

World Class Surface Finishing Technology



Paint Finishing Systems | Powder Coating Plants | Shot Blasting Systems

Water & Waste Water Treatment | Environmental Technology

Complete paint finishing systems from single source



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MISSION

We at TECHExpert Engineering Pvt. Ltd. aim at-

- Providing painting solutions to industries with state of art technology
- Develop and introduce new products in market which would meet industrial needs

While in business our focus will be on-

- Maintaining highest quality standards
- Innovation
- Develop satisfied customers
- Maintaining clean environment
- To make global presence in selected areas
- To maintain profitability, this is essential for future success and growth
- Create our own brand name in the market

VISION

- To be a world-class professional in Surface Finishing Systems

Company Profile

TECHExpert Engineering Pvt. Ltd. engaged in manufacturing, exporting and supplying extensive range of paint finishing and powder coating systems. This range finds application in industries like metal, plastic, auto & wood finishing. We offer Total Solution in the Field of Surface Coatings, that starts from consultancy, designing, engineering and commissioning of tailor-made systems for powder coating, liquid paint coating and Metal pretreatment, on turnkey basis, for all types of application requirements of finish coating for industrial and consumer goods. Backed by modern infrastructure and qualified professionals, we are able to manufacture paint finishing systems in accordance with the client's specifications. Further, to attain maximum satisfaction of clients, we provide after sales service with the help of our trained and experienced engineers. Our vast industry experience and in-depth knowledge have helped us in acquiring huge base of clients not only in India but also in overseas countries like UAE, Bahrain, Qatar, Kuwait, Africa, and Oman.



Product Profile

We are one of the leading organizations in the sphere of manufacturing, exporting and supplying a quality range of paint finishing systems. Our range includes:

- Industrial Paint Finishing Systems for Metal, Wood & Plastics.
- Metal Pretreatment Systems.
- Powder Coating Systems: Batch type, Conveyorised & Automatic.
- Material Handling Systems.
- Standard Paint booths & Ovens.
- Air Handling Systems.
- Large Down Draft spray booths for heavy components.
- Spray Bake Booth (Indiana II).
- Industrial Sprays Washing Systems.
- Shot Blasting Equipments & Systems.
- Water & Waste Water treatment.
- Paint Application System.

Apart from these, we also meet the requirements of custom made paint finishing systems. This range is manufactured using quality raw material such as mild steel, stainless steel, industrial fan/blowers, electrical switch gear, electronic components, automation product, material handling systems, heat exchangers, electrical motor/umps and heating burners to ensure high performance and durability of systems.

Key Solutions

- **Paint Finishing Systems**
 - Batch type & Automatic / conveyorised Paint finishing systems for metal, wood & plastics.
- **Powder Coating Plants.**
 - Batch type & Automatic / conveyorised powder coating systems
- **Shot Blasting Systems**
 - Industrial & automotive components
- **Environmental Technology**
- **Water & Waste Water Treatment**

Surface Pretreatment Systems



Conveyorised spray pre-treatment system

Pretreatment plants

Pre-treatment plants are offered depending on the production volume and article configuration. Our pretreatment systems have special provisions in their design to get the best out of both-spray as well as dip type of pre-treatment systems.

Spray pretreatment

This system for online cleaning of consists of a tunnel mounted on tanks, components piping pump and nozzles etc. The design is based on conveyor speed, article profile & pretreatment timing. The spray tunnel is designed on a completely weldless system. This eliminates chances of leakage. Special arrangements ensure leakless locking between the zones. The tank design also eliminates leakage and all sprayed chemicals fall back into the tanks.

