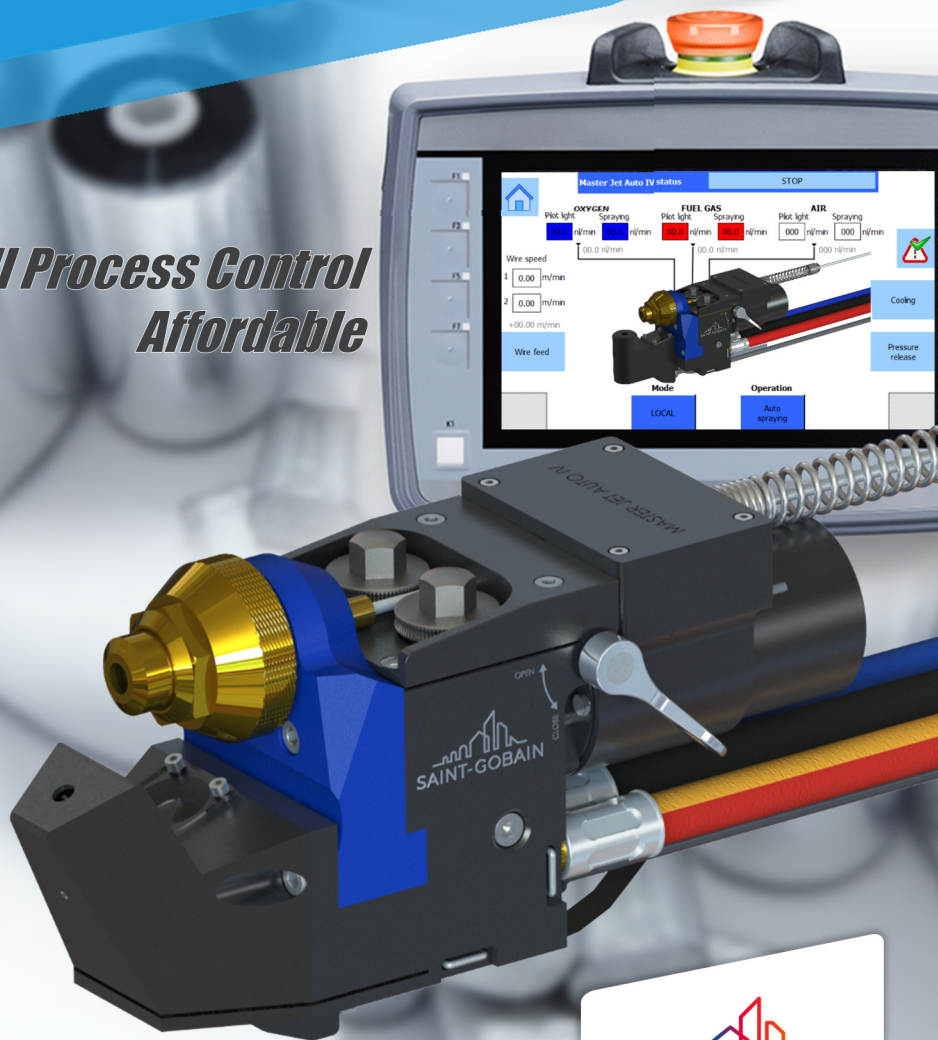


# MASTER JET<sup>®</sup> AUTO IV

*Full Process Control*  
*Affordable*



SAINT-GOBAIN COATING SOLUTIONS

  
**SAINT-GOBAIN**

# MASTER JET® AUTO IV

With the goal of improving the productivity and the versatility, Saint-Gobain designed the MASTER JET® AUTO IV. Simple and unique at the same time, the MASTER JET® AUTO IV reaches very high level of supervision. Using the MASTER JET® AUTO IV will give you a very high level of control and a safe operation of your flame spray process. Thanks to the MASTER JET® AUTO IV you also have less process parameters to control so there is **LESS RISK OF PROCESS DRIFT !!!**

