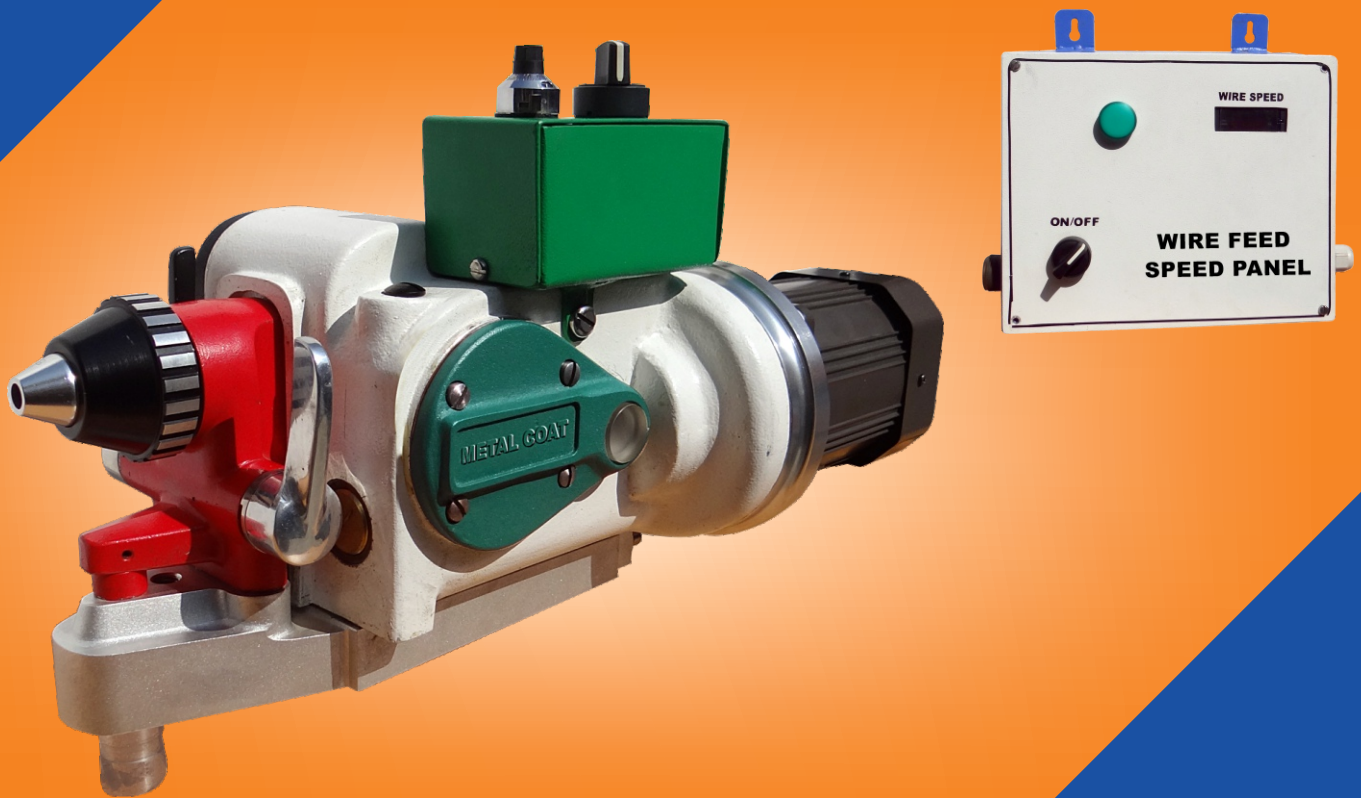


**METAL COAT**

## **FLAME / COMBUSTION WIRE SPRAY GUN - 5KM**



The 5KM Combustion Wire Spray Gun is designed for machine mounted operation and for high volume production in an automated environment. It operate reliably and economically, with minimal downtime. This unit has an external Wire Feed Speed Panel that adjusts rate of spray.

## FLAME / COMBUSTION WIRE SPRAY GUN - 5KM

When a heavy-duty gun is required for high-volume or continuous combustion wire flame spray production, the 5K gun provides excellent performance. These guns are built for automated, mass production environments, having been designed to spray continuously for long periods while maintaining constant coating quality. When maintenance is required, the 5KM series guns can be serviced quickly and simply, returning to production with minimal downtime.

