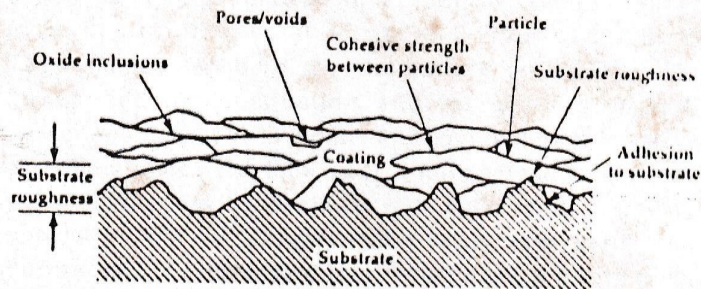


G&M TECHNOLOGIES

62, Greenways Road
Raja Annamalaipuram, Madras - 600028
Tel: (044) 4936739 Fax: (044) 4942556



G&M Technologies is an Indo American joint venture in technical collaboration with Metzgar Associates, USA and is engaged in the business of surface modifications of metals and alloys primarily thru' thermal spraying and solid state diffusion.



Surface Engineering thru' surface modifications and solid state diffusion is recording a growing trend as an useful tool in the hands of designers and reconditioners. In this context thermal spraying provides unlimited opportunities to build a required surface of specific characteristics. Combination of thermal spraying and diffusion of the sprayed layer into the substrate makes it possible to provide unique properties on the metallic surfaces.

Thermal spraying provides many advantages compared to its competitive technologies like welding or fusion bonding or

processes involving phase changes. For instance, distortion of work piece is totally eliminated in thermal spraying. Twist or bend is unknown while rebuilding a worn out shaft thru' thermal spraying. Flexibility to obtain any surface on any substrate provides unlimited opportunities to find solutions to all problems that are faced in industry. It also offers unique opportunities for cost reduction thru' value engineering by material substitution and surface modifications.

G&M Technologies have been constantly attempting to solve different problems concerning wear, abrasion, erosion, corrosion, insulation, thermal barrier, oxidation resistance, creep, rebuilding, renovation, decorative, and any other as they occur in special situations. For example G&M Technologies can build a metal surface on wood which can be applied in construction and foundry industries. G&M personnel can rebuild your worn out shafts, renovate your damaged tools, hard face your components/ tools, substitute expensive nickel base alloys with plain carbon steels with specially modified surfaces, make ready your parts in quick turn around for repair and maintenance, solve pitting problems on your die surfaces by special techniques and many more. In short the G&M technologies' engineers have a cost effective/ quality enhancing solution for every problematic situation that is faced in the various industries today.

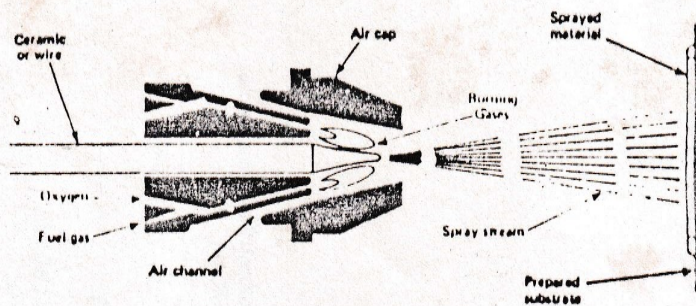
G&M Technologies has computers connected between their office at Madras and their collaborators at USA round the clock and thru' the year. Every problem of the customer is documented and communicated momentarily to them at USA and extensive technical interaction is coordinated by G&M Technologies' personnel at Madras. The solution is thus derived, process parameters and control techniques are defined this way which later is put into reality by the works team at Madras.

A pre-operative trial workshop initiated at Porur, Madras for test marketing presently provides commercial thermal spraying services till our model set up comes up at Ambattur, Madras. The spraying machineries are imported with local balancing equipments like compressor, blasting booth, turn tables etc. The operators are trained and certified by our collaborator for quality intense thermal spraying.

The following line of activities have been crystallised till now and are open for commercial exploitation by the customers at this moment:

- 1) Rebuilding of worn out shafts, crankshafts and alike
- 2) Rebuilding of hydraulic/pneumatic pistons, cylinders etc.
- 3) Rebuilding of any worn out parts constituting any plant and machinery.
- 4) Renovation of worn out tools.
- 5) Hard facing of tools and other engineering items.
- 6) Surface alloying with aluminum and diffusion of parts exposed to elevated temperatures like Jigs, pots, furnace parts used in heat treatment.
- 7) Surface modification with copper for conductivity, masking to prevent carbon diffusion, recuperating etc.
- 8) Stellite spraying of valves and associated components.
- 9) Alumina spraying for erosion resistance.
- 10) Surface alloying of mild steel for abrasion resistance.
- 11) Surface modification by spraying stainless steel.

- 12) Metal layer building on wood for patterns in foundries, doors/window parts etc for enhanced life and to resist abuse.
- 13) Building bronze surface for corrosion resistance and cosmetics.
- 14) Aluminising and heat treatment for hot die steels by special stepped technique to provide oxidation resistant layer meeting the required core properties.
- 15) Any other surfaces by spraying with any speciality materials on request.



You may please call our office or pager to the following details to refer your problems.

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Tel: (044) 4936739 Fax: (044) 4942556

Following is the pager Number that can be contacted:
V.P.(Marketing) (day & night): 9632-702947.

OTHER PROCESSES & TECHNOLOGIES:

- ALHEAT
- ALNIT
- ALZINC
- METABUILD
- ZINC SPRAY
- ALUMINIUM SPRAY
- COPPER SPRAY
- STAINLESS STEEL
SPRAY
- BRONZE SPRAY
- ALUMINA SPRAY
- CHROMIUM OXIDE
SPRAY
- ARC SPRAY
- CUSTOME MADE
LAYERS
- BORIDING

PLEASE CALL:

GOPAL & METZGAR TECHNOLOGIES
PRIVATE LIMITED
3, PATTAMMAL STREET
MANDAVELI
CHENNAI - 600 028

TEL: 4936647, 4942556 (office)
6248167 (factory)

FAX: 4951389 (office)

E-MAIL: sharada.gopal@gems.vsnl.net.in

PAGER: