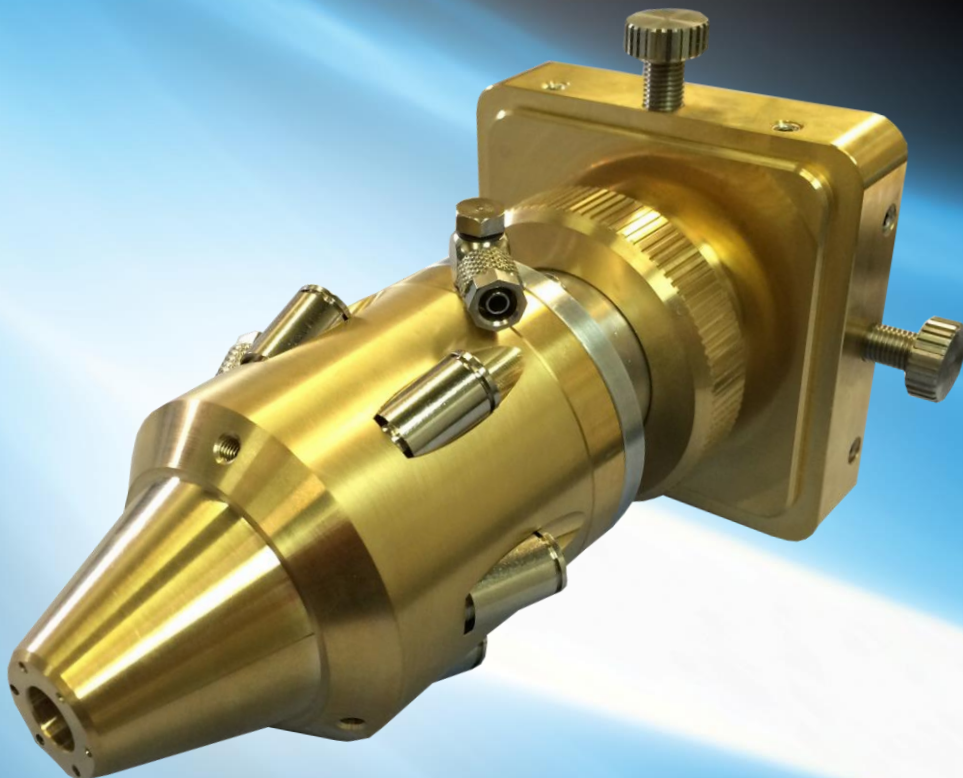


## TECHNICAL DESCRIPTION

GTV multi-jet nozzle PN 6625  
(GTV article no. 800.6625)



## General

The GTV laser cladding head PN6625 generates 6 single powder jets. Therefore, 2 pcs. or 3. pcs. powder feed lines (coming from the powder feeder) are split up to 6 single powder lines using 3 pcs. or 2. pcs. corresponding powder distributors for fitting the 6 powder connections of the laser cladding nozzle.

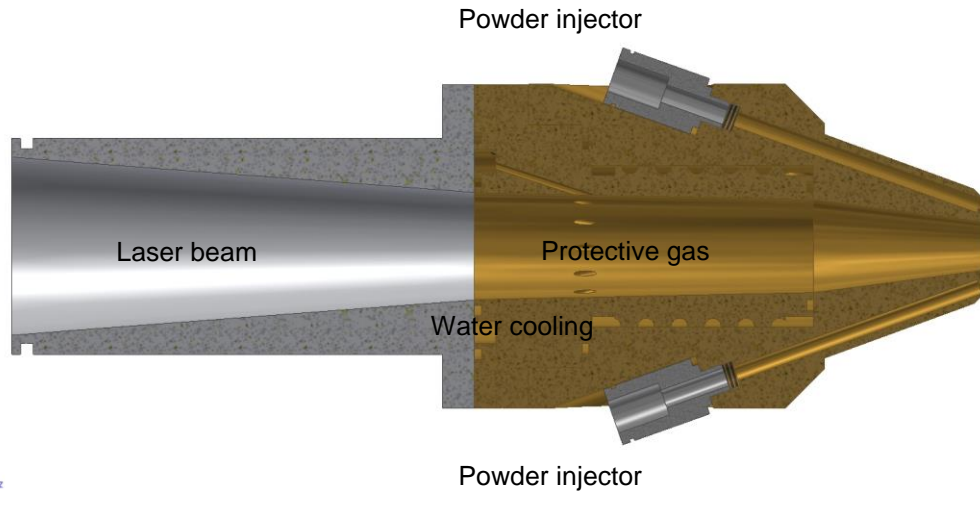
In this way, the powder flow is nearly independent of gravity and various welding positions are possible. In addition, the nozzle can also pivot during the process and move around all spatial coordinate axes.

The GTV PN6625 nozzle is therefore particularly suitable for 3D applications in robotic systems. The ideal working distance between nozzle and workpiece is approximately 25 mm. The design of the nozzle is very compact – it is 60 mm in diameter and 100 mm in length. Moreover, the nozzle is water-cooled. The water cooling ensures a high process stability and long service life of the nozzle as well as the powder injectors. Depending on the coating material and its flow rate, different powder injectors can be used. In this way the powder supply can be adapted to the coating process optimally.

In combination with a GTV Powder Feeder PF series, surface coatings with excellent properties can be produced economical and reproducible.

## Application

- applicable in robot systems and multi-axis CNC machines
- coating of 3D surfaces
- repair and modification of tools



### Technical data

Nozzle type	coaxial multi-jet nozzle (6 jets)
Typical powder grain size	20 – 200 µm
Recommended feed rate	2 – 80 g/min
Minimum powder stream focus	2 – 6 mm
Distance nozzle – workpiece	20 – 25 mm
Operation angle	0 – 90°
Maximum laser power	6 kW
Suitable for laser types	diode laser, fiber laser, disk laser, Nd:YAG solid-state laser
Cooling water pressure	6 bar
Protective gas (type, pressure, quantity)	Argon 6 bar, 5 – 50 l/min
Powder gas (type, pressure, quantity)	Argon 3 bar 1 – 10 l/min
Diameter of powder injectors	1,5 mm, 1,2 mm, 1,0 mm
Nozzle diameter	60 mm
Nozzle length	100 mm
Nozzle length incl. positioning unit	approx. 180 mm