

# Technical parameters of fiber laser tube cutting series

| NO. | Name                               | 3D 5-axis pipe cutting machine  | High-end CNC fiber laser tube cutting machine   | Small tube fiber laser tube cutting machine                  |
|-----|------------------------------------|---|---|--|
| 1   | Model                              | P2060A-3D   | P2060A/P3580A   | P1260A   |
| 2   | Processing pipe section size range | Round $\phi$ 20mm- $\phi$ 220mm<br>Square20mm*20mm-140mm*140mm  | Round $\phi$ 20mm- $\phi$ 220mm<br>Square20mm*20mm-140mm*140mm  | Round $\phi$ 20mm- $\phi$ 120mm<br>Square20mm*20mm-80mm*80mm |
| 3   | Laser power                        | 1500W-6000W   | 1500W-6000W   | 1500W-4000W  |
| 4   | Max acceleration                   | 1.0g  | 1.5g  | 1.0g   |
| 5   | Repeat positioning accuracy        | 0.03mm  | 0.03mm  | 0.03mm   |
| 6   | Positioning accuracy               | 0.05mm  | 0.05mm  | 0.05mm   |
| 7   | XY Axis positioning speed          | 100m/min  | 120m/min  | X axis150m/min, Y axis120m/min                               |
| 8   | Max rotate speed                   | 130r/min  | 130r/min  | 150r/min   |
| 9   | Max weight for single tube         | 225kg( $\phi$ 200mm*8mm*6000mm)   | 225kg( $\phi$ 200mm*8mm*6000mm)   | 85kg( $\phi$ 120mm*5mm*6000mm)                               |
| 10  | Waste length                       | ① When the front and rear chuck clamp the pipe at the same time, the tail material is 180mm;<br>② When the current card is opened and only the rear chuck is used to clamp the tube, the tail material is 80mm. | ① When the front and rear chuck clamp the pipe at the same time, the tail material is 180mm;<br>② When the current card is opened and only the rear chuck is used to clamp the tube, the tail material is 80mm. | Within 80mm  |
| 11  | Laser cutting head                 | LTULTRA/RAYTOOLS/PRECITEC   | RAYTOOLS/PRECITEC   | Osprey/RAYTOOLS  |
| 12  | Cutting system                     | PA BUS  | PA BUS  | FSCUT BUS/PA BUS   |
| 13  | Nesting software                   | LANTEK  | LANTEK  | LANTEK/TubesT  |
| 14  | Loader                             | Standard auto loader  | Standard auto loader  | Standard small tube special loader                           |
| 15  | Max load for loader                | 2.5t  | 2.5t  | 2t   |
| 16  | Support system                     | Auxiliary centering + floating support  | Auxiliary centering + floating support  | Servo swing lever support                                    |
| 17  | Receiving system                   | Floating support  | Floating support  | Servo floating plate support                                 |
| 18  | Power supply                       | AC 380V 50/60Hz   | AC 380V 50/60Hz   | AC 380V 50/60Hz  |
| 19  | Chuck                              | Pneumatic chuck   | Pneumatic chuck   | Pneumatic chuck  |
| 20  | Servo motor                        | Yaskawa Bus Motor   | Yaskawa Bus Motor   | Delta/Yaskawa  |
| 21  | Reducer                            | German INNOWELLE  | German INNOWELLE  | German INNOWELLE   |
| 22  | Rack                               | Taiwan YYC  | Taiwan YYC  | Taiwan YYC   |
| 23  | Linear guide                       | Taiwan HIWIN  | Taiwan HIWIN  | Taiwan HIWIN   |
| 24  | Pneumatic configuration            | Standard three gas sources and double compressed gas lines  | Standard three gas sources and double compressed gas lines  | Standard three gas sources and double compressed gas lines   |

