WAGNER

Industrial Solutions

Electrostatic guns - GM 5000

MANUAL APPLICATION

- Superior finishing
- Great savings
- Human engineered design

Perfect surface finishing, excellent wrap around, fast return of investment

Electrostatic Technology

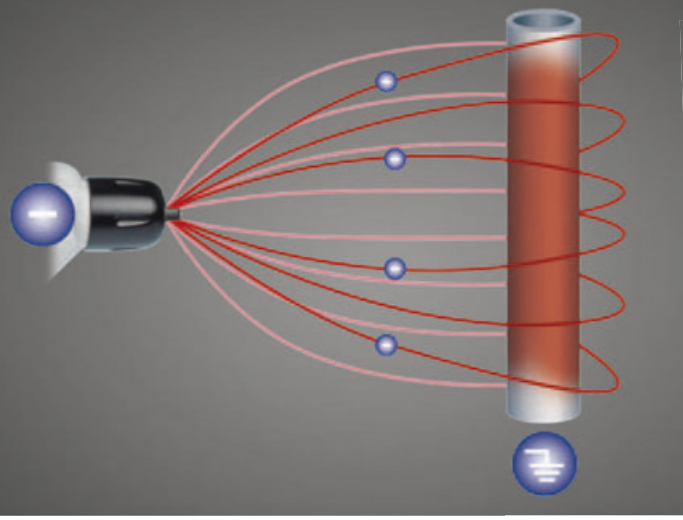
The WAGNER electrostatic guns are highly economical coating systems, offering decisive advantages in many areas of the industry.

HIGH SURFACE QUALITY

Due to the homogeneous alignment of the electrostatic field lines, the film thickness is extremely uniform. In addition, particles charged with the same polarity improve significantly the atomization power for creating an excellent surface finishing.

TIME SAVINGS DUE TO WRAP AROUND EFFECT

The paint, which is electrostatically charged by the spray gun, is attracted to all sides of the grounded object. This wrap-around effect saves time, and depending on the object, it may only need to be coated from one side.



