



OUR AIM TOTAL SOLUTION BY **THERMAL SPRAY COATING**



METATECH

THERMAL SPRAY PVT. LTD.

ISO 9001 : 2015 Certified Company

PAPER & PULP INDUSTRIES
OIL & GAS REFINERY
MARINE INDUSTRY
STEEL PLANT
THERMAL POWER PLANT

CEMENT PLANT
HYDRO POWER PLANT
NUCLEAR POWER PLANT
WIND POWER PLANT
CHEMICAL PLANT

WHO WE ARE

- Our firm is an ISO 9001:2015 Approved Company situated in Ahmedabad, Gujarat, India and working since 2009.
- We carry out coatings with different material i.e. Aluminium, Zinc, S.S., ZnAl (85/15) Alloy, Tungsten Carbide, CrC NiCr, 95MXC, 90MXC, Copper, Brass, Bronze, Silver, Molybdenum, Babbitt (White metal), Nickel and High Chrome Steel etc. We also do coating over Boiler tubes.
- Our well-trained service engineers ensure that all the operations are conducted as per the diversified client requirements and the outputs are of optimum quality. Also our Operators are well experienced and are ISO 14918 & NACE Certified.
- We have NACE Certified inspectors and we carry our most of inspection in supervision of NACE inspectors to ensure the quality of work.
- Till now we have successfully worked with PDO, KNPC, EIL, Linde, Exxon Mobil, Petrobras, ONGC, Petrofac, L&T and many more with their respective specifications.
- In last 5 year we have completed Coating and Grinding of 75+ MG Cylinder and 300+ Dryer Cylinder for Pulp and Paper Industries.
- We have done more than 40000 sq.mt. Thermal Spray Aluminium Coating for different Oil & Gas Refineries like PDO, KNPC, Exxon, Mobil, IOCL, BPCL and many more.
- We have done more than 55000 sq. mt. Thermal Spray Zinc Coating for Wind Power, Nuclear Power, Chemical Industries and many more sectors.
- We have been providing Boiler Tube Coatings for Erosion and Corrosion Resistance for Thermal Power Plant by HVOF and Arc Spray Technology.
- We provide large scale Industrial Painting services for Tanks, Pressure Vessels, Structures, Chimneys, Pipelines and many more.
- We have huge inhouse facility of 25000 sq.ft. for Blasting, Thermal Spray Coating & Painting.



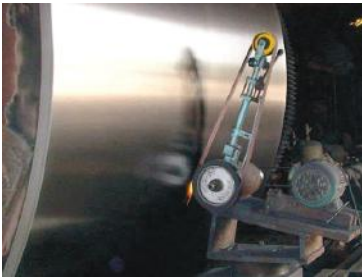
VISION & MISSION

TO PROVIDE BEST POSSIBLE INDUSTRIAL SOLUTIONS FOR CORROSION AND EROSION PROTECTION. IN THIS WORK PROCESS WE WANT TO CREATE AWARENESS ABOUT THE LOSSES CAUSING DUE TO CORROSION AND EROSION AS DUE TO IT EVERY YEAR INDUSTRIES ARE GOING THROUGH HUGE PRODUCTION LOSSES AS DUE TO THESE PROBLEMS BREAKDOWN MAINTENANCE INCREASES. WE WANT TO HELP INDUSTRIES OVERCOME THESE PROBLEMS BY PROVIDING SPECIALIZED THERMAL SPRAY COATING AND PAINTING SERVICES WHICH REDUCES SHUTDOWNS. WITH OUR QUALITY WORK WE ARE SERVING MANY END USERS AND WILL LOOK AFTER SATISFYING THERE REQUIREMENTS IN FUTURE.



PAPER & PULP INDUSTRIES

GRINDING of MG CYLINDER & DRYER CYLINDERS



TYPES OF COATINGS FOR MG CYLINDER



- TUNGSTEN CARBIDE COATING.
- STAINLESS STEEL COATING.
- HIGH CHROME STEEL COATING.

TYPES OF COATING FOR DRYER CYLINDER



- CHROME COATING.
- STAINLESS STEEL COATING.

- FOR DRYER CYLINDER COATING & MACHINING FACILITY IS AVAILABLE AT OUR FACTORY.
- WE ALSO DO COATING & MACHINING AT SITE.

REWINDER ROLL COATING

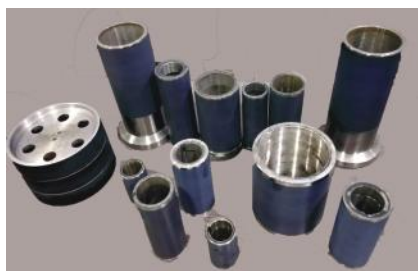


- We provide high quality Tungsten Carbide Coating over Rewinder Roll.
- The coating provided by us is with appropriate roughness which helps for gripping the paper.

PAPER & PULP INDUSTRIES

CERAMIC COATING

Ceramic Coating can Improve Protection from Wear and are used for a wide range of Application in Paper Industries, Steel Industries, Textile Industries, Power Plants and Many More.



APPLICATION

Pump Sleeve.
Pump Shafts.
Plunger.
Textile Mill Rollers.
Pump Pins.
Shaft Reclamation.

ADVANTAGES

High Temperature Resistance.
Increase Hardness and Wear Resistance.
Improved Durability.
Chemical & Corrosion Resistance.
Thermal and Electrical Insulation.
Improved Thermal Shock Resistance.

MANUFACTURING OF PAPER LEAD ROLL WITH HARD CHROME COATING

We Manufacture High Quality Paper Lead Roll with Highly Finished Hard Chrome Coating. Hard Chrome provides more life to Paper Roll which decreases Maintenance Cost.



ONLINE DYNAMIC BALANCING

We do Online Dynamic Balancing for MG Cylinder, Dyer Cylinder, Rotor of Motors, and all the rotating equipment. Online Dynamic Balancing saves time and there is no need of sending the equipment anywhere, it can be done at clients workshop itself.





OIL & GAS REFINERY

THERMAL SPRAY ALUMINIUM COATING (TSA)

TSAC is one of the best process for protecting different structures from high corrosion due to atmospheric moisture. It is also used instead of paint in components in which high temperature flue gases flow. TSAC increases life of corrosive part by 15-20 years.

Till now we have successfully worked with SHELL, PDO, KNPC, EIL, LINDE, EXXON MOBIL, PETROBRAS, PETROFAC, L&T and many more with their respective specifications.

MAJOR APPLICATION



SUBSEA PIPELINES



OFFSHORE PLATFORMS



HEADER BOX



VALVES



HEAT EXCHANGERS



TANKS & VESSELS

ADVANTAGES

- SUPERIOR ADHESION.
- EXCELLENT SERVICE LIFE.
- HIGHLY CORROSION RESISTANT.
- MINIMUM NEED FOR MAINTENANCE.



THERMAL SPRAY ZINC COATING (TSZ)

TSZC is mainly required in the corrosion prone areas. All the structures of Refineries, Chemical plants, Vessels, Radar, Reactors of NPCIL, Flare Stacks etc. are strongly recommended for TSZ coating.

MAJOR APPLICATION



NUCLEAR REACTOR



FLARE



STRUCTURE



BRIDGES

ADVANTAGES

- GOOD CORROSION RESISTANCE.
- LONG LIFE OF COATING.
- VERY LOW THERMAL LOAD COMPARE TO HOT-DIP GALVANIZING.

OTHER TYPES OF COATING



PHOSPHOROUS-
BROZE COATING



SS 316 COATING



Zn-Al (85/15)
COATING



TUNGSTEN CARBIDE
COATING

BOILER TUBE COATING

PROBLEMS

1. Degradation in tube thickness due to corrosion & erosion.
2. Cost of replacement is too high and time consuming.
3. Hostile contents in fuel like Sulfur affect tube.
4. Contaminations deposited reduce the equipment efficiency.

THE **BEST SOLUTION FOR ABOVE PROBLEMS** IS **THERMAL SPRAY COATING**

BOILER TUBE COATING IS DONE BY FOLLOWING TWO PROCESSES.

TWIN WIRE ARC SPRAY



- Coating surface has porosity of less than 5 %.
- Superior Adhesion of upto 3000 to 4000 psi.
- Hardness upto to 60-70 HRC.
- Can buildup upto 500 microns in this system.
- Very fast application so shutdown period is not increased.
- Increases the life of tubes.
- Reduces the number of shutdowns required.

HVOF SPRAY



- Low Porosity(<1%).
- Superior Adhesion(upto 10000 psi).
- Hardness(upto 60-70 HRC).
- Small Grain Size.
- Absence of Cracks.
- Uniform Coating Structure.
- Smooth Surface.

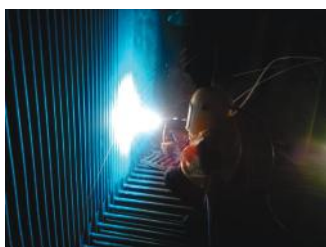
APPLICATION

- THERMAL POWER PLANT.
- CHEMICAL INDUSTRIES.
- PAPER INDUSTRIES.
- CEMENT INDUSTRIES.

OTHER SERVICE

CEMENT PLANTS

- We provide Thermal Spray Aluminium in Bag House where corrosion is very high.
- We provide Boiler Tube Coating by Tungsten Carbide, Chromium Carbide Nickel Chrome-coatings using Arc Spray System and HVOF Spray System.
- We do reclamation of of Bearing journals.
- We also provide Thermal Spray Aluminium Coating & Painting over Chimneys of Cement Plants.



STEEL PLANTS

- We are providing Thermal Spray Aluminium Coating over Casters of Steel Plants for Heat & Corrosion Resistance.
- We provide Tungsten Carbide Coating over Steel Mill Rolls. Tungsten Carbide provides wear resistance to the Steel Roll surface and enhances its life.



CHEMICAL & FERTILIZER PLANTS

- We provide Thermal Spray Zinc Coating & Painting over the Structures of Chemical plants where high corrosion takes place.
- We provide Thermal Spray SS Coating in internal side of Tanks and Vessels.



INDUSTRIAL PAINTING SERVICE

AREA OF APPLICATION

TANK



INTERNAL



EXTERNAL

PIPELINE



INTERNAL



EXTERNAL

STRUCTURAL PAINTING



ON GROUND



ON HEIGHT

INDUSTRIALS VESSELS



INTERNAL



EXTERNAL

OTHER SPECIALIZED PAINTING SERVICES

- **BRIDGE PAINTING.**
- **MARINE (OFFSHORE PLATFORM,PLANTS,SHIPS).**
- **HIGH TEMPRATURE RESISTANCE PAINTING (CHIMNEY, FLARE).**
- **FIRE PROOFING.**
- **FOOD GRADE PAINTINGS.**
- **TANK INTERNAL LINING .**
- **GLASS FLACK PAINTING.**
- **SYNTHETIC ENAMEL PAINTING .**
- **HIGH BUILD EPOXY PAINTING.**
- **U.V. RESISTANCE POLYURETHANE PAINTING .**

TECHNICAL DETAIL

SURFACE CLEANING METHODS



- SOLVENT CLEANING
- HAND TOOL CLEANING
- POWER TOOL CLEANING
- HIGH PRESURE WATER CLEANING

SURFACE PREPARATION



- ALUMINIUM OXIDE
- COPPER SLAG
- STEEL GRIT
- STEEL SHOT
- GARNET

PAINTING METHODS

WE DO PAINTING BY WIDE RANGE OF PAINT APPLICATION METHODS , THEY ARE AS FOLLOWS :



**BRUSH
APPLICATION**



ROLLER



**CONVENTIONAL
AIR SPRAY**



**AIR LESS
SPRAY**

SCAFFOLDING SERVICE



We provide complete Onsite Scaffolding System with High Safety Standards. We have huge amount of Scaffolding Material and do Erection Services for Power Plants, Petrochemical Industries, Steel Industries, Oil & Gas-Refinery and many more.

WORKSHOP FACILITY

AREA COVERAGE

TOTAL AREA : 25,000sq. ft.
CONSTRUCTION AREA : 25,000 sq. ft.

CRANE FACILITY

WE HAVE INHOUSE 2 EOT CRANES

- 1) Capacity : 15 Ton
Working Area : 19 x 49 Mtr.
- 2) Capacity : 15 Ton
Working Area : 18 x 22 Mtr.

BLASTING/ COATING BOOTH




WORKING AREA : 20 X 20 X 15 Ft.
WITH PROPER DUST COLLECTOR SYSTEM

TESTING FACILITIES

ATMOSPHERIC CONDITION TESTER | SURFACE COMPARATOR | DUST TEST KIT
ROUGHNESS TEST | SALT TEST KIT | COATING THICKNESS GAUGE
BEND TESTER | HYDRAULIC ADHESION TESTER

- ALL OUR INSTRUMENTS ARE AS PER STANDARDS OF ISO, ASTM, AWS, SSPC & NACE.

CLIENTS / END USERS WE HAVE SERVED TO



UNIT - 1

34/Panchjanya Industrial Estate, B/h. Gujarat Vapari Mahamandal,
Odhav, Ahmedabad-382415 (Gujarat) (India)

UNIT - 2

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