

MFSC-500(25μm) Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|---------------|--|--------------|-------------|---------------------|-----|--------------------------|--------------------|-----------|------------------------|----------------|------------------------------|
| Q235B | 1 | 13~14 | 0 | 0.5 | N2 | Single layer:1.0 | 12~16 | 500 | 5000 | 100 | Frosting surface |
| | 2 | 3.5~4.5 | 2~3 | 1.5 | O2 | Dual layer:2.0 | 0.6~0.9 | 500 | 5000 | 100 | |
| | 3 | 2.0~2.2 | 2~3 | 1.5 | O2 | Dual layer:2.0 | 0.6~0.9 | 500 | 5000 | 100 | |
| | 4 | 1.5~1.6 | 2~3 | 1.5 | O2 | Dual layer:2.5 | 0.6~0.9 | 500 | 5000 | 100 | |
| | 5 | 0.9~1.1 | 2~3 | 1.5 | O2 | Dual layer:2.5 | 0.6~0.9 | 500 | 5000 | 100 | |
| | 6 | 0.6~0.7 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 500 | 5000 | 100 | |
| SUS304 | 1 | 13~14 | 0 | 0.5 | N2 | Single layer:1.0/1.2/1.5 | 12~16 | 500 | 5000 | 100 | No slag |
| | 2 | 2.6~2.9 | 0~0.5 | 0.5 | N2 | Single layer:1.5/2.0 | 12~16 | 500 | 5000 | 100 | |
| | 3 | 0.9~1.1 | -1~-1.5 | 0.5 | N2 | Single layer:2.0/2.5/3.0 | 12~16 | 500 | 5000 | 100 | small amount of hanging slag |
| | 4 | 0.5~0.6 | -2~-2.5 | 0.5 | N2 | Single layer:3.0 | 12~16 | 500 | 5000 | 100 | |
| AL (6061) | 1 | 2.5~2.7 | 0 | 0.5 | AIR | Single layer:1.0/1.2/1.5 | 12~16 | 500 | 5000 | 100 | |
| Brass | 1 | 2.3~2.5 | 0 | 0.5 | AIR | Single layer:1.0/1.2/1.5 | 12~16 | 500 | 5000 | 100 | |
| | Green color indicate that the material under such thickness is usable for long time processing. | | | | | | | | | | |
| | Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting pressure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higher power laser source. | | | | | | | | | | |
| | Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX standard 500W fiber laser with 25um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Raytools cutting head.Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4. Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment, Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for referenc | | | | | | | | | | |

MFSC-800 (50 μm) Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|--|---|--------------|-------------|---------------------|-----|--------------------------|--------------------|-----------|------------------------|----------------|------------------------------|
| Q235B | 1 | 20~21 | 0 | 0.5 | N2 | Single layer:1.0 | 12~16 | 800 | 5000 | 100 | Shining surface |
| | 2 | 6~7 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 800 | 5000 | 100 | |
| | 3 | 2.3~2.5 | 2~3 | 1.5 | O2 | Dual layer:2.0 | 0.6~0.9 | 800 | 5000 | 100 | |
| | 4 | 1.8~2.0 | 2~3 | 1.5 | O2 | Dual layer:2.5 | 0.6~0.9 | 800 | 5000 | 100 | Frosting surface |
| | 5 | 1.3~1.4 | 2~3 | 1.5 | O2 | Dual layer:2.5 | 0.6~0.9 | 800 | 5000 | 100 | |
| | 6 | 1~1.1 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 800 | 5000 | 100 | |
| | 8 | 0.7~0.8 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 800 | 5000 | 100 | |
| | 10 | 0.5~0.6 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 800 | 5000 | 100 | |
| SUS304 | 1 | 17~19 | 0 | 0.5 | N2 | Single layer:1.0/1.2/1.5 | 12~16 | 800 | 5000 | 100 | No slag |
| | 2 | 5.3~5.6 | 0~0.5 | 0.5 | N2 | Single layer:1.5/2.0 | 12~16 | 800 | 5000 | 100 | |
| | 3 | 1.8~2 | -1~-1.5 | 0.5 | N2 | Single layer:2.0/2.5/3.0 | 12~16 | 800 | 5000 | 100 | |
| | 4 | 1.1~1.3 | -2~-2.5 | 0.5 | N2 | Single layer:3.0 | 12~16 | 800 | 5000 | 100 | Small amount of hanging slag |
| | 5 | 0.4~0.5 | -3~-3.5 | 0.5 | N2 | Single layer:3.5/4.0 | 12~16 | 800 | 5000 | 100 | |
| AL (6061) | 1 | 6.5~7 | 0 | 0.5 | AIR | Single layer:1.0/1.2/1.5 | 12~16 | 800 | 5000 | 100 | |
| | 2 | 0.8~1 | 0~0.5 | 0.5 | AIR | Single layer:1.5/2.0 | 12~16 | 800 | 5000 | 100 | |
| Brass | 1 | 6~6.5 | 0 | 0.5 | AIR | Single layer:1.0/1.2/1.5 | 12~16 | 800 | 5000 | 100 | |
| | 2 | 0.6~0.8 | 0~0.5 | 0.5 | AIR | Single layer:1.5/2.0 | 12~16 | 800 | 5000 | 100 | |
| Green color indicate that the material under such thickness is usable for long time processing. | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting pressure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higher power laser source. | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX standard 800W fiber laser with 50um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Raytools cutting head.Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4. Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment, Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet | | | | | | | | | | |

