THE LEADERS IN THERMAL SPRAY PROCESS AND ENGINEERING
Welcome to Alloy Thermal Spray Pvt. Ltd., your no. 1 source for thermal spray and coating services. We are dedicated to give you the best services of thermal spray coating, with a view of focusing on our three characteristics: dependability, customer service and uniqueness. Initially Founded as name Alloy Spray and Engineering in 2006 by Mr. Omprakash Sharma and Mr. P. K. Sharma, Alloy Spray and Engineering has come a long way from its beginnings in a small shed in Vatva GIDC, Ahmedabad, Gujarat, India. When Mr. Omprakash Sharma and Mr. P. K. Sharma first started out, his passion for providing the best service with reasonable rate without harming environment drove him to do intense research, and gave them the impetus to turn hard work and inspiration into to a booming large factory in Ahmedabad Gujarat India. Company name replacing as Alloy Thermal Spray Pvt. Ltd. in 2015.

VISION
“To become leaders in Thermal Spray Coating services in whole world”

MISSION
“To provide Thermal Spray Coating Services in whole around the World for enhance service life of components”

SERVICES

Thermal Spray Process
• HVOF
• Twin Wire Arc
• Flame Wire
• Flame Powder

Plants and Facilities
• HP/HVOF
• Wire Arc
• Plasma
• Flame Spray

Coating Jobs
• Hydro Power Plant
• Thermal Power Plant
• Steam Turbine
• Gas Turbine Runner
• Cement
• Printing & Paper
• Chemical
• Steel

Fabrication
• Mig-Welding
• Welding
• (Stick Welding)
• Tig Welding

Insulation & Painting Service
• All Refinery
• Steel Industries
• Power Plant
• Chemical

MATERIALS WE USE

STAINLESS STEEL  COPPER  ZINC  WHITE METAL  ALUMINUM  BRONZE  CERAMIC
MOLYBDENUM  NICKEL ALLOYS  HASTE ALLOYS  TUNGSTEN CARBIDE ALLOYS  TITANIUM ALLOYS  MONEL  INCONEL
INDUSTRIES WE SERVE

POWER GENERATIONS
Protect hydrocarbon processing equipment from corrosion and wear, even at high temperatures:
Hydro: Francis & Pelton Turbine runner, Guide vane blades, Rotor vanes, Thermal: boiler tube, screen tube, burner wall, exhaust Fan etc., Coal Fired, Industrial power generation etc..

STEEL INDUSTRIES
Protect machinery used in metal processing from high temperatures and wear in both hot and cold rolling operations:
Tension and Steering rolls, Cleaning Section rolls, Furnaces roll's, nozzle & elbow, Continuous galvanizing rolls i.e. Sink rolls, stabilizer roll, Entry-Exit temper mill components, Pinion gear box, bearing general etc...

AUTOMOTIVE & AVIATIONS
Protect components against oxidation, hot gas corrosion, erosion, and wear:
Aero engine's Turbine blade & vane, Landing Gears, Engine, Suspension & Steering, Transmission etc..

OIL & GAS
ATPL offer wear coatings for various corrosive environments, decrease drill string trips, as well as, barrier and sacrificial corrosion control coatings for pipelines and offshore applications.
Pipe, Rise, Pump, Valve, Hulls, Platforms, Storage tank, Offshore components etc...

PULP & PAPER
ATPL offer surface solutions to meet the challenges of pulp and paper production.
Corrosion coatings on pulp digesters, and wear-control covering with controlled surface textures for paper machinery such as:
Calendar and embossing rolls, doctor blades, drying cylinder, M G roll components...

CHEMICAL & REFINERY
Protect against wear resistance, abrasion resistance, erosion, hot corrosion etc..
Pump components, gate valve, ball valve, hydraulic rods, sucker rods, centrifugal pump, slurry pumps, chimney tower, reactor, DG chimney etc..

