

PRODUCT OVERVIEW

Leading the way in thermal spray technology. From Arc and Flame to Plasma and HVOF, Metallisation delivers high-performance coating systems, consumables, and automation trusted worldwide for protection, performance, and precision.

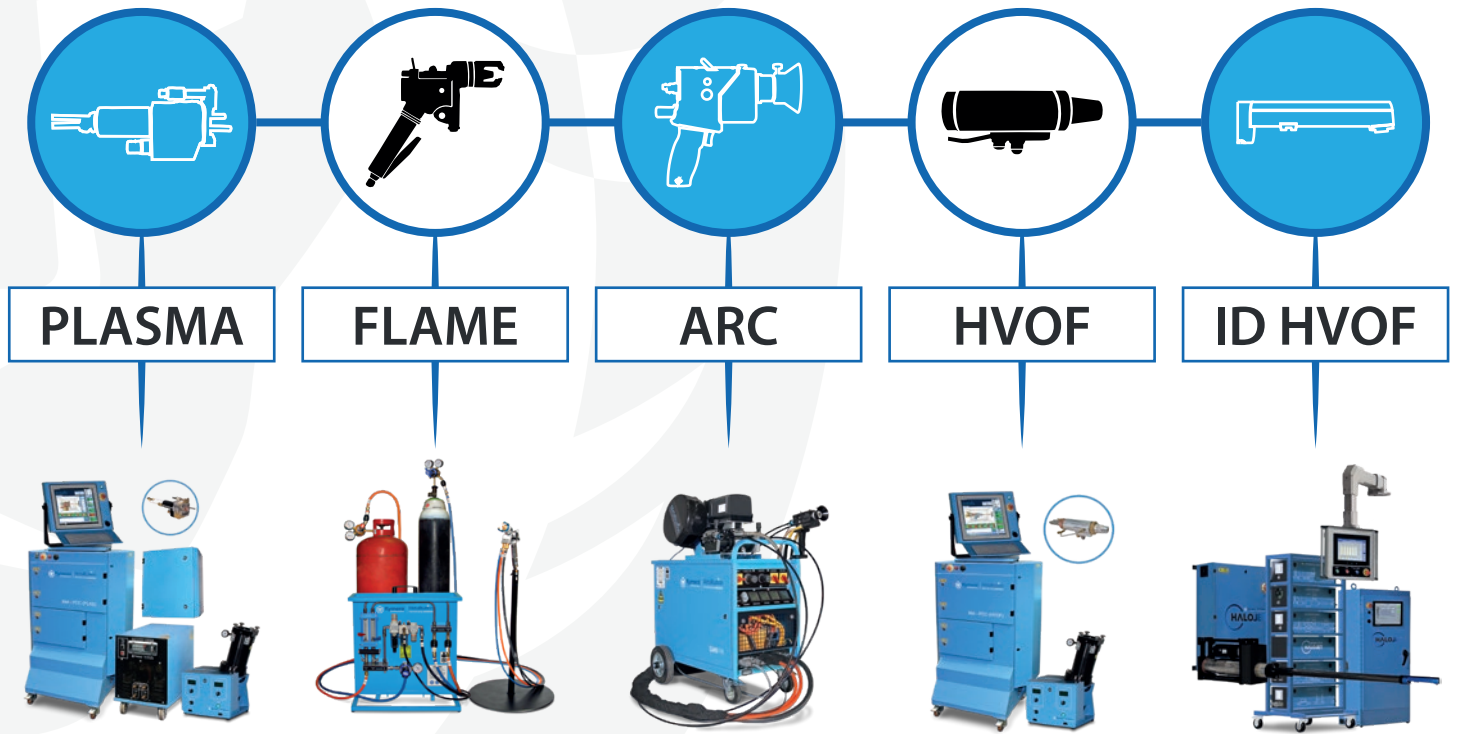


Kymera[®]
INTERNATIONAL

Metallisation
thermal spray solutions

UK Manufacturer of High Quality
Thermal Spray Solutions

SPRAY **YOUR** WAY



Plasma spray delivers high-performance coatings with unmatched versatility. Our plasma systems create dense, durable, and precise surfaces, perfect for demanding industries where reliability and resistance are non-negotiable.