MFSC-1000(50μm) Cutting Data

| Material Type | Thicknes(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect | |
|--|--|--------------|-------------|---------------------|-----|---------------------------|--------------------------|-----------|------------------------|----------------|---------------------------------|---------|
| Q235B (Carbon Steel) | 1 | 24-26 | 0 | 0.5 | N2 | Single layer:1.0 | 12-16 | 1000 | 5000 | 100 | Shining surface | |
| | 2 | 8-9 | 0-0.5 | 0.5 | N2 | Single layer:1.5 | 12-16 | 1000 | 5000 | 100 | | |
| | 3 | 2.8-3 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 1000 | 5000 | 100 | | |
| | 4 | 2.2-2.4 | 2-3 | 1.5 | O2 | Dual Layer:2.5 | 0.6-0.9 | 1000 | 5000 | 100 | Frosting surface | |
| | 5 | 1.5-1.7 | 2-3 | 1.5 | O2 | Dual Layer:3.0 | 0.6-0.9 | 1000 | 5000 | 100 | | |
| | 6 | 1.2-1.4 | 2-3 | 1.5 | O2 | Dual Layer:3.0 | 0.6-0.9 | 1000 | 5000 | 100 | | |
| | 8 | 1.0-1.1 | 2-3 | 1.5 | O2 | Dual Layer:3.0 | 0.6-0.9 | 1000 | 5000 | 100 | | |
| | 10 | 0.75-0.85 | 2-3 | 1.5 | O2 | Dual Layer:3.0 | 0.6-0.9 | 1000 | 5000 | 100 | | |
| | 12 | 0.6-0.65 | 2-3 | 1.5 | O2 | Dual Layer:3.0 | 0.6-0.9 | 1000 | 5000 | 100 | | |
| | SUS304 (Stainless steel) | 1 | 21-23 | 0 | 0.5 | N2 | Single layer:1.0/1.2/1.5 | 12-16 | 1000 | 5000 | 100 | No slag |
| | | 2 | 6.5-7 | 0-0.5 | 0.5 | N2 | Single layer:1.5/2.0 | 12-16 | 1000 | 5000 | 100 | |
| | | 3 | 2.3-2.5 | -1-1.5 | 0.5 | N2 | Single layer:2.0/2.5/3.0 | 12-16 | 1000 | 5000 | 100 | |
| 4 | | 1.4-1.6 | 2-2.5 | 0.5 | N2 | Single layer:3.0 | 12-16 | 1000 | 5000 | 100 | small amount of hanging slag | |
| 5 | | 0.6-0.7 | -3--3.5 | 0.5 | N2 | Single layer:3.5/4.0 | 12-16 | 1000 | 5000 | 100 | | |
| 6 | | 0.5-0.6 | -4.5--5 | 0.5 | N2 | Single layer:3.5/4.0 | 12-16 | 1000 | 5000 | 100 | | |
| AL (6061) | 1 | 19-21 | 0 | 0.5 | AIR | Single layer: 1.0/1.2/1.5 | 12-16 | 1000 | 5000 | 100 | | |
| | 2 | 4.5-5 | 0-0.5 | 0.5 | AIR | Single layer:1.5/2.0 | 12-16 | 1000 | 5000 | 100 | | |
| | 3 | 1.8-2 | -1-1.5 | 0.5 | AIR | Single layer:2.0/2.5/3.0 | 12-16 | 1000 | 5000 | 100 | | |
| Brass | 1 | 16-18 | 0 | 0.5 | AIR | Single layer:1.0/1.2/1.5 | 12-16 | 1000 | 5000 | 100 | | |
| | 2 | 3-3.5 | 0-0.5 | 0.5 | AIR | Single layer:1.5/2.0 | 12-16 | 1000 | 5000 | 100 | | |
| | 3 | 1.1-1.3 | -1-1.5 | 0.5 | AIR | Single layer:2.0/2.5/3.0 | 12-16 | 1000 | 5000 | 100 | | |
| Green color indicate that the materila under such thickness is usitable for long time processing. | | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting presure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higer power laser source. | | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX standard 1000W fiber laser with 50um fiber core diameter; | | | | | | | | | | | |
| | 2. Above cutting data based on Raytools cutting head.Focusing/collimating lens spec: 100/125; | | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | | |
| | 4. Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment,Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for reference only. | | | | | | | | | | | |

MFSC-1500(50μm)Cutting Data

| Material Type | Thicknes(mm) | Speed(m/min) | Focus Point | utting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | utting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|--|--|--------------|-------------|--------------------|----------------|-------------------|--------------------|-----------|-----------------------|----------------|------------------|
| Q235B | 1 | 32~35 | 0 | 0.5 | N2 | Single layer:1.0 | 12~16 | 1500 | 5000 | 100 | Shining surface |
| | 2 | 9~10 | 0~0.5 | 0.5 | N2 | Single layer:1.5 | 12~16 | 1500 | 5000 | 100 | |
| | 3 | 2.9~3.2 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| | 4 | 2.4~2.6 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| | 5 | 1.8~2.0 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| | 6 | 1.6~1.8 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 1500 | 5000 | 100 | Frosting surface |
| | 8 | 1.1~1.3 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| | 10 | 0.9~1.0 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| | 12 | 0.8~0.9 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| | 14 | 0.6~0.7 | 2~3 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 1500 | 5000 | 100 | |
| 16 | 0.5~0.6 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 1500 | 5000 | 100 | | |
| SUS304 | 1 | 32~35 | 0 | 0.5 | N2 | Single layer: 1.0 | 12~16 | 1500 | 5000 | 100 | No slag |
| | 2 | 9~10 | 0~0.5 | 0.5 | N2 | Single layer:1.5 | 12~16 | 1500 | 5000 | 100 | |
| | 3 | 4.2~4.5 | -1~-1.5 | 0.5 | N2 | Single layer:2.0 | 12~16 | 1500 | 5000 | 100 | |
| | 4 | 2.1~2.3 | -2~-2.5 | 0.5 | N2 | Single layer:3.0 | 12~16 | 1500 | 5000 | 100 | |
| | 5 | 1.6~1.8 | -3~-3.5 | 0.5 | N2 | Single layer: 3.5 | 12~16 | 1500 | 5000 | 100 | |
| | 6 | 1.0~1.2 | -4.5~-5 | 0.5 | N2 | Single layer: 3.5 | 12~16 | 1500 | 5000 | 100 | |
| | 8 | 0.5~0.6 | -6~-7 | 0.5 | N2 | Single layer: 4.0 | 16~18 | 1500 | 5000 | 100 | |
| | AL (6061) | 1 | 30~32 | 0 | 0.5 | AIR | Single layer: 1.0 | 12~16 | 1500 | 5000 | 100 |
| 2 | | 8~9 | 0~0.5 | 0.5 | AIR | Single layer:1.5 | 12~16 | 1500 | 5000 | 100 | |
| 3 | | 3.8~4.2 | -1~-1.5 | 0.5 | AIR | Single layer: 2.0 | 12~16 | 1500 | 5000 | 100 | |
| 4 | | 2~2.2 | -2~-2.5 | 0.5 | AIR | Single layer: 3.0 | 12~16 | 1500 | 5000 | 100 | |
| 5 | | 0.8~1.0 | -3~-3.5 | 0.5 | AIR | Single layer: 3.5 | 12~16 | 1500 | 5000 | 100 | |
| 6 | | | | | | | | | | | |
| Brass | 1 | 25~27 | 0 | 0.5 | AIR | Single layer: 1.0 | 12~16 | 1500 | 5000 | 100 | |
| | 2 | 7~8 | 0~0.5 | 0.5 | AIR | Single layer: 1.5 | 12~16 | 1500 | 5000 | 100 | |
| | 3 | 2.7~3 | -1~-1.5 | 0.5 | AIR | Single layer: 2.0 | 12~16 | 1500 | 5000 | 100 | |
| | 4 | 1.5~1.7 | -2~-2.5 | 0.5 | AIR | Single layer: 3.0 | 12~16 | 1500 | 5000 | 100 | |
| | 5 | | | | | | | | | | |
| | 6 | | | | | | | | | | |
| Green color indicate that the materila under such thickness is usitable for long time processing. | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting presure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higer power laser source. | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | |
| Comments | 1.Above cutting data sheet based on MAX standard 1500W fiber laser with 50um fiber core diameter; | | | | | | | | | | |
| | 2.Above cutting data based on Raytools cutting head.Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3.Cutiing GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4.Consideiring the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment,Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet | | | | | | | | | | |

MFSC-2000(50μm)Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|--|---|--------------|-------------|---------------------|----------------|----------------------|--------------------|-----------|------------------------|------------------------------|------------------------------|
| Q235B | 1 | 45-47 | 0 | 0.5 | N2 | Single layer:1.0 | 12-16 | 2000 | 5000 | 100 | Shining surface |
| | 2 | 16-17 | 0-0.5 | 0.5 | N2 | Single layer:1.5 | 12-16 | 2000 | 5000 | 100 | |
| | 3 | 3.4-3.6 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 2000 | 5000 | 100 | |
| | 4 | 3.1-3.2 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 2000 | 5000 | 100 | |
| | 5 | | | | | | | | | | |
| | 6 | 2.4-2.5 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 2000 | 5000 | 100 | Frosting surface |
| | 8 | 1.5-1.7 | 2-3 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.9 | 2000 | 5000 | 100 | |
| | 10 | 1.2-1.4 | 2-3 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.9 | 2000 | 5000 | 100 | |
| | 12 | 1-1.1 | 2-3 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.9 | 2000 | 5000 | 100 | |
| | 14 | 0.9-1.0 | 2-3 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2000 | 5000 | 100 | |
| 16 | 0.8-0.85 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2000 | 5000 | 100 | Small Amount of hanging slag | |
| 18 | 0.7-0.75 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2000 | 5000 | 100 | | |
| 20 | 0.55-0.6 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2000 | 5000 | 100 | | |
| | | | | | | | | | | | |
| SUS304 | 1 | 45-48 | 0 | 0.5 | N2 | Single layer:1.0 | 12-16 | 2000 | 5000 | 100 | No slag |
| | 2 | 14-15 | 0-0.5 | 0.5 | N2 | Single layer:1.5 | 12-16 | 2000 | 5000 | 100 | |
| | 3 | 6.5-7 | -1-1.5 | 0.5 | N2 | Single layer:2.0 | 12-16 | 2000 | 5000 | 100 | |
| | 4 | 3.5-4 | -2-2.5 | 0.5 | N2 | Single layer:3.0 | 12-16 | 2000 | 5000 | 100 | |
| | 5 | 2-2.2 | -3-3.5 | 0.5 | N2 | Single layer:3.5 | 12-16 | 2000 | 5000 | 100 | |
| | 6 | 1.3-1.5 | -4.5-5 | 0.5 | N2 | Single layer:3.5 | 12-16 | 2000 | 5000 | 100 | Small Amount of hanging slag |
| | 8 | 0.7-0.8 | -6-7 | 0.5 | N2 | Single layer:4.0 | 16-18 | 2000 | 5000 | 100 | |
| | 10 | 0.55-0.6 | -7-8 | 0.5 | N2 | Single layer:5.0 | 16-18 | 2000 | 5000 | 100 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| AL (6061) | 1 | 40-42 | 0 | 0.5 | AIR | Single layer:1.0/1.2 | 12-16 | 2000 | 5000 | 100 | |
| | 2 | 12-13 | 0-0.5 | 0.5 | AIR | Single layer:1.5 | 12-16 | 2000 | 5000 | 100 | |
| | 3 | 5.5-6 | -1-1.5 | 0.5 | AIR | Single layer:2.0 | 12-16 | 2000 | 5000 | 100 | |
| | 4 | 2.5-3 | -2-2.5 | 0.5 | AIR | Single layer:2.5 | 12-16 | 2000 | 5000 | 100 | |
| | 5 | | | | | | | | | | |
| | 6 | 0.9-1.1 | -3.5-4 | 0.5 | AIR | Single layer:3.5 | 12-16 | 2000 | 5000 | 100 | |
| | 8 | | | | | | | | | | |
| | | | | | | | | | | | |
| Brass | 1 | | | | | | | | | | |
| | 2 | | | | | | | | | | |
| | 3 | 5.5-6 | -1-1.5 | 0.5 | AIR | Single layer:2.0/2.5 | 12-16 | 2000 | 5000 | 100 | |
| | 4 | 2.5-3 | -2-2.5 | 0.5 | AIR | Single layer:2.5/3.0 | 12-16 | 2000 | 5000 | 100 | |
| | 5 | | | | | | | | | | |
| | 6 | 0.9-1.1 | -3.5-4 | 0.5 | AIR | Single layer:3.5 | 12-16 | 2000 | 5000 | 100 | |
| | 8 | | | | | | | | | | |
| | | | | | | | | | | | |
| Green color indicate that the materia under such thickness is usitable for long time processing. | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting presure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higer power laser source. | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX standard 2000W fiber laser with 50um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Precitec cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.999%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4.Consideing the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment, Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for referen | | | | | | | | | | |

