

Product Data Sheet

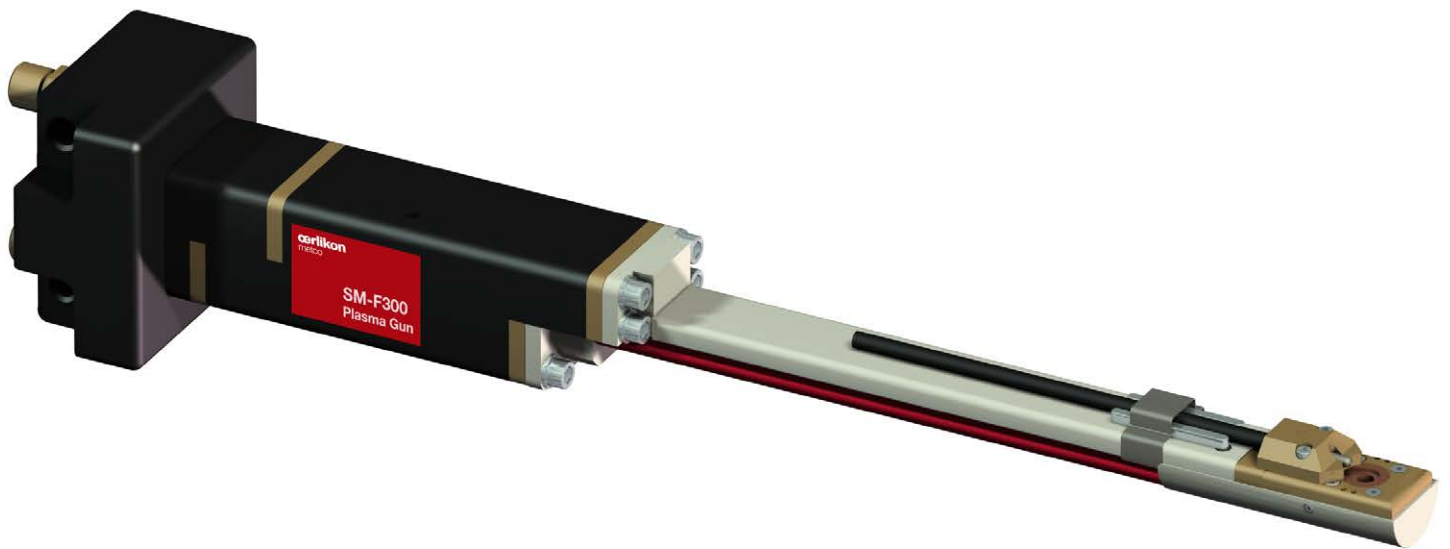
Internal Plasma Spray Gun Metco SM-F300

The Metco™ SM-F300 internal plasma spray gun is specifically designed to coat internal geometries as small as 40 mm (1.6 in) in diameter in a high production environment.

A unique, patented quick gun head replacement mechanism allows rebuild of the gun head in seconds, without any need to dismount the gun. A powerful cooling air jet is integrated into the gun head; eliminating the need for external cooling jets. The cutting edge design of the SM-F300 features exceptionally high powder throughput and excellent deposit efficiency, resulting in productivity that

rivals guns of much higher power levels. Powder feed rate is up to three times higher compared to existing gun technologies.

Ideal for use with Metco's RotaPlasma™ systems, the SM-F300 is easily adapted to the RotaPlasma and is ideal for automotive cylinder bore manufacturing, aerospace applications and other mass production coating environments.



