

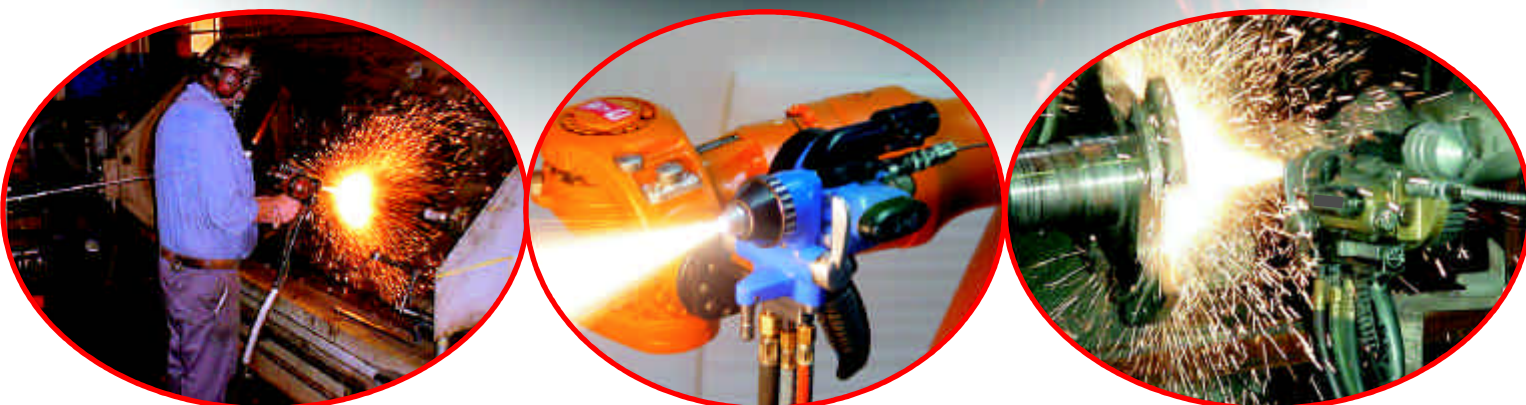
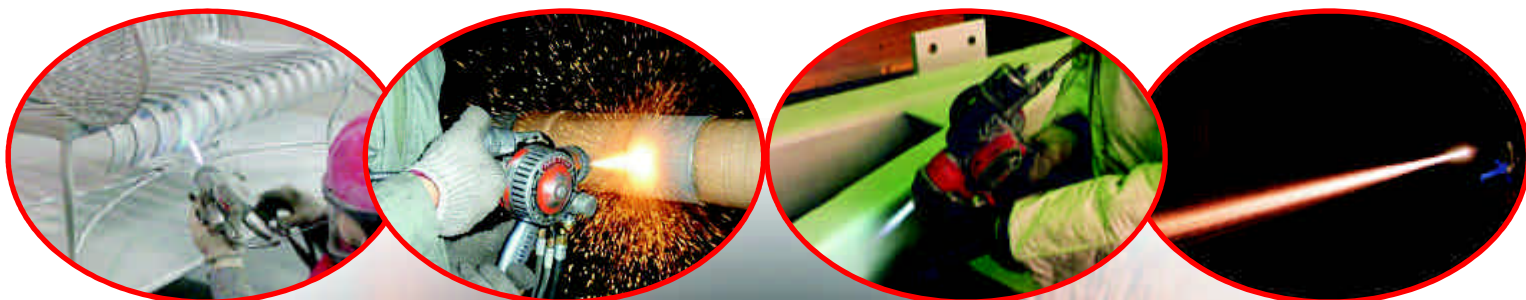
# MEC



ISO 9001:2000

## THERMAL SPRAY FACILITIES

AUTOMATIC SYSTEMS for HVOF, PLASMA, FLAME SPRAY, ARC SPRAY & ROD SPRAY



## WIRE FLAME SPRAYING SYSTEMS

SPRAYJET-87 - SPRAYJET-88 - SPRAYJET-98



### SPRAYJET-87 (11E)

(suitable for low melting wires)

WIRE SIZE :	3.17 mm Std. (other sizes optional)
WIRE FEED :	Air Turbine (pneumatic)
OUT PUT (Spray Rate) :	
Aluminium	05.00 Kg/hr approx.
Zinc	21.80 Kg/hr approx.
Pure Tin	22.70 Kg/hr approx.
Babbit	22.70 Kg/hr approx.
GASES USED :	Oxygen, LPG, Propane
COMPRESSED AIR :	35 cfm FAD @ 75 psi
NET WEIGHT :	2.27 Kg.

