



Bantam Tools™ Desktop PCB Milling Machine Specifications

If you have questions about the Bantam Tools™ Desktop PCB Milling Machine's capabilities or specifications, please don't hesitate to contact us at support@bantamtools.com.

| Dimensions | |
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| Frame Dimensions | 10.25 × 10 × 12.75 in 260 × 254 × 324 mm |
| Overall Dimensions | 12.75 × 12 × 12.875 in 324 × 305 × 327 mm |
| Working Volume (spoilboard removed) | 5.5 × 4.5 × 1.6 in 140 × 114 × 40.6 mm |
| Working Volume (spoilboard installed) | 5.5 × 4.5 × 1.35 in 140 × 114 × 34.3 mm |
| Weight | 16.8 lb 7.62 kg |
| Mechanics | |

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| Body | 3/8 in (9.5 mm) HDPE and 6061 aluminum |
| Ways | Case-hardened precision-ground steel |
| Bed | ¼ in (6.4 mm) 6061 aluminum mounting plate |
| XYZ Bearings | PTFE-filled acetal resin sleeve bearing Allows for faster rapid speed and increased machine rigidity |
| XYZ Motors | Stepper motors with 0.000125 in (0.003175 mm) microstepping |
| Spindle Motor | Custom designed brushless DC motor dynamically balanced to G2.5 grade for minimal vibration. |
| Max XYZ Traverse Speed | 100 in/min 2,600 mm/min |
| Spindle Speed | 8,500 - 26,000 rpm |
| Accuracy | <0.003" per 6" linear travel |
| Repeatability | ± 0.001" |
| Backlash | < 0.001" |

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| PCB Cut Speed | Up to 100 in/min 2,600 mm/min |
| Electronics | |
| Power Requirements | 100-240 V AC 50/60Hz 1.4A |
| Consumption | 50W Typical / 120W Peak |
| Operating Temperature | 40–110 °F 4–43 °C |
| Software | |
| App | Otherplan |
| System Requirements | Mac OS X 10.9 or higher Windows 7 or higher 64-bit operating system required Graphics card with OpenGL ES 2.0 support |
| Interface | USB 2.0 |
| File Input | Eagle BRD (.brd) Gerber RS-274X (.gtl and .grb) G-Code (.nc and .tap) SVG (.svg) |

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| Features | <p>Free Intuitive interface Free tech support CAM tool path planning for supported file types Automatic tool location Automatic homing/calibration Real-time data feedback while milling 3D preview view of your imported file</p> |
| Tools | |
| Tool Holding | ER-11 collet |
| Largest Recommended Shank Size | 1/8 in 3.5 mm |
| Smallest Recommended End Mill Size | 0.010 in 0.25 mm |
| Materials All materials listed here are merely a sampling of what can be used on the Bantam Tools™ Desktop PCB Milling Machine. | |
| Machining Wax | High speed Regular |
| FR-1 Printed Circuit Board (PCB) Blanks | Single-sided Double-sided |
| Wood | Birch plywood Maple |
| Metal | Copper Brass Aluminum, 6061 |

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| Plastic | HDPE Polycarbonate Acrylic Delrin |
| In the Box | |
| Power Supply | External |
| Power Cable | IEC Type B |
| USB 2.0 Cable | A-type to B-type |
| Tool Kit | Collet wrenches, small and large x 3 each Collet, ER-11, for 1/8 in shank, and collet nut x1 each Pulley Belts, replacement x6 Alignment jig x1 Alignment jig screws, M3 x 8 mm x3 Allen Wrench, 2 mm, for jig x1 Probing Clip and Probing Clip Bolt x1 each Bit Fan x1 Vacuum Port Adapter x1 |
| Getting Started Project materials Bantam Tools PCB Badge Fusion 360 Aluminum Ring Project Engraving Dog Tags with SVG Files | PCB blank, FR-1, 4 in x 5 in, single-sided x2 LED, 5mm x2 Resistor, 22-ohm, x2 Battery, CR2032 x1 Battery holder x1 Scotch tape, roll, double-sided x1 Aluminum, 1 in x 2 in x 0.125 in, x1 Nitto Tape samples x15 Scouring pad sample Dog tags, red and black, x1 each End mill, flat, 1/8" x1 End mill, flat, 1/32" x1 PCB Engraving Bit, 0.005" x1 Metal Engraving Bit (80°) x1 |

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