

AAW, the foremost authority on woodturning in the U.S. provides the following safety guidelines. *Reprinted with permission.*

1. Always wear safety goggles or safety glasses that include side protectors. Use a full face shield for bowl, vessel, or any turning involving chucks and faceplates.
2. Fine particles from a grinder and wood dust are harmful to your respiratory system. Use a dust mask, air filtration helmet, proper ventilation, dust collection system, or a combination of these to deal with this serious issue. Be especially mindful of dust from many exotic woods, spalted woods, or any wood from which you notice a skin or respiratory reaction.
3. Wear hearing protection during extended periods of turning.
4. Turn the lathe off before adjusting the tool rest or tool rest base, i.e., banjo.
5. Remove chuck keys, adjusting wrenches, and knockout bars. Form a habit of checking for these before turning on the lathe.
6. Tie back long hair; do not wear gloves; and avoid loose clothing, jewelry, or any dangling objects that may catch on rotating parts or accessories.
7. When using a faceplate, be certain the workpiece is solidly mounted with stout screws (#10 or #12 sheet metal screws as a minimum). Do not use dry wall or deck screws. When turning between centers, be certain the workpiece is firmly mounted between the headstock driving center and tailstock center.
8. Ensure the belt guard or cover is in place.
9. Check that all locking devices on the tailstock and tool rest assembly (rest and base) are tight before operating the lathe.
10. Ensure the blank is securely fastened.
11. Rotate your workpiece by hand to make sure it clears the toolrest and bed before turning the lathe on. Be certain that the workpiece turns freely and is firmly mounted. A handwheel on the headstock simplifies this process of spinning the lathe by hand before turning on the switch.
12. Be aware of what turners call the "red zone" or "firing zone." This is the area directly behind and in front of the workpiece, the areas most likely for a piece to travel as it comes off the lathe. A good safety habit is to step out of this zone when turning on the lathe, keeping your hand on the switch in case you need to turn the machine off. When observing someone else turn, stay out of this zone.
13. Always check the speed of the lathe before turning it on. Use slower speeds for larger diameters or rough pieces and higher speeds for smaller diameters and pieces that are balanced. Always start a piece at a slower speed until the workpiece is balanced. If the lathe is shaking or vibrating, lower the speed. If the workpiece vibrates, always stop the machine to verify why. As a starting point, consult your operator's manual for recommended speeds for a particular lathe. Ensure the lathe speed is compatible with the size of the blank.
14. Exercise extra caution when using stock with cracks, splits, checks, bark pockets, knots, irregular shapes, or protuberances. Beginners should avoid these types of stock until they have greater knowledge of working such wood.
15. Hold turning tools securely on the toolrest, holding the tool in a controlled but comfortable manner. Always contact the tool rest with the tool before contacting the wood.
16. Note that, when running a lathe in reverse, it is possible for a chuck or faceplate to unscrew unless it is securely tightened or locked on the lathe spindle.
17. Know your capabilities and limitations. An experienced woodturner is capable of lathe speeds, techniques, and procedures not recommended for beginning turners.
18. Always remove the tool rest before sanding, finishing, or polishing operations.
19. Don't overreach, keep proper footing, and keep your balance at all times.
20. Keep lathe in good repair. Check for damaged parts, alignment, binding of moving parts, and other conditions that may affect its operation.
21. Keep tools sharp and clean for better and safer performance. Don't force a dull tool. Don't use a tool for a purpose that it was not designed for or intended for.
22. Consider your work environment. Don't use a lathe in damp or wet locations. Do not use in presence of inflammable liquids or gases, and always keep a fully-charged fire extinguisher close at hand. Keep your work area well lit.
23. Stay alert. Watch what you are doing. Pay close attention to unusual sounds or vibrations. Stop the lathe to investigate the cause. Don't operate machines when you are tired or under the influence of drugs or alcohol.
24. Guard against electric shock. Inspect electric cords for damage. Avoid the use of extension cords.
25. Never leave the lathe running unattended. Turn power off. Don't leave lathe until it comes to a complete stop.
26. Many accidents to woodturners occur while using saws, especially band and chain saws. Learn and follow the safety guidelines for this equipment.



Pen Size Square Woodturning Tool is the best choice for roughing cuts. Also perfect for creating and refining outside curves on pens and other small, delicate work.

