

Reference Table of Xingxing Laser Cutting Process Parameters 2024

Material	Thickness	1500W	2000W	3000W	6000W	12000W	20000W	30000W	40000W	60000W
		speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
Carbon Steel	1	26-29	35-38	47-50	60-62	50-60	55-65	70-80	81-90	
	2	7-8	10-12	21-23	34-36	35-40	46-53	60-70	65-75	
	3	2.9-3.2	3.4-3.6	8-10	20-22	28-33	35-45	46-55	50-60	
	4	2.4-2.6	3.1-3.2	3.9-4.1	13-15	20-24	25-35	35-45	35-45	
	5	1.8-2.0	1.6-3.0	3.4-3.6	9-11	15-18	23-28	22-30	28-32	
	6	1.6-1.8	2.4-2.5	2.7-2.8	6.5-7.5	13-16	22-24	18-22	25-28	
	8	1.1-1.3	1.5-1.7	2.1-2.3	2.5-2.6	8-10	13-15	14-16	22-24	
	10	0.9-1.0	1.2-1.4	1.4-1.6	2.2-2.3	6-7	10-12	2-2.3	16-20	
	12	0.8-0.9	1-1.1	1-1.1	1.8-2.0	5.2-5.5	8-9	1.8-2	14-17	
	14	0.6-0.7	0.9-1.0	0.9-0.95	1.4-1.7	4-4.5	5.5-6.5	1.6-1.8	11-13	
	16	0.5-0.6	0.8-0.85	0.8-0.85	1.2-1.3	1.4-1.6	3-4	1.6-1.8	8-9.5	1.6-1.8
	18		0.7-0.75	0.7-0.72	0.7-0.8	1.4-1.5	3-3.5	1.6-1.8	8-8.5	1.6-1.7
	20		0.55-0.6	0.6-0.65	0.6-0.65	1.4-1.5	2-3	1.5-1.6	7-8	1.5-1.6
	22			0.55	0.55-0.6	1.2	1.3-1.5	1.4-1.5	7-8	1.5-1.6
	25			0.5	0.5-0.55	1	1.2-1.4	1.2-1.4	5-5.5	1.2-1.4
	30					0.4	1-1.3	1.2-1.3	3-4	1.2-1.3
	35					0.35	0.9-1.2	0.6-0.9	1.5-2	1.1-1.2
	40					0.3	0.5-0.8	0.6-0.9	1.5-2	0.9-1.1
	45					0.2	0.5-0.8	0.6-0.8	0.7-1	0.8-1
	50						0.3-0.5	0.6-0.8	0.7-1	0.75-0.9
60						0.1-0.2	0.2-0.25	0.6-0.9	0.7-0.8	
70						0.1-0.2	0.18-0.2	0.5-0.7	0.7-0.8	
80						0.1-0.2	0.12-0.15	0.4-0.6	0.6-0.7	
90								0.3-0.4	0.5-0.6	
100								0.2-0.3	0.5-0.6	
160									0.15-0.25	
200									0.15-0.2	
Stainless Steel	1	27-30	37-40	50-53	63-65	50-60	50-60	50-60	65-75	
	2	8-9	11-13	23-25	35-38	40-45	50-60	50-60	55-65	
	3	4.2-4.5	5.5-6	9-11	22-24	30-35	40-45	40-50	45-55	
	4	2.0-2.2	3.5-4	6-8	14-16	22-26	30-35	35-40	35-45	
	5	1.5-1.7	2-2.2	3.2-5	11-12	15-18	22-24	25-30	25-30	
	6	1.0-1.2	1.3-1.5	2.9-3.1	7.5-8.5	15-18	20-24	22-25	22-25	
	8	0.5-0.6	0.6-0.7	1.2-1.3	4-4.5	10-12	14-16	18-22	20-23	
	10		0.45-0.5	0.75-0.8	2.2-2.4	8.5-9	11-13	13-16	16-21	
	12			0.5	1.3-1.5	6.3-6.5	8-10	10-12	12-14	
	14				0.9-1.0	3.7-4	6.5-7	8-10	10-12	
	16				0.8-0.85	2.7-3	4.5-5.5	7-8	9-11	13-14.5