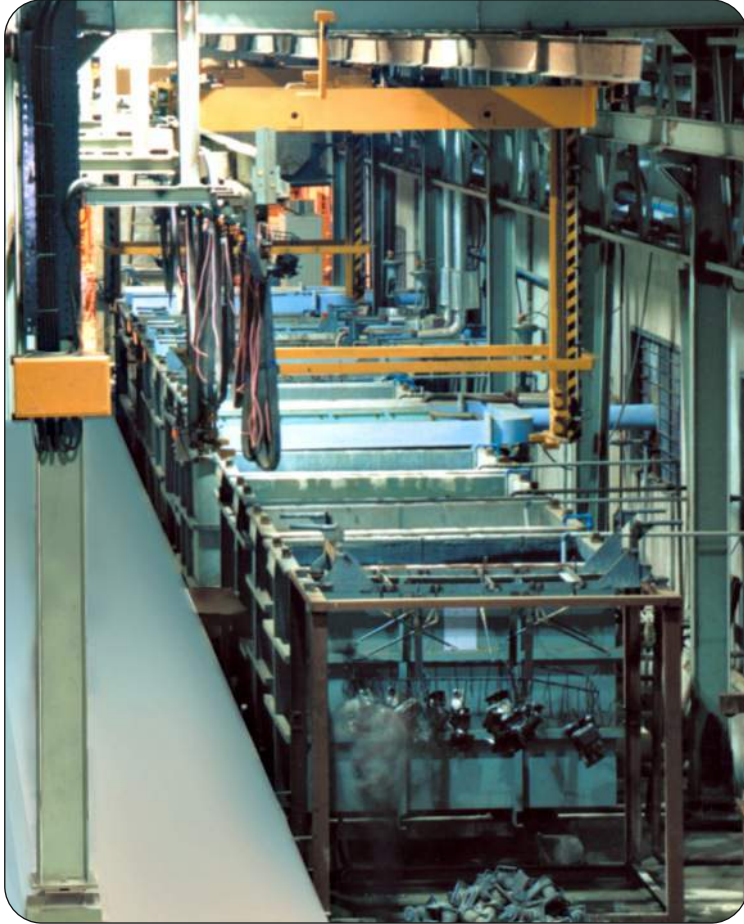
The heating system is designed to give the best heat transfer and consume minimum of the tank volume. The oil skimmer is incorporated as a standard part of every system to keep the cost of refilling low by getting the most out of the chemicals.

The spray plants can be provided with additional accessories like

- Oil removal system.
- Phosphate on-line sludge removal system.
- Indirect heating for chemical & chemical dosing system.
- Fume extraction system.



Spray pretreatment



Dip Pretreatment

The dip pretreatment systems have been designed to keep the cost low. The heating systems and the oil skimmer help further this objective. Dip type pretreatment plants with hoist are for manual handling. In conveyerised dip pretreatment plants, articles/components are hanged on a conveyor and are dipped into the tanks. In this operation, the articles / components travel through a sorter of tanks, thanks to the programmable conveyor line.

Transporterised dip pretreatment systems use transporters for automatic PLC control.

To ensure quality, we offer the following features as standard features of our systems:

Oil skimmer - To maintain minimum oil contamination level in the degrease bath.

Sludge removal system- To maintain low sludge level in the phosphating bath.

Various Heating Systems:

- Thermic fluid.
- Hot water.
- Direct immersion heater.
- Diesel/gas burners.



Hoist operated dip pretreatment

Powder Coating Systems



Conveyorised & automatic powder coating system

Powder coating Booths

TECHExpert manufactures powder coating booths for both, manual and automatic operations.

The salient features of our booths

- Multi-cyclone system for high powder recovery.
- Ductless design of Booth to reduce cleaning time.

Based on TECHExpert's multicyclone recovery systems, these booths give maximum recovery of over sprayed powder. In the cartridge type Booth, recovery can be almost 99%. The air flow design ensures almost zero powder flow from the cutouts. The ductless construction ensures minimum cleaning time. This is aided by the trough design which makes optimal use of the angle of repose. Wherever needed, the roll-in-roll out mechanism can further optimise the cleaning time. This mechanism is available in both, manual as well as motorized modes.



Semi Conveyorised powder coating system





Conveyorised powder coating plant

Batch & Semi Conveyorised Systems

- Batch type powder coating booth with Multicyclone recovery system.
- Bag filter & cartridge filter options available.
- Powder curing ovens with electrical, oil fired & gas fired heating options are available.
- Conveyor track and trolley (manual) for material handling
- As an option.



