



J. Wagner GmbH
a Member of
WAGNER GROUP

Otto-Lilienthal-Straße 18
88677 Markdorf
Postfach 1120
88669 Markdorf
Germany
www.wagner-group.com

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New nozzles for more efficient coating with metallic and effect powder

WAGNER has expanded its powder coating portfolio with the special nozzles C4 F5 and X1 F5 for metallic and effect powders. With the new nozzles, deposits on the inside of the nozzle are a thing of the past - and thus powder deposits with sputter formation on the workpieces. The nozzles are available as a version for the manual gun PEM-X1 and the automatic gun PEA-C4. Especially for the coating of complex geometries, whether as manual coating for pre- or post-processing or robot application, WAGNER also launches nozzles in X-design on the market.

Coatings with metallic or effect powder are in vogue. Manufacturers are responding to the increasing demands on special coatings from industry and consumers with innovative formulations. At the same time, it is becoming increasingly difficult to achieve a high-quality coating result with such "high-tech powder coatings". The processing of metallic powder is demanding. The added metal particles create an eye-catching appearance on the one hand, but also promote adhesion to the electrode holder on the inside of the nozzle on the other. These deposits detach during subsequent spraying processes and adhere to the workpiece.

In response to these challenges, WAGNER now offers for the first time special metallic flat-jet nozzles especially for the application of metallic powder and for coatings with difficult effects as an extension for C4 and X1 guns. They counteract deposits through an adapted internal geometry and the optimized positioning of the electrode in the nozzle. This ensures highest coating quality even with the most delicate metallic powder coatings, reduces time-consuming reworking of the workpieces, which can add up to thousands of Euros per year in terms of the working time required for this, and rejects. Fast color changes in improved quality and short cycle times are also supported.

Less post-processing with metallic powder coating

"The F5 nozzles produce a particularly homogeneous spray cloud when coating with metallic powder and achieve a higher application efficiency due to the optimized charge system. But they can also be used just as effectively for all other coatings," explains Michael Topp, Senior Global Product Manager for industrial powder coating systems at WAGNER.

Customers also confirm the effectiveness of the new special nozzles in long-term tests. "The rework and scrap rate could be minimized by using F5 nozzles for coating with highly pigmented metallic powder. In



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addition, the coating material could be applied in a higher dosage," says Michael Topp. Coatings with metallic and effect powders are used in many areas. They are particularly common in the furniture and automotive industries, for example, as well as in household and sports equipment.

Also new: X-nozzles for robot applications and manual recoating of complex workpiece shapes

WAGNER has also expanded its product portfolio with X-design nozzles for use with robots and for more efficient coating of hard-to-reach areas by hand. These are available both for conventional powder coatings (X-nozzle) and especially for metallic applications (F5-X-nozzle). In contrast to the flat spray nozzles used by WAGNER as standard for coating guns, the X-design nozzle offered as an accessory has a cross-shaped opening on the spray head. "When machining edges and corners, flat-jet nozzles must be precisely aligned to prevent cut-outs during coating. A nozzle with cross opening, on the other hand, requires less precision, which is why our new product enables shorter cycle times for these applications - for example for the internal coating of housings," says Michael Topp. In this area, the flexible X-nozzle also offers corresponding advantages for manual recoating.

Available individually and as a set

F5-, F5-X- and X-nozzle are designed for the manual gun PEM-X1 and the automatic gun PEA-C4 from WAGNER and are supplied individually or as a set with suitable electrode holder and union nut. The conversion effort is minimal, as the guns can be converted to F5 nozzles for processing metallic or effect powder in seconds. In robot systems, the desired X-nozzles are also simply mounted on the guns.

The flat jet nozzle X1 F5 can be used with the current CoronaStar. A special CoronaStar adapter is available as an accessory for the C4 F5 nozzle.



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Pictures



The new metallic nozzle F5 (left) and F1-X (right) using the PEA-C4 automatic gun as an example.



The manual gun PEM-X1 with metallic nozzle.



Nozzles in X-design for robot applications and manual recoating of complex workpiece geometries.



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About WAGNER:

WAGNER is a leading manufacturer of high-tech components and systems for the surface application of wet and powder coatings as well as paints and other liquid media. WAGNER surface finishing systems are used both in the industrial sector and by craftsmen and DIY enthusiasts.

WAGNER boasts a full range of products and technology, from material feeders through mixing, dosing, movement and control systems including material logistics to the surface application of the various media. Completing the product portfolio are booth and recovery systems for powder coating as well as gluing and marking systems.

The WAGNER Group has a global presence, with a workforce of approx. 1,500 people, 17 operative companies, and around 300 WAGNER agencies worldwide. The WAGNER Group is owned by the Josef-WAGNER Foundations which, in addition to supporting the group of companies, pursue exclusively non-profit, charitable aims.

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