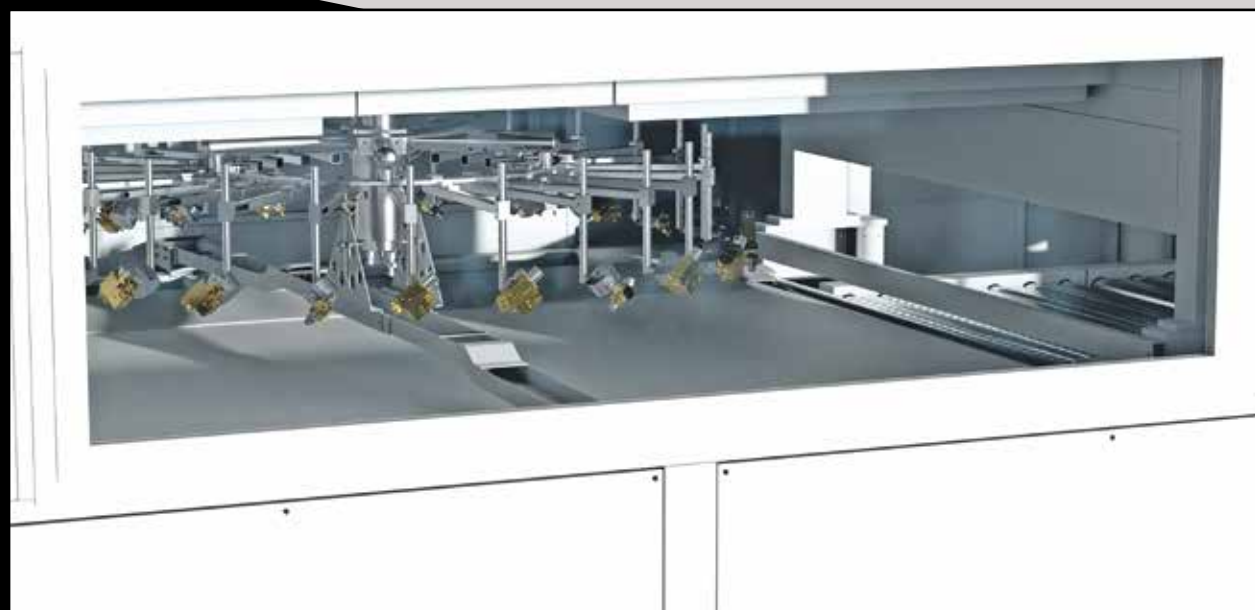
The “Rototech 600” is also equipped with the **paint recovery system** typical of Giardina Group’s entire range, and is available with either the “**Dry**” (dry filtration) or “**Wet**” (water filtration) overspray reduction system inside the painting area.

The “**rotating unit**” has an inverter-controlled drive and is designed to hold up to 12+12 guns.

It is available in a “**Single Belt**” (SB) configuration, fitted with a 2,200mm **self-cleaning synthetic conveyor belt**, which is in turn equipped with the classic reliable product recovery and belt cleaning system by Giardina Group.

The **spraying room** is made of carbon steel profiles and pre-painted sheet metal panels. The air taken from the environment is filtered and evenly distributed through the machine’s plenum in the booth.

*SB (Single Belt, self-cleaning),  
DRY disposal system (suction with dry filter).*



## TECHNICAL DATA

- Maximum usable working width: 1,300mm.
- Synthetic conveyor width: 2,200mm.
- Adjustable gun ring diameter: 1,700-2,000mm.
- Number of guns: 12+12 or 8+8+8.
- Gun rotation system (max 12+12) controlled by inverter.
- Painting circuit with up to 24 guns (3 independent circuits on request).





**Giardina Group** is a world leader in technologies for painting wood, glass, composite materials, plastic and metal. The recent creation of **Destefani**, an edge and profile sanding company, now allows us to complete an extremely wide range of solutions: from beam impregnation to the treatment of "Jumbo" glass sheet, from the sanding and finishing of edges and profiles to sophisticated robot systems to paint doors and windows, furniture, semi-finished products and materials. Design, development and manufacturing of **machines and full systems** for roller, film, spray and vacuum painting; **automated and robotic lines** with hot air, UV or microwave drying systems; **overhead lines** to paint windows and doors or three-dimensional pieces, **spray booths** and **special systems**, edge and profile **sanding** solutions.

