

GKS-LC3008R

Robot Intelligent High-speed Fiber Laser Cladding Machine

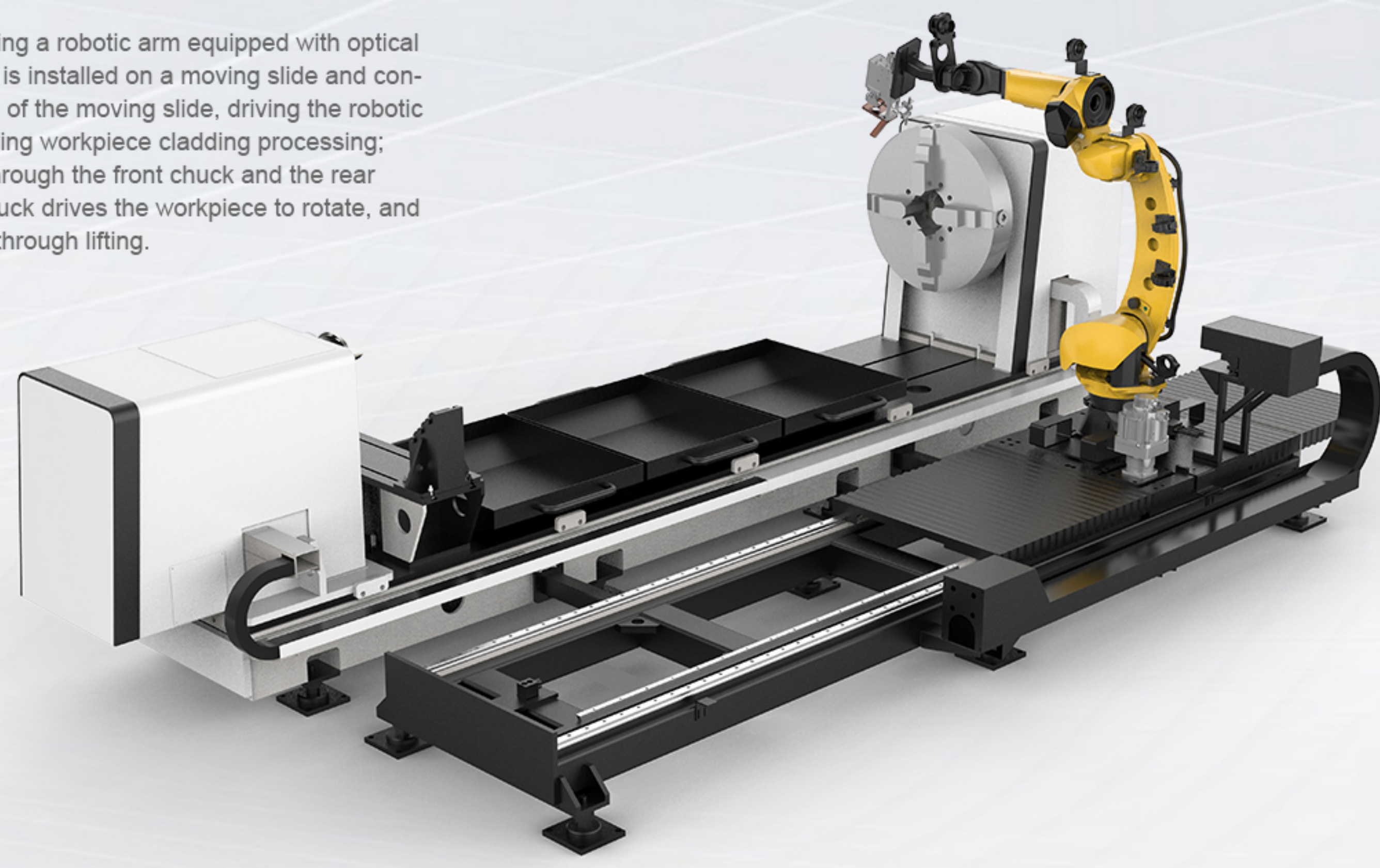


New surface modification technology	Strong material compatibility
Maximum turning radius 1831mm	Workpiece processing shaft diameter Φ≤800mm

