MEC
THERMAL SPRAY FACILITIES
AUTOMATIC SYSTEMS for HVOF, PLASMA, FLAME SPRAY, ARC SPRAY & ROD SPRAY

DEDICATED TO THERMAL SPRAY COATINGS TECHNOLOGY

* ARC SPRAY SYSTEMS
* HVOF SYSTEMS (WIRE & POWDER)
* AUXILIARY EQUIPMENTS
* FLAME SPRAY SYSTEMS (WIRE & POWDER)
* CERAMIC ROD SPRAY SYSTEM
* CONSUMABLES
The MEC Arc Spray System is the heavy duty state of the art Twin Wire Arc Spray System for industrial applications. It can spray all types of wires.

## SPRAY RATE

<table>
<thead>
<tr>
<th>Material</th>
<th>Spray rate at 400 A (75% duty/cycle) Kg/hr.</th>
<th>Coverage with 100 microns thickness Kg/m</th>
<th>M/Hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc &amp; Alloys*</td>
<td>30.0</td>
<td>1.22</td>
<td>24.6</td>
</tr>
<tr>
<td>Tin Zinc*</td>
<td>50.0</td>
<td>1.20</td>
<td>41.5</td>
</tr>
<tr>
<td>Aluminium*</td>
<td>08.1</td>
<td>0.31</td>
<td>26.1</td>
</tr>
<tr>
<td>Al Bronze</td>
<td>12.3</td>
<td>1.10</td>
<td>11.6</td>
</tr>
<tr>
<td>Copper</td>
<td>15.0</td>
<td>1.10</td>
<td>13.6</td>
</tr>
<tr>
<td>Carbon Steel</td>
<td>12.5</td>
<td>0.90</td>
<td>13.8</td>
</tr>
<tr>
<td>Stainless Steel</td>
<td>13.5</td>
<td>0.98</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Wire size is 1.6 mm unless mentioned otherwise.

*ABOVE FIGURES ARE FOR GUIDANCE ONLY
**WIRE FLAME SPRAY SYSTEM**

**SYSTEM CONSISTS OF**
- Sprayjet Gun
- Gas Control Unit
- Air Control Unit
- Wire Dispenser
- Net Wt.: 50 Kgs.
- Gross Wt.: 150 Kgs.

**SALIENT FEATURES**
- Uses Oxygen & Acetylene for combustion.
- No cooling water requirement.
- Consistent Rod feed is achieved by electric motor fitted on the gun.
- Rods of diameter 3.17 mm to 6.35 mm can be used.
- Start/Stop button at the handle of the gun for instant start/stop.
- Ceramic rods of chromium oxide, Alumina-Titania, Alumina, Yttria.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Wire Drive</th>
<th>Air Turbine</th>
<th>Air Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire Size</td>
<td>3.17mm Std.</td>
<td>0.8 Cu. Mtr./Min. at 4.5 Kg/Cm²</td>
</tr>
<tr>
<td>1.6mm &amp; 4.75mm</td>
<td>Steel (Kg/hr) - Zinc (Kg/hr)</td>
<td>Net Weight (Gun only) 2.65 kgs.</td>
</tr>
</tbody>
</table>

**RODOJET-9800 ROD SPRAY SYSTEM**

**SPRAYJET-88**: General purpose wire metallizing gun
**SPRAYJET-87**: High spray rate gun for Zinc & Aluminium
**SPRAYJET-88-EL**: Motorised Wire speed mechanism

**WIRE FLAME SPRAY RANGE**

**SPRAYJET-88**: General purpose wire metallizing gun
**SPRAYJET-87**: Push button wire start/stop.

**SPRAYJET-88-EL**: Motorised Wire speed mechanism
**HIJET® 9600 SYSTEM**

**HIGH VELOCITY COMBUSTION WIRE SPRAY SYSTEM**

SYSTEM CONSISTS OF:
- HIJET-9600 Oxygen-Propane/LPG Flame Gun
- Motorised wire Feed System
- Air Control Unit
- Gas Control Unit
- Control Panel (MP-2100)
- Interconnecting Cables and High Pressure

**COATING CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HARDNESS (ASTM-E384-89)</td>
<td>MOLYBDENUM</td>
<td>UPTO 1000 VHN</td>
</tr>
<tr>
<td></td>
<td>STAINLESS AISI 420</td>
<td>500 VHN</td>
</tr>
<tr>
<td>DEPOSIT EFFICIENCY</td>
<td>MOLYBDENUM</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>STAINLESS AISI 420</td>
<td>ABOVE 80%</td>
</tr>
<tr>
<td>BOND STRENGTH (ASTM-C633-79)</td>
<td>MOLYBDENUM</td>
<td>30MPa</td>
</tr>
<tr>
<td></td>
<td>STAINLESS AISI 420</td>
<td>25 Mpa</td>
</tr>
<tr>
<td>POROSITY</td>
<td></td>
<td>2 - 5 %</td>
</tr>
<tr>
<td>THICKNESS</td>
<td>0.025 MM TO &gt; 3MM</td>
<td>(Depending upon Material sprayed)</td>
</tr>
<tr>
<td>SURFACE ROUGHNESS AS SPRAYED</td>
<td></td>
<td>2.0 - 4.0 Microns Ra</td>
</tr>
<tr>
<td>GROUND</td>
<td></td>
<td>&lt; 1.0 Microns Ra</td>
</tr>
</tbody>
</table>

ABOVE FIGURES ARE FOR GUIDANCE ONLY
POWDERJET-86-II POWDER SPRAY SYSTEM

SYSTEM CONSISTS OF

- Powderjet-86-II Spray Gun
- Powder Feeder PF-700
- Gas Control Unit, comprising of Regulators & Flowmeter
- Air Control

POWDERJET-85-II POWDER FLAME SPRAY SYSTEM

Powderjet-85-II is a simple to use low cost powder flame spray system. It has an in built powder hopper to feed powder to the flame. It is suitable for coating spray & fuse type materials, metals,

SPRAY TORCH -100 : FOR SPRAY & FUSE COATING

Spray Torch-100 is ideally suited for Spray & Fuse Coatings. Rugged & Light weight, it has various
MEC TILTING TURNTABLE

SPECIFICATIONS
Base Plate Diameter : 600 mm
Max rpm : 300
Tilting Angle : 0 to 100 Deg.
Load Capacity : 250 Kgs.
MEC Tilting Turn table is suitable for job mounting and rotation.
The turn table can be integrated with the robotic spray cell.
It can be used for long rolls keeping face plate in vertical position & chuck mounted on the face plate.

MEC POWDER FEEDER; PF-700

SPECIFICATIONS
Powder Container 45 Cubic Inches
Size 8” x 4” x 4”
Powder Wheel rpm 0.5 to 28 stepless
Electric Supply 115V AC 60 1Ph
or
220V AC 50 1Ph
Powder Hose Length 10, 35, 100 Feet
Net Weight 70 lbs
MEC supplies a wide range of thermal spray consumables like metallic, alloyed, and cored wires, metallic, ceramic, and cermet powders, masking compound, and various sealers.

Sprayjet Extensions are available in lengths 30 cm, 45 cm, 60 cm, and 90 cm. Minimum ID of 30 mm can be sprayed with ease.

High Velocity Wire Spray Extension are used for coating minimum ID of 70 mm. Various lengths are available.

HVOF Powder Spray Extension for high-quality coatings.

MEC supplies various consumables for spray applications.