



## VARIOCHARGER EXCEPTIONALLY EFFICIENT PAINT APPLICATION

VARIOCHARGER IS A HIGHLY EFFECTIVE SYSTEM FOR THE PRECISELY METERED ELECTROSTATIC APPLICATION OF WATER-BASED PAINTS. IT MINIMIZES WASTAGE OF PAINT AND RINSING AGENT, AND ENABLES RAPID CHANGEOVER.

Electrostatic application has many advantages, including a very even coating and exceptionally efficient paint transfer. In this field, direct electrostatic charging has proven to be the most effective method. However, the paint at the atomizer is subject to high voltage, and if eco-friendly water-based paints are employed, there is a risk of short-circuiting. Against this background, a section of the VarioCharger system is electrically insulated (galvanic isolation) from the rest of the line. Until now, these systems have been associated with significant material wastage upon color changeover. Moreover, the pump and the atomizer are positioned far apart, and there is high maintenance and rinsing effort. VarioCharger enables rapid changeover with minimal paint and rinsing-agent wastage, in combination with precise metering and high paint transfer efficiency.

### **Operating principle**

VarioCharger comprises two parallel metering cylinders, operated alternately. These control the cylinder-filling, painting and rinsing process steps. In contrast to conventional systems, VarioCharger does not employ pigs to apply paint, but a directly driven piston. Only the cylinder-filling line, which is used by both cylinders, operates with a pig, for greater ease of maintenance.

The piston technology (patent pending) allows rinsing agent and paint to be strictly segregated. As a result, the same cylinder can be employed to deliver the precise amount of paint and rinsing agent required. Moreover, the rinsing agent is potential-free. The direct drive ensures the piston describes a smooth linear movement. This allows a precise quantity of paint or rinsing agent to be drawn into the cylinder, like a liquid medication into a syringe, and then applied to the surface to be coated. As the cylinders are filled and operated alternately, paint application can continue uninterrupted until a changeover is required or the paint supply is exhausted.

Thanks to its compact design, the VarioCharger can be installed into a variety of robot arm types and makes, immediately upstream of the Eisenmann atomizer system.

# VARIOCHARGER

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### Advantages at a glance

- Piston technology (patent pending) with galvanic isolation  
Minimal material wastage upon changeover
- Uninterrupted and precisely metered paint application
- Changeover possible in less than four seconds
- Precise metering of even very small quantities of paint
- Streamlined processes, reduced programming effort and fewer sensors
- Can be integrated into practically any make of painting robot
- Easy to maintain



*Exceptionally efficient paint application.*

**EISENMANN**

[www.eisenmann.com](http://www.eisenmann.com)

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