

# Saveral Achieved Unparalleled Improvements in Powder Coating Quality with Its New IPS Coating Centre

As reported in the last issue of ipcm<sup>®1</sup>, Saveral has been an established player in the Italian automotive and industrial part finishing sector for many years, thanks to the flexibility of its coating systems and the high customisation degree it offers. As part of a €1 million investment in 2022 to upgrade its painting equipment, it was among the first Italian companies to install Wagner's IPS Coating Centre, a unique technology that redefines powder coating and colour change processes while opening up new horizons in terms of plant availability, productivity, and user-friendliness.

<sup>1</sup> Gabriele Lazzari, "Saveral: The Italian Powder Coating Pioneer Continues to Innovate Its Plants" in ipcm<sup>®</sup> 80, Vol. XIV, March-April 2022, pp. 112-116



Globalisation and digitisation are increasing competitive pressure in the industry, also in the powder coating field. Plant availability and productivity, therefore, are required to increase. At the same time, end customers demand increasingly customised products, which entails working with smaller batches and more frequent colour changes. Finally, the shortage of skilled workers is having an impact on performance and quality levels in some countries.

At PaintExpo 2018, Wagner Industrial Solutions launched a revolutionary solution to overcome all these challenges for coaters while maintaining a high efficiency, productivity, and quality degree: IPS Coating Centre. “The IPS acronym stands for the basic concept behind this new plant: Integrated Powder System. Indeed, only with an integrated approach can productivity and quality be increased and operations streamlined,” explains Marco Spada, xxx at Wagner. “Combined with a self-cleaning booth, a powder recovery system, guns, and other components, IPS is the first fully automated powder coating system ever configured, a game-changer for all coaters, contractors and others.”

#### Saveral's experience with IPS

Precisely one of the most important coating contractors in Northern Italy was among the first to invest in IPS. Based in Almenno San Bartolomeo (Bergamo), Saveral is a coating contracting company founded in 1954 by Abele Preda. It was one of the first companies in Italy to include powder coating in its offer and today it counts numerous leading manufacturers in the automotive, metalwork, architecture, furniture, and electromechanical sectors among its customers. Its vocation for technological innovation has enabled it to expand its customer portfolio, the range of parts it coats, and its target markets.

Increasing production volumes and quality demands over the last two years, however, led Saveral to innovate further by becoming one of the first companies in Italy to install a Wagner IPS powder centre in 2022. “IPS is a 4-in-1 solution: powder preparation, feeding, dosing, and colour change operations are integrated into one fully automatic system that ensures significant improvements in coating quality,” explains Donatella Rota, coating manager at Saveral. “It increases productivity, it ensures consistently high coating quality, it is easy to use, and it guarantees short colour change times of 7 minutes on average without operator intervention. Indeed, IPS works completely automatically without human supervision: the operator's only task is to replace the powder box at each colour change and select the coating programme matched with the parts entering the booth.”

All process steps can be fully automated and centrally controlled. Powder preparation, feeding, and dosing take place in a closed-loop system that automatically performs colour changes at the push of a button.