SM-F300 Internal Plasma Spray Gun

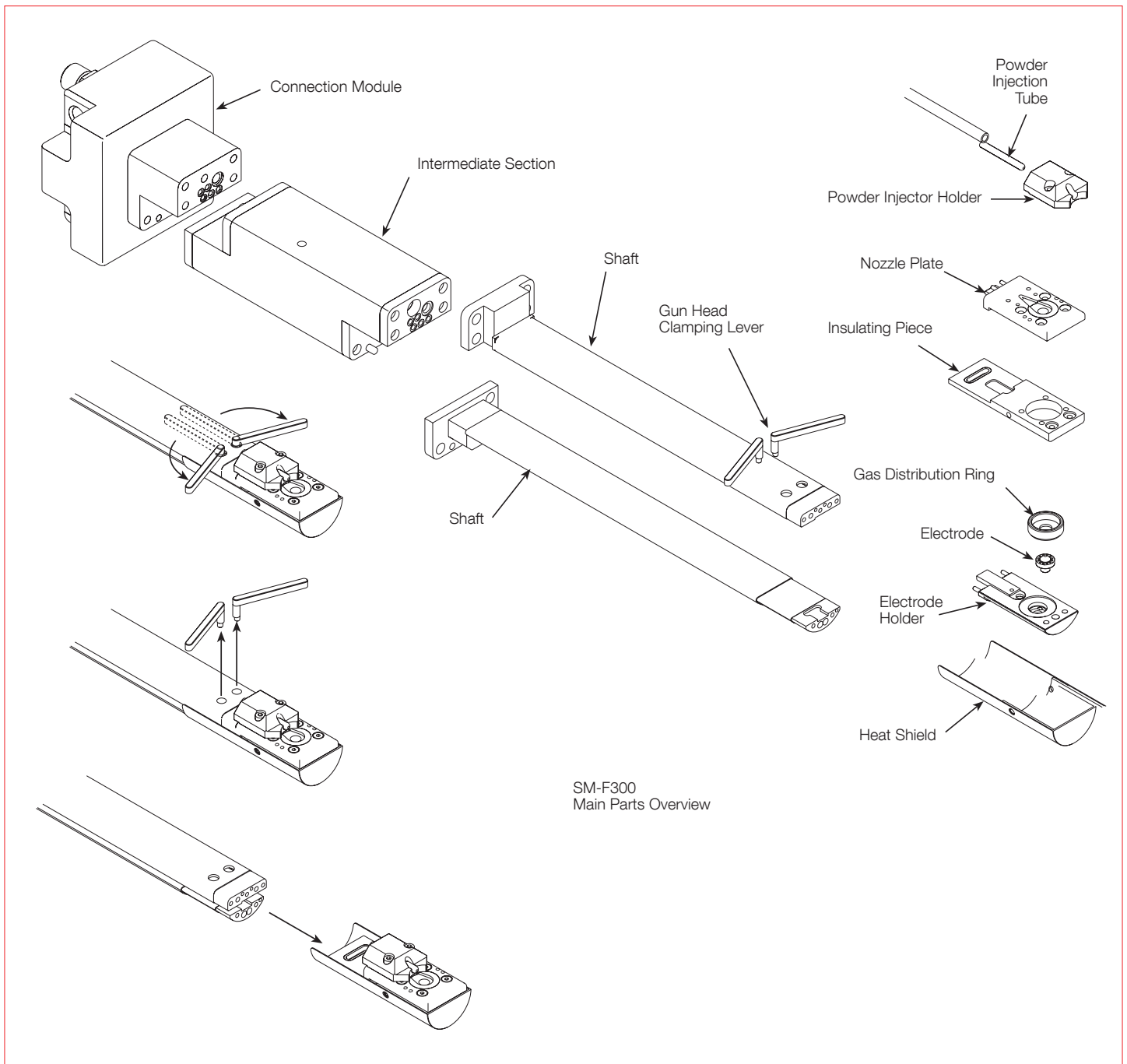
1 General Description

Modular in design, the SM-F300 can be configured for two different lengths as well as special lengths, available on request.

A unique integrated vented air jet has four cooling air connections in the connecting module, which lead to a different set of air cooling vents in the gun head nozzle plate. This

allows ideal cooling for different applications without the use of bulky external air jet holders and without the need to buy different holders for different applications.

