Metal spray equipment & consumables excellence and support since 1922

Since 1922, Metallisation has been the leading developer and manufacturer of Thermal Spray equipment and consumables for Arcspray, Flamespray, Plasma, HVOF, Laser Cladding and Automated Spraying Systems.

Our expertise in surface and application engineering is unrivalled. Our ability to supply the most advanced metal spraying technology, combined with our renowned excellence in customer service, enables us to help our customers find the right thermal spraying solutions to best suit their needs.

Our equipment has been designed for a wide range of uses from universal corrosion protection of steel fabrications to engineering coating applications within the automotive, aerospace, oil / gas and manufacturing industries.

Service is key to our success. Metallisation: Small Enough to Care, Large Enough to Deliver.

Metallisation thermal spray solutions



COMPANY INTRODUCTION



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THE PROCESS



FLAME

Uses gas and oxygen to melt the wires before spraying with compressed air.

ARC

Uses DC electrical power to melt the wires before spraying with compressed air.

PLASMA

Uses electric arc in an inert gas to create a high temperature plasma that softens the spray powder. The gas stream projects the powder onto the substrate for low oxide coatings.

HVOF

Uses an accelerated oxygen / fuel flame to soften the spray powders and project them onto the substrate with high levels of kinetic energy.

LASER

A precisely focussed high power laser beam creates a weld pool into which a metallic powder is applied. Powder, carried by a stream of inert shielding gas, is injected into the weld pool.

TURNKEY

Spray booths / rooms, robots, fixturing, turntables, spray lathes and extraction. Special purpose machines / pipe / LPG spraying systems.

THE ORIGIN OF THE PROCESS

- Pioneered by Dr M U Schoop of Zurich.
- **★** Started out by pouring molten metal into a high pressure gas stream (1910).
- **▶** Developed to deposit coatings from solid wires (1915).
- ✓ Introduced in the UK in 1922 (foundation year of Metallisation).

Metallisation Flamespray and Arcspray equipment is used to apply 'corrosion protection' coatings of zinc, aluminium and zinc / aluminium alloys onto steelwork such as bridges, gantries, ships, off-shore platforms, gates / fences and vehicles. Commonly used as an alternative to galvanising.

All four thermal spray processes as well as laser cladding can be used to apply 'engineering coatings' to modify the surface properties of an item. Engineering coatings can provide such properties as enhanced wear resistance, thermal barriers, electrical / thermal conductivity, hard-chrome replacement and insulation across a wide range of applications.

ONGOING SUPPORT

Following purchase we will continue to support all of your needs with the help of our experienced staff.



SUPPORTING GLOBAL ORGANISATIONS

SERVICE SUPPORT

A full range of reactive and preventative maintenance service options as well as telephone and e-mail support.



EQUIPMENT HIRE

Our thermal spray systems are available for short & long term hire periods providing unique benefits for both new and existing customers.



TRAINING

Metallisation offers a full range of training courses to suit the needs of our wide range of customers and we see training as key to the successful operation of our equipment.



CONSUMABLES

Metallisation offers a full range of consumable wires and powders, many from stock to support your applications and spraying activities.



Our technical team are on hand to help, no matter what you need. Their knowledge is second to none.

Please review our varied training offers and if you need help in choosing the right course for you, we will be pleased to guide you.

RESEARCH & DEVELOPMENT

In House R&D + World Class Application
Engineering = Cutting Edge Turnkey Solutions

Process prove out

Engineering & design

Project management

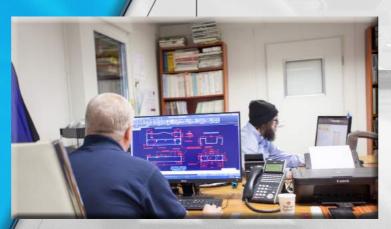
Final acceptance

Know-how transfer / Qualification

Samples & testing







Our application engineering and R&D team at Metallisation combine several decades of thermal spray experience. We combine this with 2 robot spray booths, an additional manual spray booth and a full suite of flame, arc, plasma and HVOF spray equipment.

A typical application engineering process is outlined as follows but all are tailored to each customers' specific needs

Identify

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with the customer the basic project requirements & what would be considered a successful outcome.

Complete any necessary non-disclosure.

Undertake



the testing / process proveout either independently or with the customer present. Record all agreed data and evaluate with the customer.

Review



the process economics to ensure the basic principle is feasible (the detail of this increases as the project progresses).

Identify



next steps, training program or prepare a turnkey solution to implement with the customer to apply the approved coating.

Develop



an application engineering program, clearly identifying the aim, method, resources, costs and expected data collection.

APPLICATION ENGINEERING