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Work®**

Certified

JAN 2022 - JAN 2023

INDIA

SKIPPER COATING SERVICES

One of the largest Coating Service
providers in India



ABOUT US:

Established in 1981 and with over 40+ years of domain knowledge, we are the largest transmission tower manufacturing company in India, and 10th largest globally. We differentiate ourselves by offering high quality but cost-effective solutions to infrastructure providers and telecom operators. Our international footprint spans across continents such as Latin America, Europe, and Africa and is spread across 40+ countries worldwide.

Skipper is the only truly integrated T&D Company in the world present in the entire value chain with Angle Rolling, Tower, Pole and Fasteners manufacturing, Tower & Pole Load Testing and EPC Line construction.

Skipper Limited Coatings is the industry leader in hot-dip galvanizing and applied coating services. Our Coating services provide protection for a variety of products, enhancing their durability, lifespan and overall aesthetic value. Hot-dip galvanizing prevents the corrosion of steel and adds to the sustainability of steel products, helping them remain 100% recyclable & serviceable for decades.



WHAT WE OFFER:

We offer hot-dip galvanizing, as well as applied coatings (anodizing, electro-deposition, liquid, powder) through one of our largest coating facilities in India. Skipper also boasts of having one of the most modern & state of the art Galvanizing plants in India. Through a strategic network of facilities, Skipper Coatings ensures best practices while providing customers with assurance of quality and most reliable products possible.



In FY 20-21 we exported more than 40,000+ Tonnes of Galvanized items including Towers, Poles and Highmasts.

SKIPPER COATING ADVANTAGE:

Coating is a crucial step in the fabrication process. Its goal is to safeguard and enhance the material it is applied to. Coated products not only increase the longevity, but at the same time improves the performance of the product. Coating is also one of the last steps in the production process making the quality and turn-time highly important to achieve schedule timelines. Being an industry leader with a vast expertise of over 2000+ employees, we are able to improve our processes and consistently provide customers with superior service, impeccable quality and on-time delivery at the best value possible. This is the Skipper Coating Advantage.

GALVANIZING PROCESS:

Steel has been the prime material since the beginning of the industrial revolution till modern constructions today. Engineers, architects and construction professionals trust the strength and durability steel provides; however, a major downside of steel is its corrosion as soon as it is exposed to the environment. Hot dip galvanizing protects steel from corrosion due to a metallurgical bond that occurs when steel is submerged in molten zinc. The reaction creates intermetallic layers, harder than the base steel itself, resulting in an extremely abrasion resistant coating that can last for decades. The hot-dip galvanizing process consists of three steps: a) surface preparation, b) galvanizing, and c) inspection.



SURFACE PREPARATION :

For achieving a high quality hot-dip galvanizing, steel must be properly prepared prior to being immersed in a bath of molten zinc. During the surface preparation stage, the material goes through degreasing/caustic cleaning, pickling, and fluxing.

Degreasing/Caustic Cleaning: In this process a hot alkali solution, mild acidic bath, or a biological cleaning bath removes contaminants from the steel such as dirt, grease and oil.

Pickling: Pickling is performed to remove mill scale and iron oxides, the steel is passed through a diluted solution of heated sulfuric acid or ambient hydrochloric acid.

Fluxing: Through fluxing, any remaining oxides are removed in a zinc ammonium chloride solution and a protective layer is deposited on the steel to prevent any further oxides from forming prior to galvanizing.





GALVANIZING :

Following surface preparation, the steel is submerged in a bath of molten zinc. The zinc kettle contains at least 98% pure zinc and is maintained at a temperature between 815°-850° F (435°-455° C). Once the steel is submerged in the kettle, the zinc reacts with the iron in the steel to form a series of metallurgically bonded zinc-iron alloy layers with the final top layer of 100% zinc.

INSPECTION:

The inspection process of galvanized steel is fairly simple. Zinc does not react with unclean steel; therefore, a proper inspection of the product provides a good assessment on the quality of the coating. Tests for coating thickness and adherence to quality standards are also performed.

OUR CAPACITIES:

Skipper Limited has state of the art - 7 in-house galvanising units with plant size up to 14 mtr and an annual galvanising capacity of handling over 3 lakh MTPA.

Please refer to the data below :-



NO.	UNIT	GL PLANT	LENGTH (MM)	BREADTH (MM)	DEPTH (MM)	PRODUCTION CAPACITY PER ANNUM (MT)
1	Uluberia Unit NH6, Madhabpur, Post: Uluberia Howrah - 711303, India	GL 1	8000	1100	1500	42000
		GL 2	8000	1100	1500	42000
2	Jangalpur (Unit 1) Jalan Complex, NH6 (Bombay Road) Village: Jangalpur Post: Andul Mouri Howrah - 711302, India	GL 1	12300	2600	3000	90000
		GL 2	8000	1100	1500	42000
		GL 3	1500	650	750	7200
		GL 5	8000	1100	1500	42000
3	Jangalpur (Unit BCTL) Jalan Complex, NH6 (Bombay Road) Village: Jangalpur Post: Andul Mouri Howrah - 711302, India	GL 1	8000	1100	1500	42000

