



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 mono HP HVOF torch

The ID CoolFlow mono is designed for nano-HVOF applications. Especially developed for high pressure, temperature controlled internal HVOF spraying. Operating at reduced power levels, the ID Cool-Flow mono applies coatings at reduced substrate temperatures. The ID CoolFlow mono can coat internal diameters down to 80 mm.

It's cool

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

WC CoCr with powder size fractions between $-30+15\ \mu\text{m}$ and $-10+5\ \mu\text{m}$ can be sprayed at reduced power levels. These low power levels, combined with an additional air cooling, allow for a very short spray standoff while maintaining a substrate temperature below 200°C . The resulting coating shows increased hardness and low porosity.

Powder is applied at up to 40 g/min with a DE of up to 50 %. This high performance is the result of the unique combustion chamber design. The ID CoolFlow mono achieves a combustion chamber pressure of 7 to 18 bars.

It's small

The ID CoolFlow mono is a small and lightweight, weighing only 2.0 kg including its base unit. The ID CoolFlow mono is designed to spray internal diameters down to 80 mm. The ID CoolFlow mono gun has a full metal housing and is equipped with one radial powder injector. Standard extensions up to 1.5 meters are available to allow access to the most difficult to reach areas.





ID CoolFlow mono

Smallest Internal Diameter:

80 mm

Power:

5 – 50 kW

Oxygen:

200 – 500 l/min

Kerosene:

1,0 – 5 l/h

Hydrogen:

50 – 120 l/min

Combustion chamber pressure:

7 – 18 bar

Powder carrier gas:

Nitrogen 7 – 23 l/min

Powder Feedrate:

Max. 40 g/min

Coolant:

Water

Coolant pressure:

Min. 8 bar

Cooling power:

17 – 40 kW

Weight of gun:

2.0 kg



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