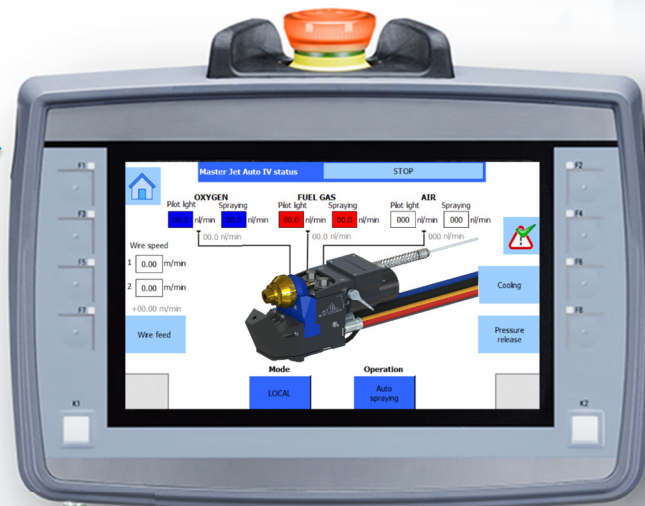
## USER FRIENDLY MOBILE TOUCH SCREEN DISPLAY

The mobile touch screen is *ergonomic* and intuitive allowing efficient use. Different functions, such as *diagnosis*, registering of recipes, and 3 level of users login, show a significant help in your workshop management and *quality process control*.

## PRODUCTION DATA

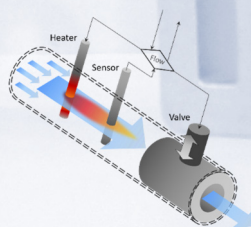
You are able to extract data of your production through a USB port:

- Oxygen flow (slpm)
- Fuel gas flow (slpm)
- Air flow (slpm)
- Wire speed (m/min)



## ACCURACY, CONSISTENCY

Accurate and consistent, *thermal mass flowmeter controllers* guarantee flame characteristics and particle sizes always identical, piece after piece, production after production.



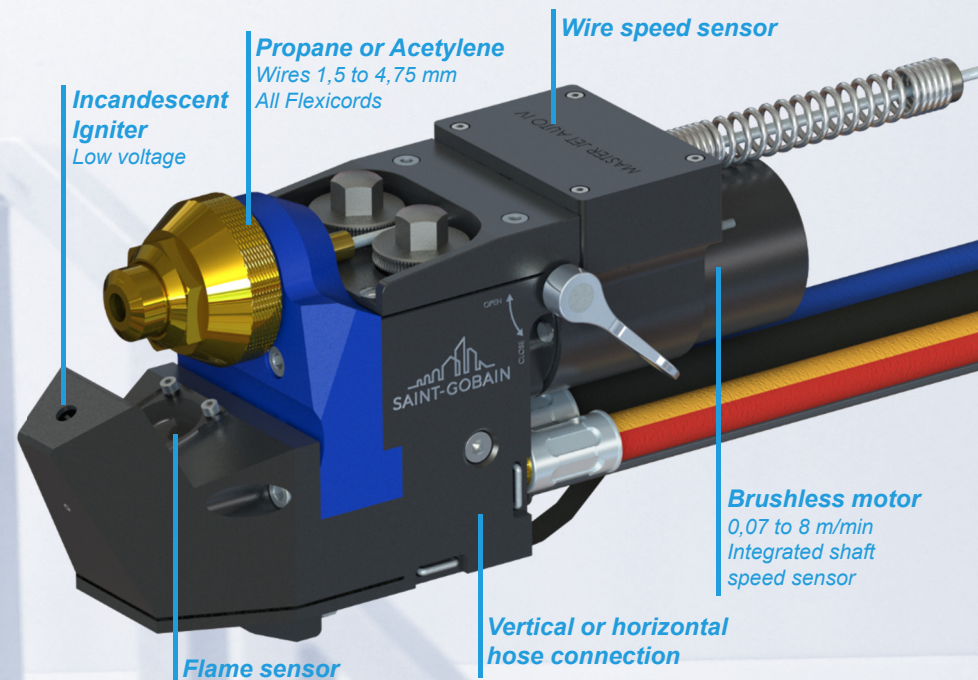
## PRODUCTIVITY INCREASE

The new « wire boost » function, the insensitivity to gas pressures variations, the efficiency of ignitions, and self monitoring reduce variation and *improve productivity*.

## INTEGRATED INSTALLATION = TIME SAVING

The Master Jet® Auto IV is designed to work on its own. It can be driven either manually or through your *production process*, therefore leaving more time to your operator for other actions.

