

Make Your Product Impeccable



## Manufacturers and Specialists

Powder Coating Plant

Painting Plant

Pre - Treatment Plant

Varnishing Plant

CED Coating Plant

Automated Transporter System

Pressurization Zone

Conveyor System

Special Purpose Oven



QR CODE

**“Leaders in Surface Coating Technology.”**



## ABOUT US

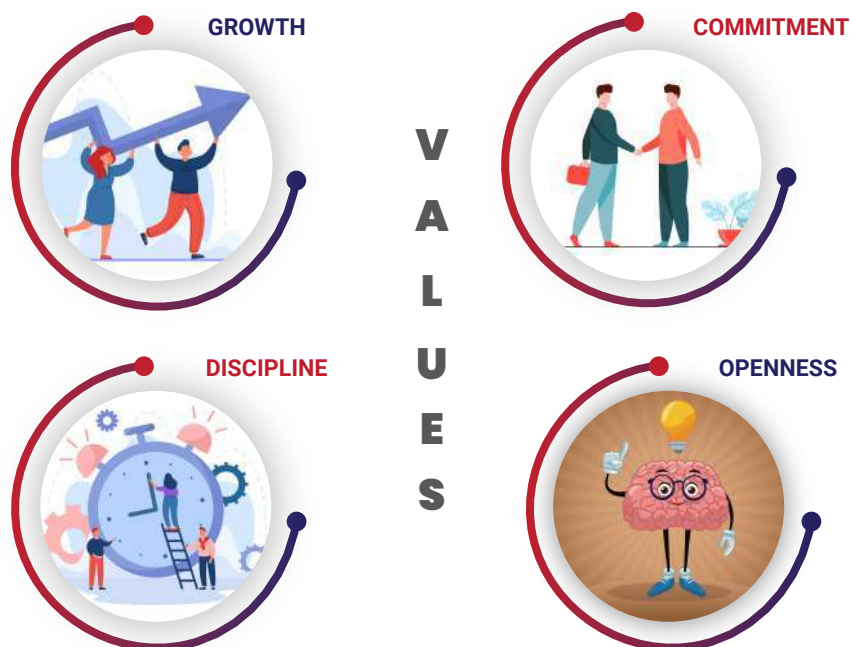
### COMPANY PROFILE

SEW is market leader in Surface Coating Technology in all over India.

SEW's surface coating plants are capable of coating 9-10 million sq. ft. per year. Its supplied plants are active in more than 125 companies. Including 3 / 4 out of 7 India's top (by conveyor speed). In addition, many of the largest surface coating plant users have confidence on SEW's economical & quality plants.

### COMPANY OVERVIEW

Established in 1996, SEW has more than 75 employees, all committed to its customers providing a system driven solution with economical & quality result. With consistently increasing number of supplied plants, it has established a global reputation over the past 25 years as highly reliable solution provider in surface coating technology.



### OUR FOUNDER

**Mr. Ramesh Anant Bhise**  
(Chairman and Managing Director)

- Expert in surface coating technology.
- Personal touch in all activities of company.
- Vast engineering skills, process innovation, core process. redesign & business process reengineering.
- Experience of 40+ years in this field.

**Mr, Rohan Ramesh Bhise**  
(Director)

- Expert in design
- Innovative thought process.
- Advanced technologies.
- Analytical skills & decision making
- Aggression to complete customer requirement.
- Intent towards quality work.

**Make Your Product Impeccable**



## OUR CLIENT'S

Being a client centric organization, Customer Satisfaction is the principle motto of SEW Surface Coating! We constantly strive to offer our customers, the best in class services & facilities in the realm of a wide spectrum of surface coating plants, Since the very inception, we have been offering credible services that have helped us in gaining the trust & reliance of our esteemed clients all across the world.



Make Your Product Impeccable





## PRETREATMENT PLANT

Pretreatment means surface preparation. Before powder coating/ painting it is necessary to treat surface of component with chemical to get better quality of coating. For this purpose, pretreatment plants are installed before powder coating/ painting plant. This is also known as cleaning or washing process. There are various pretreatment processes such as seven tanks (7 tanks or Phosphating), 11 tanks, NANO process, Chromatizing etc. The pretreatment process is decided on component material, intensity of oil, grease and rust on component. Pretreatment plant can be designed as per coating requirement such as salt spray test, impact test, scratch test, bending test etc. There are two types of pretreatment plant as following :

### SPRAY PRETREATMENT PLANT

Spray Pretreatment Plant is also known as Conveyorised pretreatment plant, Washing Chamber as components are hang on conveyor and they go through various chemical zones

as per chemical process where nozzles spray the chemical on the component surface for surface preparation. Same conveyor goes inside water drying oven, powder coating booth and powder curing oven, hence operator have to only load components before pretreatment and unload after powder coating.



### FEATURES AND BENEFITS

- Spray pretreatment plant is suitable for Flat surfaces, Panels, Section etc .
- The spray density & pressure is controlled with the help of pumps & valves.
- Tanks with filters are provided below the zones for better circulation system.
- Material handling is less in spray pretreatment plant.