## SPRAY PAINTING SOLUTIONS

In the spray painting sector, Giardina Group offers a range of solutions that over the years has been expanded with a number of models: "**Rototech**", "**Robotech**" and "**Dualtech**" are the categories into which the Italian group's range is now structured, joined by a machine that is the culmination of a flagship project in both technical and aesthetic terms, the "**Dualtech Forma**" designed by **Pininfarina**. An actual "system" acclaimed all over the world, with which to **tackle any spray painting issue**, from small productions to very large volumes, in terms of quality, productivity, flexibility and sustainability. "**Dualtech**" sprayers have in common the top quality of the result and key technical features, including **two opposing reciprocating painting arms** and **specific software** for optimal application on the panel's surface and edges.

## OPERATOR INTERFACE

The operator interface is a 7- to 15-inch **touch screen** control unit (23-inch on Dualtech "Forma") for easy management of the production functions and data, display of alarms, start-up of saved work programs and management of routine maintenance.



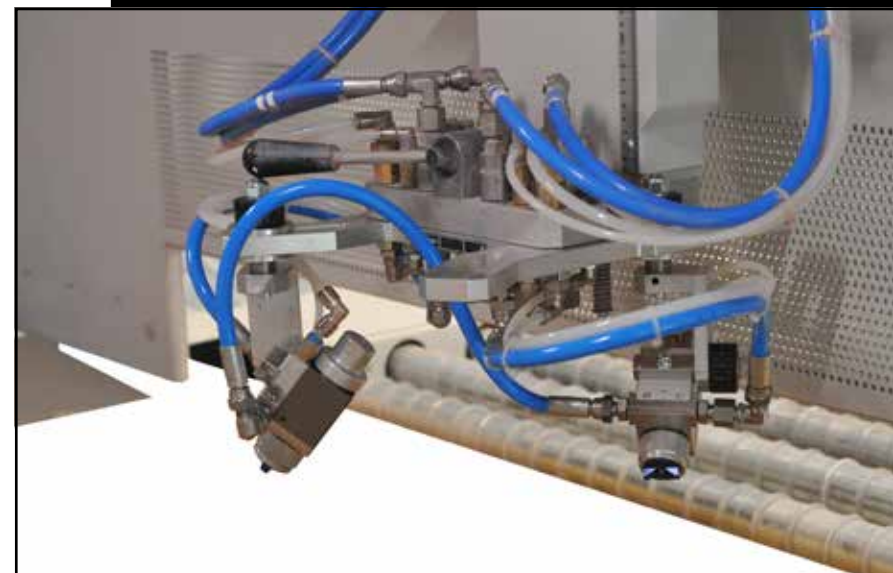
## DUALCLEAN

A patented effective and efficient system **recovers any paint** deposited on the belt, and subsequently cleans it, without contaminating the recovered product with solvents and mechanical actions that can damage the belt itself; the small size of the product recovery and belt washing system means less evaporation of solvents from the recovered product and ensures low consumption of cleaning fluid.

The **self-cleaning conveyor belt** system guarantees no paint overspray on the underside of the panels and flawless edge painting.



## HIGHLIGHTS OF GIARDINA GROUP SPRAYERS



## DUALFAST

Giardina Group's spray painting solutions can be fitted with optional aggregates that increase their flexibility. These include the "**DualFast**" colour and gun quick change system, whereby only the guns required for painting the chosen colour are physically installed in the machine and operational; the guns for the other circuits will be stored outside the machine, where they can be cleaned and prepared for later use. Quality, repeatability, less waste, less paint consumption, less maintenance performed in greater safety and comfort for the operator.

Changing the colour can be even easier and quicker with the optional "**Dualfast Clean**" unit, outside the machine, where the spray head and guns can be cleaned more thoroughly.

The two systems are available for the "Dualtech 400", "500" and "600" series.

## SCANNER

The dimensional reading device for the parts to be painted **scans continuously** so as to optimise the painting cycles and reduce consumption. On Dualtech "Forma", the dimensional reading device for the parts to be painted scans every 5 millimetres.

## AIR SUPPLY AND FILTRATION

A supply and filtration unit (air heating and air conditioning system) can be installed on request.



# ROBOTECH SERIES

gs25 | gs20 | gs15

The “Robotech” series spraying robots are a combination of technology and experience that enables the **highest performance** in terms of quality, precision, flexibility, reliability and repeatability of spray coating cycles of any paint product: stain, primers, glossy and matt finishes, transparent and pigmented finishes, solvent-based or water-based finishes.