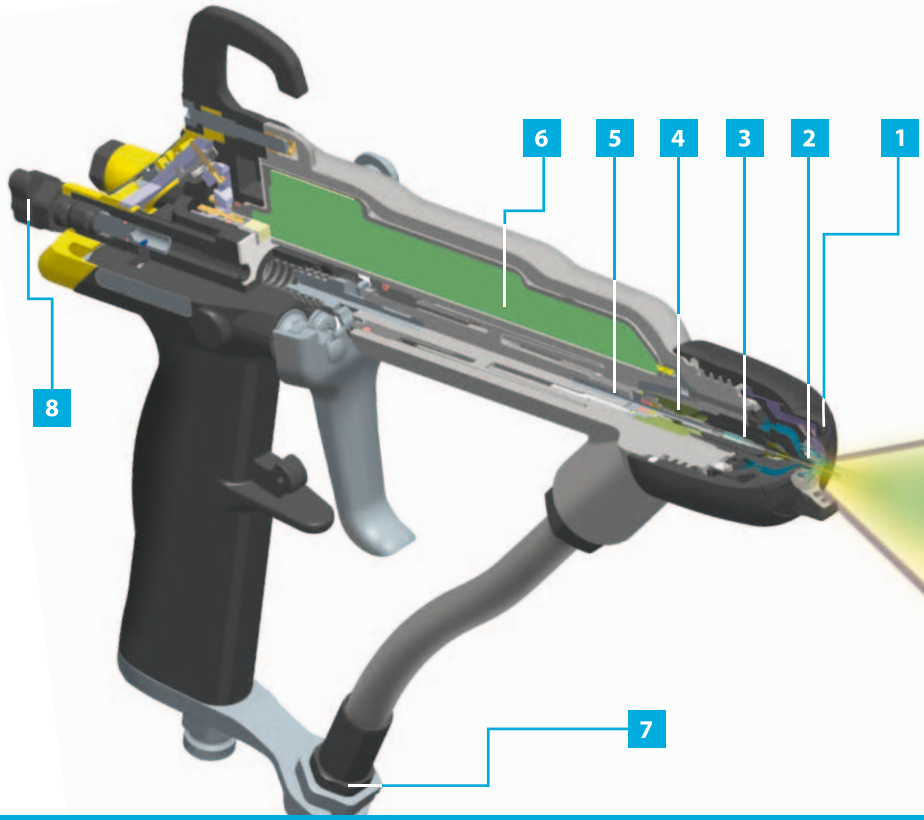
LESS WASTE, HIGH TRANSFER EFFICIENCY

An electrostatic field is generated between the electrode and the grounded work piece. The paint particles will be charged and attracted by the grounded object. This effect increases the efficiency up to 65% compared to non electrostatic systems.

FAST RETURN ON INVESTMENT

WAGNER technology exploits, the electrostatic properties to achieve a very efficient and economical system.

Calculate your return-on-investment using the WAGNER ROI-Calculator on the attached page.



1. Aircap
2. High quality nozzle
3. Material valve
4. Long life packing
5. Needle with special treatment to reduce wearing
6. High voltage cascade
7. Material filter (AirCoat)
8. Fan air adjustment

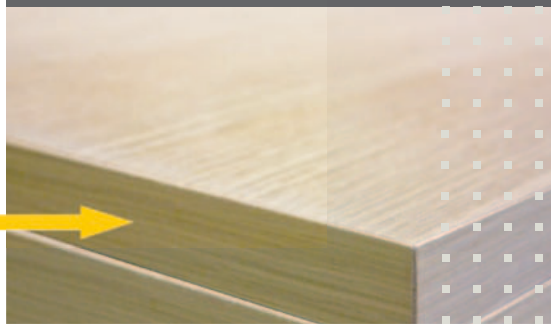
Great advantages for your business

WAGNER GM 5000 guns: Designed for your needs!

Metal protection & finishing

Plastic finishing

Wood finishing



TYPICAL APPLICATIONS

- Metal protection & finishing
- Wood finishing
- Plastic finishing
- Aerospace industry
- Automotive components
- Motorcycle parts

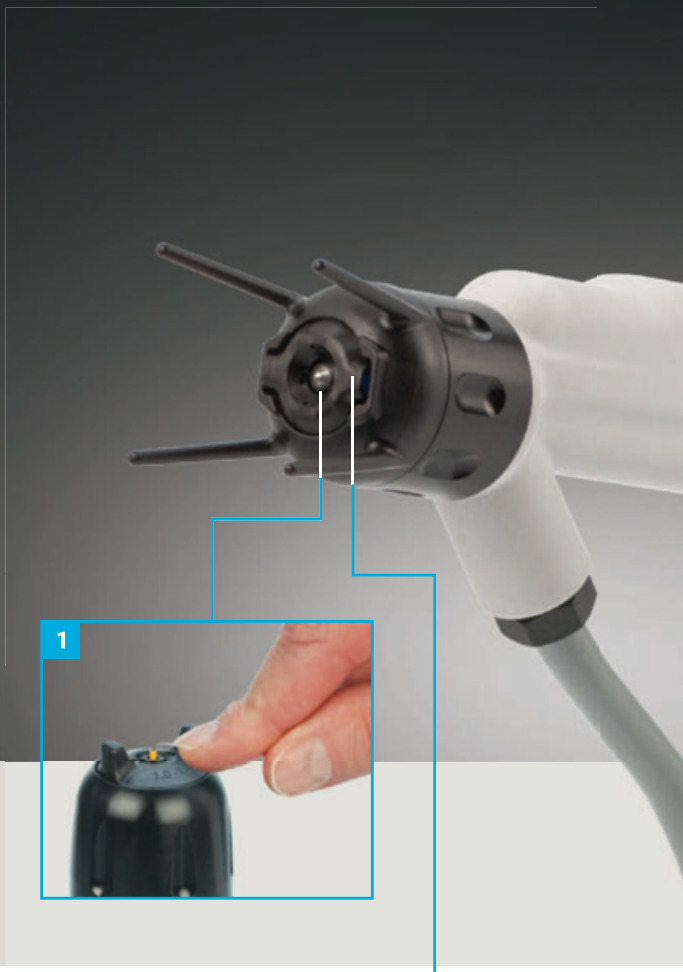
TYPICAL FLUIDS

- Solvent- and water based material
- 1K and 2K paint
- Primer and top coat
- Low-/ medium- / high solid material
- Paints and release agent
- PU and Epoxy material
- Metallic paint
- UV paint

Features and advantages of GM 5000

GM 5000EA / GM 5000EAC advantages that matter!