Features & Benefits

Powder Coating Booth:

- Suitable for low volume production.
- Complies with all current safety and environmental legislation.
- Fully modular construction.
- Well designed multicyclone, bag filter & cartridge filter.
- Standard and customized sizes are available.
- Excellent powder recovery with cyclone separation.



Powder coating booth-manual & semi conveyor track type

Powder Curing oven:

- Economical and high efficient.
- Heavy duty thermal insulation.
- Modular cassette construction.
- Available with electrical, oil fired & gas fired heating.
- Infrared heating systems as an option.
- Automatic temperature control.



*Powder curing oven
batch & semi conveyor
track & trolley type.*

Conveyorised /Automatic Paint Finishing Systems



Conveyorised paint finishing system

Custom design systems for metal, wood & plastics

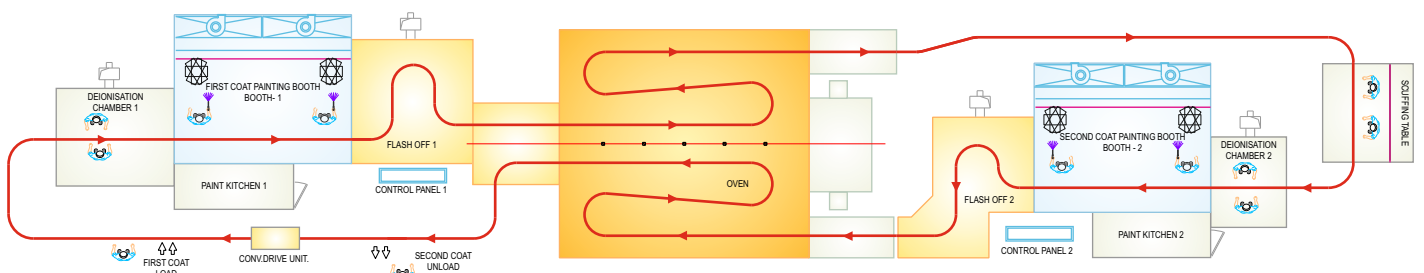
Basics of Design

- ▶ Component dimension
- ▶ Production schedule
- ▶ Paint application process
- ▶ Conveyor speed
- ▶ Utilities



Conveyorised paint shop

Typical paint finishing system layout



Plastic & Wood Finishing Systems



Conveyrised plastic paint finishing system

Wood Finishing

Paint shop for various type of wooden furniture
Batch & conveyrised options are available.