The 5K Spray Gun can spray any wire made for Thermal Spray from soft, low-melt point materials such as Zinc or Babbitt to Stainless or Moly steel. Parts are easily changed for multiple wire diameters.

### BRIEF WORKING

The durable housing on 5KM series guns is sealed to prevent contamination from the production environment, such as dust, grease and oil, assuring trouble-free operation. The gas head, which incorporates unique siphon plug design, is built for extended service life and is highly resistant to backfire. The powerful wire drive system, with its robust variable speed motor and transmission, delivers constant and smooth feed of the wire material throughout coating application.

Two sets of gear provide standard or high spray rates. Internal diameter or hard to reach coatings are easy with the available 1, 2 or 3 feet extensions that simply screw on to the front end. Multiple hardware sets (nozzles, air caps etc.) allow users to spray precision coatings for a variety of applications. Typical use is tube mill line applications where combustion gun often coat with better deposit efficiency over Arc systems, especially when using small diameter, soft wires.

5KM wire guns come equipped to spray 3.175 mm (1/8 in) and 4.76 mm (3/16 in) combustion wire materials. However, should a different wire size be used, gun hardware for wires ranging in diameter from 0.813 mm (20 gauge) to 4.76 mm (3/16 in) is available.

5KM gun is factory-configured for acetylene as the fuel gas. However, the 5KM universal gas head design can be adapted to use other fuel gases. Customer can choose from a variety of fuel gases, including hydrogen, acetylene, propane, natural gas, MAPP or MPS using available optional gun hardware.

Powered by electric motor with compressed air and Oxy/Acetylene or Oxy/Propane. Multiple hose set lengths and a durable wire speed controller make installation and remote operation easy.

#### 5KM Gun are suitable for mass-production coating of:

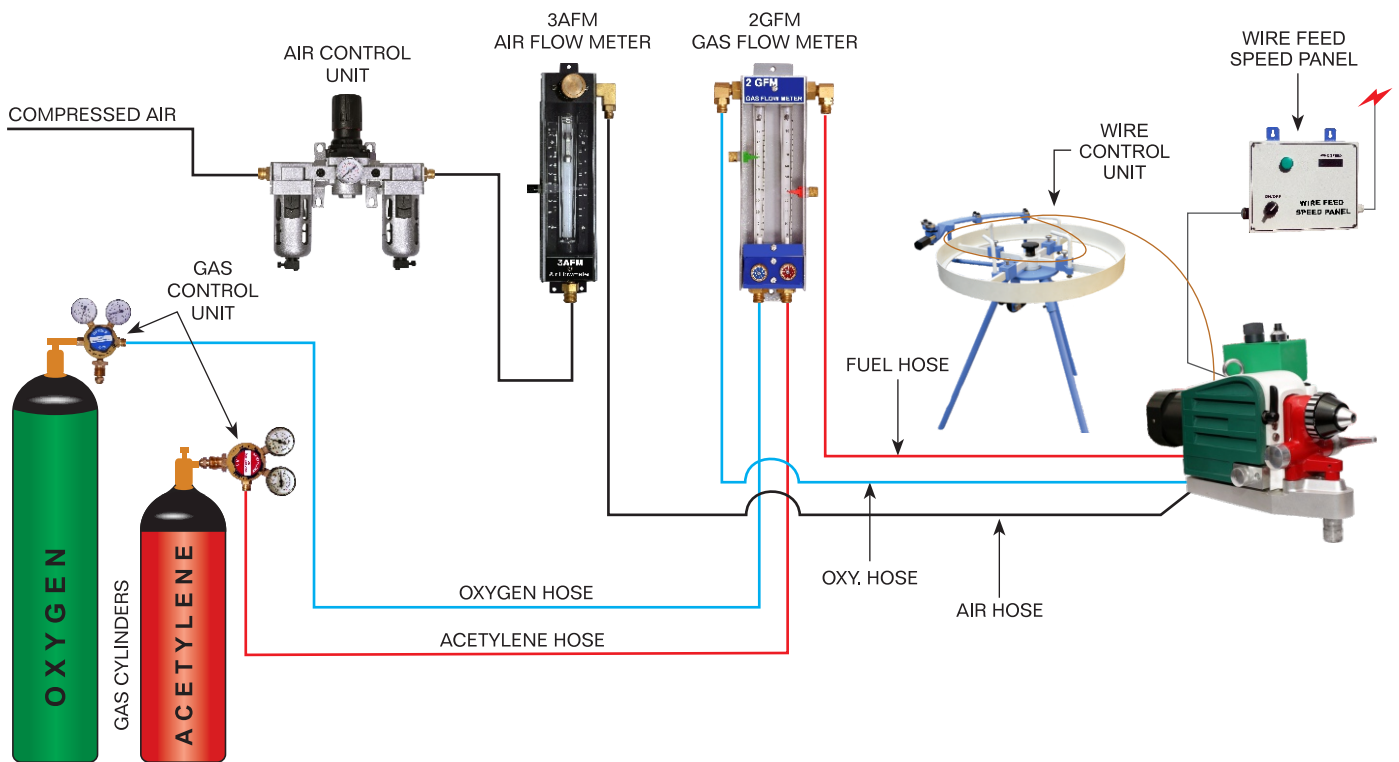
- Synchro Rings
- Piston Rings
- High-volume corrosion applications
- Tube Mill Applications
- Shifter Forks



