



# PENTA

MACHINE CO.

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## SOLO

# SPECIFICATIONS

### MAX TRAVEL

X: 9.5 in (240 mm)

Y: 6.8 in (172 mm)

Z: 6.2 in (155 mm)

B: -145° to 145°

C: Continuous rotation  
(-99999° to +99999°)

### Max Travel From The Center of Rotation

X: -3 in to 6.5 in (-76 mm to 165 mm)

Y: -3.4 in to 3.4 in (-86 mm to 86 mm)

- ▶ Tested on G5 titanium, 6061 aluminum, 303 stainless, machinable wax, acetal

Accepts standard  
G Code: .ngc, .nc, .txt, .cnc files  
Test G Code at  
[sim.pentamachine.com](http://sim.pentamachine.com)



| AXIS   | MAX TRAVEL                                  | SPEED                      |
|--|---|----------------------------|
| <b>X</b>                                     | 9.5 in (240 mm)                             | 590 in/min (15,000 mm/min) |
| <b>Y</b>                                     | 6.8 in (172 mm)                             | 590 in/min (15,000 mm/min) |
| <b>Z</b>                                     | 6.2 in (155 mm)                             | 590 in/min (15,000 mm/min) |
| <b>B</b>                                     | -145° to 145°                               | 88°/second                 |
| <b>C</b>                                     | Continuous rotation<br>(-99999° to +99999°) | 88°/second                 |
| Closed Loop Servo Motors                     |   |                            |
| 12mm diameter<br>C5 preloaded<br>ball screws | 51:1 zero backlash<br>strain wave gearing   |                            |
| Linear Bearings                              | 15mm double row preloaded                   |                            |

| AXIS     | RESOLUTION                |
|----------|---------------------------|
| <b>X</b> | 0.00003 in (0.78 microns) |
| <b>Y</b> | 0.00003 in (0.78 microns) |
| <b>Z</b> | 0.00003 in (0.78 microns) |
| <b>B</b> | 0.001°                    |
| <b>C</b> | 0.001°                    |

| SPINDLE                             |              |
|-------------------------------------|--------------|
| <b>Spindle Speed</b>                | 18,000 RPM   |
| <b>Power Output</b>                 | 1.3 kW       |
| <b>Spindle Motor</b>                | Asynchronous |
| <b>Spindle Runout</b>               | ~1 micron    |
| <b>Tool Change</b>                  | HSK - E - 25 |
| Maximum Tool Length 4.5 in (116 mm) |              |

| MACHINE CONTROL                         |  |
|---|--|
| <b>Kinetic Control</b>                  |  |
| <b>Accepts standard RS274NGC G code</b> |  |
| <b>Features</b>                         | <ul style="list-style-type: none"> <li>• Active Thermal Stabilization System</li> <li>• Flood Coolant</li> <li>• Tool Center Point Control (TCPC)</li> <li>• Rotated Work Offsets (RWO)</li> <li>• 14 Tool Automatic Tool Changer with tool setter</li> <li>• Probe with wireless charging</li> <li>• Table clamp / Unclamp / Turbo</li> <li>• Table taper air purge</li> <li>• Aux - Through Table Air - 2 ports</li> </ul> |
| <b>Connectivity</b>                     | Ethernet, USB  |
| <b>Power Consumption</b>                | 1,800 Watts at 110v Or 220v  |

| COMPONENTS  |
|---|
| 6061 Aluminum Frame   |
| Polymer Concrete Base   |
| Machine Weight ~1500 lb (680 kg)  |
| Cutting Fluid Capacity 7 gallons (26 liters)  |
| Chip Bin Capacity 7 gallons (26 liters)   |
| Machine Footprint<br>For transport only: 23 inches wide x 39.7 inches deep x 66.4 inches tall (58.5cm x 100.9cm x 168.7cm)<br>Recommended for use: 72.5 inches wide X 72.2 inches deep X 85.3 inches tall (185 cm x 184 cm x 217 cm)<br><i>Fits through standard door</i> |



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