| NO. | Name                               | Universal fiber laser tube cutting machine   | Round tube fiber laser cutting machine                     | Heavy-duty fiber laser pipe cutting machine                | Shaped tube fiber laser cutting machine                    |
|-----|------------------------------------|--|--|--|--|
| 1   | Model                              | P1660B/P2060B  | P120   | P35120   | T2000  |
| 2   | Processing pipe section size range | Round $\phi$ 10mm- $\phi$ 160mm ;<br>Square 10mm*10mm-110mm*110mm<br>round $\phi$ 10mm- $\phi$ 200mm ;<br>square 10mm*10mm-140mm*140mm   | Round $\phi$ 20mm- $\phi$ 120mm                            | 50mm-350mm   | 20mm-100mm   |
| 3   | Laser power                        | 1500W-3000W  | 1000W-3000W  | 3000W-8000W  | 1500W-4000W  |
| 4   | Max acceleration                   | 0.7g   | 0.8g   | 0.8g   | 0.8g   |
| 5   | Repeat positioning accuracy        | 0.03mm   | 0.03mm   | 0.08mm/10m   | 0.03mm   |
| 6   | Positioning accuracy               | 0.05mm   | 0.05mm   | 0.1mm/10m  | 0.05mm   |
| 7   | XY Axis positioning speed          | 80m/min  | 60m/min  | 60m/min  | X axis 20m/min, Y axis90m/min                              |
| 8   | Max rotate speed                   | 130r/min   | 80r/min  | 75r/min  | 120r/min   |
| 9   | Max weight for single tube         | 225kg( $\phi$ 200mm*8mm*6000mm)  | 25kg   | 1200kg<br>( $\phi$ 350mm*10mm*12000mm)                     | 20kg   |
| 10  | Waste length                       | ① When the front and rear chuck clamp the pipe at the same time, the tail material is 180mm;<br>(single row of jaws) ② When the current card is open and only the rear chuck is used to clamp the tube, the tail material is 80mm;<br>③ Double-row jaws can be selected; the tail material is 50mm longer on the basis of single-row | 80mm   | 0  | /  |
| 11  | Laser cutting head                 | WSX/RAYTOOLS   | RAYTOOLS   | RAYTOOLS   | RAYTOOLS   |
| 12  | Cutting system                     | Standard FSCUT3000S system;<br>optional FSCUT5000B BUS   | WEIHONG  | FSCUT BUS/PA BUS   | FSCUT BUS/AheadTechs                                       |
| 13  | Nesting software                   | Standard TubesT 3D nesting software  | /  | LANTEK   | /  |
| 14  | Loader                             | Optional simple loader   | Standard round tube auto loader                            | Seni-Auto  | /  |
| 15  | Max load for loader                | 1t   | 0.6t   | 4.5t   | /  |
| 16  | Support system                     | Variable diameter wheel support  | Manually set   | Variable diameter wheel support/floating roller support    | /  |
| 17  | Receiving system                   | Variable diameter wheel support  | Manually set   | Variable diameter wheel support/floating roller support    | /  |
| 18  | Power supply                       | AC 380V 50/60Hz  | AC 380V 50/60Hz  | AC 380V 50/60Hz  | AC 380V 50/60HZ  |
| 19  | Chuck                              | Pneumatic chuck  | Pneumatic chuck  | Heavy Duty Chuck   | BK160  |
| 20  | Servo motor                        | Delta  | WEIHONG  | Yaskawa  | Yaskawa/Panasonic  |
| 21  | Reducer                            | TECHMECH/ German INNOWELLE   | Made in China  | Desboer  | Delta/MOTOVARIO/APEX                                       |
| 22  | Rack                               | Taiwan YYC   | Taiwan YYC/JT  | Taiwan YYC   | Taiwan YYC   |
| 23  | Linear guide                       | Taiwan HIWIN   | Taiwan HIWIN   | Taiwan HIWIN   | Taiwan HIWIN   |
| 24  | Pneumatic configuration            | Standard air lines; Optional three gas sources and double compressed gas lines   | Standard three gas sources and double compressed gas lines | Standard three gas sources and double compressed gas lines | Standard three gas sources and double compressed gas lines |