Spray Booths and Ovens



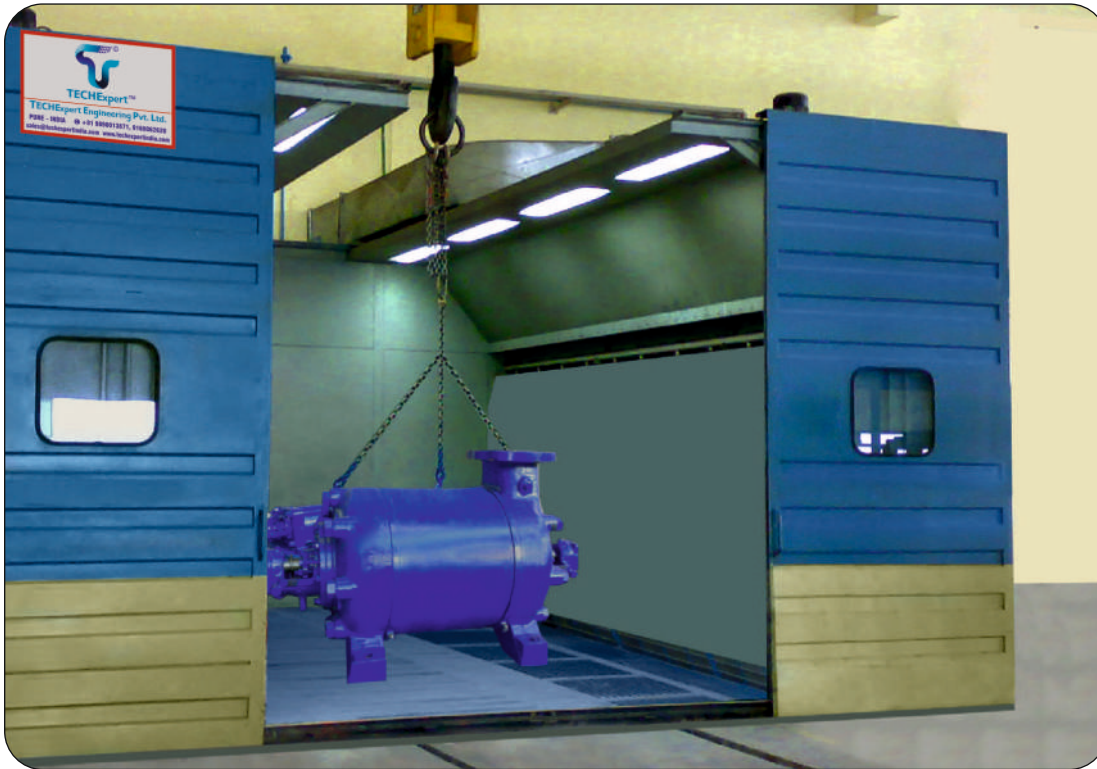
Down draught - dry type paint booth



Semi Conveyrised paint baking / powder curing oven



Gas fired ovens



Down draft paint booth for large components



Down draught - wet type paint booth



Painting Booths Wet Types

Features & Benefits

- No filters to replace.
- Complies with all current safety and environmental legislation.
- Fully modular construction.
- Belt drive fan(s) or centrifugal blowers with external motor(s).
- Choice of flameproof fans & illuminations.
- Water curtains of mild steel or steel (optional)
- Simple in maintenance.
- Heavy duty centrifugal pump.
- Supplied complete with electrical starter or control panel.
- Duct work and full installation service available.



Side draft - wet type paint booth



Applications:

- Paint Spraying.
- Polishing/Finishing.
- Lacquer spraying.
- PU coating.



Shot Blasting System



Shot blasting is a process in which steel shots are forced through a jet nozzle using compressed air pressure or through wheel type machine. This creates a fast and effective way of cleaning or preparing surfaces for recoating.

Shot blasting can be used to clean hardwood, metal, brickwork, concrete or stone.

Methods / Machines

We undertake the following projects

- Airless abrasive shot blasting machine
- Blasting systems for various applications
- Blast room with semi auto & auto recovery systems
- Cyclone dust collectors
- Automatic media recovery systems
- Fabric type dust collector

The resulting surface is free from rust, paint etc. Our machinery is capable of giving surface finish equivalent to Swedish standard SA2.5.

Benefits

- Remove rust, paint, grease, and scales from metal components.
- Improve aesthetics of the component by imparting matt finish.
- Improve quality of electroplating, painting, powder coating, or rubber lining.
- Provide skid proof property in case of marble and granite. And many more advantages.

Applications of Shot Blasting

- CI & Steel castings.
- Non ferrous castings.
- MS & SS fabricated components.
- Heat treated components.
- Reconditioned valves etc. and marble & granite.

Application Areas

Automobile, Aviation Industries, Construction, Chemicals, Mining, Cookware, Off Shore, Steel, Pipe Industries, Marine & Ship Building



Air Shower - Dyna flow



Technical specifications

Constructions	Nut bolted mild steel /stainless steel
Face velocity	0.5 to 1 mtr/sec.
Operation Time (Adjustable)	0-9,990 seconds
Pre Filter	Washable pre-filter unit.
Air Flow	Multi Directional
Electrical Control	Programmable logic controller (PLC)
Blower Assembly	Centrifugal lubricated bearing type ISI marked
Illumination	Fluorescent light illumination
Noise level	Noise level less than 75 db
Power Requirements	500 watts 950 watts (Model specific)
Frequency	220-230 Volts, 50 Hz

Principles

TECHExpert AIR SHOWER are fully equipped to provide complete solutions to the clean room or manufacturing/assembly area from personnel entering the space.

