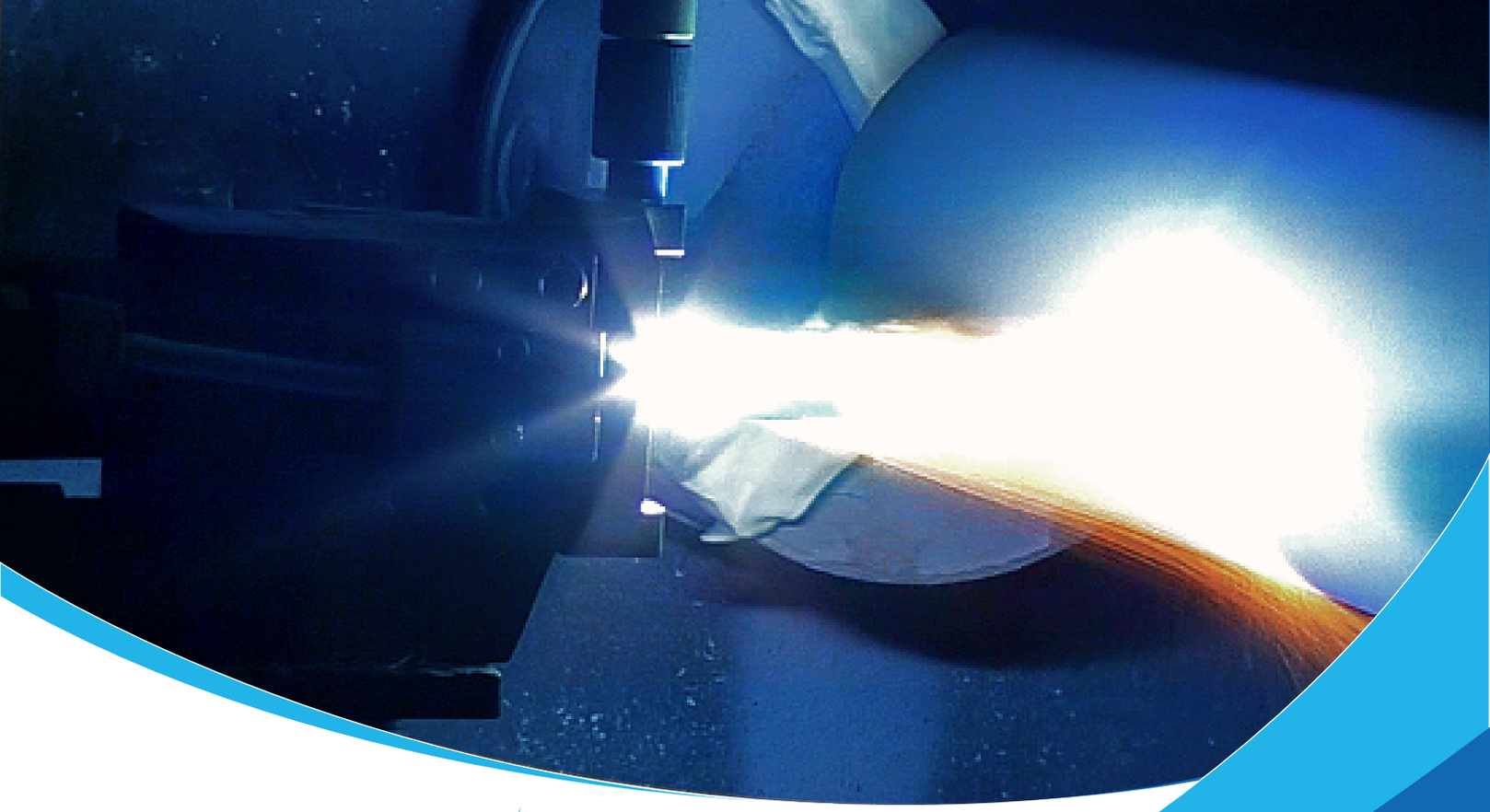


Kymera INTERNATIONAL | Metallisation thermal spray solutions

MET-PLASMA

PLASMA SPRAY

Plasma is the term used to describe gas which has been raised to such a high temperature that it ionises and becomes electrically conductive. The plasma is created by striking an electric arc between the nozzle and the electrode inside the gun. The jet then emerges from the nozzle. Powder particles are injected into this jet where they soften, & then strike the surface at high velocity to produce a strongly adherent coating. Our plasma equipment is built to deliver consistent, high quality coatings every single time. Metallisation offers a Control Console spray system that is capable of spraying a range of commonly available pistols, from Cascaded to our own PL50.

The Metallisation Met-PCC(PLAS) is the latest development to our Atmospheric Plasma Spray (APS) systems. We re-packaged the control elements and utilised the latest technology to optimise functionality and reliability. At the front end, the operator interface utilizes an Industrial Windows based touch HMI Screen, perfect for usability, integration and communication. Behind the scenes, the latest PLC runs the system with communication between devices via the reliable Ethernet protocol. As you would expect from a system of this standard, the gases/fluids are all mass-flow controlled for optimum repeatability of coatings. All spray parameters can have real-time trending on the system.

The result is a truly unique, compact design, flexible, easy to operate Plasma system, backed up by Metallisation's 100 year+ industry experience and support.

