MULTISTATIC™ SERIES
AUTOMATIC POWDER SPRAY SYSTEM
The **MITSUBA SYSTEMS** Automatic Powder Coating System with the Automatic Infiniti™ Powder Spray Guns is specially designed to meet the demands of production line applications in both manufacturing, and custom electrostatic coating applications.

The Flexible, Modular structure of the **MITSUBA SYSTEMS** Automatic Powder Coating System is readily adaptable to any changes in your installation.

The **MITSUBA SYSTEMS** Automatic Powder Coating System grows with your needs and can be easily expanded to incorporate more gun systems as and when required. The various standard Master Control Panels can be cascade interlocked with each other.

The components shown in the detailed scope of supply vary as per the number of gun systems offered.
## SCOPE OF SUPPLY

A typical *MITSUBA SYSTEMS* Automatic Powder Coating System Plant is built with a modular concept and comprises of:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Page #</th>
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</thead>
<tbody>
<tr>
<td>Master Control Panel (MCP) (Rack Cabinet)</td>
<td>05</td>
</tr>
<tr>
<td>[standard upto 8 guns]</td>
<td></td>
</tr>
<tr>
<td>• Individual Gun Control Panels (GCP)</td>
<td>07</td>
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<tr>
<td>• Integrated 100 kv Infiniti™ Automatic Carona Guns</td>
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<tr>
<td>• High Performance Powder Pumps</td>
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<tr>
<td>• Automatic Tribo Gun with various Spray Heads (optional)</td>
<td></td>
</tr>
<tr>
<td>• Centralized Powder Hopper [Kg. sizes as specified]</td>
<td>14</td>
</tr>
<tr>
<td>• Necessary Interconnecting Cables &amp; Accessories</td>
<td></td>
</tr>
</tbody>
</table>
MASTER CONTROL PANEL
MASTER CONTROL PANEL

This consists of a standard modular enclosure system consisting of side & rear panels, top cover (vented if desired), internal AC distribution, earthing distributor & frontal panel mounting for easy access to controls. All incoming & outgoing wires are connected on terminals. The system consists of -

1. Individual Gun Control Panels (GCP)
2. Reciprocator Control Panel (RCP) [in case of Reciprocator systems]

The mechanical structure, the components for the front panels & the mounting conditions confirm strictly to international standards. These features permit reliable & long lasting protection in harsh & adverse environments

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Input voltage</th>
<th>Single Phase 110/120/220/230/240V, 50 / 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption</td>
<td>Max. 560W [with reciprocator controls]</td>
</tr>
<tr>
<td>Input Air Pressure</td>
<td>8 kg/cm²</td>
</tr>
<tr>
<td>Air Connection</td>
<td>¾” BSP</td>
</tr>
<tr>
<td>Air Consumption</td>
<td>5 m³/hr per Gun</td>
</tr>
<tr>
<td>Max. Water content permitted</td>
<td>1.3 g</td>
</tr>
<tr>
<td>Max. Oil content permitted</td>
<td>0.1 ppm</td>
</tr>
</tbody>
</table>
GUN CONTROL PANEL
GUN CONTROL PANEL (GCP)

The GCP is a standard control panel which is individual for all powder guns & can be operated for both the Corona & Tribo gun.

Each panel houses the electrical, electronics & pneumatics which control the individual guns. The voltage at the gun tip, the powder flow & cloud pattern are controlled through the GCP.

All wiring is undertaken through a motherboard. All components are only plugged into the motherboard. Complex interconnecting wires & circuit tracing is completely eliminated. In case of a fault, extremely fast trouble shooting is possible the motherboard system permits instant change.

An ultra modern and advanced, automatic diagnostic “Smart Tracker” system monitors and indicates the performance of every component. This eliminates the need for complex circuit tracing in case of any error troubleshooting is easiest with the “Smart Tracker”.