Our AIR SHOWERS are closed cubicles and work on the principle of subjecting the personnel through adequate velocity of clean air coming through a pre filter assembly comprising of poly fiber synthetic media (washable) and then the same air is passed through a high efficiency perfect air filter.

Features & Benefits

- Ergonomic Design
- Versatile Usage
- Best quality
- Best efficiency
- Programmable operation

AIR SHOWER (Dyna flow) CONSTRUCTION

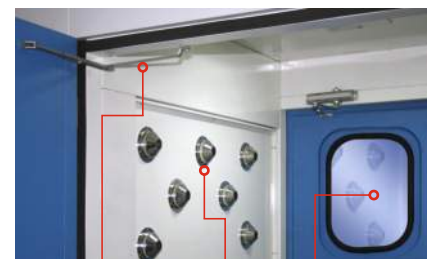
Our air showers are constructed out of mild steel or stainless steel sheets of grade ss-304/ss-316. The unit is provided with blower access panel at the side of the shower. The two doors provided on the either side of the air shower are inter locked and operate on magnetic system. These doors are made of MS/SS/Aluminum sheets and have clear view glass/acrylic windows.

The electrical control panel is designed within the body and it is controlled through a Programmable logic control system. The user to adjust the air nozzles and operation time sequence. The operation timer of the air shower can be adjusted from 0-3600 seconds, depending on various standard and customized requirements. It has an emergency setting button to switch of the unit. Our air shower has non skid metal flooring and it has adequate lighting arrangement and ensures a minimum illumination level of 800 Lux.



APPLICATIONS

Clean Room
Pharmacy Production
Micro-Electronic Fabrications and Production Units
Semi-Conductor Production Lines
Paint shop entrance
Hospitals / Hotels
Component assembly line
R & D centers



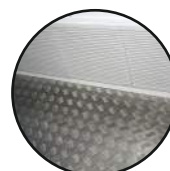
Door Closer

Nozzle

Glass



Control Panel



Antiskid Floor



Blower



Nozzle

INDIANA-II

Spray Bake Booth



Features & Benefits

Chamber construction: Nut bolted panel construction with proper insulation material (50 mm thick). Service door provided with wide opening for vehicle entry & exit. Super glass provided on main door panel for good working transparency.

Touch up as well as painting: In our design touch up painting as well as regular car refinishing could be processed.

Operator comfort: Filtered air supply & exhaust system provided during painting.

Easy operation: Painting & drying cycles are fully automatic.

Drying cycle: Drying the surface finish, 60°C temperature for 30 minutes.

Process Principal

Painting Cycle

In this process, both suction & exhaust damper will be in open position. The blower will work as fresh air blower & solvent laden air will be exhausted through exhaust duct. The same time heating will be off.

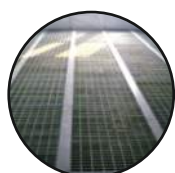
Drying Cycle

Both, suction & exhaust dampers will be in closed condition & the same blower will circulate the air over the heat exchanger inside the chamber

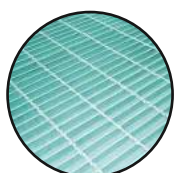


Technical specifications

Overall Dimensions	7200 L x 5700 W x 3200 H (mm)
Working Dimensions	7000 L x 4000 W x 2500 H (mm)
Fresh Air Filter	Special bonded filter down to 5 microne
Service Door	700 W x 2000 H (mm)
Illumination	Twin type industrial tube fitting - 6 x 80 W
Drying Temperature	60° C
Exhaust cum Hot air circulation blower	1 x 24000 M ³ / Hr.
Motor rating	1 x 10 HP
Thermal rating	1,18,000 Kcal / Hr.