### DIP PRETREATMENT PLANT

Dip Pretreatment Plant is also known as 7 tanks or 11 tanks process plant. In this components are loaded in basket and the basket is dipped in various chemical tanks as per chemical process. For basket handling from one tank to another tank we can use hoist (manual) or automated transporter system. After pretreatment process is done same basket can be inserted inside inline water drying oven or we can unload components from basket and load them on conveyor, which will go inside of Conveyorised water drying oven for drying off the water from components before powder sprayed on components.



### FEATURES AND BENEFITS :

- Dip pretreatment plant is suitable for flat surfaces and hollow surfaces.
- Air agitation is provided for proper mixing of chemical in tank.
- Dip pretreatment plant takes less space to install than spray pretreatment plant.



### AUTOMATIC TRANSPORTER SYSTEM :

For loading and unloading of articles into various tanks in pretreatment process transporter system is mainly used with a programmed cycle. The cycle is based on time required in particular tank as specified and also sequenced in such way that critical tanks (degrease, derust, Zn phosphate and WDO) are treated on priority, so articles will be removed from this tanks with minimal time loss.

### FEATURES/BENEFITS :

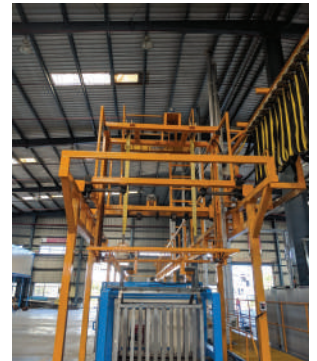
1. Precise Control with the help of PLC programming.
2. Robust system.
3. Flexible PLC Programmed.
4. Reduction in labour cost.
5. Effective control of production.

### CAPACITY :

1. As per customer requirement.
2. Dependig upon job/components.
3. Geometrical sizes & weights & No of stations.
4. Automatic timing & sequential programed cycle.

### APPLICATION :

1. Pretreatment plants.
2. Electroplating plants.
3. Anodising plants.



### WATER DRYING OVEN

Water drying oven is used for drying of article after pretreatment process. After this some moisture is on the object which has to be dry out because before powder coating, component should be clean and free from moisture. Following are types of oven which are depending upon like where is oven is going to be install- if it's going to install with dip pretreatment tanks then it will inline tank type water drying oven or if it's going to install with spray pretreatment then it will conveyorised water drying oven (conventional / camelback type).





Inline Tank type Water Drying Oven



Conveyorised Water Drying Oven

## POWDER COATING PLANT

Powder coating is a type of coating in which a spray gun spreads the powder electrostatically on the surface of article. The powder may be the thermoplastic or thermoset polymer.

Powder coating contain no solvents and releases no amount of volatile organic solvents into the atmosphere.

Powder coated articles have fewer appearance difference.

A wide range of effects are easily accomplished using powder coating.

Curing time is significantly faster than convention paint.

Powder coating plant majorly includes powder coating booth and powder curing oven.

Powder Coating Booth- In which powder is sprayed in a chamber and overspread powder is recovered with recovery unit. Types of powder coating booth- Back to back operator, Single Operator & Automatic Powder Coating Booth



Back to Back Operator Booth



Single operator booth



## POWDER CURING OVEN-

After powder coating booth article pass through the powder curing oven where powder coated component is cured under heat. In this hot air is circulated in the oven to increase and distribute even temperature in all over area. There are following types of curing oven- batch type curing oven, conveyorised powder curing oven (conventional / camelback type)



Conventional Powder Curing Oven



Camelback Powder Curing Oven

## LIQUID PAINTING PLANT

Liquid Painting is type of coating on article. In this coating paint is any pigmented liquid, liquefiable or mastic composition that after application to a substrate in a thin layer converts to a solid film. Painting involves the spreading of liquid paint over the article surface. Specialize gloss and metallic colors are available in liquid paint. Following are some painting coating system-

- Spray Painting Booth - Side Draft Booth, Down Draft Booth & Dry Draft Booth.
- Dip Painting Tank - Conveyorised Dip Painting Tank.
- Flash off zone - To Exhaust solvent vapour after painting is done.
- Paint Baking Oven- After liquid painting article pass through the paint baking oven where liquid painted component is baked under heat. In this hot air is circulated in the oven to increase and distribute even temperature in all over area. There are following types of baking oven- batch type baking oven, conveyorised baking oven (conventional / camelback type)



Spray Painting Booth



Conventional Paint Baking Oven



Batch type Paint Baking Oven

**Make Your Product Impeccable**





## PRESSURIZATION ZONE

It is controlled atmosphere enclosure provided around the painting / powder coating booth to avoid dust particle on component. In which a pre filtered air is passed to secondary filters situated in plenum chamber. Air enters into working area through layer of ceiling filters at specific velocity with positive pressure.

## FEATURES AND BENEFITS:

Helps to control atmosphere around powder/ painting booth, increases quality of coating conditions.

Also provides fresh air to operator inside the chamber.

As powder/ paint is coated in controlled atmosphere it gives better finish quality after baking in oven.