At the core of these systems is a **6-axis** cartesian robot with numerical control able to paint parts of **any shape and size**, following the profile and optimising the coating of surfaces and edges.

The **spraying head** can be made in different configurations according to the type of use.

The standard coating head is designed to be fitted with three guns: the central gun is solely for **painting the edges** and, thanks to the brushless motor-driven “**W**” axis, can **be tilted** from 0° to 90°. This unique function means that any type of edge with any shape and thickness can be painted flawlessly. The two side guns are solely for painting the surface: located perpendicular to the panel surface, they ensure extreme spraying precision and, therefore, a considerable reduction in paint consumption.

A second (unique) multi-functional “**Combi Head**” **spraying head**, fitted with 5 guns, is available for spraying in 3-gun, 4-gun or 4-gun + 1-gun mode. Lastly, the third **4-gun spraying head** is designed to coat parts transversally and longitudinally in “**reciprocator**” mode only.

All “Robotech” solutions are fitted with a **2D or 3D detection system** at part infeed and are available with either the “**Dry**” (dry filtration) or “**Wet**” (water filtration) overspray reduction system inside the painting area; the conveyor can either be a “**Single Belt Paper**” (SBC), with the **disposable paper system**, or a self-cleaning “**Single Belt**”.

The **pressurised** spraying room has a profiled steel structure divided into several elements bolted together; the panelling consists of 40mm thick insulated panels, with sliding doors for room and rescue access.

The **infeed and outfeed conveyor** system is pneumatically liftable. There are several advantages, including a shorter paper conveyor, vertical lifting while spraying to prevent the overspray from escaping, and the simultaneous activation of the transverse suction plenums, which stop the overspray from spreading inside the booth.

This way, the conveyors are not contaminated by the overspray and so will not dirty the underside of the panels.

The “Robotech” spraying robots are **controlled and managed** via a 15-inch touch screen. Thanks to the axis management and control software, the robotic arm moves autonomously and performs the coating steps set by the operator. Instructions on the shape, size and position of the parts to be painted are automatically generated based on the data collected by the **scanner** located at the entrance to the spray booth.







Watch the video



Watch the video



Watch the video

*SBC (Single Belt Paper) or SB (Single Belt, self-cleaning), DRY (suction with dry filter) or WET (water curtain) disposal system.*

## “DRY” SUCTION AND DISPOSAL

The “Dry” version of the particulate suction and disposal system in the “Robotech gs25” spraying robot is in a loop around the conveyor made with four suction boxes, two longitudinal ones and two transverse ones.

## “WET” SUCTION AND DISPOSAL

The “Wet” version of the particulate suction and disposal system is in a loop around the paper conveyor made with four suction boxes, two longitudinal ones and two transverse ones, powered by an electric pump.

*SBC (Single Belt Paper), DRY disposal system (suction with paper filter) Dry only (self-cleaning).*

## FLOOR SUCTION AND DISPOSAL

“Robotech gs 20” is available with the “Dry” (dry filtration) overspray reduction system inside the painting area and “**Single Belt Paper**” (SBC) conveyor with the **disposable paper system**.

The particulate **suction and disposal system** is in a loop around the paper conveyor made with four suction boxes, two longitudinal and two transverse, located on the floor.



### TECHNICAL DATA

- 5 axes (X-Y-A-Z-W) with brushless drive and HMI.
- Continuous 2D reading of the size and shape of parts (optional 3D scanner).
- 3-gun “Robotech” robotic head (“Combi Head” and Reciprocator on request).
- Liftable infeed-outfeed conveyor to optimise pressurisation while painting.
- Disposable paper conveyor width: 1,700mm.
- Self-cleaning synthetic conveyor width: 2,000mm.
- Booth pressurised by independent air supply unit with air heating system (air conditioning system on request).



### TECHNICAL DATA

- 5 axes (X-Y-A-Z-W) with brushless drive and HMI.
- Continuous 2D reading of the size and shape of parts (optional 3D scanner).
- 3-gun “Robotech” robotic head (“Combi Head” and Reciprocator on request).
- Liftable infeed-outfeed conveyor to optimise pressurisation while painting.
- Disposable paper conveyor width: 1,700 mm.
- Booth pressurised by independent air supply unit with air heating system (air conditioning system on request).



DRY disposal system (suction with paper filter).

“Robotech gs15” is an actual machine with **two types of system** for automatically spraying doors and panels.

