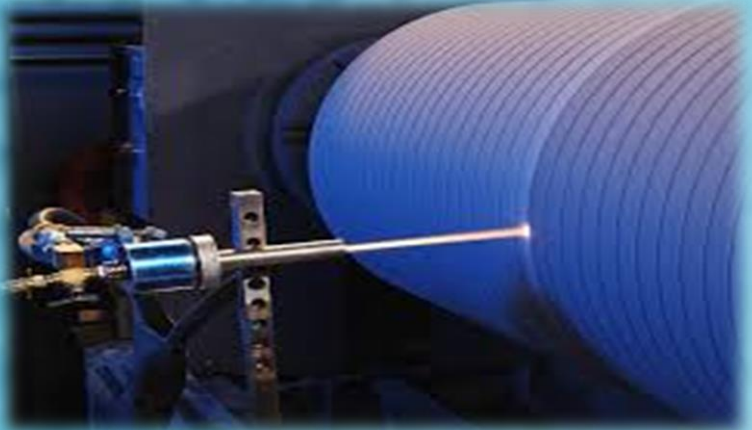




INDUSTRIAL RECLAIMING ENGINEERS

(The coatings company)

PLASMA SPRAY COATINGS



➤ Industrial Services

- Hard Chrome Electroplating
- Nickel Electroplating
- Electro less Nickel Coating
- Phenolic and Polymer Coatings
- Machining & grindings
- CNC Precision Machining
- NC Surface Grinding
- Plasma Thermal Spray
- Arc Spray Coatings
- Hydraulic Rams Repair
- Hydraulic Testing's
- Valves & Pumps overhauling
- Textile Rolls Manufacturing
- Textile Machines & Parts
- Structural Fabrications

IRE applies a variety of proprietary treatment option to extend the wear life and prevent corrosion attack on treated parts for many industries. We service the industrial areas of Automotive, Textile, sugar mills, steel mills, Plastic Industries, Cement plants, power plants, Aluminum, Hydraulic, Canning, Paper Molding, Flooring Tile, Textile Roll Manufacture, Oil industries, Refineries & too numerous to list.

IRE unlike most competitors puts forth the necessary efforts to satisfy each customer's need. Let us show you our difference.

We look forward to having the opportunity to discuss with you in person your specific needs.

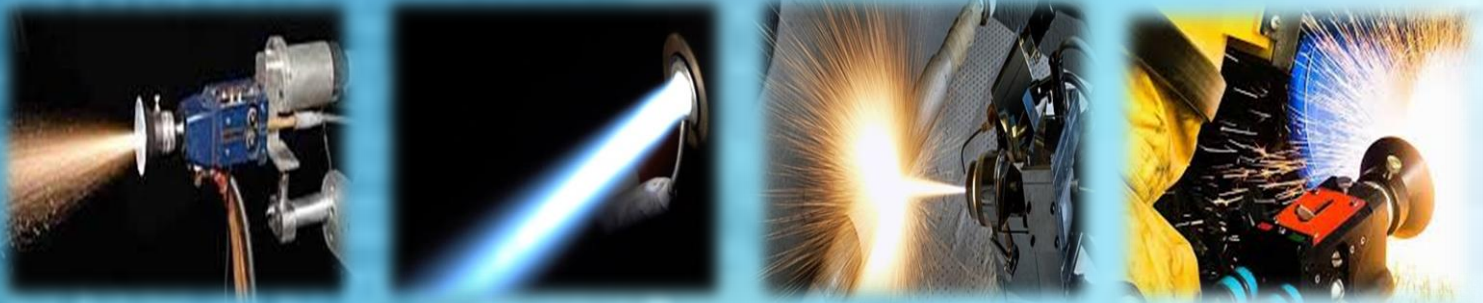
Give us an opportunity, we will render results.

"Our Engineering – Your Solution"

WHAT IS THERMAL SPRAY?

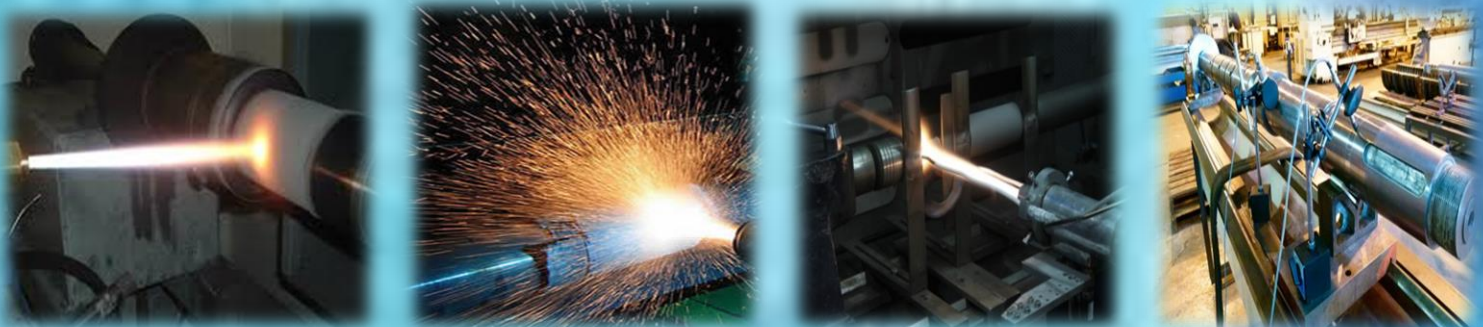
Thermal spray coatings involve the use of a torch to heat a material in powder or wire form to a molten or near-molten state and the use of a gas to propel the material to the target substrate, creating a completely new surface.

