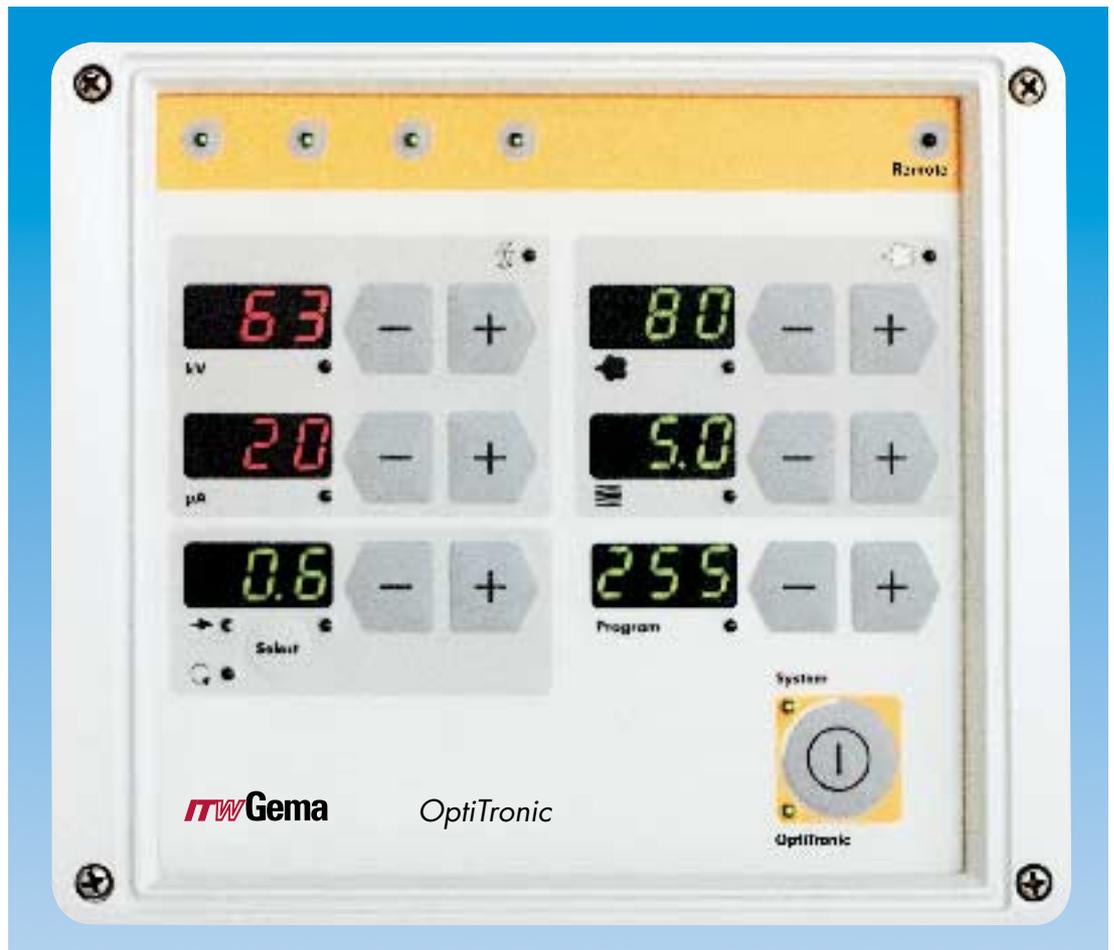


QUITE SIMPLY – OPTIMUM RESULTS

Simple operation, optimum coating results and powder savings – easily achieved



The advantages of the OptiTronic™ powder gun control at a glance:

- Reproducible coating results at all times
- Separate and exact setting of all coating parameters
- Consistent powder charging
- Uniform powder output from all guns
- Constant build-up of the coating film structure
- Constant spraying pattern
- Reduction of the average coating thickness = Powder savings
- Continuous compensation of compressed air and dynamic fluctuations

The OptiMatic™ equipment line

With the new OptiMatic™ equipment line ITW Gema is leading the way to the future of control technology. The goal is to make the work of the operator as simple as possible. The equipment line contains all the control units which a fully automatic coating plant requires: from the simple powder gun control, through the reciprocator movement control to the fresh powder supply. The OptiMatic™ equipment configuration can be assembled to fulfil the customer's exact wishes and coating requirements.



The OptiTronic™ powder gun control

It consists of a basic control system which can be expanded with additional modules to suit customer requirements. Important innovations of the OptiTronic™ powder gun control are: The ability to store up to 255 powder coating programs, permitting reproducible coating results at any time. Digital display of the coating parameters, allowing exact and reproducible settings. The ability to program the high voltage and spraying current, which are adjusted automatically, enabling constant powder charging condi-

tions, results in improved penetration and film uniformity. The "powder hose length correction" function, which makes possible the standardization of the individual powder outputs, leads to a regularly shaped spray cloud pattern of the guns, a uniform coating build-up, reducing average coating thicknesses and providing powder savings. The FlowControl™ module, which can be incorporated to enable continuous compensation of the compressed air and dynamic fluctuations. The DigitalBus™ module, which can be incorporated to exchange data with a higher hierarchy control.

Basic control system

All coating parameters can be programmed separately, memorized and altered at any time. Deviations through the use of different powder, powder hoses and injector types are compensated, resulting in a more uniform coating structure and a reduction in average coating thicknesses with powder consumption greatly reduced. The powder volume is adjusted independently of the total air volume. The allotment of conveying air and supplementary air is automatically regulated by the control unit. The operator works with an ideal total air volume. The optimum powder cloud form leads to reduced powder consumption because more powder adheres to the workpiece and less powder goes into the powder recovery circuit. High voltage and spray current are freely selectable. Thanks to this, even difficult-to-coat workpieces with recesses can still be reliably coated with high quality, even with difficult metallic and architectural powders. Four diagnostic diodes indicate the function status of the operating voltages and the main solenoid valve. A fault is indicated by a diagnostic fault list in the program display window.

FlowControl™ air volume regulation

The FlowControl™ module continuously measures by means of air flow sensors the flow of the conveying and supplementary air, compares them with the programmed theoretical values, and when necessary adjusts them accordingly. Compressed air and dynamic variations caused by the system are compensated. The large air volume adjustment range (conveying air up to 6.5 Nm², supplementary air up to 4.5 Nm²) makes possible coating with large gaps between the guns and the workpieces. The optimum powder cloud form is guaranteed at all times.



DigitalBus connection module

With the DigitalBus™ module the OptiTronic™ powder gun control exchanges data with a higher-level control system. Therefore all coating parameters can be controlled on-line directly from a PLC or also through another databank (e.g. a PC).



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