	18				0.65-0.75	2.2-2.5	3.5-4.5	6-7	8-9.5	11-12.5
	20				0.5-0.6	2.6-1.8	2.3-2.6	4-5	7-8.5	9-10.5
	25					0.8-1	1.8-2.2	2-2.5	4.5-5.5	7-7.8
	30					0.65	0.8-1.3	1.2-2	3-4	5-6
	40					0.15	0.2-0.3	0.6-0.8	1.5-2	3.2-4
	50					0.1	0.1-0.2	0.2-0.3	0.5-0.8	3-3.5
	60						0.1-0.2	0.15-0.2	0.4-0.6	1.8-2.2
	70						0.1-0.15	0.13-0.15	0.45-0.5	1-1.2
	80						0.1-0.15	0.1-0.13	0.4-0.6	0.7-0.8
90						0.05-0.1	0.08-0.1	0.3-0.4	0.5-0.6	
100						0.05-0.08	0.05-0.06	0.25-0.3	0.4-0.5	
120							0.04-0.05	0.2-0.25	0.25-0.35	
150								0.08-0.12	0.15-0.2	
200									0.05-0.1	
Aluminum	1	21-23	24-27	40-43	43-46	45-50	55-60	55-60	65-75	
	2	5-7	10-11	16-18	26-28	30-35	40-50	40-45	55-65	
	3	3.2-3.5	4.5-5	6-8	14-17	20-25	34-40	30-35	45-55	
	4	1.5-1.7	1.7-2.0	5-6	10-11	18-20	21-26	25-30	35-45	
	5	0.5-0.7	1.0-1.6	2.1-4.8	6-6.5	14-16	16-20	18-25	25-30	
	6		0.7-0.9	1.5-2	4.5-5	10-12	13-17	18-20	20-25	
	8			0.6-0.7	2.8-2.9	7-8	10-13	15-18	18-22	
	10				1.7-1.8	4-5	6-8	12-15	14-17	
	12				1.0-1.2	2.5-3	4-6	10-12	11-13	
	14				0.7-0.9	2.3-2.5	3-4	8-10	9-11	
	16				0.5-0.6	1.6-1.8	2-3	6-8	7-9	
	18				1-1.2	1.5-2	3-4	5-7		
	20					0.8	1-1.5	2-3	4-5	
	22					0.5	0.8-1	2-3	3-3.5	
	25						0.5-0.8	1.5-2	3-3.5	
	30						0.5-0.8	0.8-1	2-3	
	35						0.4-0.5	0.8-1	1-1.5	
	40						0.3-0.5	0.5-0.8	1-1.5	
	50						0.2-0.3	0.4-0.6	0.4-0.6	
	60							0.2-0.3	0.2-0.3	
70								0.2-0.25		
80								0.15-0.2		
90								0.12-0.15		
100								0.08-0.1		
Brass	1	18-20	27-30	37-40	41-43	35-45	40-50	40-45	40-50	
	2	4-5	10-11	14-16	24-26	30-35	40-50	35-40	25-35	
	3	2.3-2.5	4-4.5	5-7	13-14	18-22	30-35	28-30	20-25	
	4	1.2-1.4	1.5-1.7	3-4	9-10	15-18	21-26	20-25	18-20	
	5		0.9-1.4	1.7-2.8	5-6	12-15	14-18	18-20	25-30	
	6		0.5-0.7	1.2-1.5	4-4.5	9-11	11-15	15-18	20-25	
	8			0.5-0.6	2.3-2.5	6-7	8-10	10-15	18-22	
	10				1.5-1.6	3.5-4.5	5-7	8-10	10-14	
	12				1.0-1.2	2.2-2.8	4-6	5-8	8-11	
	14				0.7-0.9	1.8-2	2-3	3-5	6-8	
	16				0.5-0.6	1.4-1.6	1.8-2.5	1.5-2	5-7	
	18					0.8-1.0	1.8-2.5	1.2-1.5	4-5	
	20					0.7	1.1-1.3	1.1-1.2	3-4	
	22					0.4	0.8-1.0	0.8-1.0	2.5-3	
	25						0.7	0.6-0.8	2.5-3	
28						0.4	0.6	2-2.5		
30							0.4	1-1.5		
35								0.8		