



HighNo 5.0

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In coaxial powder feed nozzles, the powder is injected into the molten pool through a conical annular gap. The conical powder feed generates a precise, stable, and homogeneous powder-gas jet. To optimally accommodate different laser power classes, the nozzle is available in two variants. The nozzle geometry is tailored to the required laser focus and powder focus diameters.

- Plug-and-play solution for industry
- On-site retrofitting in a very short time (replacement in less than 2 minutes)
- Reproducible replacement of nozzle tips (qualification of nozzle tip modules possible)
- High wear resistance thanks to special coatings

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- indirectly cooled nozzle tip
- Different gap sizes for high variability
- For applications with increased energy input and larger melt pools.
- Enlarged powder focus for stable processes at higher deposition rates
- Two different nozzle tips available to adapt the process.

Technical specifications:

- up to 12kW laser power
(These specifications depend on the radiation source and application used).
- Weight is max. 1 kg
- Particle size 20 - 50 µm,
50 - 100 µm (recommended)
- Powder gas jet focus:
2.0 mm at 3 g/min
- Possible track widths are
at 2.5 - 7 mm
- Maximum powder mass flow rate is
at 200g/min
- direct water cooling of the nozzle holder
indirect water cooling of the nozzle tip
1-3 l/min at 18 - 20 °C
- Maximum powder efficiency up to 90% at
track widths of 2.5 mm with a grain
fraction of 20 - 50 µm