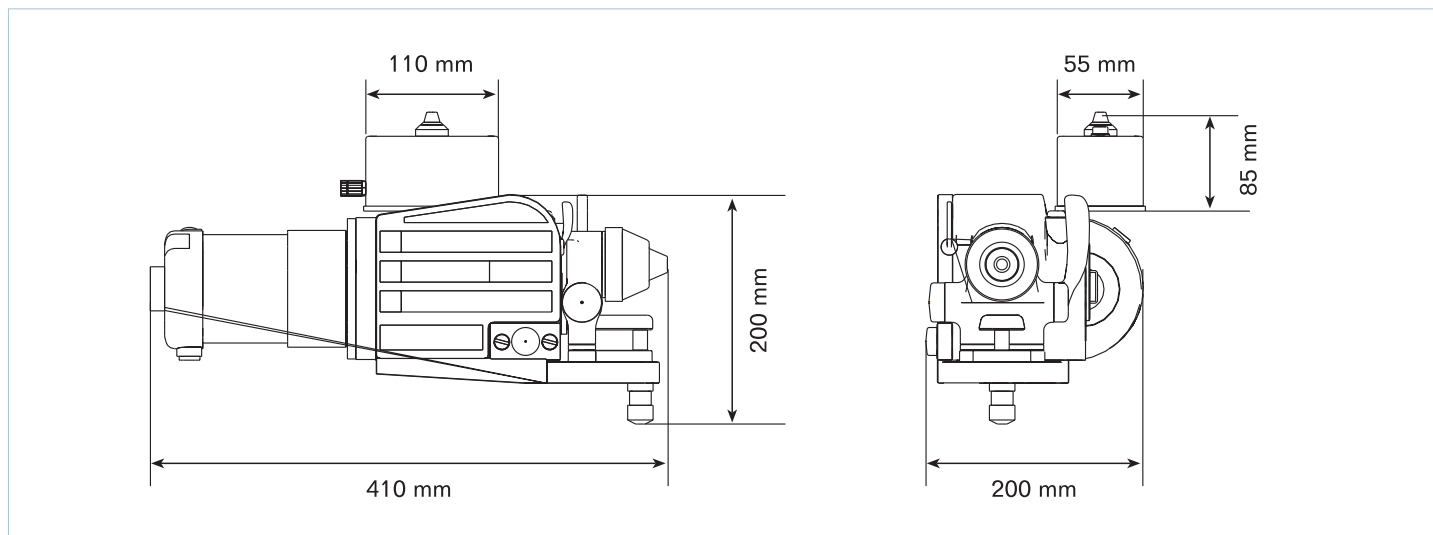
## SPECIAL FEATURES

- Heavy duty, rugged design: Built for production environments where trouble-free operation is a must.
- Simple operation: Requires minimal operator training
- Flexible wire choices: Can be configured for use with hard or soft wires in a variety of diameters
- Flexible fuel gas choices: Suits plant operational requirements and economics
- Extra-sturdy tool post: Ensures the gun will remain in its set position.
- Unique universal gas head: Produces high spray rates with low gas consumption and is resistant to backfire.
- Gas head valve handle: Allows instant start / stop of gas through the gun.
- O-ring sealed between nozzle and siphon plug: Ensures safe and reliable operation and simplifies gun maintenance.
- Precision wire feed control: Provides precise control of wire feed rate and wire start and stop.
- Dependable wire drive: Regardless of fluctuations in air pressure and wire drag for constant, uniform feed of coating material.
- Long gear life: Designed with large, rugged gears coupled with circulating gear lubricant pump that rarely needs servicing.
- Built-in sight plug: Visually check level of lubricant without the need to open the gear case.
- Simple maintenance and hardware changeover: The nozzle, siphon plug and front wire guide assemblies can be easily removed and replaced as a complete unit.