MFMC-2000(100 μm)Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|--|---|--------------|-------------|---------------------|----------------|--------------------------|--------------------------|-----------|------------------------|----------------|------------------------------|
| Q235B | 1 | | | | | | | | | | |
| | 2 | | | | | | | | | | |
| | 3 | 3~3.2 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 2000 | 5000 | 100 | Shining surface |
| | 4 | | | | | | | | | | |
| | 6 | 2.3~2.4 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 2000 | 5000 | 100 | |
| | 8 | 1.3~1.5 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 2000 | 5000 | 100 | |
| | 10 | 0.9~1.0 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 2000 | 5000 | 100 | Frosting surface |
| | 12 | 0.8~0.9 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 2000 | 5000 | 100 | |
| | 14 | 0.7~0.8 | 2~3 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2000 | 5000 | 100 | |
| | 16 | 0.6~0.7 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2000 | 5000 | 100 | |
| 18 | 0.5~0.6 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2000 | 5000 | 100 | | |
| 20 | 0.4~0.5 | 2~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2000 | 5000 | 100 | | |
| SUS304 | 1 | 30~32 | 0 | 0.5 | N2 | Single Layer:1.0/1.2/1.5 | 12~16 | 2000 | 5000 | 100 | No slag |
| | 2 | 10~11 | 0~0.5 | 0.5 | N2 | Single Layer:1.5/2.0 | 12~16 | 2000 | 5000 | 100 | |
| | 3 | 5~6 | -1~-1.5 | 0.5 | N2 | Single Layer:2.0/2.5/3.0 | 12~16 | 2000 | 5000 | 100 | |
| | 4 | 3~3.5 | -2~-2.5 | 0.5 | N2 | Single Layer:3.0 | 12~16 | 2000 | 5000 | 100 | |
| | 6 | 1.3~1.5 | -3.5~-4 | 0.5 | N2 | Single Layer:3.5/4.0 | 12~16 | 2000 | 5000 | 100 | |
| | 8 | 0.5~0.6 | -5~-6 | 0.5 | N2 | Single Layer:4.0 | 16~18 | 2000 | 5000 | 100 | |
| | 10 | | | | | | | | | | Small Amount of hanging slag |
| | AL (6061) | 1 | 18~20 | 0 | 0.5 | AIR | Single Layer:1.0/1.2/1.5 | 12~16 | 2000 | 5000 | 100 |
| | | 2 | 6~7 | 0~0.5 | 0.5 | AIR | Single Layer:1.5/2.0 | 12~16 | 2000 | 5000 | 100 |
| | | 3 | 3~4 | -1~-1.5 | 0.5 | AIR | Single Layer:2.0/2.5/3.0 | 12~16 | 2000 | 5000 | 100 |
| 4 | | 1.6~1.9 | -2~-2.5 | 0.5 | AIR | Single Layer:3.0 | 12~16 | 2000 | 5000 | 100 | |
| 6 | | 0.5~0.6 | -3.5~-4 | 0.5 | AIR | Single Layer:3.5/4.0 | 12~16 | 2000 | 5000 | 100 | |
| 8 | | | | | | | | | | | |
| Brass | 1 | | | | | | | | | | |
| | 2 | | | | | | | | | | |
| | 3 | 2.8~3.2 | -1~-1.5 | 0.5 | AIR | Single Layer:2.0/2.5/3.0 | 12~16 | 2000 | 5000 | 100 | |
| | 4 | 1.5~1.7 | -2~-2.5 | 0.5 | AIR | Single Layer:3.0 | 12~16 | 2000 | 5000 | 100 | |
| | 5 | | | | | | | | | | |
| | 6 | | | | | | | | | | |
| | 8 | | | | | | | | | | |
| | Green color indicate that the material under such thickness is usable for long time processing. | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting pressure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higher power laser source. | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX 2000W fiber laser with 100um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Precitec cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4.Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment,Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for referen | | | | | | | | | | |

