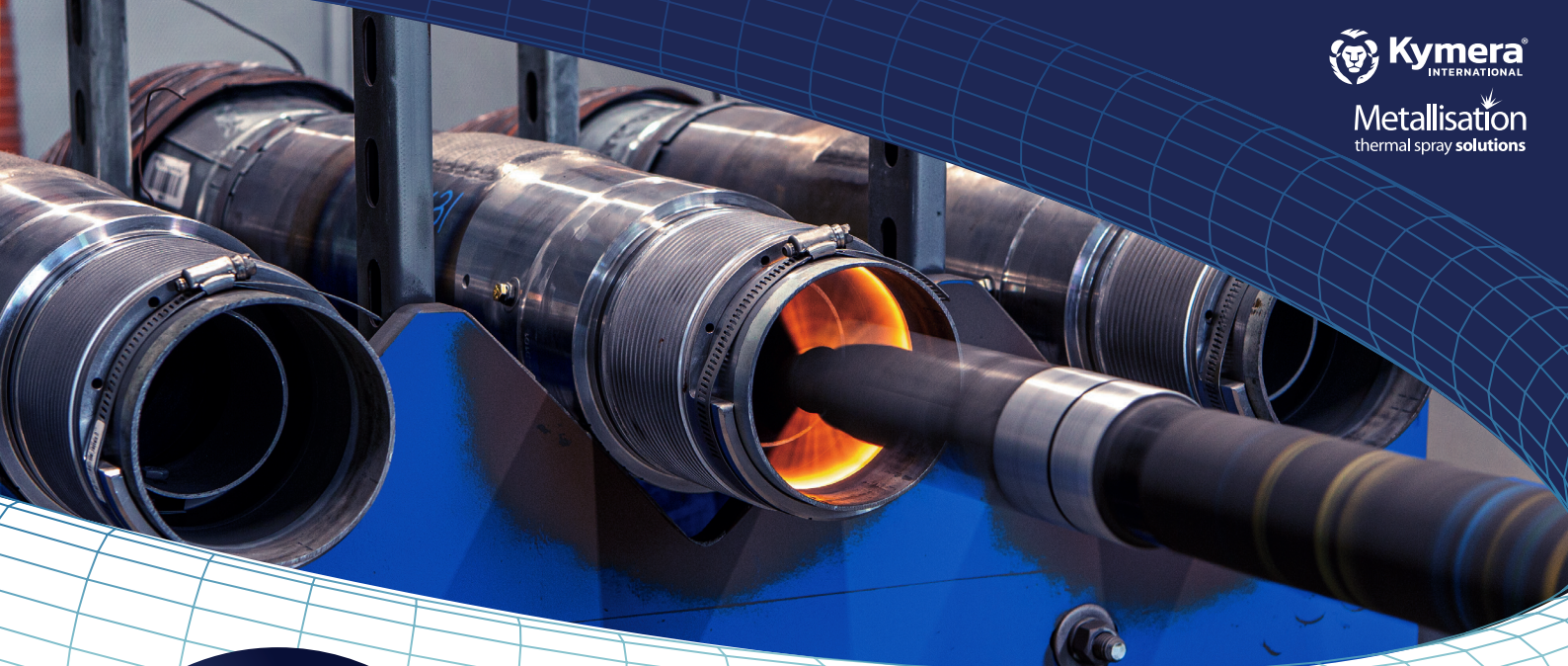




HALOJET™

ENERGY

The HaloJet rotary ID HVOF™ coating technology provides an innovative solution for the energy sector by eliminating the need for hexavalent chrome processes. This advanced technology achieves exceptional coating precision, applying a near net shape coating that maximizes density and minimizes porosity, setting a new standard in coating performance and environmental safety.

The high-velocity particle application of HaloJet™ technology eliminates the need for traditional surface preparation, reducing production costs and boosting part efficiency for the energy sector. Its unique rotary coupling provides full 360-degree coverage at speeds up to 300 rpm, while the advanced NanoGun technology supports a precise working range as small as 63mm. This innovation removes the need to rotate substrates, enabling efficient coating of asymmetrical parts, enhancing productivity, and delivering repeatable, accurate coatings tailored for industry demands.

In a sector where safety and operational uptime are essential, HaloJet™ is a trusted solution that consistently upholds critical standards. By eliminating hazardous hexavalent chrome processes and providing a like for like precision-engineered coating, HaloJet™ enhances operational performance and ensures accuracy across all applications.

Its advanced technology and coating performance make it the preferred choice for energy applications that require the highest standards of operation, in the harshest of environments.

