



Innovation and Quality Research in the Powder Coating Sector: the Virtuous Technological Choices of Univer 2000

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Univer 2000, a company specialising in contract powder coating, liquid coating, and sandblasting services, has been standing out for over thirty years for its constant focus on state-of-the-art technologies to offer excellent finishing results. Its latest investment dates back to 2022: the installation of a new powder coating plant designed by a pool of leading Italian companies in the surface treatment industry, equipped with Wagner's new generation IPS powder centre and a Morris-type chain conveyor supplied by Nuova Catena.

Univer 2000 headquarters located in Zané (Vicenza, Italy).



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Within a production process, the coating phase is of crucial importance because it is responsible for giving the end product not only an attractive aesthetic finish but also a series of functional properties. These include corrosion protection, resistance to scratches, impacts, and aggressive chemicals, and durability without compromising the coating's integrity. Given this process step's importance, many companies prefer to rely on a specialised contractor whose core business is coating. The activity of a contractor is thus characterised by significant complexity due to the need to meet the most diverse quality requirements, depending on its customers' sectors. Coping with such diversity means using different plant technologies and adopting a flexible approach to respond to different requests while ensuring the highest possible quality output. Sectors such as automotive, architecture, and design, known for their strict technical and aesthetic requirements, put any contractor's management and production capabilities to the test, also calling for significant investments in plant and technology.

Univer 2000 is an excellent example of how to successfully meet these challenges: with over thirty years of experience in the powder and liquid coating industry, this company based in Zané (Vicenza, Italy) constantly strives to improve quality and guarantee high-level aesthetic and functional performance. This commitment translates into a continuous search for innovative solutions and the implementation of advanced technologies to always meet its customers' needs and maintain high quality standards. The latest investment made by Univer 2000 concerned the installation of a new powder coating plant equipped with a Morris chain conveyor capable of handling large-sized components, supplied by Nuova Catena (Uboldo, Varese, Italy), and an IPS powder centre provided by Wagner (Valmadrera, Lecco, Italy). Innovation and quality research: a perfect combination that describes Univer 2000's philosophy

Founded in 1991 in Zané, in the province of Vicenza, Univer 2000 has established itself in the industrial coating sector thanks to its constant commitment to innovation, quality, and service excellence. Initially specialising in powder coating alone, the company has grown over the years, expanding its factory in 1996 and adding liquid coating and sandblasting to its portfolio of contract services.

"Our steady growth has been driven by a continuous search for innovative solutions and exclusive finishes to meet our customers' needs. The quality of our service has also been ensured through the training and specialisation of our personnel and the constant upgrading of our equipment and technological systems," states Günter Panozzo, the owner of Univer 2000. Today, the company has a factory of over 18,000 m², one of the most advanced technological facilities in Italy and Europe. It collaborates with the most important Italian interior design brands, as well as with major companies in the civil and



Univer 2000 has over 30 years of experience in the powder and liquid coating sector.

industrial automotive sectors. "Our ability to manage complex and delicate projects, offer rapid responses to customer requirements, and always guarantee the highest level of excellence at every stage of the coating process is ensured not only by our operators' expertise but also by the state-of-the-art technologies and systems we have chosen to install," confirms Panozzo. "One of them is the new plant designed and installed by a pool of Italian companies in 2022, which has enabled us to further improve our coating cycle while increasing plant flexibility, productivity, and finishing quality."

The new powder coating plant

In operation since July 2023, the new powder coating plant has been designed to serve as many sectors as possible and meet the greatest number of customer requirements. It can coat both small and large batches of parts up to 7 metres in length, 2.2 metres in height, and 1.5 metres in width. "In our factory, we process different metal substrates for a wide variety of industries, from automotive to interior design and from agricultural machinery to electrical components. Therefore, we can subject the components to two different pre-

treatment cycles, one specifically developed for aluminium and one for iron. Both pre-treatment cycles, using chemicals supplied by Henkel, consist of the following steps:

- alkaline degreasing;
- rinse with mains water;
- rinse with demineralised water;
- nanotechnology passivation.

"The pre-treatment cycle has been completely revolutionised compared with the past, bringing qualitative improvements, especially in terms of aesthetic results," illustrates the owner. Afterwards, the components undergo an oven-drying phase and then, once cooled, they reach a coating booth equipped with an IPS powder centre, both supplied by Wagner. The curing and unloading phases end the process.