APPLICATIONS

- Engine Fan blade components
- Mechanical seals and valves
- Thermal Barrier Coatings (TBC's)
- Anilox Rolls
- Airframe sections
- Automotive components

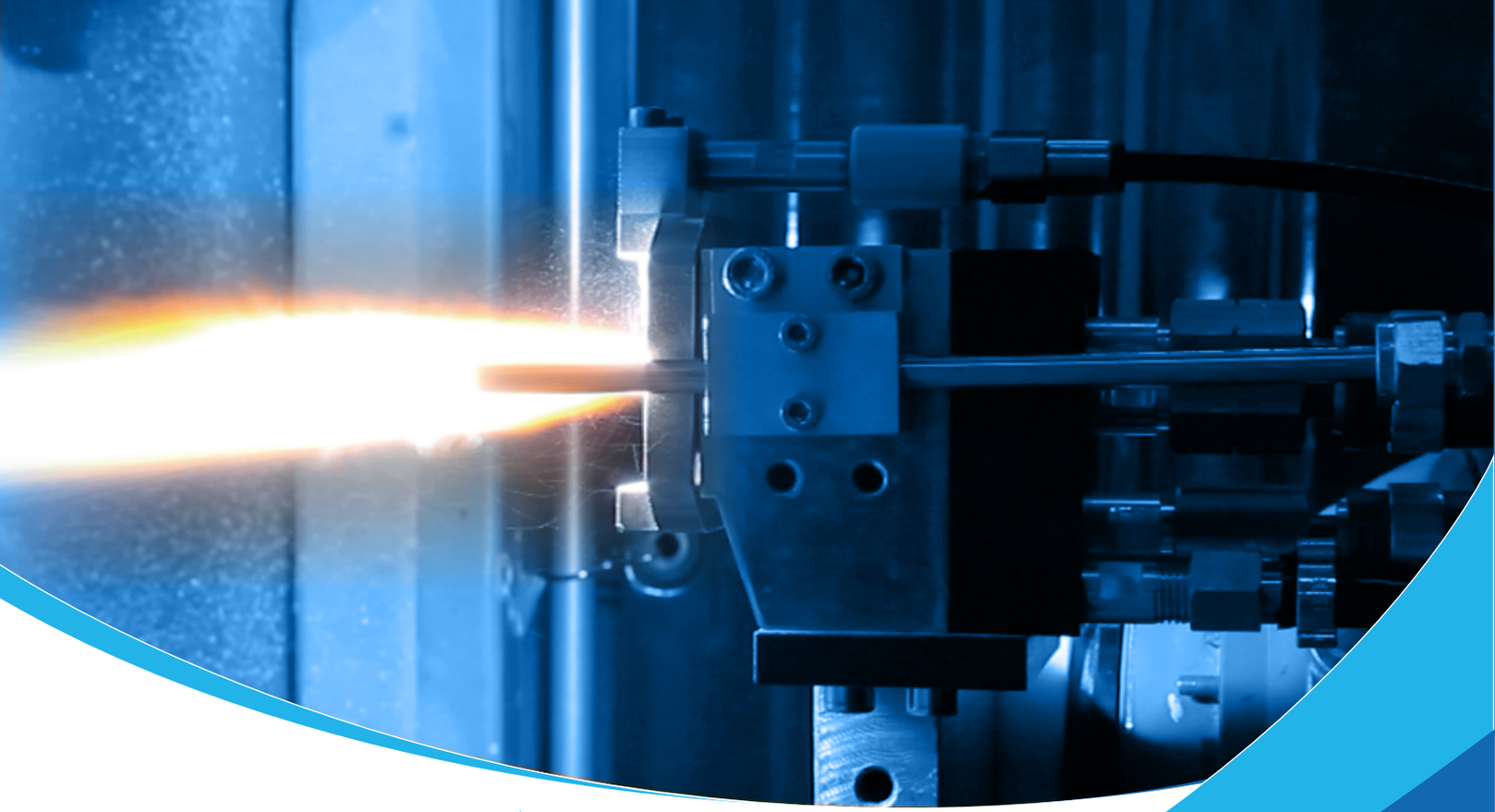
ADVANTAGES

- Mass Flow controlled for precision operation
- Power configurations from 50-100kW
- Integration of 3rd party equipment (pistols & powder feeders)
- Operation that meets NADCAP approval
- Coating application to Aerospace standards

Typical Performance Figures

Material	Reference	Throughput g/min	Desposit efficiency %
Grey Alumina	99205	20	67
AluminaTitania	99220	24	76
Chrome Oxide	99225	39	47
Magnesium/Zirconium Oxide	99275	38	75
Nickel Aluminium Moly	99627	51	67
Tungsten Carbide/Cobalt	99735	55	75

All figures are approximate and dependent on many factors including powder type, parameters and fuel grade / quality.



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MET-PLASMA

FEATURES & BENEFITS

PL50 - the ultimate solution for industrial coating applications

- Compact design for small access areas
- 90 degree option for use with a manipulator or robot
- 50kW capacity (suited for the majority of plasma spray applications)
- Internal and external nozzles allow optimum parameters for a range of materials
- Simple pistol maintenance for reduced downtime when changing consumables
- Ample cooling allows extended lifetime of consumables
- Optional cooling jets can be fitted to the pistol
- Argon Primary gas and Nitrogen, Hydrogen secondary gas
- Robot mounting interface

Met-PCC(PLASMA) - the latest technology to optimise functionality and reliability

- Industrial Windows based Touch Screen HMI
- Electronic Mass flow control of gases
- Siemens PLC Controller with expandable I/O and Robot interface
- Configurable Multipoint Safety Circuit with interlocks
- Optional remote connectivity and monitoring

THE EQUIPMENT

- PL50 Pistol
- Control Box
- HMI Interface
- Powder Feeder
- Ignitor Box
- 50-100kW Power Unit
- Alternative pistols supported

Kymera INTERNATIONAL | Metallisation thermal spray solutions

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