



SHREE ELECTRO EQUIPMENTS

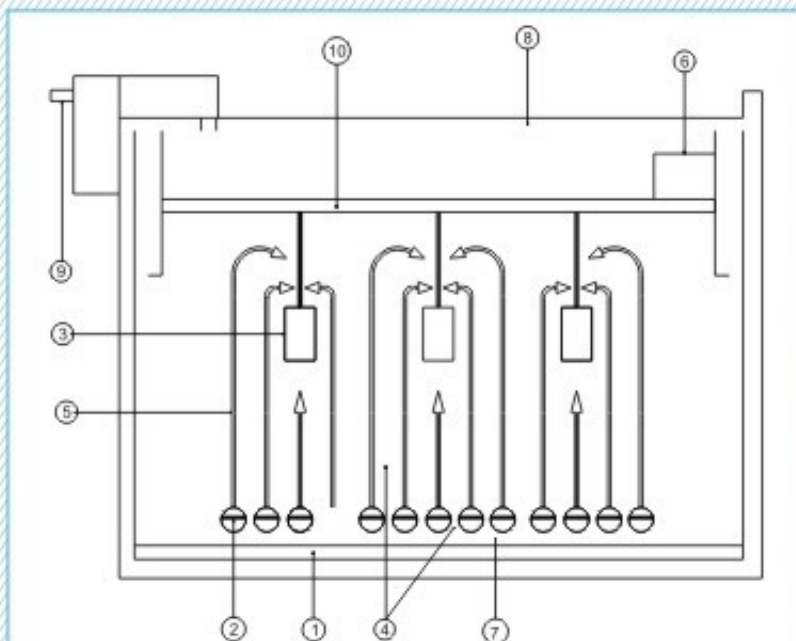
www.powdercoatingplant.com

INTRODUCING A
NEW REVOLUTION IN
POWDER COATING PROCESS

EASY COAT EFB

- A SYSTEM WITHOUT SPRAY EQUIPMENT SPRAY BOOTH & AIR COMPRESSOR
- ZERO POWDER WASTAGE
- FULLY AUTOMATIC

ELECTROSTATIC FLUIDIZED BED



(1) ELECTRODE a, (2) ELECTRODE b, (3) WORK PIECES, (4) POWDER
(5) FIELD LINES, (6) EARTHING, (7) COATING CHAMBER, (8) SLIDING TOP LID
(9) VACCUUM EXHAUSTER CONNECTION, (10) JIG WITH WORKPIECES



ADVANTAGES OF ELECTROSTATIC FLUIDIZED BED

- No requirement of powder spray equipment
- No requirement of powder spray cum recovery booth
- No requirement of air compressor
- No requirement of powder recovery system
- No requirement of powder recirculation/management system
- No requirement of air cleaning system/air drier
- 100% recovery of oversprayed powder
- Extreme fast production
- Fully automatic system
- Minimal space requirement
- Fast colour changing - within 2 minutes
- Low power consumption
- No pollution
- Lesser manpower requirement
- Uniform fluidized thickness
- Compact and flexible unit
- Negligible maintenance requirement and cost
- Infinite life period
- Trouble-free and comprehensive system
- Low operation cost
- Thin Films upto 25um. covers 250 Sq. Feet/Kg.
- Superior, Uniform and reduced Orange Peel



COMPARISON OF OPERATION COST ELEMENT IN TRADITIONAL SYSTEM VIS-À-VIS ELECTROSTATIC FLUIDIZED BED SYSTEM

| COST ELEMENT | TRADITIONAL SYSTEM | FLUIDIZED BED SYSTEM |
|--|--|---|
| • Power consumption(Per 8 hrs.shift) | 24 kw | 1 KW |
| • Powder recovery | 95-97% | 100% |
| • No. Of personnels | 5 | 2 |
| • Cost of maintenance | Various wear and tear products required. External service personel required for maintenance and fitment of parts | No wear and tear parts. Self-serviceable. |
| • Coating time (for an area of 1000 sq. Ft) | 120 minutes | 30 minutes |
| • Space consumption | 200 sq. Ft | 30 sq. Ft |
| • Colour changing time | 20 minutes | 2 minutes |
| • Spray system | Manual | Automatic |
| • Coating thickness | Variant-dependng on operator | Uniform |
| • Pollution | Air and sound pollution | No pollution |
| • Health concerns | Masks for operator. May cause health problems | No masks required. No health concerns |

COATING PROCEDURES

The electrostatic fluidized bed consists of a fully automatic self contained powder coater - at the heart of which is a box with a sliding top lid.

