



# PENTA

MACHINE CO.

[www.pentamachine.com](http://www.pentamachine.com)  
[info@pentamachine.com](mailto:info@pentamachine.com)  
1.406.451.3799  
 [pentamachine](https://www.instagram.com/pentamachine)

## POCKET NC V2-10

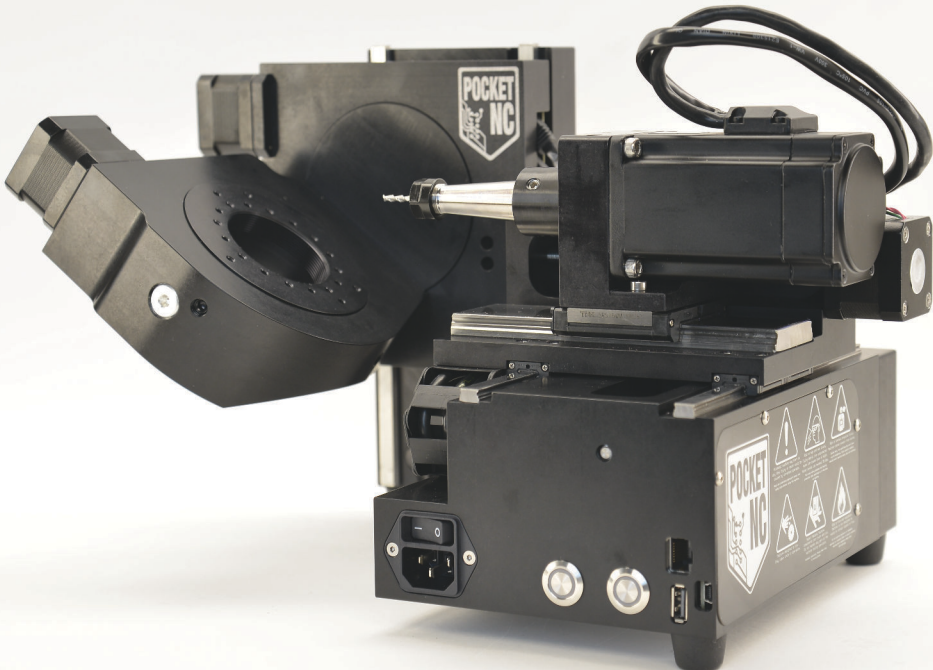
### SPECIFICATIONS

#### MAX TRAVEL

X: 4.55 in (115.5mm)  
Y: 5.05 in (128.3 mm)  
Z: 3.55 in (90.1mm)  
A: -25° to 135°  
B: Continuous Rotation  
(-9999° to 9999°)

▶ 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.pocketnc.com](http://sim.pocketnc.com)



AXIS	MAX TRAVEL	SPEED
<b>X</b>	4.55 in (115.5 mm)	60 in/min (1524 mm/min)
<b>Y</b>	5.05 in (128.3 mm)	60 in/min (1524 mm/min)
<b>Z</b>	3.55 in (90.1 mm)	60 in/min (1524 mm/min)
<b>A</b>	-25° to 135°	40°/second
<b>B</b>	Continuous rotation (-9999° to 9999°)	40°/second

AXIS	BACKLASH
<b>X &amp; Y</b>	0.0005 in (12.7 μm) at tool base
<b>Z</b>	Backlash at 18 pound (8.16 kg) load: 0.0005 in (12.7 μm)
<b>A &amp; B</b>	0.01°

AXIS	RESOLUTION & REPEATABILITY
<b>XYZ</b>	Resolution: 0.00024 in (6.10μm) Homing Repeatability: ±0.0005 in (12.7μm) Repeatability: ±0.002 in (50.8μm) at 0%
<b>A&amp;B</b>	Resolution: 0.01° Homing Repeatability: ±0.05° Repeatability: ±0.05° at 0% load Runout: < 0.002 in (50.8 μm)
Recommended part tolerance ±0.005in (.127mm)	

SPINDLE	
<b>Spindle Speed</b>	2,000–10,000 RPM
<b>Power</b>	200 W (Max Power)
<b>Spindle Motor</b>	BLDC 3 Phase with Hall Feedback
<b>Spindle Runout</b>	~0.0005 in (12.7 μm)
<b>Tool Change</b>	3mm Hex Key ER11 Collet

MACHINE CONTROL	
Texas Instruments Arm Cortex A8 running Machinekit/Rockhopper	
Accepts Standard Gcode	
Features	Spindle Override Feed Override Stop, Start, Pause 5 axis simultaneous movement
Connectivity	Ethernet, USB, and mini USB
Power Source	90–264 VAC, 127–370 VDC, 47–63Hz

COMPONENTS	
6061 Aluminum Frame, ±0.001 in (+/-25.4 μm) squareness in all axes	
Machine Footprint: 17.5 in (444.5 mm) x 12.5 in (279.3 mm)	
5 NEMA 17 Motors	3 linear lead screws with preloaded nuts 2 Rotary Worm Drives
Linear Bearings	9 and 42mm, 10% preload
Integrated angular contact rotary bearings	

**PURCHASE INCLUDES:**

- One extended reach tool holder
- 1/8 inch ER11 collet and nut
- 3mm square end mill, single flute, 1/8" shank
- Pocket NC vise and hardware
- Pocket NC limited 1-year warranty



**PENTA**  
MACHINE CO.

www.pentamachine.com  
info@pentamachine.com  
1.406.451.3799