This new powder coating system is going to further expand Univer 2000's pool of potential customers, reaching even niche sectors that require extremely high quality standards. "When designing this plant, one of the main challenges we faced was related to part handling. Before it was installed, we processed several large and heavy parts on a static plant. On the other hand, this new in-line system guarantees a very high level of quality that enables us to also serve a new customer segment, especially thanks to its conveyor operating with a continuous flow at a fixed, regular speed and its automatic application booth," notes Panozzo.

The reliability of Morris-type chains and of Nuova Catena

Nuova Catena supplied the track, bearings, chain, and all supporting structures for the conveyor system integrated into Univer 2000's new powder coating plant. "During the design phase of the new plant, we assessed several conveyor technologies available on the global market and thoroughly analysed the advantages and disadvantages of each solution. Eventually, we opted again for a Morris chain system, which we had already used before, relying on the expertise and professionalism of Nuova Catena's team," states Univer 2000's owner. "The Morris-type chain proved the ideal choice for us thanks to its ease of use, reliability over time, and load capacity. This is especially important for a contractor working on three shifts and handling a wide variety of workpieces to be coated," explains Panozzo.

"Reduced maintenance requirements are another key benefit of Morris-type chains: by lowering the frequency and intensity of maintenance activities, plant downtime is minimised, greater operational continuity is ensured, and maintenance costs are reduced. Finally, Morris chains are known for their reliability. This is particularly significant in an industrial context where continuous plant operation is essential to meet customer demands and maintain efficient production," says the owner of Univer 2000. "Finally, the versatility of Morris-type chains allows for easy system upgrades, adapting to changing customer requirements in terms of trolley weight and interchangeability."

Günter Panozzo then emphasises the professionalism of Nuova Catena's team, highlighting how this supplier's expertise has enabled

Overview of the conveyor supplied by Nuova Catena and a detail of the Morris-type chain.



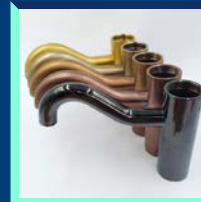
such a long collaboration to be established and then continued with his company's decision to rely on it once again for the new plant. The partnership is also going to continue in future as Univer 2000 and Nuova Catena are assessing a project to further upgrade the new system by integrating a more robust chain, capable of transporting larger and heavier components. "Another important feature of this plant is that, unlike classic systems with only one control unit, it is equipped with two control units, providing even a conveyor with such a considerable length and high flow rate with greater flexibility," adds Mauro La Guzza, production manager at Nuova Catena.

Paint application takes place in a Wagner booth equipped with a last-generation IPS powder centre

"The IPS powder centre developed by Wagner is an innovative, complete solution ensuring consistently high quality results for longer periods than conventional powder centres. It is a system integrating four key functions, i.e. powder preparation, feeding, and dosing and colour change, into a completely automatic unit, ensuring significant improvements in the powder coating process," states Marco Spada, powder sales specialist at Wagner. The IPS system increases productivity, ensures consistently high quality, streamlines handling, and reduces the time needed for colour change operations. "Univer 2000 has over 470 different colours in stock and our new plant is currently performing 10 to



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The IPS powder center supplied by Wagner.

20 colour changes per day. Therefore, a technology capable of rapid colour change operations is essential to handle customised batches with varying sizes," notes Panozzo.

The entire system is operated by a user-friendly touch-screen panel that allows for quick learning by all operators, even with frequent shifts. It also ensures consistency of production within the day without the type of operator present affecting its operation. "In addition, process traceability is guaranteed by integrated sensors that automatically record powder consumption for each coated batch, ensuring cost optimisation and constant monitoring that also allows immediate action to be taken in case of faults or other issues," concludes Maffoni.

The drive for innovation does not stop

"Innovation is the leitmotif of our company's success. We are constantly investing in new technologies to offer consistently high quality standards. The efficiency of automated industrial coating systems and state-of-the-art machinery and equipment, together with the most advanced control software, not only improves the quality of our processes and services but also reduces delivery times and costs in line with market expectations. This is an advantage for both our customers and us," confirms Panozzo. The new plant, although only operational since last July, has enabled Univer 2000 to gain a new customer base. The company has also obtained several quality certifications in recent months, including in the automotive field, and is awaiting Qualisteel Coat certification for aluminium coating. "These achievements are undoubtedly the result of the know-how and expertise of Univer 2000's employees, but also of our collaboration with reliable, attentive, and dependable suppliers. That is why we are already working not only to upgrade the new plant but also to install further powder coating systems in the short to medium term," states Panozzo. ●