### SPRAYJET-88 (12E)

(suitable for high & low melting wires)

WIRE SIZE :	3.17 mm Std. (other sizes optional)
WIRE FEED :	Air Turbine
OUT PUT (Spray Rate) :	
Molybdenum	03.40 Kg/hr approx.
Copper	10.90 Kg/hr approx.
Carbon Steel	05.90 Kg/hr approx.
Pure Nickel	04.50 Kg/hr approx.
GASES USED :	Oxygen, Acetylene
COMPRESSED AIR :	35 cfm FAD @ 75 psi
NET WEIGHT :	2.65 Kg.

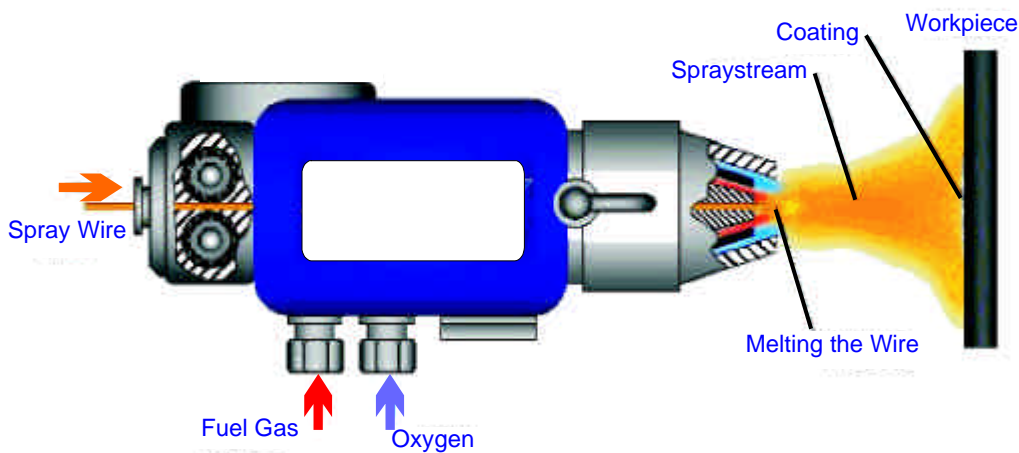
### SPRAYJET-98 (14E)

(suitable for high & low melting wires)