MFSC-3000 (50 μm) Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|---------------|--|--------------|-------------|---------------------|-----|------------------|--------------------|-----------|------------------------|----------------|------------------------------|
| Q235B | 1 | 59 | 0 | 0.5 | N2 | Single Layer:1.0 | 12~16 | 3000 | 5000 | 100 | Shining surface |
| | 2 | 28 | 0~-0.5 | 0.5 | N2 | Single Layer:1.5 | 12~16 | 3000 | 5000 | 100 | |
| | 3 | 4 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 3000 | 5000 | 100 | |
| | 4 | 3.5 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6~0.9 | 3000 | 5000 | 100 | |
| | 6 | 2.7 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6~0.9 | 3000 | 5000 | 100 | |
| | 8 | 2.2 | 4.5~5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6~0.9 | 3000 | 5000 | 100 | |
| | 10 | 1.5 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | Frosting surface |
| | 12 | 1 | 2~3 | 1.5 | O2 | Dual layer:3.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | |
| | 14 | 0.95 | 2~3 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | |
| | 16 | 0.85 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | |
| | 18 | 0.72 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | |
| | 20 | 0.65 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | |
| | 22 | 0.55 | 2.5~3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6~0.9 | 2200~2400 | 5000 | 100 | |
| | 25 | 0.5 | 2.5~4 | 1.5 | O2 | Dual layer:5.0 | 0.6~0.9 | 2200~2500 | 5000 | 100 | |
| SUS304 | 1 | 60 | 0 | 0.5 | N2 | Single Layer:1.5 | 12~16 | 3000 | 5000 | 100 | No slag |
| | 2 | 24 | 0~-0.5 | 0.5 | N2 | Single Layer:2.0 | 12~16 | 3000 | 5000 | 100 | |
| | 3 | 10 | -1~-1.5 | 0.5 | N2 | Single Layer:3.0 | 12~16 | 3000 | 5000 | 100 | |
| | 4 | 7 | -2~-2.5 | 0.5 | N2 | Single Layer:3.0 | 12~16 | 3000 | 5000 | 100 | |
| | 6 | 3.2 | -3.5~-4 | 0.5 | N2 | Single Layer:3.0 | 12~16 | 3000 | 5000 | 100 | |
| | 8 | 1.3 | -5~-6 | 0.5 | N2 | Single Layer:3.0 | 16~18 | 3000 | 5000 | 100 | |
| | 10 | 0.8 | -6.5~-7 | 0.5 | N2 | Single Layer:4.0 | 16~18 | 3000 | 5000 | 100 | Small Amount of hanging slag |
| | 12 | 0.6 | -7.5~-8.5 | 0.5 | N2 | Single Layer:4.0 | 16~18 | 3000 | 5000 | 100 | |
| | | | | | | | | | | | |
| | Green color indicate that the materila under such thickness is usitable for long time processing. | | | | | | | | | | |
| | Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting presure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higer power laser source. | | | | | | | | | | |
| | Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX 3000W fiber laser with 50um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Raytools cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4.Consideing the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment,Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for reference c | | | | | | | | | | |

MFMC-3000(100 μm) Cutting Data

| Material Type | Thicknes(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | utting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|--|---|--------------|-------------|---------------------|----------------|--------------------------|--------------------|-----------|-----------------------|----------------|------------------|
| Q235B | 1 | 38-40 | 0 | 0.5 | N2 | Single Layer:1.0 | 12-16 | 3000 | 5000 | 100 | Shining surface |
| | 2 | | | | | | | | | | |
| | 3 | 4-4.2 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 3000 | 5000 | 100 | |
| | 4 | 3.3-3.5 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 3000 | 5000 | 100 | |
| | 6 | 2.3-2.5 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 3000 | 5000 | 100 | |
| | 8 | 2.1-2.2 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 3000 | 5000 | 100 | |
| | 10 | 1.4-1.6 | 2-3 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | Frosting surface |
| | 12 | 1.0-1.1 | 2-3 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | |
| | 14 | 0.9-1.0 | 2-3 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | |
| | 16 | 0.85-0.9 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | |
| | 18 | 0.7-0.75 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | |
| | 20 | 0.6-0.65 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | |
| | 22 | 0.5-0.55 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | |
| 25 | 0.45-0.5 | 2.5-4 | 1.5 | O2 | Dual layer:5.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | | |
| SUS304 | 1 | 35-37 | 0 | 0.5 | N2 | Single Layer:1.0/1.2/1.5 | 12-16 | 3000 | 5000 | 100 | No slag |
| | 2 | 13-15 | 0-0.5 | 0.5 | N2 | Single Layer:1.5/2.0 | 12-16 | 3000 | 5000 | 100 | |
| | 3 | 7-8 | -1-1.5 | 0.5 | N2 | Single Layer:2.0/2.5/3.0 | 12-16 | 3000 | 5000 | 100 | |
| | 4 | 4.5-5.5 | -2-2.5 | 0.5 | N2 | Single Layer:3.0 | 12-16 | 3000 | 5000 | 100 | |
| | 6 | 2.0-2.3 | -3.5-4 | 0.5 | N2 | Single Layer:3.5/4.0 | 12-16 | 3000 | 5000 | 100 | |
| | 8 | 1.0-1.2 | -5-6 | 0.5 | N2 | Single Layer:4.0 | 16-18 | 3000 | 5000 | 100 | |
| | 10 | 0.6-0.7 | -6.5-7 | 0.5 | N2 | Single Layer:4.0 | 16-18 | 3000 | 5000 | 100 | |
| | Small Amount of hanging slag | | | | | | | | | | |
| AL (6061) | 1 | 30-33 | 0 | 0.5 | AIR | Single Layer:1.0/1.2/1.5 | 12-16 | 3000 | 5000 | 100 | |
| | 2 | 10-12 | 0-0.5 | 0.5 | AIR | Single Layer:1.5/2.0 | 12-16 | 3000 | 5000 | 100 | |
| | 3 | 5.5-5.9 | -1-1.5 | 0.5 | AIR | Single Layer:2.0/2.5/3.0 | 12-16 | 3000 | 5000 | 100 | |
| | 4 | 2.8-3.2 | -2-2.5 | 0.5 | AIR | Single Layer:3.0 | 12-16 | 3000 | 5000 | 100 | |
| | 6 | 0.7-0.8 | -3.5-4 | 0.5 | AIR | Single Layer:3.5/4.0 | 12-16 | 3000 | 5000 | 100 | |
| | 8 | 0.5-0.6 | -5-6 | 0.5 | AIR | Single Layer:4.0 | 16-18 | 3000 | 5000 | 100 | |
| | 10 | | | | | | | | | | |
| | 12 | | | | | | | | | | |
| Brass | 1 | | | | | | | | | | |
| | 2 | | | | | | | | | | |
| | 3 | 4.5-5 | -2-2.5 | 0.5 | AIR | Single Layer:2.0/2.5/3.0 | 12-16 | 3000 | 5000 | 100 | |
| | 4 | 3-3.5 | -3-3.5 | 0.5 | AIR | Single Layer:3.0 | 12-16 | 3000 | 5000 | 100 | |
| | 5 | | | | | | | | | | |
| | 6 | 1-1.2 | -5-5.5 | 0.5 | AIR | Single Layer:3.5/4.0 | 16-18 | 3000 | 5000 | 100 | |
| | 8 | | | | | | | | | | |
| | 10 | | | | | | | | | | |
| Green color indicate that the materi under such thickness is usitable for long time processing. | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting presure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higer power laser source. | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX 3000W fiber laser with 100um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Raytools cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutiing GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | |
| | 4.Consideing the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment,Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for refere | | | | | | | | | | |