New generation of manual electrostatic spray guns born to significantly improve the life of the painter.



1 **Flexible Electrode**
The ultra flexible electrode provides a reproducible performance of the gun. This gurantees excellent wrap around and high transfer efficiency.

2 **Human Engineered Design**
Designed for reducing operators fatigue. The right combination of ultra light weight, ergonomic design, low trigger force and excellent balance lead to a gun with optimum working comfort for small and large hands.

CE Ex II 2G EEx 0.24 mJ

Robust Design
Rough environment, intensive usage, different spraying materials and more is what the GM 5000 range is designed for.

High Safety Standard
The GM 5000 gun range is compliant with CE and Atex Zone 1 standard. The grounding of the gun is monitored by the control unit for maxiumum safety of the painter. If grounding is interrupted high voltage is cut off.

Exellent finishing quality
Innovative nozzles and air caps specifically developed to create a pattern with ideal particle size for perfect combination with electrostatic charges to achieve superior performances and quality.

Integrated control pannel

Settings at the finger tip

RECIPE

Recipes set at the control unit can be selected directly at the gun. This enables the painter to spray with the best parameters in relation to different work pieces. Recipes enable operators to pre-define different values of current and voltage. The right values are important to optimize wrap-around and penetration power.

WORKING CONDITIONS

During spraying the green LED signals that the conditions are good. In addition if the orange LED lights are on, it means that the working conditions, e.g. grounding of parts, distance to object, paint resistance, should be checked.

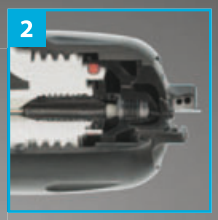
VOLTAGE ON/OFF

The integrated switch allows the operator to turn on/off the high voltage for safe flushing procedures and special application requirements.

WAGNER Airspray - Superior finish for high quality surfaces

WAGNER Airspray Technology

The extensive experience WAGNER has in electrostatic applications is applied to the newly developed atomization system to attain the best finishing quality and high transfer efficiency with a variety of paints.



1 Unique air cap / nozzle design

The new developed air caps and nozzles provide a superior spraying result. Different air cap lines are available to achieve superior atomization and fan adjustment with different paints.

- Flat spray AF 5000 small – smaller spray pattern and slow air speed
- Flat spray AF 5000 wide – wider spray pattern and slow air speed
- Round spray AR 5000 D8 – full cone with swirl and small spray pattern diameter
- Round spray AR 5000 D12 – full cone with swirl and wide spray pattern diameter

Different nozzle diameters from 0.6 up to 2 mm are available for flat spray to adapt the spray gun to low and high material flow and viscosities.

The color coded nozzles can be changed without tools to aid in the process of finding the right nozzle size for the job.

2 Integrated material valve

The integrated material valve reduces down time because the nozzle can be changed without relieving the material pressure and flushing.

3 Needle stroke adjustment

Precise and easy needle stroke adjustment can be achieved with the indexing function for fast fine tuning of the paint flow.

Select the right Airspray gun for your purpose

Different versions for different materials

GM 5000EA guns are available in three versions suitable for the paint being used.