TECHNICAL DATA

Dimensions

: Ht   88 mm  
  W   450 mm  
  D   270 mm

Control Elements

: ON/OFF Switch  
  Potentiometric HV Control up to 100 KV  
  Digital indicator for 100 KV o/p  
  Conveying air control regulator with gauge  
  Dosing air control regulator with gauge

Control Signals

: HV indicator  
  Micro Amp Read out  
  Disturbance Acknowledgement
## GUN CONTROL PANEL (GCP)

### PNEUMATIC DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum input pressure</td>
<td>7 bar</td>
</tr>
<tr>
<td>Optimum input pressure</td>
<td>6 bar</td>
</tr>
<tr>
<td>Maximum water vapour content in compressed air</td>
<td>1.3 g³</td>
</tr>
<tr>
<td>Maximum oil vapour content in compressed air</td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Maximum Compressed air consumption</td>
<td>11 m³/ hr.</td>
</tr>
</tbody>
</table>

### ELECTRICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single phase AC current, selectable voltages</td>
<td>220V or 230/110V</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 / 60 Hz.</td>
</tr>
<tr>
<td>Connected loads</td>
<td>60VA</td>
</tr>
<tr>
<td>Safety class</td>
<td>IP 54 (P43)</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-2 °C to 50 °C</td>
</tr>
<tr>
<td>Nominal Input Voltage</td>
<td>10 V eff.</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>100 KVDC -ve (+ve on request)</td>
</tr>
<tr>
<td>Nominal Output Current</td>
<td>100 micro amps.</td>
</tr>
</tbody>
</table>
INFINITI™ AUTOMATIC ELECTROSTATIC CARONA GUN
AUTOMATIC INTEGRATED ELECTROSTATIC GUN

The Automatic Powder Spray Guns have the 100KV generator in the gun itself. They include an air rinsing system to continuously clean the electrodes / deflectors.

Without this feature after spraying for a while the electrodes get coated with a layer of insulating powder and hence deposition efficiency drops. In manual systems, this layer can be wiped away or air cleaned very easily.

However in an Automatic system it is inconvenient to consistently pay attention to this and therefore an additional air line which passes through the gun, continuously rinses the electrodes so optimum transfer efficiency is continuously maintained as insulating powder does not accumulate over the electrodes.

The Automatic Powder Spray Guns are provided with the necessary low voltage cables and powder hoses - 10 meters length for each gun.

TECHNICAL DATA

EXTERNAL PNEUMATIC DATA

- Maximum input pressure: 7 bar
- Optimum input pressure: 6 bar
- Maximum water vapour content in compressed air: 1.3 g / m³
- Maximum oil vapour content in compressed air: 0.1 ppm
- Maximum Compressed air consumption: 8 m³ / hr (For Powder Flow)
  3 m³ / hr (For Rinsing)

ELECTRICAL DATA

- Nominal Input Voltage: 10 V eff.
- Output Voltage: 100 KVDC -ve (+ve on request)
- Nominal Output Current: 100 micro amps.

OTHER DATA

- Gun Weight: Approx. 750 gms
- Gun Length: Approx. 330 mm.
CENTRALIZED POWDER HOPPER

- Hopper
- Earth
- Ventilation
- Jet Pump
- Fluidizing Tile
- Pneumatic Connector

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Web Page: http://www.powdergun.com
CENTRALIZED POWDER HOPPER
WITH HIGH PERFORMANCE POWDER PUMPS

This 200 Kgs. Stainless Steel powder hopper is of a fluidization type and having the possibility to remove the porous tile for the cleaning as well as access door to pour powder without disturbing the spraying operation. The powder pumps are mounted on the hopper lid and are manufactured from aluminium and have separate inputs for conveying and dosing air. All pneumatic fittings are of quick disconnect type. The most important characteristic is the ventury design which enables a surge free powder spraying as the dosing air is fed after the suction area.

The concentration of powder-air mixture can be perfectly controlled as the dosing and conveying air controls are individually separate. The max. powder output per pump is 30Kgs/hr.

TECHNICAL DATA

Dimensions and Capacity:
- 980mm x 480mm x 80mm --- 200 kgs
- 750mm x 480mm x 480mm --- 100 kgs
- 450mm x 380mm x 380mm ---- 50 kgs

OTHER DATA

Air Requirements: Fluidizing - max 20 zxm$^3$/hr.

No. of Pumps: As Specified.

Powder pump output: 0 to 30 Kgs/hr. controllable