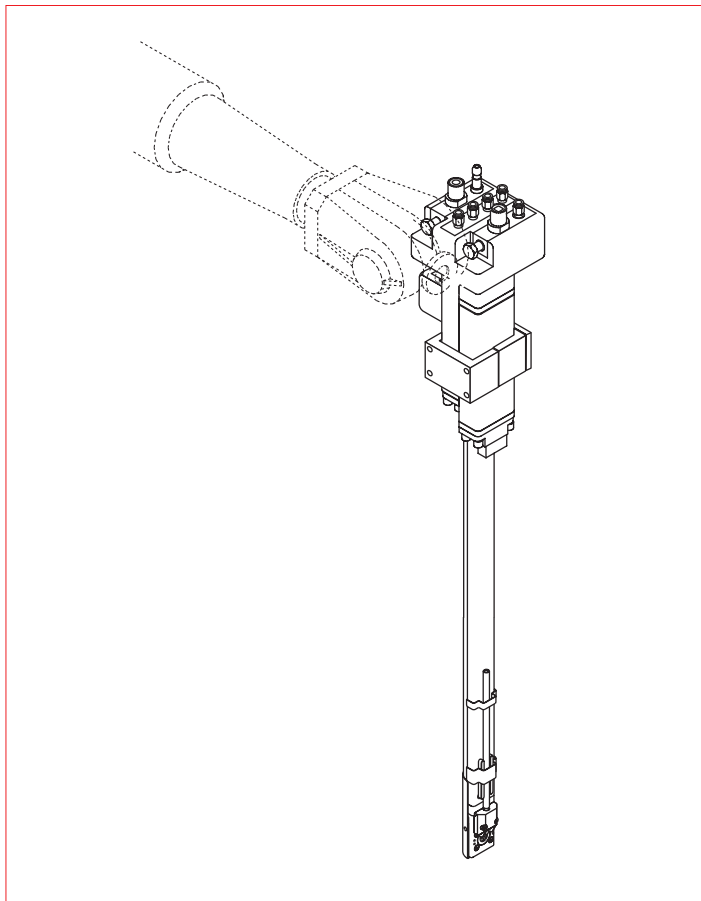
The patented quick gun head replacement system allows fast inline gun maintenance without dismantling the gun. Resume production quickly with minimal downtime.



SM-F300
Quick Gun Head Exchange

2 Features and Benefits

- Patented quick gun-head replacement: reduces downtime; saving time and costs in a production environment
- Modular: Multiple lengths are available to suit a variety of application requirements
- Robust design: for high production operation and long spray campaigns
- Powerful integrated air jets: eliminates the need for external cooling jets
- High powder feed rates: increases productivity and reduces spraying time
- Excellent deposit efficiency: saves time and lowers coating costs
- Ideal water cooling: extends life of nozzle and electrode in mass production applications, reducing downtime and maintenance costs
- Low operating costs: resulting from excellent deposition efficiency and powder throughput capability

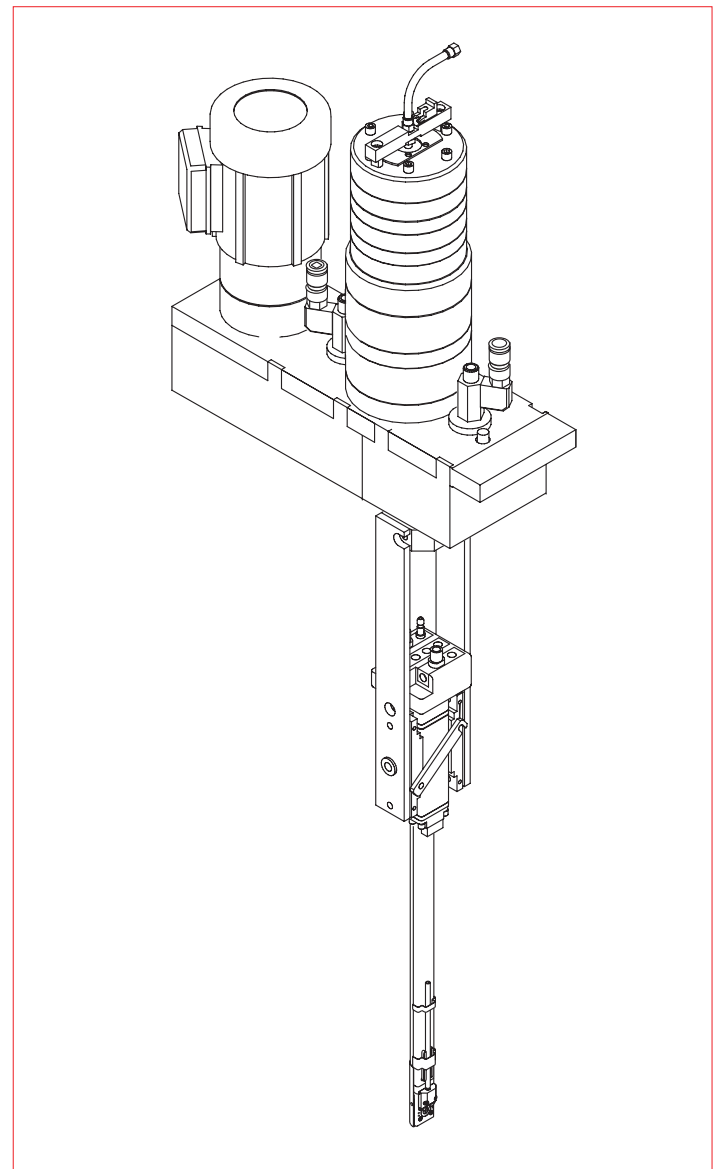


SM-F300 – Used with Robot as Gun Manipulator

3 Accessories and Options

Oerlikon Metco offers a wide variety of accessories and options for the SM-F300 series spray guns to suit specific spray requirements. These include nozzles, electrodes, powder injection, cables and hoses.