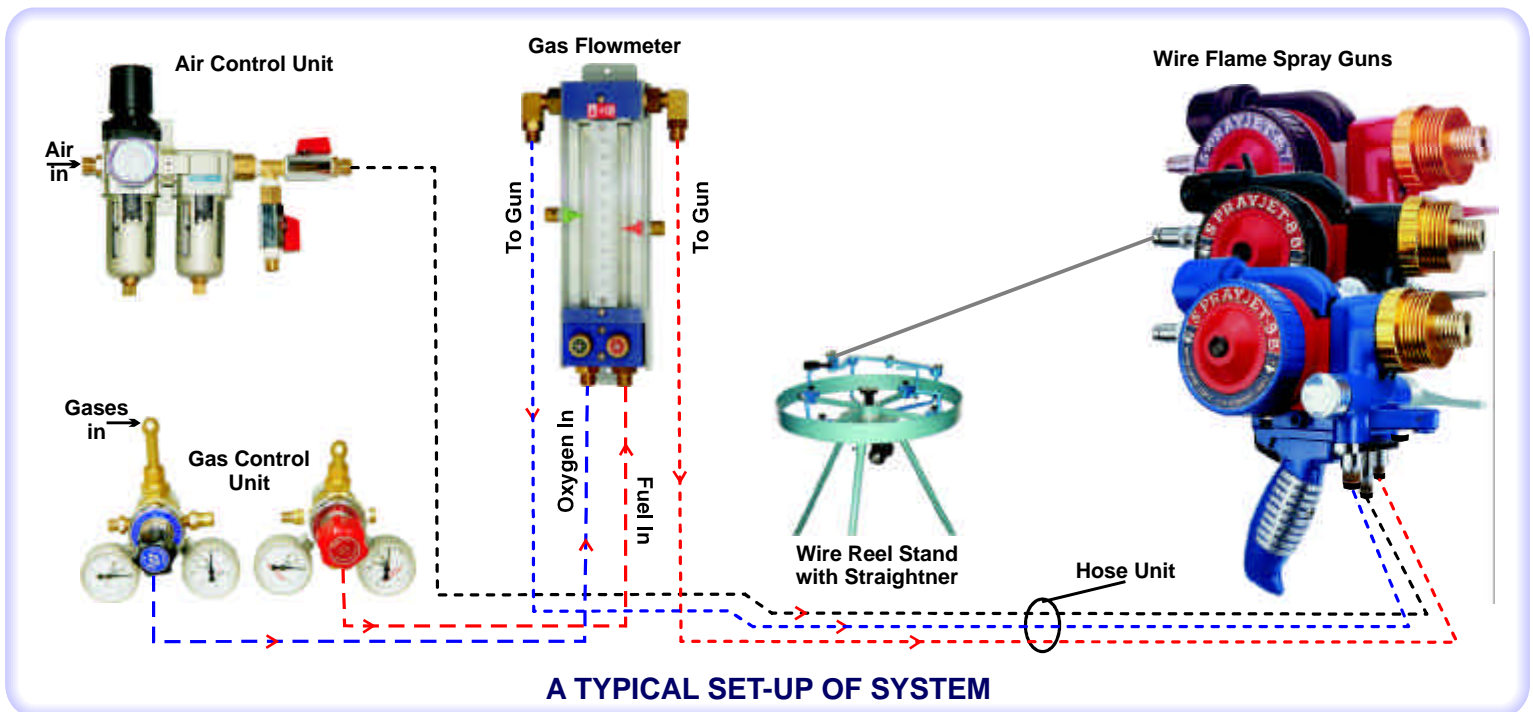
WIRE SIZE :	3.17 mm Std. (other sizes optional)
WIRE FEED :	Air Turbine
OUT PUT (Spray Rate) :	
Molybdenum	03.40 Kg/hr approx.
Copper	10.90 Kg/hr approx.
Brass	10.90 Kg/hr approx.
Pure Nickel	04.50 Kg/hr approx.
GASES USED :	Oxygen, LPG, Propane
START-STOP :	Hand Trigger
COMPRESSED AIR :	35 cfm FAD @ 75 psi
NET WEIGHT :	2.65 Kg.

Note : Above parameters are only for reference. Actual parameters depend upon the geometry & size of the job.

## FLAME SPRAYING WITH WIRE



The Flame Spraying Process is basically the spraying of molten metal onto a surface to provide a coating. Material in wire form is melted in a flame (oxy-acetylene flame most common) and atomised using compressed air to form a fine spray. When the spray contacts the prepared surface of a substrate material, the fine molten droplets rapidly solidify forming a coating. This process carried out correctly is called a "Cold Process" (relative to the substrate material being coated) as the substrate temperature can be kept low during processing avoiding damage, metallurgical changes



### Flame Spray System :

- \* Wire Flame Spray Gun
- \* Gas Flowmeter
- \* Gas Control Unit
- \* Air Control Unit
- \* Wire Reel Stand with Straightner
- \* Hose Unit

### Optional :

- \* Extension Nozzle
- \* Trolley with Reel Stand
- \* Coating Thickness Gauge

**GAS CONTROL UNIT :** Multi stage unit provides control and regulation of high pressure fuel gas and oxygen supply. it has two gauges - one to indicate cylinder pressure and other for delivery pressure.

**GAS FLOWMETER :** Provides an accurate regulation of flow of oxygen and fuel gas. It detects leak or restriction in gas supply, eliminates human errors in setting proper flame.

**AIR CONTROL UNIT :** Controls air pressure & filters air from oil vapour & moisture. An additional outlet is provided for operator's helmet if needed

