



HIGHNO – 20 – 6 POWDER NOZZLE

Robust und 3D-capable

With the discrete powder nozzles, a powder gas jet focus is generated by 6 powder gas streams guided coaxially to the laser beam. This allows larger powder mass flows and consequently thicker and wider layers to be applied. These nozzles are particularly suitable for the additive production of 3D contours and when using higher power.

The modular design of the nozzle allows the use of different precision tubes (inlays) for variable powder gas jet foci for a wide range of applications.

- **3D-capable**
- **direct water cooling**
- **high laser power**
- **high wear resistance** through use of inlays
- **replace of inlays** for variable powder gas jet focus by customer
- **online mixing** for different powder materials using 2 or more powder distributors

Contact

HD Special Optics for Laser Technology

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Technical Specifications

Laser beam source	solid state, diode, gas
Laser power	up to 20 kW (appropriate use of product)
Weight	appr. 1 kg
Stand-Off	20 mm
Powder particle size	20 - 50 µm, 50 - 100 µm (recommended) bigger range possible
Powder gas jet focus	Ø 2.5 mm bei 3 g/min with Inlays 1.5 mm
Possible track widths	3 - 12 mm
Max. powder mass flow	up to 400 g/min
Cooling	direct water cooling 1-3 l/min at 18 - 20 °C
Max. powder efficiency	up to 98% depending on the melt pool diameter and application
Inlays	1.5 mm 2.0 mm 2.5 mm
Connection	customer specification