GRAND TOTAL

307200

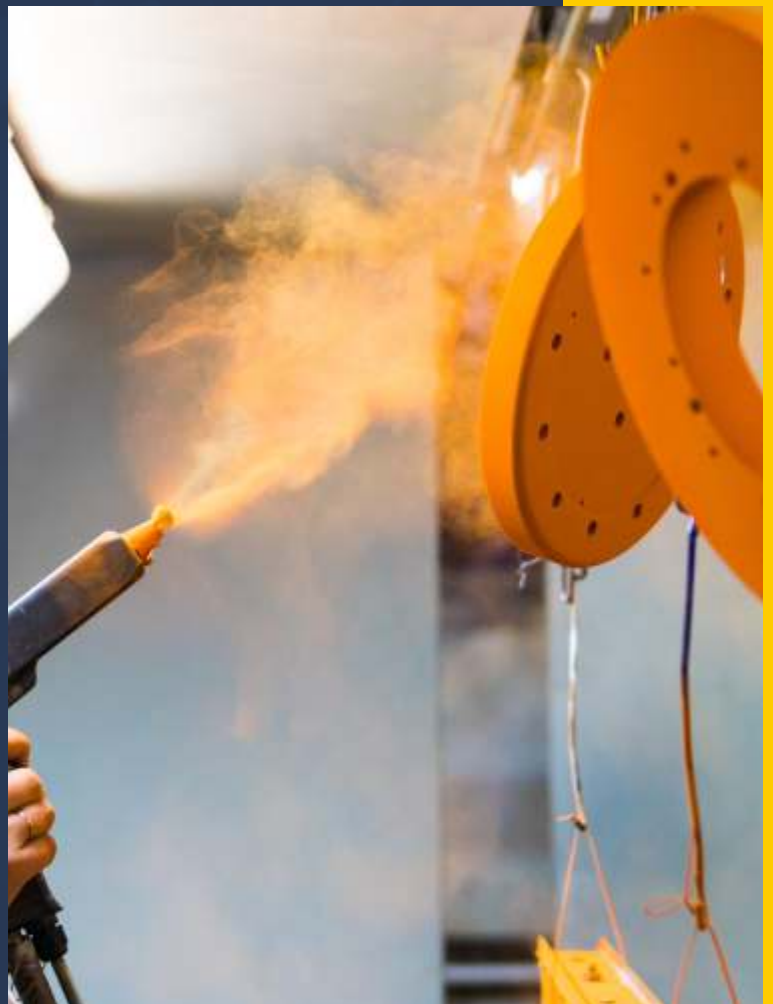


LIQUID PAINTING DIVISION:

We all have those things in life that we don't trust to just anyone. For many, it may be a trusted mechanic that we know will do the job just right. If you don't feel the same about liquid coatings for your valuable products, let us show you why you should. Our offerings include urethanes, enamels, epoxies, lacquers and water-based paints, as well as CARC and EMI/RFI shielding. We have experience in accommodating parts of nearly all shapes and sizes in addition to substrates other coating methods are unable to accommodate due to exposure to high temperatures. Our highly trained professionals have perfected their craft to meet industry-specific standards for commercial, military, automotive, medical, aerospace and other sectors. We are also experienced in handling projects of all sizes from short prototype runs to mass production.

POWDER COATING DIVISION :

Over the years, we've been accustomed to believe that to protect something we need to sacrifice some of its aesthetic value. Most of the coating options available often limit the final look of a product but powder coating breaks out of that mold. Skipper coatings offer a huge selection of primer coats, clear coats, textured surfaces and colors that will not only protect your product but enhance the visual appeal as well. Better yet, our coatings are environmentally friendly with negligible amounts of reclaimable materials and volatile organic compounds (VOCs) released in to the air. We work with manufacturers every day to powder coat their products, increasing their durability, aesthetics and value in the process. Turns out you can have it all.





SAND BLASTING DIVISION :

Regardless of the abrasive media, the term “sandblasting” refers to the process of propelling that abrasive media with compressed air. This cleaning and preparation procedure takes compressed air as a power source and directs a high-pressure stream of abrasive media toward the given surface. For e.g. that surface could be auto parts being cleaned of dirt, grease and oil or It could be rusty chains in a shipyard being reconditioned.

Sandblasting is a time-tested pre-finishing technique that's been around for over hundred years. Likewise Sandblasting equipment has also evolved from uncontained, free-spraying streams of sand creating noxious dust clouds to highly sophisticated contained enclosures with precise abrasive stream control. The abrasive media also changed from sand to more environment-friendly materials.

Despite the change in equipment and materials, sandblasting is still the most common and preferred abrasive treatment method. It's particularly best suited for soft and sensitive materials being readied for final finishes. Sandblasting is also a more economical equipment system to purchase, easier to operate and offers great quality to the consumer.



SHOT BLASTING DIVISION :

The term “shot blasting” refers to the process of propelling abrasive media material with centrifugal or mechanical force. Shotblasting has an entirely different pressurizing system than sandblasting. This abrasive treatment method uses a device similar to a spinning wheel to centrifugally accelerate shot-like material and blast it against a surface.