Grate Floor



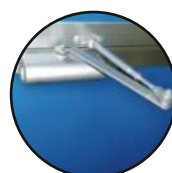
Floor filter



Burner



Door Hinges



Door Closer



Illumination

Material Handling Systems (Conveyors)

TECHExpert Manufacture and integrate a wide range of Material Handling equipments as per the application needs, which includes variety of handling solutions it includes manual and automatic systems like:

- Inverted / Floor Chain Conveyor
- Flightbar Conveyor
- Overhead I Beam Conveyor
- Closed Track Chain Conveyor
- Power Roller Conveyor
- Stop & Go Conveyor
- Automatic Transporter System
- Highspeed Chain Conveyor
- Overhead manual conveyor track and trolley



Inverted / Floor Chain Conveyor



Overhead I Beam Conveyor



Auto Indexing Conveyor



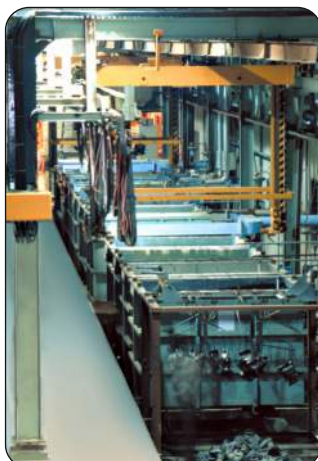
Power Roller Conveyor



Highspeed Chain Conveyor



Stop & Go Conveyor



Automatic Transporter System



Closed Trail Chain Conveyor



Power Roller Conveyor

TECHExpert – Global Installations

Our global installation at

- UAE
- Qatar
- Bahrain
- Saudi Arabia
- Kuwait
- Egypt
- Srilanka
- Bangladesh



Why you should choose TECHExpert

- State of the art Powder Coating Systems ; Batch and Continues type.
- Fully automatic powder coating plants.
- Standard Spray Booths for quick next day Shipment and Rapid Installation.
- Water Wash Spraying Booths with very high efficiency particulate removal.
- Dry Filter Spraying Booths with wide variety of range.
- Complete Turnkey Installations for Powder Coating Plants and Equipment.
- Wood Coating plants.
- Paint Finishing Plant for Metal, wood and Plastic surfaces.
- Spares & Consumables for all our equipments.
- Wide experience of project management.

TECHExpert at a glance

We, **TECHExpert Engineering Pvt. Ltd.** are the leading designers and manufacturers in the field of Surface Coating Plants and Equipments. We offer Total Solution in the Field of Surface Coatings, that starts from consultancy, designing, engineering and commissioning of tailor-made systems for powder coating, liquid paint coating and Metal pretreatment, on turnkey basis, for all types of application requirements of finish coating for industrial and consumer goods.

Our Best Quality Systems, Excellent Service Back-up, the unmatched superior workmanship and user friendly design is a specialty.

We Undertake Turnkey Projects in Following Areas

- ▶ Industrial Paint Finishing Systems for Metal, Wood & Plastics.
- ▶ Metal Pretreatment Systems.
- ▶ Powder Coating systems, Batch type & Conveyorised / Automatic.
- ▶ Material Handling Systems (Conveyors).
- ▶ Standard Paint booths, ovens and air supply units.
- ▶ Large Down draft spray booths for heavy components.
- ▶ Spray booth cum oven for touch up & service stations.
- ▶ Industrial tunnel type spray washing machines.
- ▶ Shot blasting equipments and projects.
- ▶ Water & Waste Water Treatment



Esteemed Clientele



Kirloskar, Tranter, Atlas Copco, Beckers, John Deere, Jotun, LAT Tengl, Manugraph, JSW, JCB, Essar Durabuild, Tata Yazaki, Cummins, Sandvik, Miltech, Piaggio, Bajaj, Mahale, Greaves, Durabuild, Burckhardt Compression, Sulzer, Virgo, Kenersys, Bosch, Hyundai are registered trade marks of their respective owners



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