



PENTA
MACHINE CO.

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POCKET NC V2-50 CHB 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. Test G Code
at sim.pocketnc.com



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

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

AXIS	RESOLUTION & REPEATABILITY
XYZ	Resolution: 0.00024 in (6.10μm) Homing Repeatability: ±0.0005 in (12.7μm) Repeatability: ±0.002 in (50.8μm) at 0%
A&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)	

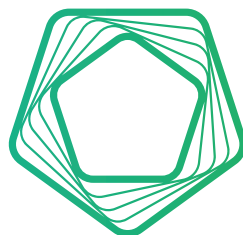
SPINDLE	
NSK Spindle Mode	NRR-2651
Tool Change	Lever Type CHB Collet
Spindle Speed	1,000-50,000 RPM*
Power	200 W (Max Power)
Spindle Motor	BLDC 3 Phase with Hall Feedback
Spindle Runout	0.0001 in (2.5 μm)

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:
 1/8 inch CHB collet
 3mm end mill, single flute, 1/8" shank
 Pocket NC vise and hardware
 Limited Pocket NC Warranty

**Sold Separately: Air Compressor (required)
 1 gallon (3.7L)/minute of air at 25 psi*



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