Flame spray offers a cost-effective, reliable solution for protective and decorative coatings. Our flame systems deliver strong adhesion and versatile performance across a wide range of industrial applications.

Arc spray is the fastest, most economical thermal spray process. Our arc systems deliver exceptional coating performance, combining speed, strength, and efficiency for large-scale protection.

HVOF systems produce ultra-dense, hard-wearing coatings with superior bond strength. Our HVOF delivers unmatched durability and performance, protecting critical components in the toughest environments.

ID HVOF (or HaloJet™) is specifically designed for internal surfaces, delivering dense and wear-resistant coatings where precision and durability are critical.

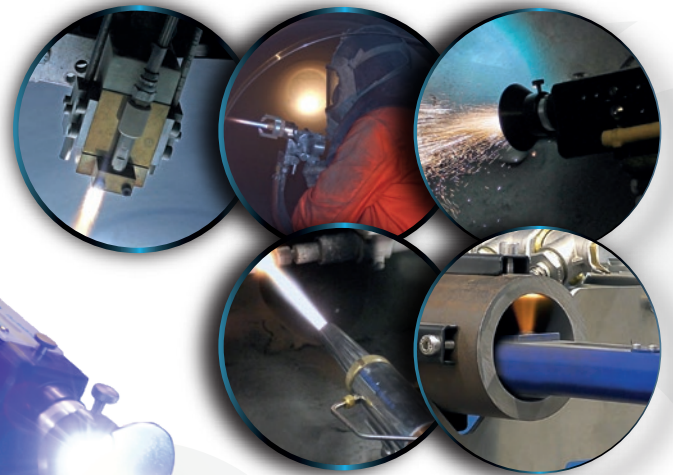
THE **RIGHT** SOLUTION FOR ANY **APPLICATION**

From corrosion protection to precision engineering, our advanced thermal spray systems deliver reliable, high-performance coatings across every industry—because no challenge is too complex when the right technology is behind you.



EVERY **OPTION**,
COVERED!

Powerful arc, flame, plasma, and HVOF
equipment delivering coatings that
conquer corrosion and elevate industries



Advanced **Thermal Spray Equipment** for Every Application

At Metallisation, we pride ourselves on offering one of the most comprehensive ranges of thermal spray solutions in the industry. Whether you're looking for arc spray, flame spray, plasma spray, HVOF, or the innovative HaloJet™ ID system, we've got a system to suit your specific coating needs. Our product portfolio is designed to deliver flexibility, performance, and reliability across a wide variety of applications and industries. From turnkey systems and manual setups to custom automation and a full range of consumables and accessories, Metallisation ensures you have the right tools to get the job done — whatever your coating challenge.



Advanced **Resilient** *Coatings*

- ✦ Electric arc heat source
- ✦ Uses wire on MIG or in drum
- ✦ Uses wire from 1.6mm to 2.5mm
- ✦ Push or push/pull pistol options
- ✦ Closed or Open Loop flexibility
- ✦ Engineering and anti-corrosion



Arc spray (or twin wire arc spray) uses an electric arc to melt wires, which are then atomised with compressed air to form a spray that coats the target surface. The resulting layer offers excellent corrosion, thermal, and wear resistance. Both anti-corrosion and engineering coatings can be applied, and switching between them is easy. Our arc spray systems feature clear controls and dependable performance. Designed for efficiency, they deliver fast coatings with minimal material waste—making them a powerful and economical solution.



ARC-145/150

The most comprehensive arc spray unit to date!

- Push or push/pull pistol options
- Sturdy & robust
- Automation integration
- Powerful & versatile
- Sophisticated control technology
- 250, 350 or 500A Energiser options



i450

The most productive thermal spray machine ever produced!

- Extremely portable
- Simple graphical user interface
- Multi-process capabilities
- Spray material selector
- Closed or Open Loop flexibility
- 450A Energiser with suitable pistol



ARC-528

The latest 528E system with brushless motor

- Armature voltage feed-back
- Consistent throughputs
- Contact tips easily changed
- Robust push button current control
- Industrial plugs / sockets
- Designed for brushless pistol



ARC-1020

The ultimate in reliability & precision for ultra-high throughput production applications

- Unprecedented performance
- Carbon fibre reinforced cover
- Incremental tension adjustment
- Data monitoring
- 1000 or 1500 Amp options



Where sparks fly, surfaces survive

ARC PRODUCT RANGE

Stronger surfaces, made simple with Flame

FLAME PRODUCT

RANGE



Fuel gas and oxygen are mixed and ignited to create a flame. The coating material, either in wire or powder form, is then introduced into this flame. For wire flame spraying, the wire is melted in the flame, and compressed air passing through a spray nozzle atomizes the molten metal, propelling it onto the workpiece. The spray rate increases with larger wire diameters. For powder flame spraying, fine metal or ceramic powders are softened in the flame, and the velocity of the flame gases through the nozzle carries and sprays the softened particles onto the workpiece.