APPLICATIONS

- ⊕ DHT (Downhole Tools)
- ⊕ LWD & MWD Components
- ⊕ Battery / Electronic Inserts

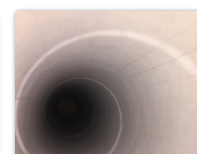


ADVANTAGES

- ⊕ Ultra high-density coatings
- ⊕ Minimum ID of 63mm (2.5")
- ⊕ Oil & gas coating approvals
- ⊕ Substrate temperatures below 150°C
- ⊕ Removal of surface preparation



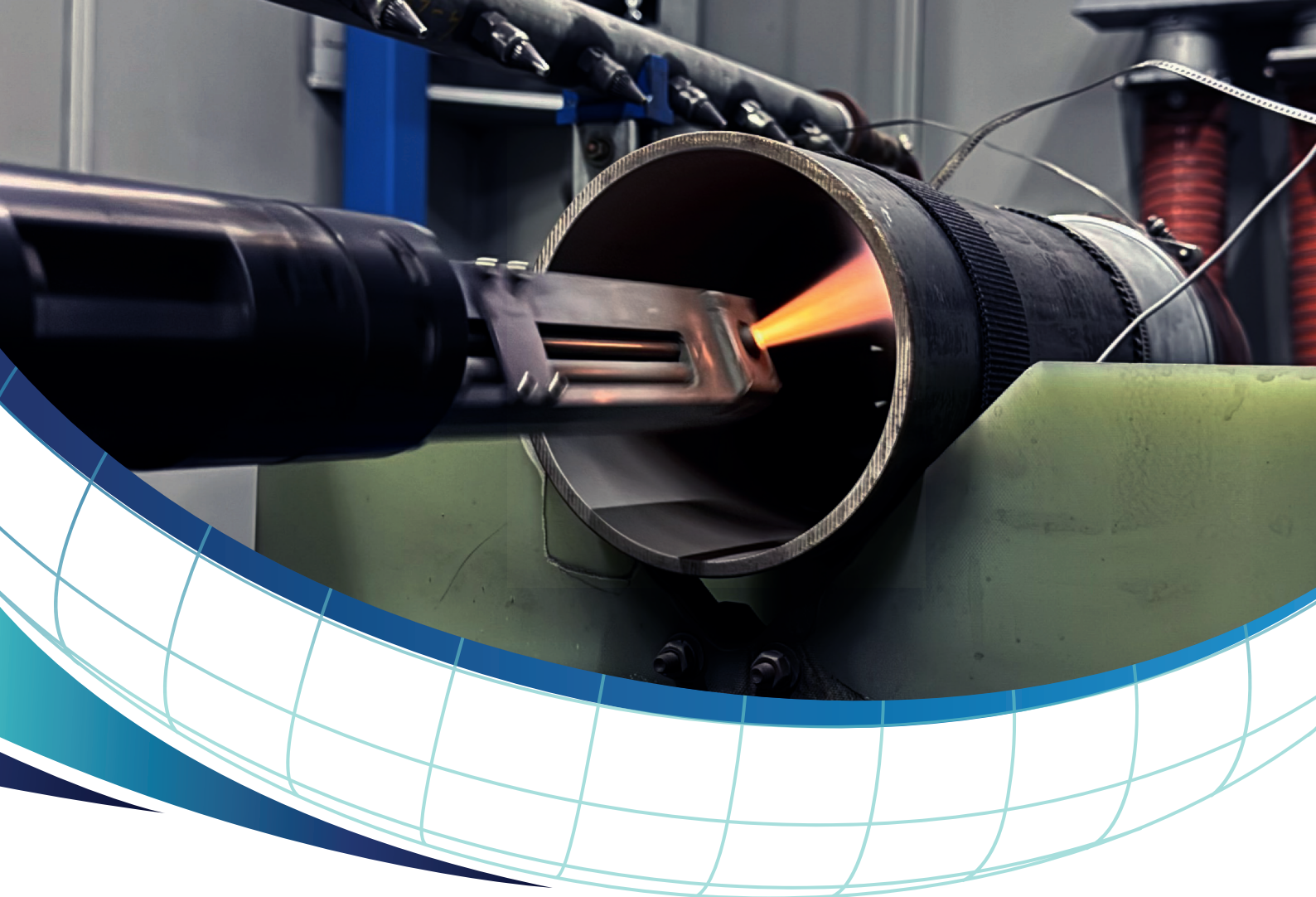
Battery Insert After Coating
with CASL UHD ID HVOF™



Close up of the Battery
Insert after coating with
CASL UHD ID HVOF™



CASL UHD ID HVOF™
Coating after honing



FEATURES & BENEFITS

Novel fuel/gas/oxidizer & combustion chamber geometry

- ⊕ Maximum amount of thermal energy is released prior to powder injection thereby reducing heat transfer to substrate

Combustion power level of 25kW

- ⊕ Lower power levels required for approved oil and gas coatings
- ⊕ Reduced combustion power levels reduces heat transfer to substrate allowing application to temperature sensitive alloys

RotaryJet™ gun head system

- ⊕ Internal extraction of dust and fume improves coating quality
- ⊕ Allows the coating of blind hole component parts
- ⊕ Able to coat eccentric bores on components that are symmetrical and asymmetrical
- ⊕ Coating thickness can be applied to a tight tolerance - 25µm (0.001")

Minimal pre-surface treatment

- ⊕ No requirement for grit blasting
- ⊕ Degreasing of substrate is only required

Minimal post-surface treatment

- ⊕ No grinding or lapping of sprayed coating required
- ⊕ Light honing to remove any surface peaks is all that is needed to create a 1.6µm Ra (63µ in Ra) surface finish



- ⊕ Modular Controller
- ⊕ Touch Screen HMI
- ⊕ RotaryJet™
- ⊕ Nano Gun
- ⊕ Ultra Fine Powder Feeder



Kymera
INTERNATIONAL

Metallisation
thermal spray solutions

www.metallisation.com :

enquiries@metallisation.com :

+44 (0)1384 252 464 :

Peartree Lane, Dudley, DY2 0XH, UK :