

3MBT

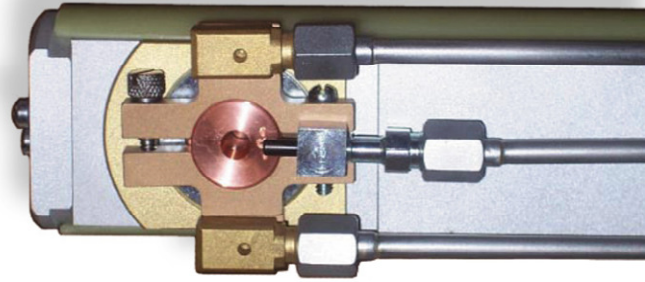
Plasma Spray Extension Gun

Introduction

The 3MBT is a heavy duty, extension plasma spray gun that is widely utilized throughout the thermal spray industry, and has been selected as the equipment of choice for a wide variety of coating applications.

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 3MBT is based on the design of the reliable 3MB plasma spray gun, a proven performer throughout the thermal spray coating industry. The 3MBT uses many of the same parts as 3MB series guns, including gun components such as nozzles, electrodes, powder ports and O-rings.



When coating internal surfaces as small as 100 mm (4 in) in diameter, 3MB series parameters can be used as a starting point for the 3MBT torch.

Features & benefits

- Powerful (40 kW @ 100% duty cycle)
- Versatile coating choices using a full complement of coating materials for practically any application
- Applies high quality TBC ceramics and associated bond coats
- Coats internal geometries as small as 100 mm (4 in)
- Spray angle of 90° or 30°
- Uses many of the same spare parts as 3MB series guns, reducing the number of spare parts to stock
- Uses standard 3MB series plasma spray parameters for many applications, reducing parameter development time
- Inexpensive operation using low-cost nitrogen as the plasma spray gas
- Low operating cost per hour



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	40 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	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	
Gun Weight (approx.)	1.5 kg	3.3 lb
Typical Deposit Efficiency	40 – 75%	
Typical Spray Rates	40 – 70 g / min	
Min. Internal Diameter	100 mm	4 in
Available Torch Length	60 cm	24 in

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