- **Highly Polished Nano-Grain Carbide Insert**
Sharpest, longest lasting inserts on the market!
- **Hardened Chromoly Tool Shaft**
Minimizes vibration. Smooth surface glides on tool rest.
- **"D" Shaft Geometry**
Flat surface for roughing and shaping. Polished round surface supports advanced techniques.
- **Rock Maple Handle**
Perfect balance & comfortable grip.
- **CNC Precision Machined Insert Seat**
Insert locked in position. Cuts & feels like one-piece tool.

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- ◆◆ MSK
- MS MSS
- MSD MSD
- MSR MSR
- ◆◆◆ FSK
- PS FSS
- PSD FSD
- PSR FSR
- ◆◆◆ PSK
- PS PSS
- PSD PSD
- PSR PSR

Master Set of Nine Woodturning Tools

Mid-Size Woodturning Tool - Set of Three

Mid-Size Woodturning Tool - Square (20125 Insert)

Mid-Size Woodturning Tool - Detail (20129 Insert)

Mid-Size Woodturning Tool - Round (20127 Insert)

Full-Size Woodturning Tool - Set of Three

Full-Size Woodturning Tool - Square (20121 Insert)

Full-Size Woodturning Tool - Detail (20129 Insert)

Full-Size Woodturning Tool - Round (20124 Insert)

Pen-Size Woodturning Tool - Set of Three

Pen-Size Woodturning Tool - Square

Pen-Size Woodturning Tool - Detail

Pen-Size Woodturning Tool - Round

Ultra-Shear Carbide Insert	Fits Ultra-Shear Woodturning Tool	Description	*Replaces Easy Wood
20121	FSS, MSS	.59" Square	Ci1-SQ
20122	FSS, MSS	.59" Square - 2" Radius	Ci1-R2
20123	FSS, MSS	.59" Square - 4" Radius	Ci1-R4
20124	FSR, MSR	.63" Round	Ci0
20125	PSS	.44" Square	Ci2-SQ
20126	PSS	.44" Square - 2" Radius	Ci2-R2
20127	PSR	.46" Round	Ci3
20128	FSD, MSD, PSD	Detail - Radius	Ci4
20129	FSD, MSD, PSD	Detail - Full Sharp	N/A

*NOTE: The Easy Wood tool brand name is the registered trademark of the respective companies and are not associated with Woodpeckers, LLC.

705-INSERTSAVER Storage Case for Carbide Inserts

- CFP 2" Center Finder - Pen
- CFF 8" Center Finder - Full
- USPT Parting Tool-Ci
- 20130 Square Optional Carbide Insert
- 20131 Fluted Replacement Carbide Insert
- PPMCIB Pen Mill-Ci 5-Piece Set
- PPMCIDX Pen Mill-Ci 13-Piece Set
- PPMCI Pen Mill-Ci (Head Only)
- PPMPR-01 Pilot Reamer - 7mm
- PPMPR-02 Pilot Reamer Letter O
- PPMPR-03 Pilot Reamer - 3/8"
- PPMPR-04 Pilot Reamer - 25/64"
- PPMPR-05 Pilot Reamer - 10mm
- PPMPR-06 Pilot Reamer - 10.5mm
- PPMPR-07 Pilot Reamer - 27/64"
- PPMPR-08 Pilot Reamer - 11mm
- PPMPR-09 Pilot Reamer - 15/32"
- PPMPR-10 Pilot Reamer - 31/64"
- PPMPR-11 Pilot Reamer - 12.5mm
- PPMPR-12 Pilot Reamer - 33/64"
- USPMD Pen Mandrel System (#2 Morse Taper)
- BUSHINGSET Bushings 11-Piece Set
- 25001 Bushings for Slimline (7mm) Pencil & Ballpoint Pens
- 25002 Bushings for all Sierra Family Pens
- 25003 Bushings for Cigar Ballpoint Pens
- 25004 Bushings for Lever Action/Fireman Ballpoint Pens
- 25005 Bushings for Motorcycle Pens
- 25007 Bushings for Bolt Action Pens
- 25009 Bushings for Sierra Vista Ballpoint Pens
- 25012 Bushings for Blade Ballpoint Pens
- 25008 Bushings for Baron/Sedona Rollerball & Fountain Pen
- 25010 Bushings for Atrax/Triton Rollerball & Fountain Pens
- 25011 Bushings for Churchill/Cambridge Pens



ULTRA-SHEAR™

WOODTURNING TOOLS
by Woodpeckers®



Square Woodturning Tool shown in photo. Centerline alignment applies to all Ultra-Shear Woodturning Tools.