MK61-FS

Oxygen-acetylene fuelled system for spraying engineering coatings

- Sprays wide range of materials
- Wire sizes 1.5mm to 4.76mm (3/16")
- Choice of coating textures
- Easy to maintain
- Flowmeters give optimal parameter settings
- Robust but lightweight design

MK74-FS

Hand held or machine mounted to spray a wide range of powders

- High deposit efficiency
- Dense coatings
- Quiet operation
- Sprays ceramics and metals
- Simple to use
- Powder vibrator option

MK73-FS

Oxygen-propane fuelled system giving unrivalled anti-corrosion coatings

- Fast spray rates (up to 50kg/hr)
- Wire sizes 1.6mm (1/6") to 4.76mm (3/16")
- Ideal for anti-corrosion coatings
- Stop/start or continuous operation
- Easy lighting
- Spray stream spreader on 3/16" and 1/8" pistols

MK66-PCC

Fully automatic flamespray system with mass flow control

- Wire sizes 1.5mm to 4.76mm (3/16")
- Mass flow control = repeatability
- Easy to use, intuitive operator interface
- PC control with touch screen
- Unlimited recipes & parameter recording
- Spray a wide range of material

Flexible
Lasting
Affordable
Mobile
Efficient

- ✦ Gas fuel heat source
- ✦ Spreader and non-spreader versions
- ✦ Wide range of wire sizes
- ✦ Stop/start models
- ✦ Manual, semi-automatic or fully-automatic options
- ✦ Engineering and anti-corrossion

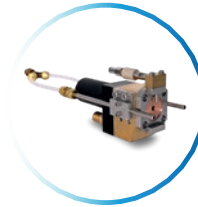
Plasma is the term used to describe gas which has been raised to such a high temperature that it ionises and becomes electrically conductive. In the case of Plasma spraying, the plasma is created by striking an electric arc between the nozzle and the electrode inside the plasma gun. The plasma jet then emerges from the nozzle. Powder particles are injected into this jet where they soften and then strike the surface at high velocity to produce a strongly adherent coating. The work piece remains cool because the plasma is localised at the gun.



MET-PLASMA

Our atmospheric plasma spray (APS) systems

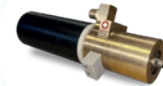
- Mass flow control of gases for repeatability
- Easy to use, intuitive operator interface
- Inverter power supply for stability
- Optional keyboard control or operator interface unit
- Manual or fully sequenced start-up, operation & shut-down
- Various straight, angled & extension pistol options
- Alternative pistols supported



MET-PL50

Metallisation's own pistol is a powerful 50kW offering & is perfectly suited for most applications

Optional Pistols



Debye-Larmor



Metco 9MB



Metco F4



Praxair SG100



Plasma power. Perfect coatings

PLASMA PRODUCT RANGE

Precision Performance Protection

- ✦ Atmospheric plasma spray
- ✦ Industrial Windows based touch screen HMI
- ✦ Electronic mass flow control of gases
- ✦ Siemens PLC Controller
- ✦ Inverter power supply for stability
- ✦ Typically engineering



Hardwearing **V**ersatile **O**ptimised **F**ocused

- ✦ High velocity oxygen fuel
- ✦ Industrial Windows based touch screen HMI
- ✦ Mass flow control of gasses
- ✦ Liquid fuel for dense, low stressed coatings
- ✦ Manual or fully sequenced start-up
- ✦ Typically engineering

High velocity - Zero compromise

HVOF PRODUCT RANGE



The fuel (liquid kerosene in our -L system) is mixed with oxygen and ignited. The combustion gases pass through a converging/diverging nozzle and accelerate to around 1,500m/sec. The powder is injected into the accelerated flame where it softens and gathers speed. The high impact speed of the particles produce a highly adherent, dense coating structure.