OTHER/GENERAL INDUSTRIES
Protection of sugar mill roll, metal processing, cements, printing, textiles, agriculture, electronics, construction, mining, rail, tooling etc components from wear, abrasion, erosion resistance, corrosion
Pump housing, electric motor body, bearing, shaft, sleeves, wear rings, farm blade, tractor components, aluminium casting for copper coating, plastic injection molding machine etc..
COATING PROCESS

**HVOF**

**FEATURES**
- High density (Low Porosity <1%), High bond strength (>10000 psi)
- Coating thickness, Smooth sprayed Surface (3-5μmRa)
- Optimum hardness and corrosion resistance
- Improved toughness and excellent wear resistance
- Beneficial residual stress and fine surface finishes
- Reduce oxide content than plasma coating.
- Improved performance, life and efficiency

**APPLICATION**
- Landing gear, Calender rolls, Kaplan blades
- Francis and Pelton Turbine Runner, Guide Vane Blade

---

**Twin Wire Arc Spray:**

**FEATURES**
- Over-current protection
- Air driven pull system
- Air cooled or solid cables
- Easy to maintain, lower cost, onsite service
- Uses wires from 1.6-2.0mm dia. without changing feed rollers
- Choice of coating textures
- Optional Arc beam spray concentrator

**APPLICATION**
- Engineering coatings, Reclamation parts
- Bearing and seal surfaces, Printing rollers
- Anti-spark coatings
- Wear coatings: Boiler tube, screen tube, burner wall
- Large anti-corrosion applications for offshore industries components, construction, Railway Bridge, pipeline, spool, structures etc.

---

**Flame Wire Spray**

**FEATURES**
- Wire sizes 3.15mm to suit many application and coating requirements, Variable wire speed control
- Suitable for Engineering wires, steels, copper and bronzes plus anti-corrosion materials.
- larger areas to be sprayed efficiently
- Free standing wall control panel with safety shut-off valve
- Use such fuel only i.e. Oxygen, Nitrogen
- Conductive coating applications.

**APPLICATION**
- Reclamation parts for roller and shaft, Wear coatings, Molybdenum,
- Non-ferrous: Copper, Bronze coating
- Fine coatings with low heat input.

---

**Flame Powder Spray**

**FEATURES**
- High deposit efficiency, Dense coatings
- Sprays ceramics and metals powder materials
- Simple to use, Suitable for spray/fuse coatings
- Optional remote powder feeder
- Cost effective

**APPLICATION**
- Small engineering repairs, Spray/fused coatings, Shaft reclamation
- Self fluxing alloys for extreme wear applications
- Glass mould plungers, Steel mill table rolls

---

**SPRAYJET-88**
**FLAME WIRE SPRAY GUN**

**POWDERJET – 85**
**FLAME POWDER SPRAY GUN**
COATING APPLICATION

TSA (THERMAL SPRAY ALUMINIUM) COATING

DESCRIPTION
Thermal spray aluminum coating services by high-velocity twin wire arc spray process.
We provide to PDO, KNPC's, PETROFAC components and more.

ADVANTAGES
Anti-corrosion application of offshore industrial components.
99.5% Pure Aluminium wire used for coating (ISO 209 Grade 1100)
TSA coating follow by Shell specification and DEP practice.

APPLICATION
Spool piping and flanges, Structure, Cellar Deck structure & Platform, Vessel tanks etc.
ATSPL have been covered >50000SqM in TSA and Zinc spray coating.

CARBIDE COATING

DESCRIPTION
Tungsten carbide coating by HP-HVOF process. We provide to hydro power plant components for wear and hot corrosion resistance.

ADVANTAGES
Protect from wear and abrasion resistance by using special ultra fine sintered carbide base powder from standard manufacturer.
88WC12Co, WC10Co4Cr, Cr3C2/NiCr, Nickel base
Higher Density, Bonding Strength, Optimum Hardness(1250 VHN0.3)
In house, Onsite, Reduce oxide content, Time of repairing, improve surface life.

APPLICATION
Crack Shaft, Sink Roll, Hydraulic piston rod, Sleeves & Plunger, Compressor piston rod etc.
ATSPL have been covered >3000SqFeet in carbide coating.
**DESCRIPTION**

Boiler tube coating by high velocity twin wire arc spray process in thermal power plant application. We provide this facility in pan India.

**ADVANTAGES**

Preservation of water wall thickness.
Recoating is possible once the coating has become depleted in service.
Worn tubes with a minimum wall thickness can be coated.
Anti-adhesive coating properties reduce the build-up of deposits on water walls and simplify their removal.
Significantly reduced boiler tube cracking or other failures that can cause unplanned downtime.

**APPLICATION**

Coatings undertaken on CFBC, PF, AFBC & Recovery Boilers.
Exhaust fans, pump components, coal-fired boilers, super-heaters, economizer water walls, boiler tubes, boiler installations, Screen tube and Coal burner wall of tube.
ATSPL have been covered >1000sqM in boiler tube coating from different power plant in pan India.

---

**DESCRIPTION**

Machining, Coating, Grinding and super polishing of Paper mill roll components.

**ADVANTAGES & APPLICATION**

Problem of reduce size of paper mill roll by high wear and abrasion.
Pre-machining of roll and Max coating thickness apply by twin wire arc spray process.
Nickel bond coat applying for higher bonding strength and hard SS coating for maintain size of roll.
Fine grinding and super polishing by diamond wheel grinding and belt polishing.
Achieving size of roll and super surface finish on roll.
Providing warranty for coating bonding strength.
Applicable on site at client workshop.

ATSPL have been completed >100Nos of paper mill rolls, MG & Dryers coating and grinding in pan India.
**SUGAR MILL ROLL COATING:**

**DESCRIPTION**
Hard SS coating of sugar mill roll component.

**ADVANTAGES & APPLICATION**
Problem of sugar mill roll erosion and wear due to continues processing
For better solution to maintain threads and shape by hard SS coating
Machining and cutting lining to be done
Nickel rod welding/overlapping to maintain thread and diameter
Hard SS coating to be done by Twin wire arc spray coating
Getting proper and even shape of sugar mill roll for better service life.
ATSPL have been completed >40Nos of sugar mill rolls in pan India

---

**STEEL PLANT COMPONENT COATING**

**DESCRIPTION**
By twin wire arc spray coating and repairing of steel plant component
i.e. pinion gear box, furnace elbow etc..

**ADVANTAGES & APPLICATION**
Repairing of pinion gear box, furnace elbow on site by high velocity
twin wire arc spray coating services.
Coating of sink roll, hearth roll, table roll for protection against hot corrosion
and erosion, Furnace elbow, pinion gear box, hot roll groove roll etc.
ATSPL have been covered >150SqM of Steel Plant components coatings.

---

**COPPER & BRONZE COATING**

**DESCRIPTION**
Copper and Bronze coating by flame wire spray process for application
of electric conductivity.

**ADVANTAGES & APPLICATION**
Flame wire spray using with fuel at applicable onsite and in-house also.
High spray rates with low gas consumption, Non ferrous coating applications.
Copper coating on shaft with fine polishing, Good surface finish with require RA value.
ATSPL have been completed >10Nos of copper-bronze coating of components.

---

**SS Coating of Vessel & Tank**

**DESCRIPTION**
Basically SS316, SS316L, SS coatings requirement in refinery,
oil & chemical plants i.e. ONGC-MRPL, RIL, IOCL etc..

**ADVANTAGES & APPLICATION**
ATSPL provide SS316, SS316L, SS coatings of vessel, tank, chimney,
KV Valve, Elbow, Reactor inside-outside of components for high temp Corrosion resistance
ATSPL have been covered >2000SqM of SS coating of components.
OUR TEAM

Reg. Address :  
A-208, Nilkanth Residency,  
Nr. Pushkar Residency, B/h Annapurna Restaurant, Jashodanagar,  
Ahmedabad - 382445. (Gujarat) INDIA

Works :  
4, Pushpak Industrial Estate,  
Nr. Nika Tube Compound, Vatva, G.I.D.C., Phase - 1,  
Ahmedabad - 382445. (Gujarat) INDIA

Ph. : +91-79-40305616, Fax : +91-79-40305616, Mob. : +91-9913401282, +91-9998637964  
E-mail : info@atspl.co, op.sharma@atspl.co

Website : www.alloythermalspray.com

OUR CLIENTS

"Surface Modification Better With Alloy Thermal Spray Pvt Ltd"