GENERAL CUTTING INSTRUCTIONS

Adjust the tool rest height to position the cutting edge on the centerline of the lathe when the Ultra-Shear Woodturning Tool is level with the ground. In practice, you may find that being ever so slightly above center and giving the woodturning tool a slight downward angle to the centerline works best. Avoid dropping the handle so that the woodturning tool reaches an upward angle. Contacting the stock with the woodturning tool on an upward angle will almost always cause a catch.

Position the tool rest close to the stock. Check for interference between the stock and the tool rest.

Choose a speed appropriate for the workpiece diameter. Try to form a habit of working in the upper end of the recommended speed range for any given diameter. While it may seem that faster is more dangerous, in fact higher speeds bounce less and lead to cleaner cuts.

ROUGHING CUTS

Start at the tailstock end. Hold the woodturning tool level with the ground and square to the workpiece. Plunge straight into the stock slowly. You can use up to the full width of the cutter, as shown in the photo. If you experience vibration or a catch, cut down to approximately 2/3 of the width of the cutting insert. Continue the plunge cut until it sounds as if the cutting insert is making contact all the way around the workpiece.

Reposition the woodturning tool and repeat. Continue in the same fashion until you reach the headstock end of the workpiece.

Take another very shallow cut straight in, then push sideways. This will clean up any variation between the series of plunge cuts. You can make the cut right to left or left to right...though one direction will usually deliver a better surface.



Round insert shown in photo. Technique applies to both square and round Ultra-Shear Woodturning Tools.

SHEAR CUTTING

Once you have your initial profile created, you can refine the shape and smooth the surface with a few light shear cuts. Shear-scraping is nothing more than the same cut used for roughing and shaping, but with the tool held at a 45° angle to the surface being cut. The angle reduces the aggressiveness of the cut and slices the wood fibers very cleanly.

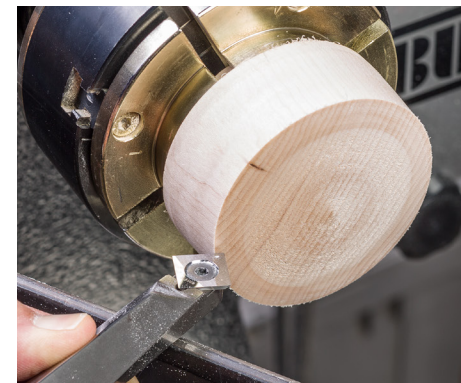
Just roll the woodturning tool to the right or left until it is approximately 45° to your work. Use a light touch and keep the woodturning tool perpendicular to the project profile. The round shaft of the pen tools allows you to adjust the angle to find the optimum shear-scrape angle for any workpiece.

The trick to getting the best finish from a shear-scrape is to pivot the woodturning tool rather than drag it. Keep the woodturning tool perpendicular to the point of cut. You'll know you're doing it right with the shavings come off as mere whisks and the surface of your turning looks and feels already polished.

While the true Square Insert will shear scrape perfectly, some turners find the radiused inserts easier to control, since the corner is pulled back from the line of the cut.

ADVANCED TECHNIQUES

The Ultra-Shear Square Tool seat is carefully designed to support the cutter with an edge facing forward (normal use) or with a corner facing forward. With a corner forward, you can face-cut the front of a bowl or vessel from a comfortable operator stance. Use the point forward position to cut crisp 90° vee cuts in your turnings, too.



Full size Ultra-Shear Woodturning Tool shown in photo. Point forward orientation works in all sizes.

CHANGING INSERTS

When changing Ultra-Shear Inserts, use compressed air or an old toothbrush to clean all debris out of the socket before inserting the Allen Key.

If you think you're missing anything, email us at mailroom@woodpeck.com.

You can also call us at 800-752-0725 from 9:00 a.m. to 5:00 p.m. EST Monday - Friday.



CAUTION! SHARP EDGES

WARNING! This product can expose you to chemicals, including chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov