

# LMM6000 Laser Settings



## Laser Settings for LMM6000 Materials

The following table details recommended laser settings for LMM6000 materials on a range of common substrates. These settings are designed to help guide the user to the optimum parameters as quickly as possible. Please note that there will be variations in substrate finish and between different brands of laser. It may still be necessary to perform further refinement of settings to achieve the desired mark.

LMM6000 Suggested Laser Settings Used for CO <sub>2</sub> X-Y Laser						
Substrate Material	Settings 45W laser		Settings 30W laser		Lens	DPI/PPI
	Power (W)	Speed (in/sec)	Power (W)	Speed (in/sec)		
Stainless Steel	41	98	30	70	2"	1000/1000
Stainless Steel - Bright Annealed	45	70	30	63	1.5"	1000/1000
Galvanized Steel	45	63	30	49	1.5"	1000/1000
Brass	45	21	30	14	1.5"	1000/1000
Aluminum	45	28	30	21	1.5"	1000/1000
Copper	45	14	30	3	1.5"	1000/1000
Chrome plating	30	21	30	21	2"	1000/1000
Nickel Plating	45	28	30	18	1.5"	1000/1000
Gold Plating	45	21	30	14	1.5"	1000/1000
Silver Plating	45	8	30	3	1.5"	1000/1000
Titanium	29	126	29	126	1.5"	1000/1000
Pewter	41	70	30	50	2"	1000/1000

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## Suggested Laser Settings Used for Beam Steered ND:YAG or Fiber Laser with a 100mm lens

Material	Power (W)	Speed (cm/sec)	Hatch Spacing “	CW Mode or Q-Switch Freq
Stainless Steel	9	18	.002	CW / $\geq 50$ KHz
Stainless Steel - Bright Annealed	9	18	.002	CW / $\geq 50$ KHz
Galvanized Steel	9	20	.002	CW / $\geq 50$ KHz
Brass	9	10	.002	CW / $\geq 50$ KHz
Aluminum	10	10	.002	CW / $\geq 50$ KHz
Chrome plating	10	6	.002	CW / $\geq 50$ KHz
Nickel Plating	10	25	.002	CW / $\geq 50$ KHz
Gold Plating	10	15	.002	CW / $\geq 50$ KHz
Silver Plating	10	3	.002	CW / $\geq 50$ KHz
Titanium	7	30	.002	CW / $\geq 50$ KHz
Pewter	10	30	.002	CW / $\geq 50$ KHz