MFSC-4000 (50 μm) Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect |
|--|--|--------------|-------------|---------------------|-----|------------------|--------------------|-----------|------------------------|----------------|------------------------------|
| Q235B | 1 | 63-65 | 0 | 0.5 | N2 | Single Layer:1.0 | 12-16 | 4000 | 5000 | 100 | Shining surface |
| | 3 | 10-11 | -1~-1.5 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 4000 | 5000 | 100 | |
| | 6 | 2.8-2.9 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 4000 | 5000 | 100 | |
| | 8 | 2.3-2.4 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 4000 | 5000 | 100 | |
| | 10 | 1.8-1.9 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 4000 | 5000 | 100 | |
| | 12 | 1.3-1.5 | 2-3 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | |
| | 14 | 0.9-1.0 | 2-3 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | Frosting surface |
| | 16 | 0.8-0.9 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | |
| | 18 | 0.7-0.8 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | |
| | 20 | 0.6-0.65 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | |
| | 22 | 0.55-0.6 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | |
| | 25 | 0.5-0.55 | 2.5-4 | 1.5 | O2 | Dual layer:5.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | |
| SUS304 | 1 | 75 | 0 | 0.5 | N2 | Single Layer:1.0 | 12-16 | 4000 | 5000 | 100 | No slag |
| | 2 | 32 | 0-0.5 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 4000 | 5000 | 100 | |
| | 3 | 12 | -1~-1.5 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 4000 | 5000 | 100 | |
| | 6 | 4.3 | -3.5~-4 | 0.5 | N2 | Single Layer:3.5 | 12-16 | 4000 | 5000 | 100 | |
| | 8 | 1.8 | -5~-6 | 0.5 | N2 | Single Layer:3.5 | 16-18 | 4000 | 5000 | 100 | |
| | 10 | 1.2 | -6.5~-7 | 0.5 | N2 | Single Layer:3.5 | 16-18 | 4000 | 5000 | 100 | |
| | 12 | 0.9 | -7.5~-8.5 | 0.5 | N2 | Single Layer:3.5 | 16-18 | 4000 | 5000 | 100 | Small Amount of hanging slag |
| | 14 | 0.4 | -9~-10 | 0.5 | N2 | Single Layer:4.0 | 16-20 | 4000 | 5000 | 100 | |
| Green color indicate that the material under such thickness is suitable for long time processing. | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting pressure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higher power laser source. | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX 4000W fiber laser with 50um fiber core diameter; | | | | | | | | | | |
| | 2. Above cutting data based on Precitec cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.999%), Liquid Nitrogen(Purity 99.9999%); | | | | | | | | | | |
| | 4.Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment, Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for reference | | | | | | | | | | |

MFMC-4000(100μm)Cutting Data

| Material Type | Thickness(mm) | Speed(m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect | |
|--|--|--------------|-------------|---------------------|-----|--------------------------|--------------------------|-----------|------------------------|----------------|------------------|------------------------------|
| Q235B | 1 | 43-45 | 0 | 0.5 | N2 | Single Layer:1.0 | 12-16 | 4000 | 5000 | 100 | Shining surface | |
| | 2 | 21-23 | 0-0.5 | 0.5 | N2 | Single Layer:1.5 | 12-16 | 4000 | 5000 | 100 | | |
| | 3 | 4.0-4.3 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 4000 | 5000 | 100 | | |
| | 4 | 3.3-3.6 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.0 | 0.6-0.9 | 4000 | 5000 | 100 | | |
| | 6 | 2.8-2.9 | 4.5-5.5 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 4000 | 5000 | 100 | | |
| | 8 | 2.3-2.4 | 5.5-6 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 4000 | 5000 | 100 | | |
| | 10 | 1.8-1.9 | 5.5-6 | 0.8 | O2 | Dual layer:1.2 | 0.6-0.9 | 4000 | 5000 | 100 | | |
| | 12 | 1.3-1.5 | 2-3 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | Frosting surface | |
| | 14 | 0.9-1.0 | 2-3 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | | |
| | 16 | 0.8-0.9 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | | |
| | 18 | 0.7-0.8 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | | |
| | 20 | 0.6-0.65 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | | |
| | 22 | 0.55-0.6 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.9 | 2200-2400 | 5000 | 100 | | |
| | 25 | 0.5-0.55 | 2.5-4 | 1.5 | O2 | Dual layer:5.0 | 0.6-0.9 | 2200-2500 | 5000 | 100 | | |
| SUS304 | 1 | 40-43 | 0 | 0.5 | N2 | Single Layer:1.0/1.2/1.5 | 12-16 | 4000 | 5000 | 100 | No slag | |
| | 2 | 19-21 | 0-0.5 | 0.5 | N2 | Single Layer:1.5/2.0 | 12-16 | 4000 | 5000 | 100 | | |
| | 3 | 10-11 | -1-1.5 | 0.5 | N2 | Single Layer:2.0/2.5/3.0 | 12-16 | 4000 | 5000 | 100 | | |
| | 4 | 6.5-7 | -2-2.5 | 0.5 | N2 | Single Layer:3.0 | 12-16 | 4000 | 5000 | 100 | | |
| | 6 | 2.8-3.2 | -3.5-4 | 0.5 | N2 | Single Layer:3.5/4.0 | 12-16 | 4000 | 5000 | 100 | | |
| | 8 | 1.5-1.7 | -5-6 | 0.5 | N2 | Single Layer:4.0 | 16-18 | 4000 | 5000 | 100 | | |
| | 10 | 0.8-0.9 | -6.5-7 | 0.5 | N2 | Single Layer:4.0 | 16-18 | 4000 | 5000 | 100 | | |
| | 12 | | | | | | | | | | | Small Amount of hanging slag |
| | 14 | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | AL (6061) | 1 | 35-37 | 0 | 0.5 | AIR | Single Layer:1.0/1.2/1.5 | 12-16 | 4000 | 5000 | 100 | |
| | | 2 | 15-17 | 0-0.5 | 0.5 | AIR | Single Layer:1.5/2.0 | 12-16 | 4000 | 5000 | 100 | |
| | | 3 | 6.5-7 | -1-1.5 | 0.5 | AIR | Single Layer:2.0/2.5/3.0 | 12-16 | 4000 | 5000 | 100 | |
| 4 | | 4.5-4.8 | -2-2.5 | 0.5 | AIR | Single Layer:3.0 | 12-16 | 4000 | 5000 | 100 | | |
| 6 | | 2-2.2 | -3.5-4 | 0.5 | AIR | Single Layer:3.5/4.0 | 12-16 | 4000 | 5000 | 100 | | |
| 8 | | 1-1.2 | -5-6 | 0.5 | AIR | Single Layer:4.0 | 16-18 | 4000 | 5000 | 100 | | |
| 10 | | 0.5-0.6 | -6.5-7 | 0.5 | AIR | Single Layer:4.0 | 16-18 | 4000 | 5000 | 100 | | |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | 6.5-6.8 | -1-1.5 | 0.5 | AIR | Single Layer:2.0/2.5/3.0 | 16-20 | 4000 | 5000 | 100 | | |
| Brass | 4 | 4.5-4.7 | -2-2.5 | 0.5 | AIR | Single Layer:3.0 | 16-20 | 4000 | 5000 | 100 | | |
| | 5 | | | | | | | | | | | |
| | 6 | 1.3-1.5 | -3.5-4 | 0.5 | AIR | Single Layer:3.5/4.0 | 16-20 | 4000 | 5000 | 100 | | |
| | 8 | 0.7-0.8 | -5-6 | 0.5 | AIR | Single Layer:4.0 | 16-20 | 4000 | 5000 | 100 | | |
| | 10 | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Green color indicate that the material under such thickness is usable for long time processing. | | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting pressure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higher power laser source. | | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | | |
| Comments | 1. Above cutting data sheet based on MAX 4000W fiber laser with 100um fiber core diameter; | | | | | | | | | | | |
| | 2. Above cutting data based on Precitec cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | | |
| | 4.Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment, Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet f | | | | | | | | | | | |

