

CNC Tech: Know What To Ask

Doing your due diligence and research for the best CNC Router for your shop will protect your investment. Here are 7 candid questions to ask when shopping for your CNC router or machine center:

Are rubber belts used to drive it?

Rubber belts are ancient! They're inaccurate and a tell-tale sign that the technology will soon become obsolete. Rubber belts get loose over time and can cause backlash and inaccurate cutting. Worse, they require periodic retensioning for maintenance. To avoid these, look for 5th Generation (5G) CNC machines that use rack and pinion motors for consistent and absolute positioning.

Can it print and apply labels or mark products for secondary production?

Labeling and marking are huge bottlenecks in production; sometimes, manual labeling can take the same time as cutting! Let your CNC label or mark parts for you so there's no thinking and no human errors. Choose 5G CNC that can, say, tell operators which side to edge band, and allows you to mark different sides with multiple marking tools. No thinking and fewer employees required.

Does it use a personal computer for its control system?

Microsoft updates during production or your PC freezing can be a nightmare! Personal computers have a place, but not in running a high-caliber CNC Router. Choose 5G CNC with a dedicated computer system & controller that can not only process basic cutting operations, but also label making, vacuum control, and other robotic functions that you will eventually need.

Is it expandable?

You don't have to limit yourself to your current needs or what's affordable at the time of purchase anymore! With 5G CNC routers, you can add plug-and-play upgrades including: drill blocks, printing and robotic labeling, material marking, additional vacuums, loading and unloading tables. True expandability is not just a matter of being able to add anything to your machine. Most machines allow you to retrofit new parts in but they can come at a cost and can void your warranty. 5G CNC are pre-wired for expansion so it can grow when you grow.

Do you have to calibrate or home each time you reset or turn it on?

Old CNC machines use position sensors to find its starting point or its "home". This burdens the operator with the time-intensive task of recalibrating the machine every time it's turned on or reset. Lost power in the middle of the operation? Old machines would have you start all over again. Choose a 5th Generation (5G) CNC "No Homing" machine that eliminates this daily time waste and will remember where it's at even if you unplug and move it around.

Do you need to manually change vacuum valves to change or stop vacuum flow?

Your operator can be busy with secondary production and should not have to remember what valves to use, or waste their time going to the machine constantly to turn the vacuum on and off. Keep your operator in the production spot, not opening and closing valves. Choose 5G CNC that automatically adjusts vacuum zones and hold/release materials.

Is the controller touch screen and over 20"?

Make sure you don't get a small handheld or simple CNC control under 8". You will quickly learn the limitations of a cheap-import CNC controls once you start working with multiple processes. Having a large interface makes it easy on the operator and minimizes errors. Choose 5G CNC with a screen over 20" and is by the machine, so you can select cabinets, cuts, and make edits on the fly.

There are many good machines and just as many old generation CNC machines being sold at even higher prices. You don't have to settle with those cheap, inferior imports with hard-to-service components. So make sure to ask these questions so you can protect your investment and get true 5th Generation CNC.