

F1

ID-Plasma Gun

Introduction

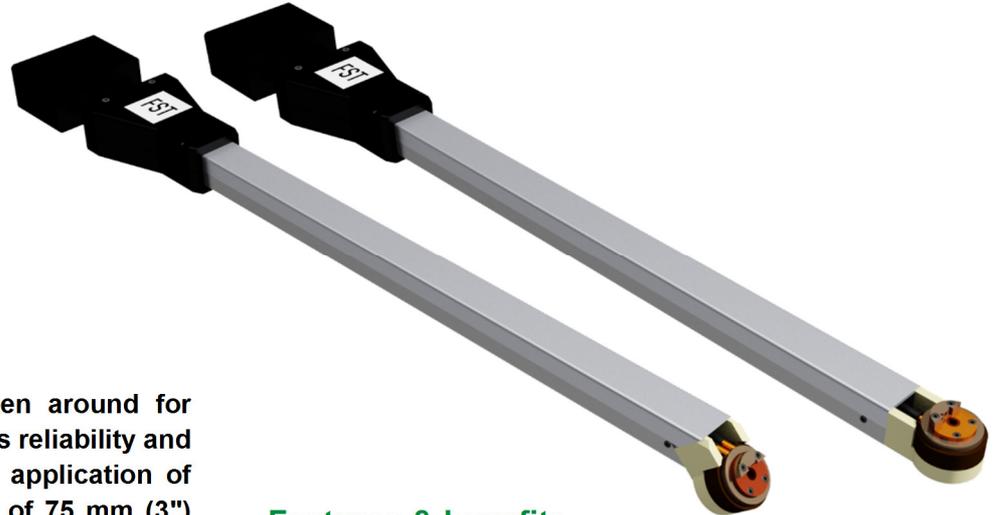
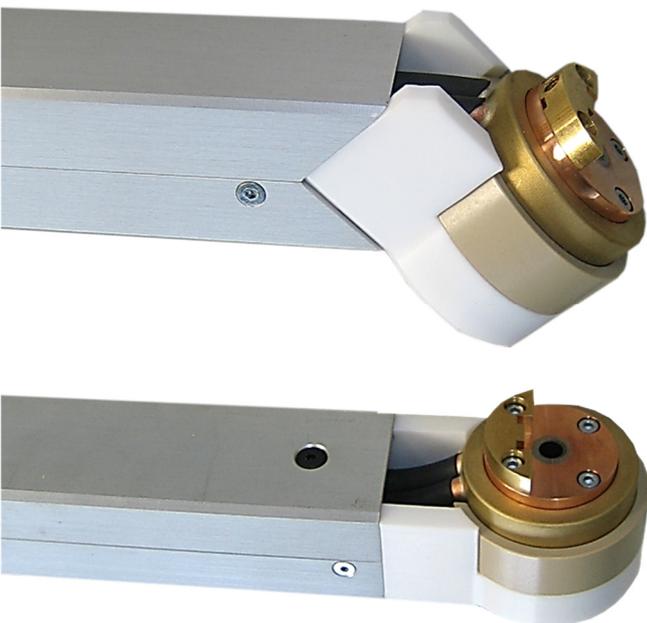
The F1 plasma gun has been around for some time and is known for its reliability and good coating quality for the application of coatings in internal surfaces of 75 mm (3") diameters or greater.

The F1 incorporates a tungsten nozzle similar to that used in the F4 Gun for long nozzle life, minimizing part change outs and production costs.

The F1 is designed to operate efficiently at power levels up to 25 kW in continuous operation.

The F1 is available in two spray angle configurations:

- F1-90
- F1-45



Features & benefits

- Robust hardware configuration – sprays a wide range of coating materials with a single nozzle/electrode configuration
- Tungsten-lined nozzle for long-life performance.
- Well positioned powder injector holders – ensures proper injection angle and distance.
- Compact gun head design for small diameter applications.
- Inert gun head material – eliminates electrical shorting if gun head contacts metallic components.
- Low maintenance costs
- Reliable coating results – powder injector and gun head design ensure repeatable coatings.
- Long spray campaigns – long life hardware allows longer spray periods without the need for change out.
- Ease of operation, maintenance, and installation – ideally suited for general purpose and advanced coating applications
- Proven nozzle design – economical replacement cost.
- Able to operate with nitrogen as the primary fuel 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
Power	25 kW	
Gas Purity		
Argon	99.95%	Grade 3.5
Hydrogen	99.995%	Grade 4.5
Nitrogen	99.7%	Grade 2.7
Helium	99.995%	Grade 4.5
Cooling Water		
Inlet Temperature	15 – 25 °C	59 – 77 °F
Inlet Pressure	12 – 13.5 bar	170 – 200 psi
Flow	15 - 17 l / min	3.9 – 4.5 gal / min
Conductivity	< 10 µS / cm	
Gun Weight (approx.)	2.8 kg	6.1 lb
Min. ID Diameter	75 mm	3 in
Available Spray Angles	90° 45°	
Available Length	450 mm 600 mm	18 in 24 in

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