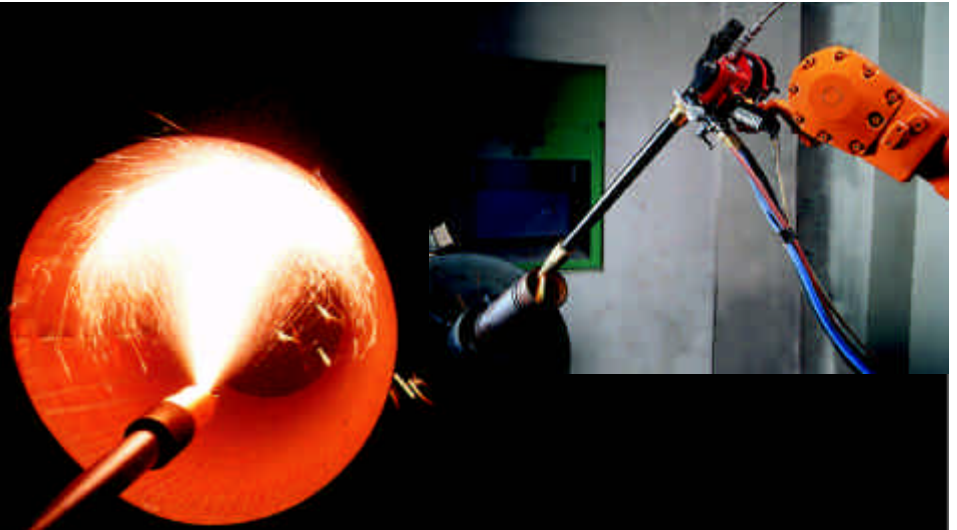
**WIRE REEL STAND WITH STRAIGHTNER :** It holds metallizing wire which is in the form of standard coil and feed it to the gun properly by removing kinks & bends.

**HOSE UNIT :** Consists of blue hose for oxygen, black hose for air, and one red hose for fuel gas (all 7.5mtr.long)

## 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.

Model : 3XT & 5XT  
Sizes : 150 mm / 300 mm /  
600 mm / 900 mm



## WIRE CONTROL UNIT



Trolley with  
Reel Stand

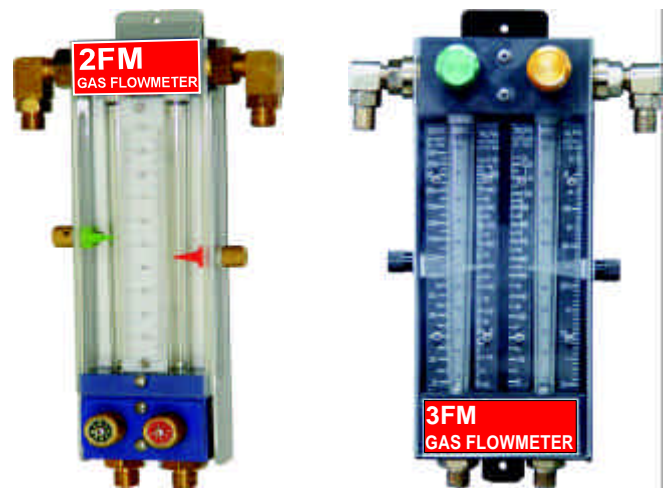


Wire Reel Stand  
with Straightner

The MEC 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.

A Trolley with Reel Stand is also available to move the complete system in shop easily.

## GAS FLOWMETER



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

Model : 2FM ( supplied with % scale of 0 - 100 )  
3FM ( supplied with calibrated scale in  
SCFH & NLPM )

## SPRAY BOOTH & LATHE EXHAUST SYSTEM

For controlling sprayed dust and fumes when metallizing operation takes place. Carries away metal dust as well as heat. Duct work has adjustable pipe length as well as ball joint to fit individual requirement. Reclaimed materials also has resale value.



## APPLICATIONS

- 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.

## PROTECTION EQUIPMENT

Due to the nature of the metal spraying process, it is necessary to provide protection to personnel from the hazards of noise, dust and glare. The following range of products satisfies this need.



**EAR MUFF & PROTECTIVE GOOGLE**

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



**AIRFED HELMET**

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



**RESPIRATORY MASK**

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

## METAL SPRAY WIRES



With over 100 standard materials Aluminium, Aluminium Alloy, Tin, Tin Alloy, Nickel, Nickel Alloy, Zinc, Stainless Steel, Brass, Molybdenum, Monel, Copper & many more wires are available. MEC can assist in the selection of the correct material for all applications and can supply to suit all thermal spraying process.



# A WIDE RANGE OF THERMAL SPRAY EQUIPMENTS

Hijet-9600  
HVOF Wire  
Spray Gun



Powderjet-86  
Powder  
Spray Gun



Powder  
Feeder  
PF-3350



Hipojet-2100  
HVOF  
Powder  
Spray Gun  
"COMPACT"



Control  
Panel  
AP-2200



Hipojet-2700  
HVOF  
Powder  
Spray Gun  
"MULTI  
TASKING"



Powderjet-85  
Powder  
Spray Gun



Rodojet-9800  
Ceramic Rod  
Spray Gun



Arcjet-95  
Twin Wire  
Arc Spray  
Gun



Thermal  
Spray  
Robot



Tilting  
Turntable



Sprayjet-5MC  
Wire Spray  
Gun



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