

# 3MB

## Plasma Spray Gun

### Introduction

**3MB plasma spray guns are well-known by the thermal spray industry for their reliability and are one of the most used plasma spray guns worldwide.**

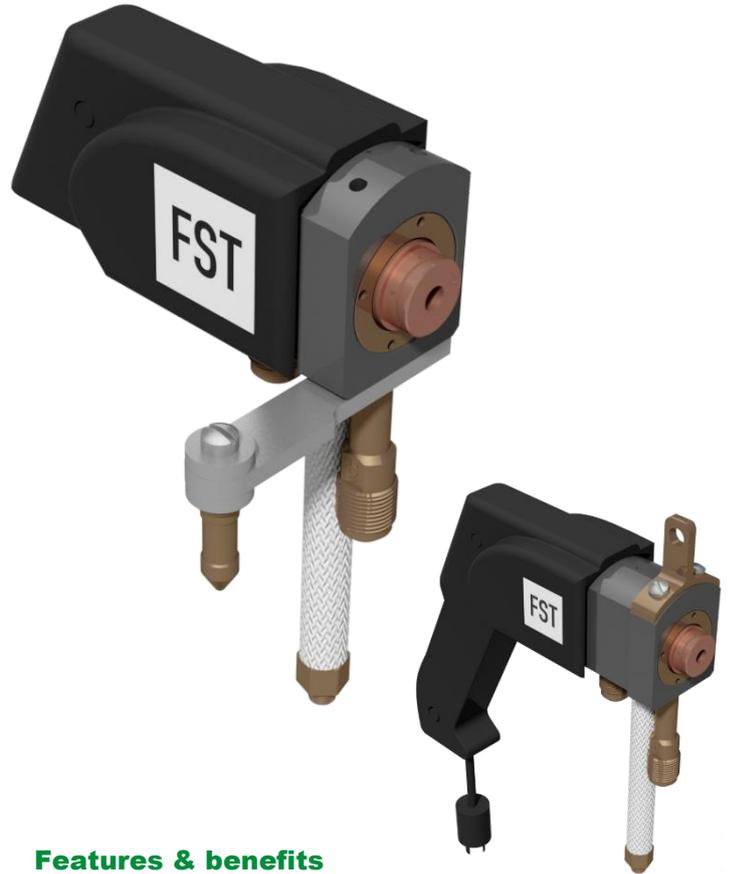
The 3MB is a general purpose spray gun that produces high quality, consistent and repeatable thermal sprayed coatings.

The 3MB can be considered a benchmark of the industry and is highly regarded for its ruggedness and dependable performance. Many OEM's have selected the 3MB for various coating application specifications.

The 3MB is capable of depositing high-quality coatings of metal, metal alloys, carbides, composites, blends, cermets, abrasives and ceramic powders.

The 3MB is available in both machine mount (3MBM) and handheld (3MBH) configurations. Modular construction allows for easy maintenance of major gun components. Nozzles and electrodes are simple plug-in / pullout assemblies that require no alignment or adjustment.

The 3MB series plasma gun is capable of operating efficiently with a single primary gas of pure argon or nitrogen and with multi-gas parameters of argon, nitrogen, hydrogen and helium.



### Features & benefits

- Powerful (40 kW @ 100 % duty cycle)
- High heat output (up to 16000 °C)
- High plasma gas velocity (up to 3050 m / s)
- High particle velocities (up to 610 m / s)
- Simple, versatile design
- Compact size
- Available as machine mount or hand held
- Ease of operation, maintenance and installation
- Complete range of nozzle and powder port components
- Dual Gas Capability – operates with either argon or nitrogen as the primary plasma gas.

**FST offers the following Plasma Controllers:**

- **MP-50 Fully automatic closed-loop multi-process thermal spray system. Available versions:**
  - ◆ MP-50 Professional
  - ◆ MP-50 Advanced
- **AP-50 Fully automatic closed-loop single process APS system. Available versions:**
  - ◆ AP-50 Basic
  - ◆ AP-50 Professional
  - ◆ AP-50 Advanced
- **AP-25 Semi-automatic single process APS system. Available versions:**
  - ◆ AP-25
  - ◆ AP-25i

**Specifications**

Description	Value 1	Value 2
<b>Power</b>	40 kW	
<b>Gas Purity</b>		
Argon	99.95%	Grade 3.5
Hydrogen	99.995%	Grade 4.5
Nitrogen	99.7%	Grade 2.7
Helium	99.995%	Grade 4.5
<b>Cooling Water</b>		
Inlet Temperature	15 – 25 °C	59 – 77 °F
Inlet Pressure	8 – 10 bar	115 – 145 psi
Flow	16 – 18 l / min	4.2 – 4.7 gal / min
Conductivity	<10 µS / cm	
pH Value	6.6	
<b>Gun Weight (approx.)</b>	1.5 kg	3.3 lb
<b>Typical Deposit Efficiency</b>	40 – 75%	
<b>Typical Spray Rates</b>	40 – 70 g / min	

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