MFMC-6000(100µm) Cutting Data

| Material Type | Thickness(mm) | Speed (m/min) | Focus Point | Cutting Height (mm) | Gas | Nozzle Type | Air Pressure (bar) | Power (W) | Cutting frequency (Hz) | Duty Ratio (%) | Cutting effect | | |
|--|--|---|-------------|---------------------|-----|--------------------|--------------------|-----------|------------------------|----------------|-----------------|------------------------------|---------|
| Q235B | 1 | 45-47 | 0 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | Shining surface | | |
| | 2 | 28-32 | 0-0.5 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | | |
| | 3 | 4.2-4.5 | 4.0-5.5 | 0.6-0.8 | O2 | Dual layer:1.0/1.2 | 0.6-0.8 | 3000-3500 | 5000 | 100 | | | |
| | 4 | 3.5-3.7 | 4.0-5.5 | 0.6-0.8 | O2 | Dual layer:1.0/1.2 | 0.6-0.8 | 3000-3500 | 5000 | 100 | | | |
| | 5 | 3.2-3.3 | 4.0-5.5 | 0.6-0.8 | O2 | Dual layer:1.0/1.2 | 0.6-0.8 | 4000-4500 | 5000 | 100 | | | |
| | 6 | 2.6-2.8 | 4.0-5.5 | 0.6-0.8 | O2 | Dual layer:1.0/1.2 | 0.6-0.8 | 4000-4500 | 5000 | 100 | | | |
| | 8 | 2.5-2.6 | 5.5-6.5 | 0.6-0.8 | O2 | Dual layer:1.2 | 0.6-0.8 | 4500-5000 | 5000 | 100 | | | |
| | 10 | 2.2-2.3 | 5.5-6.5 | 0.6-0.8 | O2 | Dual layer:1.2 | 0.6-0.8 | 6000 | 5000 | 100 | | | |
| | 12 | 1.8-2.0 | 6-7 | 0.6-0.8 | O2 | Dual layer:1.2 | 0.6-0.8 | 6000 | 5000 | 100 | | | |
| | 14 | 0.9-1.0 | 2.5-3.5 | 1.5 | O2 | Dual layer:3.0 | 0.6-0.8 | 2200-2600 | 5000 | 100 | | | |
| | 16 | 0.8-0.9 | 2.5-3.5 | 1.5 | O2 | Dual layer:3.0/3.5 | 0.6-0.8 | 2200-2600 | 5000 | 100 | | | |
| | 18 | 0.7-0.8 | 2.5-3.5 | 1.5 | O2 | Dual layer:3.5/4.0 | 0.6-0.8 | 2200-2600 | 5000 | 100 | | | |
| | 20 | 0.6-0.65 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.8 | 2200-2600 | 5000 | 100 | | | |
| | 22 | 0.55-0.6 | 2.5-3.5 | 1.5 | O2 | Dual layer:4.0 | 0.6-0.8 | 2200-2600 | 5000 | 100 | | | |
| | 25 | 0.5-0.55 | 2.5-4 | 1.5 | O2 | Dual layer:5.0 | 0.6-0.8 | 2200-2600 | 5000 | 100 | | | |
| | SUS304 | 1 | 45-47 | 0 | 0.5 | N2 | Single Layer:1.5 | 12-16 | 6000 | 5000 | | 100 | No slag |
| 2 | | 28-32 | 0-0.5 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | | |
| 3 | | 15-17 | -1-1.5 | 0.5 | N2 | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | | |
| 4 | | 11-13 | -2-2.5 | 0.5 | N2 | Single Layer:2.5 | 12-16 | 6000 | 5000 | 100 | | | |
| 5 | | 8-10 | -2.5-3 | 0.5 | N2 | Single Layer:3.5 | 12-16 | 6000 | 5000 | 100 | | | |
| 6 | | 6-6.5 | -3.5-4 | 0.5 | N2 | Single Layer:3.5 | 12-16 | 6000 | 5000 | 100 | | | |
| 8 | | 3.5-4 | -5-6 | 0.5 | N2 | Single Layer:3.5 | 16-18 | 6000 | 5000 | 100 | | | |
| 10 | | 1.8-2.0 | -6.5-7 | 0.5 | N2 | Single Layer:4.0 | 16-18 | 6000 | 5000 | 100 | | | |
| 12 | | 1.1-1.3 | -7.5-8.5 | 0.5 | N2 | Single Layer:4.0 | 16-18 | 6000 | 5000 | 100 | | | |
| 14 | | 0.9-1.0 | -9-10 | 0.5 | N2 | Single Layer:5.0 | 16-20 | 6000 | 5000 | 100 | | | |
| 16 | | 0.8-0.85 | -10-11 | 0.5 | N2 | Single Layer:5.0 | 16-20 | 6000 | 5000 | 100 | | | |
| 20 | | 0.5-0.6 | -11-13 | 0.5 | N2 | Single Layer:5.0 | 16-20 | 6000 | 5000 | 100 | | | |
| AL (6061) | | 1 | 45-47 | 0 | 0.5 | AIR | Single Layer:1.5 | 12-16 | 6000 | 5000 | 100 | Small Amount of hanging slag | |