MET-HVOF

Our liquid or gas fuel High Velocity Oxygen Fuel systems

- Liquid fuel for thick, low stressed coatings
- High hardness, low oxide level coatings
- Gas version with appropriate pistol option
- Low running costs compared to hydrogen fuel
- High bond strength and low porosity coatings
- Manual or fully sequenced start-up, operation & shut-down
- Alternative pistols supported

Pistol Options

Liquid Fuel



Met-Jet 4L



Praxair JP5000

Gas Fuel



Deloro Stellite™ Jetkote



Metco Diamond Jet



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HALOJET™



As with regular HVOF, fuel is mixed in the combustion chamber to stabilise the combustion volume. Nitrogen is used to increase the gas velocity and reduce heat transfer into the substrate). Powder is radially injected into the spray gun through a convergent-divergent nozzle and gains speed. The input speed results in an adherent, dense coating structure.



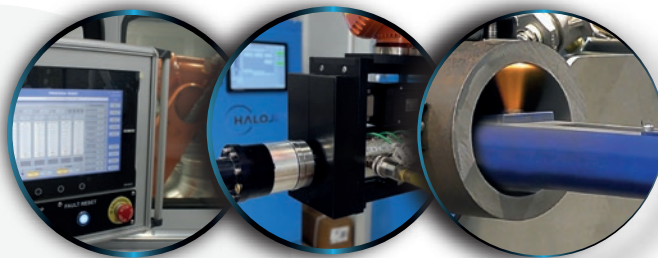
Redefining internal coatings

ID HVOF PRODUCT RANGE

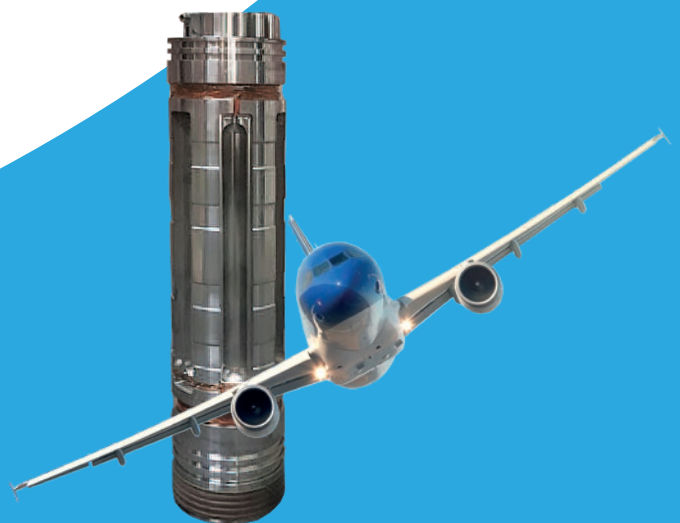
Bringing Technology To the part



- HaloJet™ High velocity oxygen fuel
- Minimum ID of 63mm (2.5")
- Minimal pre-surface treatment
- Minimal post-surface treatment
- Typically engineering
- Novel fuel/gas/oxidiser & combustion chamber geometry



l with oxygen and ignited. In this
hydrogen is also injected into the
the flame, allowing for a reduced
ally blended with the oxygen; this
ces the temperature (reducing the
The combustion products pass
zzle to achieve a supersonic flow.
supersonic stream where it softens
of the particles produce a highly



**CERTIFIED
EXCELLENCE**

Approved for use in
both **Oil & Gas** and
Aerospace

Tailored Turnkey Solutions



- Spray booths and rooms
- Robots
- Fixturing
- Turntables
- Spray lathes & extraction
- Special purpose machines
- Pipe & LPG spraying systems



We don't just supply equipment — we provide solutions tailored to your exact needs. Whether you want to start a new process or upgrade an existing line, we can handle everything from fully automated spray systems to robotic units, robotic handling, fixturing, and more. Our multi-axis robotic cells with custom tooling are engineered to work seamlessly together. In various industries, we're trusted to deliver reliable solutions that keep your operation running at its best —

