

3kW Fiber Laser Source Specifications

Laser Type	3kW Fiber Laser
Fiber Diameter	50μm
Modulation Frequency	50kHz
Cooling Method	Water Cooling
Output Power Stability	±2%
Power Adjustment Range	5%-100%
Center Wavelength	1060-1100nm
Power Supply	380-400VAC

3kW Fiber Laser Cutting Parameters (Reference Only)

Material (Gas)	Thickness (mm)	Cutting Speed (m/min)	Gas Pressure (bar)	Nozzle (mm)
Carbon Steel (Oxygen)	2	3.8-4.2	1.6	1.0D
	3	3.2-3.6	0.6	1.0D
	4	3-3.2	0.6	1.0D
	5	2.7-3	0.6	1.2D
	6	2.2-2.5	0.6	1.2D
	8	1.8-2.2	0.6	1.2D
	10	1-1.3	0.6	1.2D
	12	0.9-1	0.6	3.0D
	14	0.8-0.9	0.6	3.0D
	16	0.6-0.7	0.6	3.5D
	18	0.5-0.6	0.6	4.0D
	20	0.5-0.55	0.6	4.0D
Carbon Steel (Oxygen/Air)	1	28-35	10	1.5S
	2	16-20	10	2.0S
Stainless Steel (Nitrogen)	1	28-35	10	1.5S
	2	18-24	12	2.0S
	3	7-10	12	2.5S
	4	5-6.5	14	2.5S
	5	3-3.6	14	3.0S
	6	2-2.7	14	3.0S
	8	1-1.2	16	3.5S
Aluminum Alloy (Nitrogen)	1	25-30	12	1.5S
	2	15-18	12	2.0S
	3	7-8	14	2.0S
	4	5-6	14	2.5S
	5	2.5-3	16	3.0S
	6	1.5-2	16	3.0S
Brass (Nitrogen)	1	20-28	12	1.5S
	2	10-15	12	2.0S
	3	5-6	14	2.5S
	4	2.5-3	14	3.0S
	5	1.8-2.2	14	3.0S