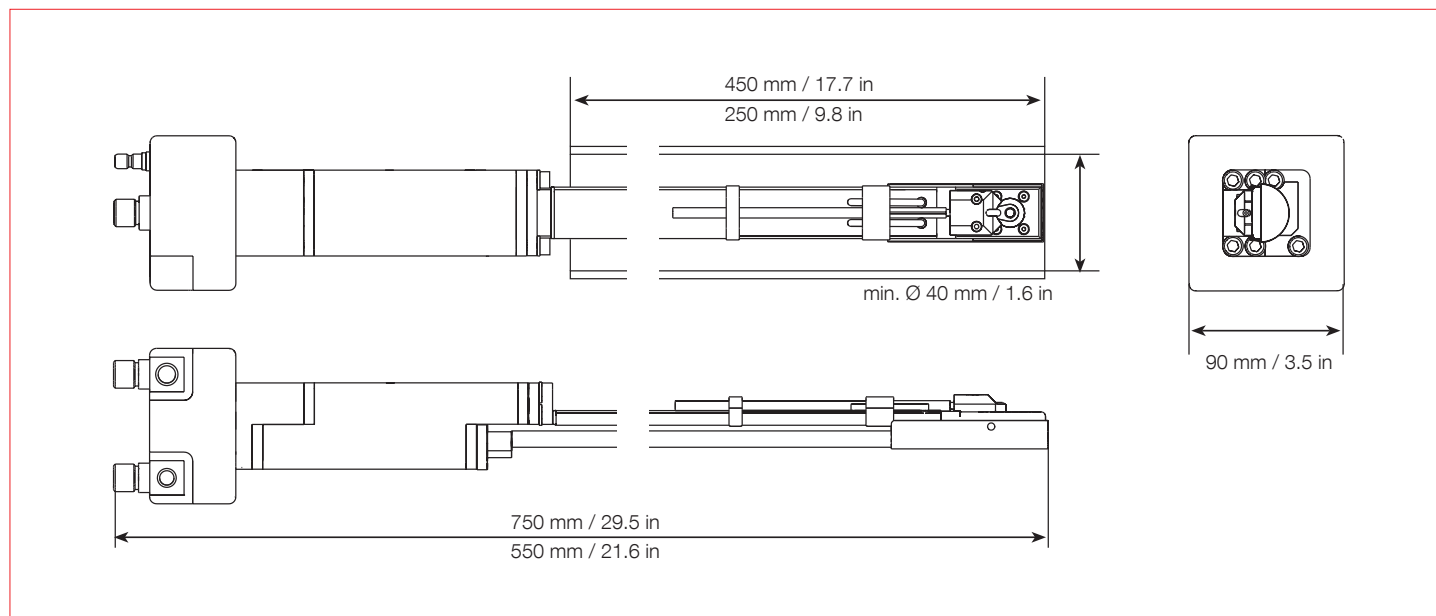
For a complete list of optional parts and spare parts please refer to the parts lists section of the reference manual.



SM-F300 – RotaPlasma Application

4 Technical Data

4.1 Dimensions



4.2 Specifications

Power rating

Maximum 9 kW (100 % duty cycle)

Weight

Approximate 3.5 kg 7.7 lbs

Cooling Water

Inlet temperature 20 °C (± 5 °C) 59 to 68 °F

Inlet pressure 11 to 15 bar 210 psi

Flow 6.5 to 10 l/min 1.6 to 4 gallon per minute

Quality

Total hardness 0.5 Grade F
0.35 Grade E
0.28 Grade D

Conductivity < 5 µS/cm

ph Value 6.6

Plasma Controller

Compatible with UniCoat™ / MultiCoat™ controllers

Powder Feeder

Compatible with all Oerlikon Metco powder feeders

Information is subject to change without prior notice.