

Laser Cutting Data Sheet of 3000W

Material	Thickness (mm)	Speed (m/min)	Gas	Power (%)	Focus Length (mm)	Pressure (bar)	Nozzle
Carbon Steel	3	4-4.1	O2	100	4-6	0.6-0.9	1.0 double
	4	3.5-3.8			4-6	0.6-0.9	1.0 double
	5	2.8-3.2			4-6	0.6-0.9	1.0 double
	6	2.7-3			4-6	0.6-0.9	1.0 double
	8	2.1-2.2			4-6	0.6-0.9	1.2 double
	10	1.3-1.5			4-6	0.6-0.9	1.2 double
	12	1-1.3			4	0.6-0.9	3.0 double
	14	0.8-1			4.5	0.6-0.9	3.0 double
	16	0.7-0.8			4.5	0.6-0.9	3.5 double
	18	0.6-0.7			4.5	0.6-0.9	4.5 double
	20	0.6-0.7			5	0.6-0.9	4.5/5
Stainless Steel	1	60	N2	100	-1.5	20	1.5 Single
	2	15-18			-2	20	2.0 Single
	3	9-12			-3	20	2.0 Single
	4	6.2-6.5			-3.5	20	2.5 Single
	5	3.6-4.2			-3.5	20	3.0 Single
	6	3.0-3.3			-4.5	20	3.5 Single
	8	1.3-1.5			-5.5	20	4.0 Single
Aluminum	1	60	N2	100	-1.5	20	2.0 Single
	3	9-12			-3	20	2.0 Single
	4	6.2-6.5			-3.5	20	2.0 Single
	5	3.6-4.2			-3.5	20	2.0 Single
	6	3.0-3.3			-4.5	20	3.5 Single
	8	1.3-1.5			-5.5	20	4 Single
Brass	1	37-40	N2	100	-1.5	20	1.5 Single
	2	12-14			-2	20	1.5 Single
	3	6-6.8			-2.5	20	2.0 Single
	4	3.8-4.2			-3.5	20	2.0 Single
	5	2.4-2.8			-5	20	2.5 Single
	8	0.8-1			-1.5	20	3.5 Single
Copper	1	30-35	N2	100	-1		1.0 Single
	2	8-10			-2	20	1.5 Single
	3	4.8-5.2			-2	20	1.5 Single
	4	2.8-3.2			-3.0	20	2.0 Single
	6	0.8-1.2			-4.5	20	3.0 Single

Note:

- 1) The above data is tested by the laser with 50um central wavelength.
- 2) Regarding to the laser cutting head to be tested, the rate between collimating and focus optical is 100:150.
- 3) The data is just for reference and will be a little difference depends on laser cutting head of brands.