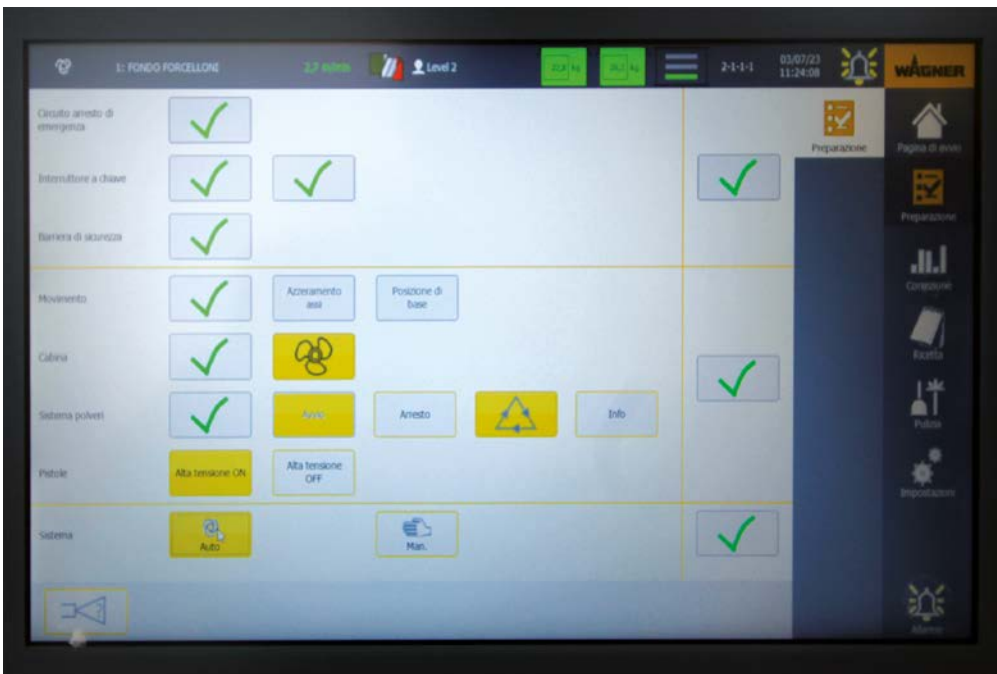
“IPS works differently to conventional powder centres,” adds Donatella Rota, “as it operates under a vacuum and without human supervision: it weighs the paint, it draws the product from the box corresponding to the set programme, it sieves it with ultrasound, it feeds the guns, it cleans the system, and it discharges the recovered powder into the box automatically. Operator intervention is only required to place the



powder box, select the coating programme on the control panel, and then remove the box after the colour change and select the subsequent coating programme.”

“The benefits we have experienced since the introduction of IPS could frankly only be guessed at the time of our purchase,” says Amos Pesenti, Saveral’s plant manager. “Its automation level is such that the operator is redundant, which is no small thing at these times of extreme shortage of skilled labour. The touchscreen user interface is very simple, even simpler than that of the other powder centre in Wagner’s range, SuperCenter, two of which are in use here at our premises. The IPS machine is connected to Saveral’s management system: it reads the barcode on the powder box, verifies conformity with the tint included in the programme selected by the operator, and starts to draw a new colour independently.”

“The cleanliness level at the colour change operations is unparalleled: with the previous system, we used to treat the feeding pipes with glass grit every fifteen days to keep them clean. With IPS, even after two months of use without treating it with grit, the booth’s suction pipe is still clean,” indicates Pesenti. “During application, no cloud is formed. On the contrary, the transfer efficiency is so high that the powder in the booth seems to be very little. The ultrasonic sieve really makes a difference when applying metallic and textured finishes. Finally, another advantage for IPS’ users is the 3D remote assistance service with a viewer offered by Wagner.”



## Integration and automation for high system availability

“Many factors ensure the high availability degree of IPS: its SMART BOXER fresh powder system can house two boxes of powder, thus reducing the risk of downtime caused by the plant running out of product. Integrated

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sensors allow for the automatic recording of paint consumption for each batch. At the core of the system, the IPS MASTER unit, Wagner has integrated a closed-loop powder preparation, feeding, and dosing system, including an ultrasonic sieve as an important element to guarantee a high coating quality. The system allows changing colours in as less as 5 minutes, depending on the tint. Whereas conventional powder centres have to be cleaned manually by an operator, resulting in their exposure to powder and in the risk of environmental contamination, the IPS machine's cleaning process is fully automatic," says Marco Spada while presenting the technical benefits achieved by Saveral.

"Another automatic process is the powder feeding one with Smart Feeding Technology (SFT), using recovered air and an electronically controlled metering valve to create an almost wear-free, high-performance circuit. The advantage is that the parameters no longer have to be adjusted manually – a task that used to require the intervention of experienced personnel. Powder supply is constantly monitored by sensors, which guarantee high process reliability with a pipe length of up to 30 metres. Thanks to this and other technological innovations, the SFT feeding and dosing technology guarantees consistent operating conditions over a long time. Finally, the powder centre can be connected to Wagner's Internet of Things solution, which, for example, provides real-time monitoring of key aspects via graphic elements and an interface to Wagner's services."

"The investment for IPS was certainly significant. However, after less than one year of use, we expect to achieve a return on investment within a short time," concludes Amos Pesenti from Saveral. "In future, we are definitely going to also replace our other powder centres with this technology. Actually, Wagner has already given us a new IPS model for testing!" ○



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