

Kurt's clinic

Kurt Hertzog answers some readers' questions

New to turning

Question: I'm pretty new to turning and am wondering about the various mounting methods. Is one better than another? Which is easiest to learn? What do you use?

Answer: Most of the time, the work holding method selected has three major decision points, the most important being the size of the blank and the end goal. A green blank that you load with a chain hoist will use a different mount to that of a 10in dried bowl blank. Another decision is the equipment available. Chucks are far more expensive than faceplates and chucks of the proper size for the turning may not be available. The last consideration, for me at least, is the design and process. That is, will it be mounted and remounted in another orientation or is it a single mount and finish all? For large, heavy, lopsided weight distribution, or green wood blanks, I favour a faceplate screwed into the blank. Remember, safety dictates that the mount surface be flat and the mounting screws of the proper type, number, and sufficient length. You usually need to prepare that mounting surface when cutting the blank or creating that surface by turning between centres. Of course, the faceplates can always be used as a method of mounting regardless of the size, weight, and dryness. Chucks are used for bowl mounting among others, with a variety of techniques

available, from expansion into a recess to compressing on a tenon.

Other methods can include vacuum, disposable glue blocks, screw mounts, mandrels, and more. Easiest to learn? All are easy but all have some of their own best-use practices. Your turning club friends are great resources for guidance, as are many online videos. I use all of the possible mounts, from faceplates to vacuum, including every chuck mounting technique as the situation demands. There isn't any magic method to solve all your potential needs, unless you always turn only the same things.

All mounting methods have their own advantages and selecting the best for each situation is part of your learning as you go. Space prevents me going too far into the topic here. Learn from your local club, fellow turners, or dig into archives of *Woodturning* magazine. I wrote a comprehensive 13 issue series titled *Work Holding Aids and Chucking* that ran from *WT238* (4/12) through *WT250* (2/13). It extensively covers work holding methods for bowls as well as most everything else.



Faceplates, in various sizes, excel for mounting and turning larger blanks. With proper faceplate sizing and mounting screws, they allow safe turning of many different blanks



Chucks are available in all sizes and functions. Along with the variety of chucks, most manufacturers offer assorted jaws for various needs



Adjustable and usable for internal expansion and external compression clamping, a quality chuck offers work holding flexibility and is a valuable piece of equipment



Just a few of the offerings available for your consideration. I suggest you always buy the highest quality you can. Buying cheap is false economy

PHOTOGRAPHS BY KURTHERTZOG

Chuck dilemmas

Question: My chuck is getting very difficult to tighten and loosen. I'm afraid it is worn out. How can I tell if I need to pitch and replace it, repair it, or adjust something?

Answer: I don't think I've ever run across a worn-out chuck. Abused, stripped threads, broken or fractured scrolls, and more problems, but not really worn out from use. Perhaps there are some but I've not seen them. I'm guessing that your scroll mechanism and guides are dirty, gunked up, or otherwise adding unnecessary drag. All chucks seem to get that way with use over time and a periodic cleaning usually will restore them to full functionality.

You can clean a chuck two ways. The more difficult method is to disassemble it and clean everything with a solvent. Certainly doable, but often the less experienced turners or mechanically challenged don't keep things in order for proper reassembly. This can possibly cause jaw timing or best possible fit and alignment problems. The easier method is a good soaking in a tub of solvent. Find a plastic tub that will contain your chuck completely with the least amount of extra volume. Extra surrounding volume will require additional solvent, so minimizing this need is the goal.

I find that cleaned plastic containers for dessert toppings or margarines work well for all but my largest chucks. Put the chuck in and fill the container with a solvent of your choice until the chuck is completely submerged. You can have it partially submerged and flip it over, but that is a pain and less effective. I usually use denatured alcohol or acetone as my cleaning solvent. Let the chuck

sit submerged for a while. How long? I leave it overnight, but the time could be shorter or longer depending on the chuck's state of working. If possible, seal the container with the original cover while the chuck is soaking to minimise the odours and evaporation of the solvent into your shop environment. Periodically I'll open the container, insert the chuck key and run the chuck through its range a few times. Those cyclings, along with solvent soak time, will usually restore free movement.

After the cleaning, I let the chuck drip dry on disposable towels, blow it out with compressed air, and spray a good lube into the works with a fine-tip nozzle. The lube may not be necessary but after a total degreasing, I think a bit of lube or metal protector can't hurt things. Something to lubricate the metal-to-metal surfaces and protect the now chemically stripped metal helps. While it's not truly a lubrication product, I often use Boeshield T9 as a metal protector. Give that submersion soak cleaning a try. I'm guessing that will free up your chuck considerably if not restore it to new-like operation. If that doesn't solve your issue, a tear down might be needed to check for other problems, or a better cleaning. Tear downs with solvent and an old toothbrush will allow for cleaning and inspection. Of course, regardless of your method, be careful with your use of chemicals. Be certain to use proper PPE and do a safe and legal disposal of any rags, towel, spent solvent, and containers used.



Through the cleaning process, take the occasion to run the chuck through its full adjustment positions. Cycling the mechanics as you soften and wash away the 'gunk' will help. **INSET:** Notice whenever you change jaws or remove them for cleaning, there often is a jaw numbering that relates to proper position. Be certain to reassemble to the markings

Is older equipment worth buying?

Question: I have a chance to buy some equipment – a lathe, bandsaw, and jointer – from a nearby school that is closing its shop classes. Is older equipment worth buying even if the price is cheap? What should I be careful of?

Answer: If it is equipment you'll use, by all means consider it. Check the condition and operability since school classes are typically brutal on equipment. Be certain it is working, or economically repairable if not, with OEM parts or quality after-market replacements. Other than broken castings, virtually everything else can be repaired or replaced. Past that, the most important concerns are the weight and operating voltages. Be certain that you can move the equipment, your floor loading capacity is sufficient, and the needed electrical supply needs can be met in your shop. Rewiring, motor changes, and special controllers are available but can make your 'bargain' less of a bargain. Older, industrial-level equipment was often designed and built to far better standards and can be a gem if you can get it at the right price.



There is little to go wrong with well-built older equipment. Do check functioning, required operating voltages and currents, and availability of perishable/replacement needs



Some of the old classics are true finds. Larger in size, capacity, and often functions such as brakes and special adjustment features, they are great shop additions



Fully functioning and often far better built than today's offerings, older equipment from school shops or businesses, can offer solutions to your needs at attractive prices

Send your questions to Kurt's email: kurt@kurthertzog.com