The Coatings material may be a single element, Alloy or compound with unique physical properties that are in most cases achievable only through only thermal spray process.



BENEFITS OF THERMAL SPRAYING

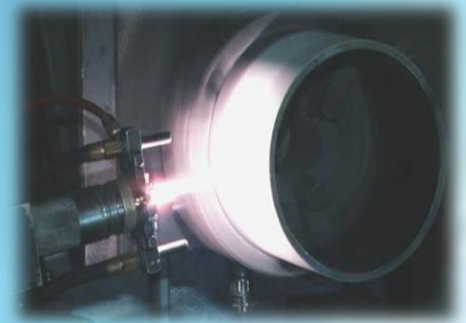
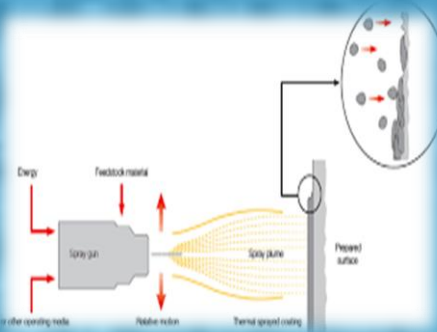
- **Waste Disposal:** Wastes from thermal spraying are not toxic, but do contain elements special disposal, typically they are dry powders, some of which can be reactive.
- **Competitive Application Cost:** When parts are large enough and the coatings thickness requirement is high, thermal spraying becomes very cost competitive with chrome plating.
- **No Limitation on size of part:** the Thermal Spray process has any real limitations on part size because there is no need for immersion in plating tank.
- **High Deposit Rates:** Most of the Thermal Spray Processes have a higher deposition rate than chromium plating.
- **On-Site Capability:** Thermal Spray equipment is portable and has on-SITE capability.
- **Fewer Process Step:** Thermal Spray coatings require fewer process steps to apply than chromium plating.
- **Thicker Coatings:** The Thermal Spray process has the ability to economically apply thicker coatings in some up to 10mm.



- **Denser coatings:** Coatings can be applied with almost theoretical density with no crack patterns.
- **Uniform Coatings Thickness:** The coatings build-up with thermal spraying is much more uniform over the Entire part, depending on automation and part geometry.
- **Materials Choice:** This is probably the single most important benefit. Individual application can be matched to material depending upon the specific requirement for corrosion, Wear Service temperature or other factors.

PLASMA THERMAL SPRAY

Plasma spray is a thermal spray coatings process used to produce a high-quality by a combination of high temperature high energy heat source a relatively inert spraying medium. Usually argon and high particle velocities.



ARC SPRAY COATINGS

Arc Spray (most often referred to as metalizing, TSA, TSZ, and TWSA) is the most productive and economical of all thermal spray coatings system. Arc spray uses DC power to energize two conductive wires: One positive and the other negative. These energized wires are then fed through a feeder in to a gun head.



THERMAL SPRAY POWDER

Our entire staff is well aware of the value of the components we handle every day. Our plating Technicians handles every part with the utmost care. Our shipping staff packages every order to insure against damage



"Our Engineering – Your Solution"

Hydraulic Rod & Tube Treatments



| <i>Self-Fluxing Powder</i> | <i>Abradable Powders</i> | <i>Metal+Alloy Powders</i> | <i>Ceramic Powders</i> |
|--|---|---|---|
| <i>Cobalt Base Nickel Base</i> | <i>Aluminum Base Cobalt Base Copper Base Nickel Base Plastic Base</i> | <i>Aluminum Base Cobalt Base Copper Base Iron Base- Titanium Base Cermets</i> | <i>Aluminum Oxide Chrome Oxide Titanium Oxide Zirconium Oxide</i> |
| <i>Carbide Powders</i> | <i>Are Wires</i> | <i>Combustion Wires</i> | |
| <i>Chrome Carbide Tungsten Carbide</i> | <i>Aluminum Base - Silver Base Copper Base - Tin Base Iron Base - Titanium Base Molybdenum Base Nickel Base - Zinc Base</i> | <i>Aluminum Base - Silver Base Copper Base - Tin Base Iron Base - Molybdenum Base Lead Base Nickel Base - Zinc Base</i> | |

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