

Product Data Sheet

Metco 11MB-2 Plasma Spray Extension Gun

Oerlikon Metco's plasma extension guns are engineered for reliable and universal performance for internal and external atmospheric plasma spray processes.

1 General Description

The Metco™ 11MB-2 plasma spray extension gun is a high efficiency unit. An integrated powder port and the ability to apply coatings at gun-to-work distances as short as 13 mm (0.5 in) result in a narrow, well-defined spray cone and high target efficiency. As a result of these features, this gun is well suited for spraying small parts and surfaces, and the powder overspray is minimized.

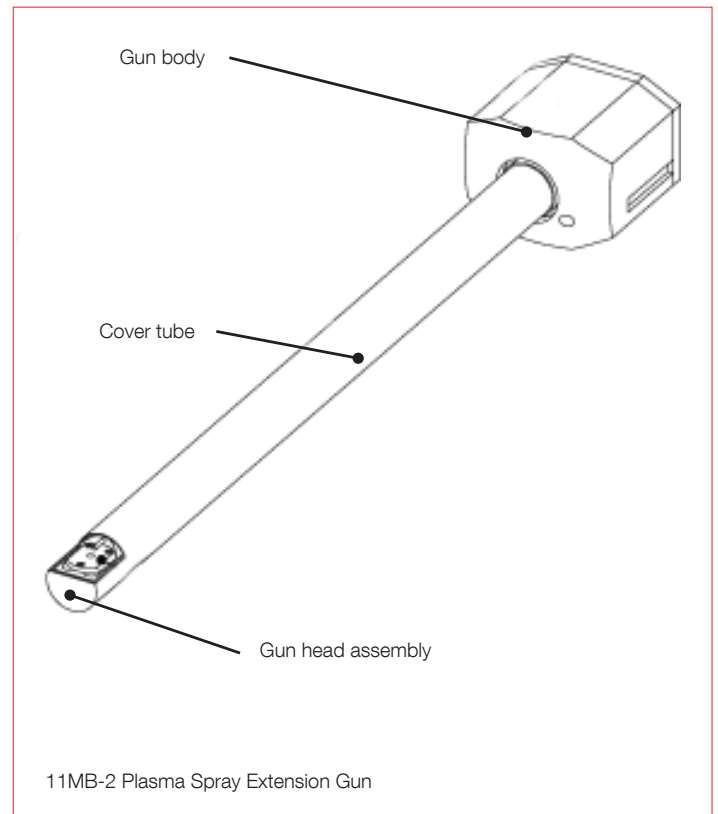
This gun can produce high quality coatings using only a single plasma gas. The coatings produced by this gun are equivalent to, or nearly equivalent to, coatings produced by higher energy external plasma spray guns.

A full length, protective cover tube prevents overspray contamination of internal gun components when spraying internal geometries. The gun cover also insulates the gun components to protect the operator from electrical shock. It separates easily from the gun with the removal of four screws.

Integral air cooling minimizes coating and substrate temperatures during spraying and eliminates the need for add-on cooling tubes.

2 Features

- **Integrated powder port:** eliminates misalignment and optimizes powder injection into the plasma plume.
- **Advanced cooling:** utilizes thin annular passage (TAP) nozzle design to balance water distribution to the nozzle and electrode. Electrode has no direct water contact, eliminating leaks in this area.
- **Integrated air cooling:** eliminates need for bulky add-on cooling jets.
- **Register marks:** provides precise alignment of critical gun components.
- **Long life gas insulators:** fabricated from heat-resistant plastic, which insures durability.

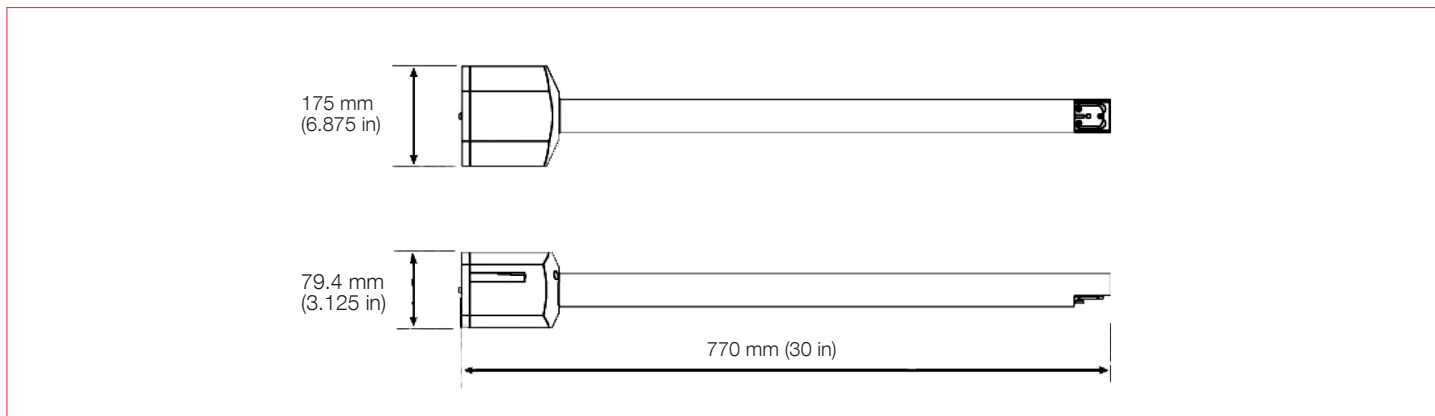


3 Benefits

- **High spray rates and target efficiency:** for fast, economical production.
- **Long component life:** lowers gun maintenance costs and further reduces coating application cost.
- **Reduced gun downtime:** threaded electrode, which requires no mounting hardware, and alignment register marks allow fast changeout of gun hardware.

4 Technical Data

4.1 Dimensions



4.2 Specifications

Power Rating

(100 % duty cycle) 30 kW

Weight

(dependent on configuration) 3.4 kg 7.5 lb

Cooling Water

Inlet temperature 18 °C 65 °F

Inlet pressure 9.0 bar 130 psi

Flow 20.8 l/min 5.5 gal/min

Quality

Total hardness < 10 ppm

Conductivity < 5 µS/cm

pH Value 6.6

Plasma Gas Purity

Nitrogen 99.7 %

Argon 99.95 %

Hydrogen 99.995 %

Helium 99.995 %

Workpiece Geometry

Effective Spray Length 610 mm 24 in

Min. bore diameter 55 mm 2.2 in

Min. spray distance 13 mm 0.5 in

Gun outer diameter 41 mm 1.6 in

Compatibility

Controller MultiCoat™, UniCoat™, 9MC, 9MCE

Powder Feeder all Oerlikon Metco powder feeders

Information is subject to change without prior notice.