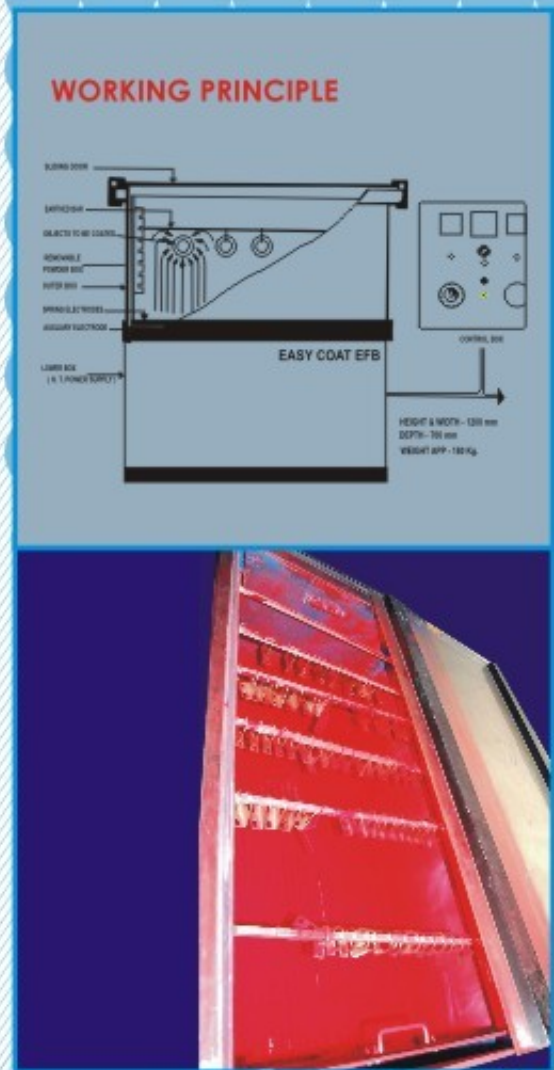
This self contained unit works on a single phase - 300w power supply. It does not require air compressor, filter, powder gun, spray booth, powder reclamation system etc.

The objects to be coated are loaded in the jigs. The jigs are placed inside the powder chamber and after sliding close the lid the unit is switched on for a pre-determined time depending on the thickness required (30-300 microns).

Two separately mounted electrodes polarize the powder particles. The powder paint spread previously at the bottom gets vigorously agitated. The DC high voltage simultaneously electrostatically charges this vibrating powder. Hence the powder rises to coat the work pieces by pure electrostatic means.

Powder not deposited on the pieces falls back to the bottom and is once again whirled up in the next cycle resulting in near 100% utilization.

100% powder economy is thus guaranteed and expensive cumbersome recovery systems are not necessary.



TECHNICAL SPECIFICATIONS

SCOPE OF SUPPLY

Complete Automatic Powder Coating Unit "EASY COAT EFB" ready to operate and consisting of:

- Integrated Bottom Chamber on castors consisting of the high voltage polarizing circuitry for both powder charging and fluidizing 1 No.
- Top Outer Chamber With lid. 1 No.
- Inner Colour box chamber with polarizing electrodes 1 No.
- Electronic control panel having thickness control timer and electronic controls for the "charging polarization electrodes" and the "fluidization polarization electrode". 1 No.

ELECTRICAL DATA

| | |
|---|--------------------|
| Single phase AC current, selectable voltage | 220V or 230 / 110V |
| Frequency | 50 / 60 Hz. |
| Connected loads | 175 VA |
| Temperature Range | +2 °C to 50 °C |
| Nominal Input Voltage | 10 V eff. |
| Output Voltage at source- Top Electrode | 60 KVDC -ve |
| Output Voltage at source- Bottom Electrode | 12 KVAC |

COATING APPLICATION RANGE (INCLUSIVE)



APPLICATIONS

EASY COAT EFB the worlds most economical machine both for small or large batches and small/ medium sized components. It guarantees practically unlimited applications.

On all metal parts, insulation parts ceramic, glass, bakelite, wood, stone, paper, plastic and others. In short, for all parts which can be heated to at least 140 C required for curing the powders.

A FEW OF THE MAJOR APPLICATIONS ARE

AUTOMOTIVE INDUSTRY : Bumpers, Grills, Wheel Rims and Caps, Wipers, Head Light Covers, Motorcycles and Mopeds....

ELECTRICAL INDUSTRY : Rotors, Stators and Coils, Bus Bars, Lighting Fixtures, Meters and Control Instruments....

INDUSTRIAL ARTICLES : Bicycle Frames, Switch Gear Boxes, Weighing Scales, Tools, Die Castings, Straps, Springs...

DOMESTIC APPLIANCES : Fans, Mixtures, Sewing Machines, Flat Irons, Geysers, Gas Stoves, Utensils, Air Conditioners

OTHERS : Glass and Cosmetic Industry, Ceramic Industry, Ceramic Tiles, Wooden Handles, Laboratory Instruments, Office Equipment, Imitation Jewellery, Wire Works, Sport Goods, Farm Implements, Architectural Plumbing, Building Hardware, Textile Machinery, Teflon Coatings...



(An ISO 9001:2000 Certified Concern)



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