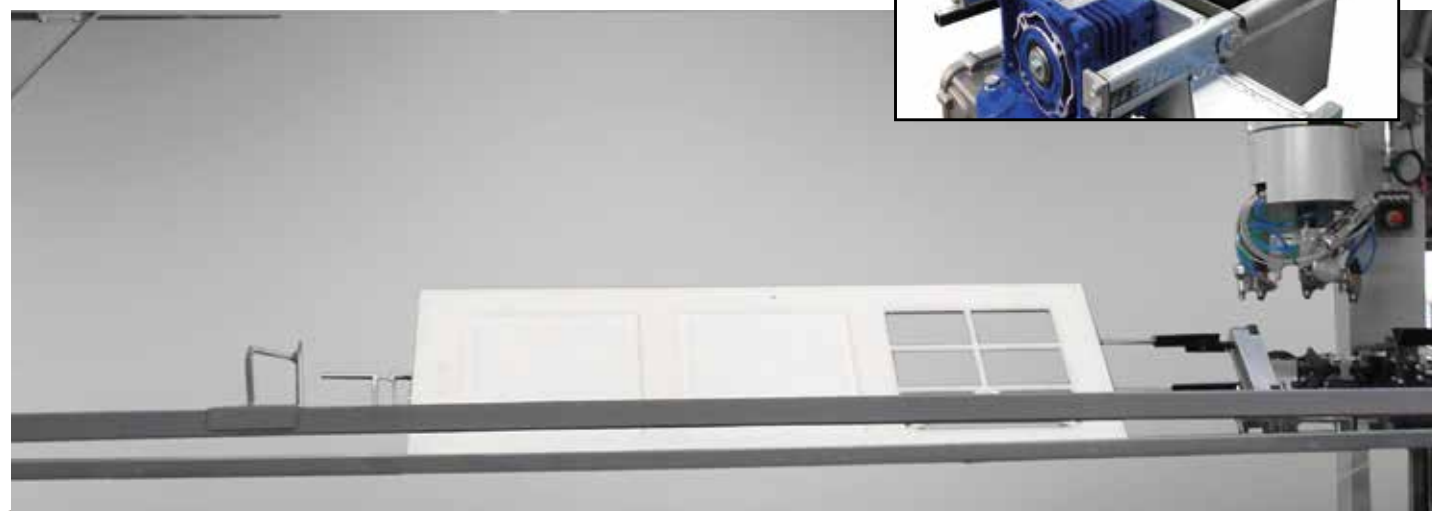
### PAINTING DOORS

The “Robotech gs15 Doors” is designed to paint **any type of door**, and it can store and recall any painting program, route or parameter. A **scanner** scans the sizes and features of the incoming door to organise the next process steps accordingly.

The **elements are transported** to the painting area on two motorised trays that are positioned so that one element can be loaded or unloaded even while the other is being sprayed.

“Robotech gs15 Doors” can be fitted with several aggregates that increase its flexibility and productivity, including the **automatic door rotation system**, the **automatic gun cleaning brush**, the **automatic loading system** of doors from the racks.

The robot is normally installed in **pressurised booths** combined with drying booths.



### PAINTING PANELS

The “Robotech gs15 Panels” 5-axis cartesian robot is designed to paint smooth or shaped panels with high quality standards. Thanks to the special **tray conveyor** system, it can be controlled by a **single operator** and requires very little space.

It can store and recall any painting program, route or parameter. A **scanner** reads the sizes of the incoming panels to organise the next process steps accordingly.

The **elements are transported** to the painting area on two motorised trays that are positioned so that while painting is in progress on one tray, a second one is being loaded or unloaded from the system.

“Robotech gs15 Panels” can be fitted with several aggregates that increase its **flexibility and productivity**, including the automatic gun cleaning brush.

The robot is normally installed in pressurised booths combined with drying booths.

### TECHNICAL DATA

#### AUTOMATIC DOOR SPRAYING SYSTEM

- Maximum door size: 3,000x1,100mm.
- Maximum door thickness: 60mm.
- Maximum door weight: 60 Kg.
- 5 axes controlled by brushless motors.
- Painting circuits: up to 4.
- Standard gun configuration: 3 (two for surfaces and one for edges).
- Door rotation system.

#### AUTOMATIC PANEL SPRAYING SYSTEM

- Maximum panel size: 3,600x1,300mm.
- Maximum panel thickness: 80mm.
- 5 axes controlled by brushless motors.
- Painting circuits: up to 4.
- Standard gun configuration: 3 (two for surfaces and one for edges).



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