Shot blasting is a much more of an aggressive abrasive technique than sandblasting. It's usually used for larger and more difficult preparation objects that need a strong application force and a denser media material to clean and prepare the surface. Shotblasting also requires strict containment as the force of blasted shot could cause collateral damage if the process isn't confined.

Shot blasting centrifugal abrasion treatment is often used in large-scale operations. The process is carried out in shot blasting tanks where steel shot or grit blasts through surfaces like automobile frames that is being restored or steel containers being recycled. Shot blasting can also be found at works where engine components require peening to increase malleability.

WHICH IS BETTER — **SANDBLASTING** OR **SHOT BLASTING**?

There is no definitive answer to the question of which process is better. There are many variables involved in the abrasive blasting treatment business. The best method depends on the surface that you're treating and the type of finish you expect.

The fair answer about whether shot blasting is better than sandblasting or vice-versa is best left to the experts and also depends upon a consumer's expectations. To summarize, sandblasting is quick and economical. Shotblasting is a more involved treatment process and uses more advanced equipment. Therefore, shot blasting is slower and generally more expensive than sandblasting. However, there are jobs that sandblasting can't handle. Then, the only preferable option will be shot blasting.

EQUIPMENT USED IN SANDBLASTING

Sandblasting uses high-pressure compressed air to propel blasting media on the project. This reliable technique suits a wide range of surfaces and also offers a selection of treatments including a variety of abrasive media. Sandblasting equipment removes contaminants such as stripping rust, grease and old paint to provide surface adhesion for new coatings.

Components included in **Sandblasting systems** are:

➤ **AIR BLAST ROOMS**

These are clean rooms that are environmentally controlled with abrasion media recovery for highly-productive and efficient operations.

➤ **AIR BLAST TUMBLE EQUIPMENT**

This equipment consists of mill driven tumble blast machines that use oscillating nozzles and cyclone separators inside a rubber-lined chamber.

➤ **PORTABLE BLASTING STATIONS**

Mobile air blast systems have pressure pots in various sizes for increased productivity in portable configurations.

➤ **BLAST CABINETS, SUCTION AND PRESSURE**

This stationary sandblasting equipment also ranges in size. It uses a siphon feed system and a balancing pressure regulator to ensure equilibrium inside the blast cabinet.

➤ **BULK BLASTING SYSTEMS**

These are large sandblasting units available in stationary models or truck-mounted for total portability.

➤ **BLAST AND RECOVERY SYSTEMS**

More sophisticated sandblasting equipment have systems that blast and vacuum simultaneously and avoid any open air contamination.

➤ **CRYOGENIC DEFLASHING SYSTEMS**

Very cold temperatures allow certain surfaces like rubber, diecast, plastic, magnesium and zinc to be deflashed with precision.

➤ **WET BLAST EQUIPMENT**

Occasionally, sandblasting equipment uses water to eliminate friction heat and prepare surfaces by scrubbing instead of abrasion caused by dry blasting.

EQUIPMENT USED IN SHOT BLASTING

Shot blasting uses wheel blast equipment to propel abrasive media on surfaces being treated for final finishing. This equipment uses a specially designed and closely controlled wheel to generate centrifugal force and blast abrasives like steel shot and steel grit on products. The process involves “throwing” abrasive media at a surface rather than “blowing” it.

This is the common equipment used in shot blasting systems:

➤ **TUMBLE BLAST EQUIPMENT**

Tumble blasts allow continuous blasting cycles with continual abrasive recycling. These machines have built-in rubber belt and steel flight models in different sizes.

➤ **SWING TABLE BLAST WHEELS**

Direct drive blast wheels swing out for loading and unloading abrasive media.

➤ **TABLE BLASTERS:**

These are fixed equipment components with direct drive wheels mounted inside the blast cabinet.

➤ **SPINNER HANGERS:**

These direct drive blast wheels have rotating spindles that allow loading and unloading abrasive media during a continuous blast cycle.

➤ **HANGER BLAST EQUIPMENT**

Blast systems can be fitted with trolleys and hung on manual Y-track monorails for specific shot blasting operations.

➤ **CYLINDER BLASTERS**

Certain shot blast equipment specializes in removing rust and old paint from all forms of metal cylinders.

CHOOSING SHOT BLASTING VS. SANDBLASTING

Our experts will give you a comprehensive idea of what's involved in sandblasting and shot blasting operations. The main difference is the type of equipment used. There's also a wide variety of different abrasive media available for shot blasting and sandblasting surface treatments. Choosing exactly what system and media to treat a specific project is best left to the professionals.

Skipper Limited is your best choice for professional sandblasting and shot blasting operations. We're located in West Bengal, India. For the past 40 years we've built the knowledge, skills and experience to handle any finishing job you need.

OUR PROMISE

At Skipper Coatings, we promise to provide our customers with superior service, impeccable quality and on-time delivery at the best possible value. That is the Skipper Coatings Advantage.



HAVE QUESTIONS ABOUT OUR SERVICES OR COMPANY?

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