

ShopBot 5-Axis PRSalpha CNC

The ShopBot 5-Axis CNC router is another demonstration of our technology leadership—robotic capability at an affordable price. The ShopBot 5-Axis is ready for production cutting, drilling, trimming, fixture-machining, and prototyping in a large work envelope, accessible from all angles.

Our 5-Axis CNC is built on rigid ShopBot components with an extended Z height that allows adequate 5-axis reach. The X-axis is a moving table based on ShopBot's innovative PowerStick system. The Y-axis makes use of ShopBot's precision extruded beam. The practical work envelope of the tool is 34" x 34" x 24" (860mm x 860mm x 610mm)—from lowest horizontal machining position to highest vertical position assuming a 1.5" (38mm) cutter.

All 5 axes are powered by advanced technology, closed-loop, alphaStep motors providing production speed and precision. The tool includes a 2.2hp HSD spindle fit to ShopBot's 5-axis head. The 5-axis head utilizes 2 alphaStep DG motors. These are "hollow rotary actuators" providing a wide rigid base and stable motion for the two additional axes of rotation.

This 5-axis tool is rigid enough for the machining of prototyping materials, including urethane foams and soft woods, however it is not recommended for production machining of hardwood or aluminum. It is also excellent for trimming, drilling, and slotting operations in a variety of materials.



ShopBot 5-Axis PRSalpha CNC Specifications

- Standard work area 34" x 34" x 24" (860mm x 860mm x 610mm)
- Tough precision linear bearings on the moving gantry and hardened steel rails for the X-axis
- Reliable rack-and-pinion power transmission on each axis
- Fast, closed-loop alphaStep motors fitted with low-backlash, tapered-hob gear heads on all five axes — alphaStep system monitors motor shaft positions with feedback maintaining tight synchronicity between signal and motion
- Sealed industrial control box
- Impressive cutting speeds of up to 360 inches per minute (depending on cutting bit and material) and rapid transit speeds of 900 inches per minute.
- Step resolution of .0004"
- Emergency stop disconnect switch and spindle interlock remote pendant
- Z-zero touch-off plate and XYZAB proximity switches for automatic zeroing
- ShopBot Control System software to run your CNC
- We also offer on-site set-up services, as well as training and production process consulting, as options
- Support resources and documentation
- ShopBot Handbook Notebook
- Two-year warranty
- **Ships fully assembled** (including spindle & VFD). It arrives ready to roll out of its crate on its own casters and start work (220VAC single phase or 3 phase power)

Connecting a ShopBot 5-Axis PRSalpha requires the services of a licensed electrician. Please check the website or contact ShopBot for the wiring information for the set-up you are considering.

SOFTWARE AND CONTROLS

Because of the many ways that the 5-Axis tool can be used, and varied design environments of production operations, the tool can be easily integrated with your current engineering and CAM software (most major CAM systems post to ShopBots; for those that don't, contact your CAM software provider about a ShopBot post processor option).

ShopBot's Software Controls provide full, simultaneous, 5-axis machining and run from the popular and straightforward ShopBot interface. It is a highly programmable interface. ShopBots run from industry-standard G-code or from ShopBot PartFile code, which is one of the easiest to read CNC languages for operators on the shop floor (ShopBot PartFile code is output by all major CAM programs; e.g. MasterCAM, VisualMill, Delcam, Inventor/HSMWorks, Fusion 360, etc). The controls make ShopBot very configurable in production settings and make it possible to set up simple, push-button interactions for operators.

Give us a call at **888-680-4466** to discuss your production needs.
We'll help you choose the right tool to get the job done.

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