| | | 2 | 28-29 | 0-0.5 | 0.5 | AIR | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | |
| | | 3 | 15-17 | -1-1.5 | 0.5 | AIR | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | |
| | | 4 | 9-10 | -2-2.5 | 0.5 | AIR | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | |
| | 5 | 6-6.5 | -2.5-3 | 0.5 | AIR | Single Layer:2.5 | 12-16 | 6000 | 5000 | 100 | | | |
| | 6 | 4.5-5 | -3.5-4 | 0.5 | AIR | Single Layer:2.5 | 12-16 | 6000 | 5000 | 100 | | | |
| | 8 | 2.8-2.9 | -5-6 | 0.5 | AIR | Single Layer:3.0 | 16-18 | 6000 | 5000 | 100 | | | |
| | 10 | 1.7-1.8 | -6.5-7 | 0.5 | AIR | Single Layer:3.5 | 16-18 | 6000 | 5000 | 100 | | | |
| | 12 | 1.0-1.2 | -7.5-8.5 | 0.5 | AIR | Single Layer:3.5 | 16-20 | 6000 | 5000 | 100 | | | |
| | 14 | 0.7-0.9 | -9-10 | 0.5 | AIR | Single Layer:4.0 | 16-20 | 6000 | 5000 | 100 | | | |
| | 16 | 0.5-0.6 | -9-10 | 0.5 | AIR | Single Layer:4.0 | 16-20 | 6000 | 5000 | 100 | | | |
| | Brass | 1 | 43-45 | 0 | 0.5 | AIR | Single Layer:1.5 | 12-16 | 6000 | 5000 | 100 | | |
| | | 2 | 25-27 | 0-0.5 | 0.5 | AIR | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | |
| | | 3 | 13-15 | -1-1.5 | 0.5 | AIR | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | |
| | | 4 | 8-9 | -2-2.5 | 0.5 | AIR | Single Layer:2.0 | 12-16 | 6000 | 5000 | 100 | | |
| | | 5 | 5.5-6 | -2.5-3 | 0.5 | AIR | Single Layer:2.5 | 12-16 | 6000 | 5000 | 100 | | |
| 6 | | 4-4.5 | -3.5-4 | 0.5 | AIR | Single Layer:2.5 | 12-16 | 6000 | 5000 | 100 | | | |
| 8 | | 2.7-2.8 | -5-6 | 0.5 | AIR | Single Layer:3.0 | 16-18 | 6000 | 5000 | 100 | | | |
| 10 | | 1.6-1.7 | -6.5-7 | 0.5 | AIR | Single Layer:3.5 | 16-18 | 6000 | 5000 | 100 | | | |
| 12 | | 1.0-1.2 | -7.5-8.5 | 0.5 | AIR | Single Layer:3.5 | 16-20 | 6000 | 5000 | 100 | | | |
| 14 | | 0.7-0.9 | -9-10 | 0.5 | AIR | Single Layer:4.0 | 16-20 | 6000 | 5000 | 100 | | | |
| 16 | | 0.5-0.6 | -9-10 | 0.5 | AIR | Single Layer:4.0 | 16-20 | 6000 | 5000 | 100 | | | |
| Green color indicate that the material under such thickness is usable for long time processing. | | | | | | | | | | | | | |
| Yellow color indicate the material under such thickness can be used for batch processing. But with the material temperature going on, the cutting pressure fluctuating and material components uneven, the cutting process will be not so stable. We suggest to use higher power laser source. | | | | | | | | | | | | | |
| Red color indicate that the material under this thickness can be cut, but can't be used for long time processing. | | | | | | | | | | | | | |
| Comments | | 1. Above cutting data sheet based on MAX 6000W fiber laser with 100µm fiber core diameter; | | | | | | | | | | | |
| | | 2. Above cutting data based on Precitec cutting head. Focusing/collimating lens spec:100/125; | | | | | | | | | | | |
| | 3. Cutting GAS: Liquid Oxygen (Purity 99.99%), Liquid Nitrogen(Purity 99.999%); | | | | | | | | | | | | |
| | 4. Considering the difference of equipment configuration (for example, Cutting bed, Water chiller, Environment, Nozzle, Gas pressure etc.) and cutting technology, above Cutting Data Sheet for reference only | | | | | | | | | | | | |