## SPECIAL PURPOSE OVEN:

We are also into manufacturing of special purpose oven up to 500°C for processes as follows-

- Baking after flux
- Bonding ovens
- Stress releasing ovens
- Annealing ovens



Make Your Product Impeccable





## SCADA

It is programmable PLC control for all blowers, pumps, burners etc.

Panel consists of PLC based control system. Auto sequencing is synchronized movement to perform time based spray treatment of material. Sequence execution reliability is provided by PLC whereas precise control over transverse motion is achieved through variable frequency drive.

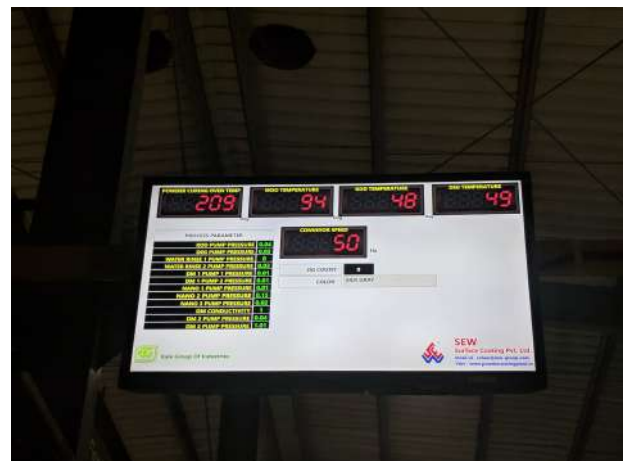
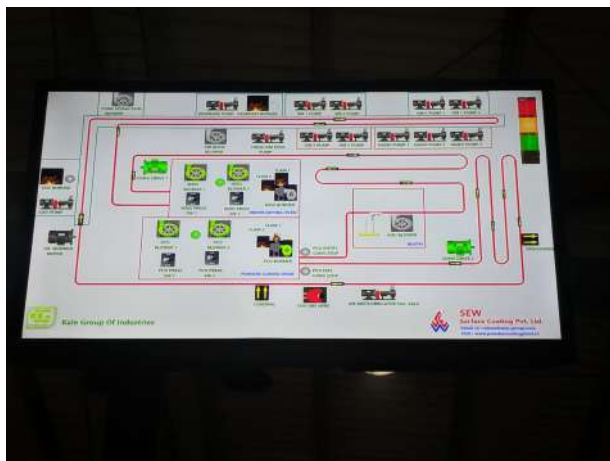
PLC and SCADA based front end application. For various interlocks, time delays, sequence etc. logic is written in PLC program. SCADA based front end application i.e. software is developed and install in a computer.

This is used for display of various values and status.

Commands are given through icons created on the computer screen. Changes can be done through SCADA program.

Also HMI screen is provided on control panel.

MIMIC system of the total plant will be provided to see the total layout of the plant. LED indicators are provided which will indicate the running plant.



## Accessories of Surface Coating Plant

- Air agitation system
- Fume extraction system
- Filtration system- Bag filter/ Cartridge filter
- Oil separation system
- Sludge separation system
- Auto lubrication unit for conveyor



Make Your Product Impeccable



## CED COATING PLANT

Cathodic Electro Deposition (CED) is water based primer coating & mostly used in automotive paint shop. In this process, charged particles from the paint emulsion move to cathode under electrical forces. The direct current established through the bath makes the pigment and resin base of the paint attract towards the component surfaces.

It can be done by

1. Batch type (dip tanks)
2. Conveyorised dip

Reach of paint at every corner of component having intrinsic shape. Undeposited material is rinsed. Ultra-filtrate (UF) equipment's are used for ED paint ingredients separation of those not forming film and recovery of paints. Deposited film after baking becomes hard.

CED painting has following mentioned process

Load – Degrease – Water Rinse ½ – Activation – Phosphate – D.M. Water Rinse ½ – CED – UF 1 – UF 2 – D.M. Water Rinse 3 – Baking Oven – Unload.

In above mentioned process can be done with complete dip type or Spray + dip type.

### **Advantages of electro deposition over conventional primer:**

1. Fully automatic operation requires less human efforts, film thickness can be controlled.
2. Uniform coating.
3. Better coverage in interior/ complex surfaces and sharp corners.
4. There are no runs, sags or solvent boils.
5. Better corrosion resistance and 100% utilization of paint therefore cost effective.
6. As coating is done using aqueous process which has less risk of fire in comparison to solvent coatings, better in anti-pollution, safety, health hazards.
7. The surface salt spray resistance lasts for more than 1200 hours.



**Make Your Product Impeccable**





## OUR FOOTPRINTS



Make Your Product Impeccable





# SEW

## Surface Coating Pvt. Ltd.

An ISO Certified Company



### ■ **Factory Address :**

Gut No, 187/1, Kondhanpur Road,  
Ranje, Bhore, Pune - 412205, Maharashtra, India

### ■ **Mobile :**

+91-7387111066  
+91-9860027066

### ■ **Email :**

sales@sew-group.com  
sale@sew-group.com  
rohan@sew-group.com

### ■ **Website :**

www.powdercoatingplant.in  
www.shreeengineeringworks.com