### Flame Spray Gun - 5KM (Installation Layout)



# FLAME / COMBUSTION WIRE SPRAY GUN - 5KM



## Specifications

Coating Wire Sizes	0.813 to 4.76 mm	20 gauge to 3/16 inch
Weight approximate without hose and cables	10.850 Kg.	
Fuel gas Oxygen	Acetylene, hydrogen, propane, MPS, MAPP or natural gas (methane)	
Compressed air (dry & oil free)	0.6 m <sup>3</sup> /min at 3.4 to 4.5 bar	20 ft <sup>3</sup> /min at 50 to 65 psi
Available Extensions	6 inch, 1 ft, 2 ft, 3 ft long	

## OPTIONAL ACCESSORIES

### Gas Control Unit

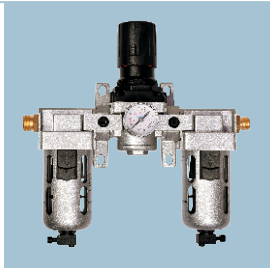
Consist of Gas Regulator with pressure gauge for regulating gas flow to wire Flame Spray Gun. It has two pressure gauge to indicate cylinder and delivery pressure.



Pressure Rating:	Oxygen	: 10 Bar
	LPG/Propane	: 06 Bar
	Acetylene	: 2.5 Bar

### Air Control Unit

Consist of air filter cum regulator for secondary filtration and regulating air flow to wire flame spray gun. An additional outlet provides connections for operator's helmet.



Pressure Rating: 10 Bar

### Hose Kit

Consist of Hose to connect oxygen cylinder & fuel gas cylinder with gas flow meter to spray gun.



Oxygen Hose	- Blue	: 3+7 Mtrs.
Fuel Gas Hose	- Red	: 3+7 Mtrs.
Air Hose	- Black	: 7 Mtrs.

### Air Flow Meter with Hose

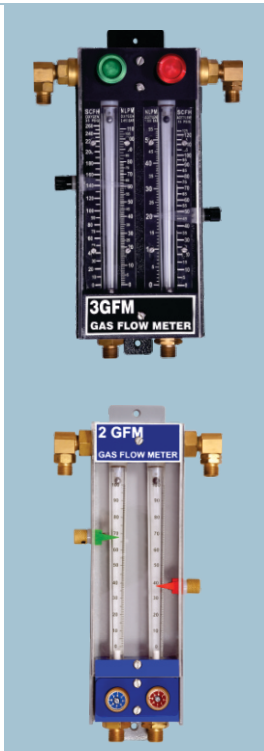
The 3AFM Air Flow Meter is a highly accurate, rugged and reliable instrument for regulating and measuring the flow of compressed air in a manual powder or wire combustion spray system.



Model: 3AFM (Air Flow Meter)  
Flow Unit in both NLPM & SCFM

### Gas Flow Meter

These precision wall mounting Flowmeters are recommended to use with Flame Spray Equipment. Ease of reading enables economic operation and rapid fault diagnosis. The unit incorporates separate flowmeter for both Oxygen and Fuel Gas supplies.



Model: 3GFM (Gas Flow Meter)  
Flow Unit in both NLPM & SCFM

Model: 2GFM (Gas Flow Meter)  
Supply with % scale of 0 - 100

### Wire Control Unit

The Wire Reel Stand with Straightner is specifically designed to dispense wires for flame spraying. A wire straightener is included and the unit is capable of handling either reeled or loose coiled wire or spool.



## OPTIONAL ACCESSORIES

### Extension Nozzles

Where deep bores or recesses are to be sprayed, a range of extension nozzles are available. These allow access of the spray at depths upto 1.1 Mtr., whilst straight or deflector air caps can be selected to direct the spray stream to the area required.