Due to its high level of *automation*, it guarantees you a *safe* use with its flame and wire speed sensors. The Master Jet® Auto IV will *automatically* stop if there is any abnormal situation, such as the end of the wire, pressure supplies too low or gas tank getting empty.



## OPTIMIZED DESIGN, FLEXIBLE

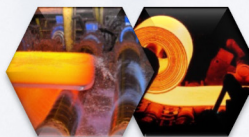
The MASTER JET® AUTO IV gun is very compact, only 240 x 94 x 125 mm and 2,5 Kg. It is delivered with a modular bracket to be fixed on a robot at different positions and angles. It is also possible to connect the hose package in a horizontal or vertical position according to your needs.



Electronics



Automotive



Steel forming



Galvanized tubes



Paper



## Master Jet Auto IV - Touch screen display

Siemens Mobile touch screen display – LCD TFT 7"- IP65 – 248 x 195 x 89 mm - 8 function keys + 2 illuminated buttons (START & STOP) - Integrated Emergency Stop (1,3 Kg)  
Wall-mounting bracket included (1 Kg)

Length of the cable between control unit and screen	5m (other lengths upon request)	
Touch screen display operating conditions	Temperature	0 ... +45 °C (atmospheric)
	Relative humidity	10 ... 90%, without condensation

## Functions

User control	3 levels of access with password (Operator, Technician, Maintenance)
Registration of spray parameters	Up to 99 recipes
Recording of process data	Yes – can be extracted by USB key
Remote control	Must be wired by the customer (connector included) : ignition, stand-by, spraying, stop, cooling of nozzles, wire boost (2 <sup>nd</sup> wire speed).
Communication with external systems (robot, X-Y axis manipulator, ...)	Must be wired by the customer (connector included) : Emergency stop, torch default, spraying, selection 1 <sup>st</sup> or 2 <sup>nd</sup> wire advancement speed (WIRE BOOST).

Access to set the sequences for ignition, spraying, stand-by and stop (time delay)

Automatic flame detection, automatic ignition by incandescent igniter, ignition test, cleaning of the fluid circuits, cooling of nozzles, page to control state of input and output, cleaning of the igniter...

## Monitoring (alarms)

Minimum flow rates for each gas	1 lower limit and 1 upper limit (%)
Minimum pressure for each gas	1 lower limit Oxygen, Gas, Air
Minimum wire advancement speed	2 lower limits and 1 upper limit (%)

## Master Jet Auto IV - Control unit

Size (LxWxH)	1200 x 400 x 1100 mm (on 6 wheels)
Weight	130 Kg

## Gas control unit (right side)

Fluid circuits in stainless steel and brass

## Mass flow controller

Oxygen	Up to 95 slpm at 4 Bar		
Acetylene*	or	Propane*	Up to 31 slpm at 1,4 Bar
Air	Up to 640 slpm at 6 Bar		
Flow rates accuracy (mass flow controller)	+/- 2% of full scale		
Consistency of flow rates	> +/- 0.2% of full scale		
Flow rates unit	slpm		
Filter for each gas line	Pressure switch for each gas line	Gauge pressure for each gas line	

Gas leak detection IP67 for the fuel gas

## Electrical control unit (left side)

Voltage supply	Single phase 220-240 V 50/60 Hz (110 V 50/60 Hz upon request)
Consumption (full installation)	6 A max
Motor electronic control board	Up to 36 VDC up to 5 A
PLC	Siemens S7-1200

## Master Jet Auto IV - Gun

Material feeding speed range (closed loop speed control)	0 to 8 m/min
Control of open/close feed rolls	Inductive sensor
Flame sensor to detect the presence of the flame - Automatic ignition with ceramic igniter (incandescent) - Control the material feed rate continuously and the presence of the material (during spraying) - Robot mounting bracket included - Vertical or horizontal hoses connections possible	
Weight	2,5 Kg
Size (LxWxH)	125 x 94 x 240 mm

## Master Jet Auto IV - hose package

Length of the hose package	10 m
Crimping of hoses according to EN 1256 – ISO 3821	
Flashback arrestors and non-return valves according to EN 1256 – ISO 3821	
Solenoid valves on oxygen and fuel gas (1.5 m behind the Master Jet Auto IV gun)	