



A D V A N C E D C O A T I N G S O L U T I O N S



ID CoolFlow HP HVOF Gun

The ID CoolFlow gun is an HP HVOF system for high-pressure but cold internal HVOF spraying.

Operating at reduced power levels, the ID CoolFlow flame applies coatings at reduced substrate temperatures.

It's cool

The combination of the ID CoolFlow gun with the CPF powder feeder for fine powders of $<10\ \mu\text{m}$ is ideal for the spraying of thermo-sensitive components. The use of fine powders allows a power level affecting the substrate of below 20 kW.

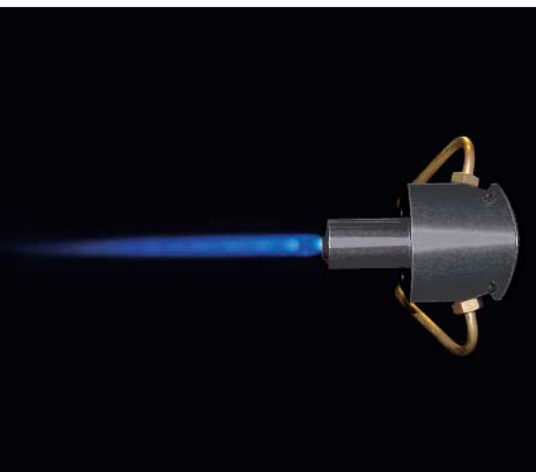
When spraying WC CoCr with powder size fractions of between $-30+10\ \mu\text{m}$, the thermal power of the flame is below 35 kW. This reduced power level allows a short spraying distance without overheating the wall temperature of $150^{\circ}\text{C} - 200^{\circ}\text{C}$ during the spraying process.

WC CoCr is applied at 60 g/min with a DE of 50%. The high performance is a result of the unique combustion chamber design. The ID CoolFlow gun achieves a combustion chamber pressure of 7 to 18 bars for standard HP HVOF coating quality.

It's small

The ID CoolFlow is a small lightweight gun, weighing 2.3 kg. The ID CoolFlow gun is designed to spray internal diameters of at least 150 mm.

The ID CoolFlow gun has a full metal coating and is equipped with two radial powder injectors.



ID CoolFlow

Smallest internal diameter:

150 mm

Oxygen:

200 to 500 l/min

Hydrogen:

40 to 150 l/min

Kerosene:

1 to 5 l/h

Combustion chamber pressure:

7 to 18 bar

Powder carrier gas:

Nitrogen 4 to 10 l/min

Coolant:

Water

Coolant pressure:

8 bar

Cooling power:

17 to 40 kW

Weight of gun:

2.3 kg



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