Typical use include spraying in internal diameter or hard to reach coating surfaces. For ID coatings, a minimum ID measurement of approximately 8 inches is required to achieve optimal coating quality.

Installation is simple by removing the standard Air Cap Body and Siphon plug and replacing it with the extension. This can be done in about 1-2 minutes without any tools. These are available in various lengths for both Oxy-Acetylene and Oxy-Propane Gun.



Length: 6 INCH / 1 FOOT / 2 FEET / 3 FEET

### Spray Booth

It is used for controlling sprayed dust and fumes when metallizing operation takes place. It carries away metal dust particles as well as heat. Duct work has adjustable pipe length as well as ball joint to fit individual requirement. Reclaimed materials also have a resale value.

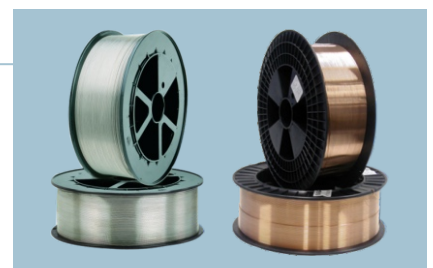


### Applications of Various Metal Coatings

- Zinc & Aluminum for anti corrosion coating.
- Ni/Al composite wire for bond coats & self bonding coatings.
- Molybdenum for bond coating.
- Molybdenum for hard bearing applications, excellent resistance to adhesive wear, often used on piston rings, synchromesh cones & journals.
- High-chromium steel for hard & wear resistance coating.
- Bronze, babbitt for bearing applications.
- Stainless steel, nickel and monel for anti corrosion and wear.
- Al & Ni/Al for wear and oxidation resistance.

### Metal Spray Wire

Standard materials wires such as Aluminium, Aluminium Alloy, Tin, Tin Alloy, Nickel, Nickel Alloy, Zinc, Stainless Steel, Brass, Molybdenum, Monel, Copper & many more are available.



## SAFETY WEARS

### Metallizing Helmet

Light weight & comfortable with excellent vision. Supplied from a separate air supply which should be filtered by Helmet Air Conditioner.



### Air Breather

This is installed in between compressed air line originating from fitting to the operators helmets. Activated charcoal is contained in the breather unit which separates the oil traces from the compressed air and clean compressed air is fed to the operator's helmet.



### Helmet Air Conditioner

Air from the air breather is fed to the helmet air conditioner and air is conditioned before it is fed to the helmet for breathing. It has also a regulator knob so that the operator can regulate the temperature of air fed to the helmet. It is self driven and doesn't need external power.



### Ear Muff

Light weight & comfortable. Operator & other personnel close to the spray operation must wear. Protect the operator from noise originating during thermal spray.



### Protective Glass

Light weight & comfortable with excellent vision. Operator & other personnel close to the spray operation must wear.



### Operator Safety Mask

Ensure clean breathing air at all times. Conforms to current legislation on breathing air quality.



### Hand Gloves

These are made of rubber and have anti-static properties. Hand gloves protect the operators' hand against flying abrasive and static charge if any.



## OTHER PRODUCT RANGE



**12M**  
WIRE FLAME SPRAY GUN



**11M**  
WIRE FLAME SPRAY GUN



**14M**  
WIRE FLAME SPRAY GUN



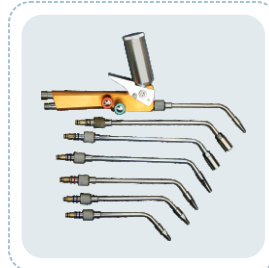
**ARC SPRAY GUN**  
(AIR DRIVE)



**ARC SPRAY GUN**  
(AC DRIVE)



**ARC SPRAY GUN**  
(DC DRIVE)



**ST-100**  
SPRAY & FUSE GUN




**5PM-II**  
POWDER SPRAY GUN



**6PM-II**  
POWDER SPRAY GUN


H.O. & Works:

### **METAL COAT**

 B-43, 44, 45, 46, Industrial Estate  
Jodhpur - 342 003 (Rajasthan) INDIA

 +91 93140 28848

 +91 98290 27807

 +91-291-2641325

 metalcoat291@yahoo.in

 sales@metalcoat.co.in

 www.metalcoat.co.in