CONFIGURE
AUTOMATE
COAT

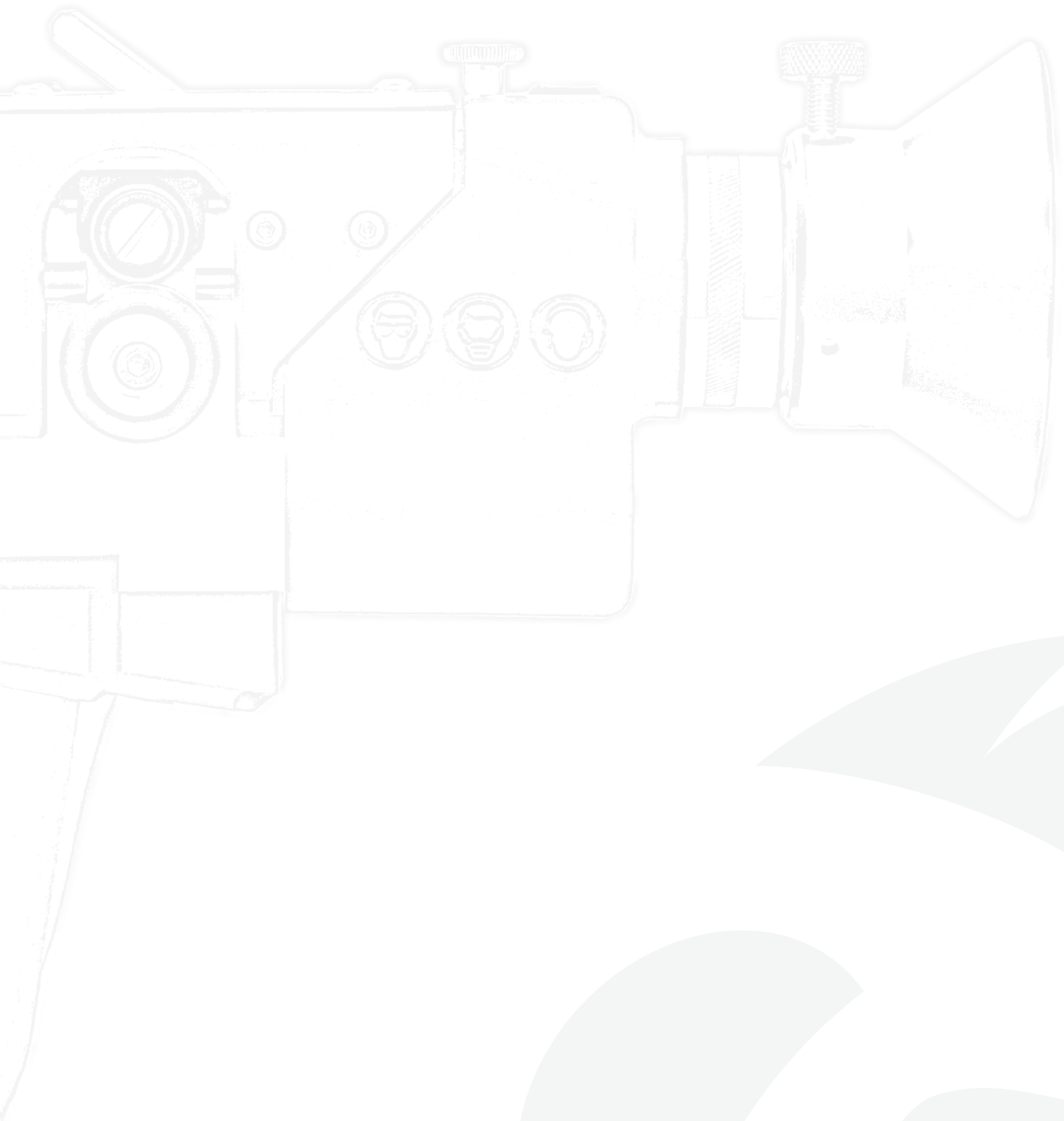
Fully integrated, **modular thermal spray cells** designed for maximum flexibility - **Built to order & easily configurable**



deliver complete, turnkey thermal spray
whether you're looking to integrate a new
our in-house team designs and builds
systems to bespoke spray booths, extraction
e. From simple manual setups to complex,
athes or turntables, every element is
er. With decades of experience across
e, efficient and future-ready solutions that
- from first concept to final coat.



Complete coating systems
TURNKEY OPTIONS



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