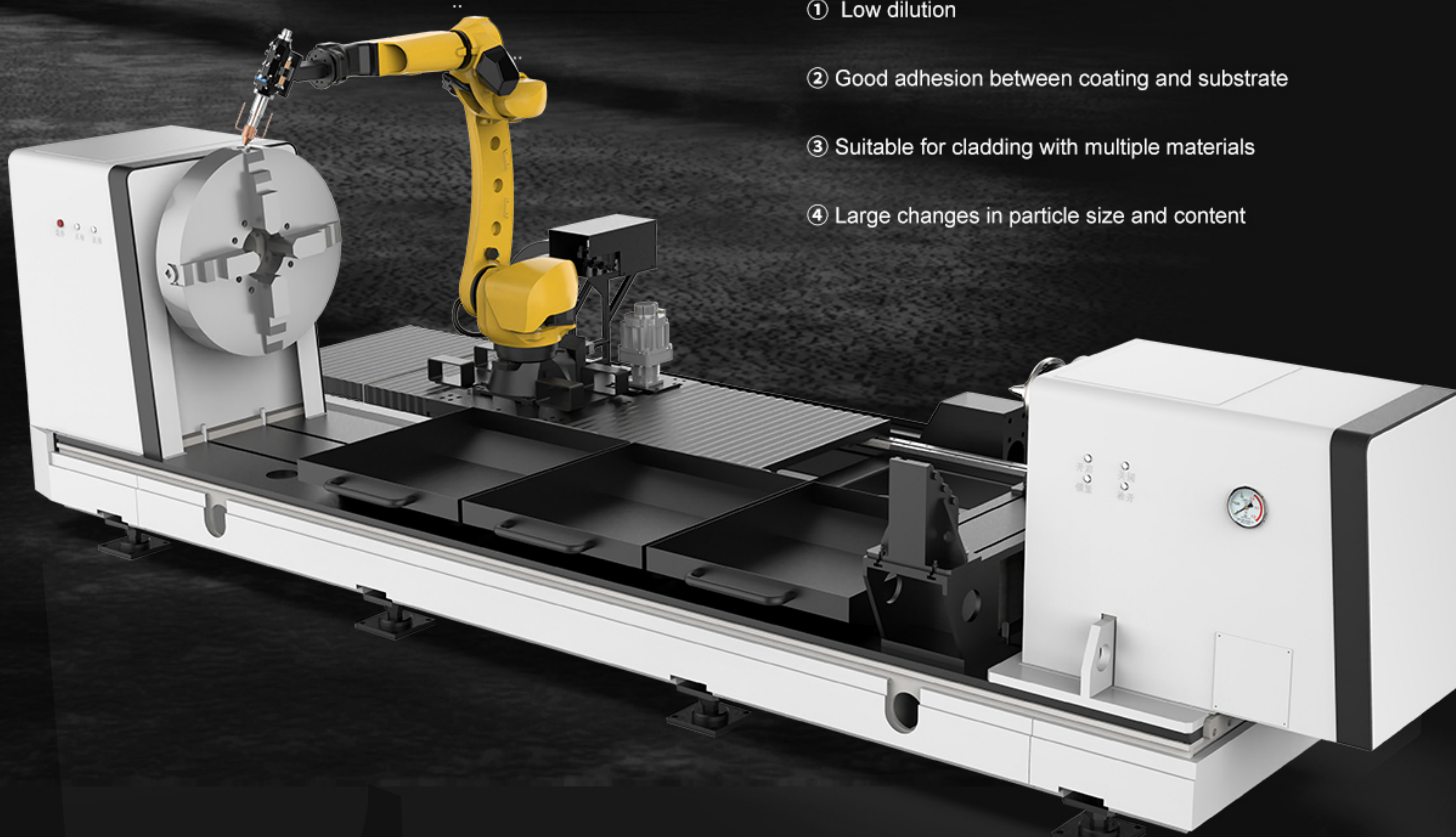


Equipment Operation

Laser cladding processing is carried out using a robotic arm equipped with optical fibers and cladding heads. The robotic arm is installed on a moving slide and controls the forward and backward movements of the moving slide, driving the robotic arm to move forward and backward, achieving workpiece cladding processing; The workpiece is fixed on the workbench through the front chuck and the rear center tailstock. The rotation of the front chuck drives the workpiece to rotate, and the tailstock moves forward and backward through lifting.



Advantages compared with surfacing, spraying, and electroplating



- ① Low dilution
- ② Good adhesion between coating and substrate
- ③ Suitable for cladding with multiple materials
- ④ Large changes in particle size and content



Industry Applications

The wide application of laser cladding technology can effectively solve the phenomenon of failure and scrap equipment and parts, and can also extend the life span of new products, and achieve the effect of multi-life cycle.

PRODUCT PARAMETERS

Machine Model	GKS-LC3008R
Laser power	4000W-12000W
Motion mechanism	6 axis industrial robot
Maximum turning radius	1831mm
Workpiece machining shaft diameter	φ≤800mm
Equipment maximum load	≤3000kg
Work piece length	≤3000mm
Device positioning accuracy	±0.05mm/m
Repeat positioning accuracy	±0.03mm/m
Achievable layer thickness	According to customer process requirements
Deposition efficiency	According to customer process requirements
According to customer process requirements	
Number of control axes	6 axis
Wrist load	25kg
Working radius	1831mm
Repeat positioning accuracy	±0.02mm
Wrist range of motion	0-180°
Main technical parameters of wide belt cladding head	
Power	6KW
Numerical aperture NA	≤0.25
Applicable wavelength	900-1100nm
Collimator	100, 120, 300mm (optional)
Focal length	250, 300, 400mm (optional)
Fiber interface	QBH, LLK, QD
Powder feeding nozzle	Circular powder feeding
Powder convergence spot	2mm (can be customized according to specific needs)

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