GM 5000 Technical Data

Manual ESTA Airspray guns

Technical Data	GM 5000EA	GM 5000EA LowR	GM 5000EAW
Material pressure (max.)	8 bar	8 bar	8 bar
Voltage output (max.)	80kV	80kV	70kV
Air pressure (max.)	8 bar	8 bar	8 bar
Weight	618g	535g	453g
Length	261mm	261mm	261mm
Recommended paint resistant (WAGNER Scale)	> 150kOhm	> 50kOhm	1kΩ.cm to 1MΩ.cm
Material inlet	BSP ¼"	BSP ¼"	BSP ¼"
Air inlet	BSP ¼"	BSP ¼"	BSP ¼"
Material temperature (max)	50°C	50°C	50°C

SOLVENT-BASED PAINT

GM 5000EA

This version is suitable for the majority of solvent based paints with a paint resistant above 150kΩ. Connections are directly at the gun base, easy to remove.

(HIGH CONDUCTIVE)

GM 5000EA LowR

Version suitable for all types of high conductive solvent-based paints like metallics or paints with resistivity above 50kΩ. Equipped with special paint hose.

WATER-BASED PAINT

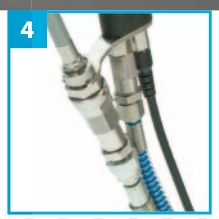
GM 5000EAW

Water-based version suitable for the majority of water-based paints with a paint resistant of 1kΩ.cm to 1MΩ.cm. No HV cascade in the gun and equipped with special isolated paint hose. To be used with AquaCoat or other isolated system.

WAGNER AirCoat - Perfect finishing for high quality surfaces

WAGNER AirCoat Technology

The right combination of Airless, Airspray and electrostatic charging combined with the unique WAGNER know how results in perfect finishing, high productivity, soft spray pattern, excellent wrap around and very high transfer efficiency.



1 Air caps
Unique designed air caps for flat spray and round spray make it possible to achieve an optimum result for different paints.

- Flat spray LV – best for low to medium viscosity material - red marking
- Flat spray HV – best for medium to high viscosity material - blue marking
- Round spray - adjustable width

The air caps are color coded to avoid mistakes when replacing them.

2 Unique ACF 5000 nozzles
The new developed and patent pending ACF 5000 nozzle combines perfect spray pattern with easy flushing. If the nozzle is blocked it can be turned 180° to spray out the clog.

3 Material filter included
For perfect surface results and to avoid clogging of the nozzle, a material filter is integrated in the GM 5000EAC gun. It can be opened without removing the material hose from the gun, reducing downtime.

4 Material- & air swivels
Maneuverability and handling can be increased by using material- and air swivels. Available as option.

5 250bar max pressure
Following the development of increasing paint viscosity the GM 5000EAC gun is designed for a max. material pressure of 250bar (highest in the market for electrostatic AirCoat guns). Therefore the gun is suitable to apply high viscosity materials even with long hoses.

The right AirCoat gun for your purpose

Different versions for different materials

GM 5000EAC guns are available in three versions to best fit all paints.

GM 5000 Technical Data

Manual ESTA AirCoat guns

Technical Data	GM 5000EAC	GM 5000EAC LowR	GM 5000EACW
Material pressure (max.)	250 bar	250 bar	250 bar
Voltage output (max.)	80kV	80kV	70kV
Air pressure (max.)	8 bar	8 bar	8 bar
Weight	697g	551g	472g
Length	261mm	261mm	261mm
Recommended paint resistance (WAGNER Scale)	> 150kOhm	> 50kOhm	1kΩ.cm to 1MΩ.cm
Material inlet	NPS ¼"	NPS ¼"	NPS ¼"
Air inlet	BSP ¼"	BSP ¼"	BSP ¼"
Material temperature (max)	50°C	50°C	50°C

SOLVENT-BASED PAINT

GM 5000EAC

This version is suitable for the majority of solvent based paints with a paint resistance above 150kΩ. Connections are directly at the gun base, easy to remove

(HIGH CONDUCTIVE)

GM 5000EAC LowR

Version suitable for all types of high conductive solvent based paints like metallics or paints with resistance above 50kΩ. Equipped with special paint hose.

WATER-BASED PAINT

GM 5000EACW

Water-based version suitable for the majority of water-based paints with a paint resistivity of 1kΩ.cm to 1MΩ.cm. No HV cascade in the gun and equipped with special isolated paint hose. To be used with AquaCoat or other isolated system.

New intelligent control units

The right control unit for your requirements

WAGNER has developed a new range of intelligent control units based on advanced technology and long experience. The units are able to adapt, in real time, all electrostatic parameters to provide the best gun performances in any conditions.

SETTING OF VOLTAGE AND CURRENT

For the best performance of the gun, the settings of high voltage and current are essential. Both parameters have to be set in-line with the material characteristic, environment conditions and work piece requirements.

Control units - Technical Data

	VM 500	VM 5000	VM 5000W
Functions at the unit			
On / off switch	Yes	Yes	Yes
Indication when HV is generated	Yes	Yes	Yes
Monitoring of gun grounding	Yes	Yes	Yes
Suitable for ATEX Zone 2	Yes	Yes	-
Voltage & current adjustment	-	Yes	Yes
Display for voltage and current (set and actual values)	-	Yes	Yes
Service interval	-	Yes	Yes
Receipt storage	-	Yes	Yes
Interface	-	Yes	Yes (limited)
Air regulators (atomization-/fan-/mat. pressure)	-	-	Yes
Control of AquaCoat safety devices	-	-	Yes
Function at the gun			
Receipt selection	-	Yes	Yes
Working conditions	Yes	Yes	Yes
High voltage on/off	Yes	Yes	Yes
Suitable for			
GM 5000EA & low R	Yes	Yes	-
GM 5000EAW	-	-	Yes
GM 5000EAC & low R	Yes	Yes	-
GM 5000EACW	-	-	Yes

ATEX ZONE 2 COMPLIANT

This unique feature allows to bring the control unit closer to the spray gun, in an area which is classified as ATEX Zone 2.

RECIPE

Three recipes of voltage and current can be stored. They can be activated from the gun or control unit. This change of pre-defined settings enables the painter to select the prefered working conditions.

SERVICE TIME

For best spraying performance over time, a preventive maintenance of the gun is recommended. The spraying time of the connected gun can be monitored and a service interval can be set.

MONITORING OF GUN GROUNDING

The grounding of the gun is monitored by the control unit for maxiumum safety of the painter. If grounding is interrupted high voltage is cut off.

OPERATOR INTERFACE

The very easy and simple one knob adjustment of all parameters allows operators to change settings quickly.

Adapt the gun to your needs

A wide range of nozzles, air caps, hose packages, etc., to adapt the WAGNER electrostatic guns to your specific application.

1 Cables & Extensions
A wide range of gun cables in 10,15,20, 25m and extension cables, 10 and 20m, are available.

2 Gun flush box
The gun flush box makes the daily cleaning work much easier and faster. Supporting the health of the painter, the cleanliness of the environment and reduces solvent, time and waste.

3 Test equipment
Test equipment e.g. paint resistance meter, high voltage testers are available.

4 Hose packages
Hose packages are available for Airspray and AirCoat, 7.5, 10, 15 and 20m.

5 Mounting equipment
To make easy, fast and safe storage of the gun when not in use.

Working safely with water-based paints

WAGNER AquaCoat®

SUPPORTING THE CHANGE TO WATER-BASED PAINT FOR ELECTROSTATIC APPLICATION.

The new AquaCoat® system combines maximum safety and quality spraying performance. WAGNER offers a system, with its sophisticated technology and extensive combination of safety precautions offers optimal protection for the user.

1 High level of safety
The central control unit regulates and controls all functions of the AquaCoat® system. During application, access to the interior of the device is blocked mechanically. The most important safety systems are present in duplicate, thus eliminating any source of danger to the user.

2 High process reliability
The supply capacity of up to 60 l of material reduces downtime and increases productivity. Automatic level control and constant stirring of the material ensures high surface quality - optional.

3 Easy to use
A hose and gun holder on the outside of the AquaCoat® protects the hose package and the gun against soiling and damage. The large front opening enables easy access to the paint supply and quick color changing. The recesses for fork lift and the optional trolley simplify handling.

4 Easy maintenance
The central fastening mechanism for the gun and hose package enables them to be changed quickly, keeping downtimes short. An inliner simplifies cleaning of the interior.

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