IWG News

The Newsletter of the Island Woodturners Guild February 2020

About the IWG :

The Island Woodturners Guild meets from 1:00 - 4:00 PM on the 4th Saturday of each month (except for July/Aug) at the Central Saanich Senior Citizens' Centre, 1229 Clarke Road, Brentwood Bay, BC.

Visitors are welcome.

Executive Committee

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Tim Karpiak

Vice President:
Vik Peck

Secretary:
Michael McEwan

Treasurer:
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Artisan Wood to Works
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THE PRESIDENT'S TURN

Well, despite the rain (and snow), my garden has Snow drops and Crocuses flowering. So, I guess spring really is just around the corner. Finally, I might be able to open the doors of the shop and blow out the spider webs! And sweep up almost a whole winters worth of shavings!

As many of you know, our guest demonstrator for April, John Jordan, had to cancel his appearance due to medical issues. However, thanks to Vik's efforts, we were fortunate to get Kai Muenzer from Calgary to step in. I saw Kai in Portland at the AAW symposium where he demonstrated making a drawer cabinet. It was very intriguing. He's a great demonstrator and I look forward to his visit. He will be doing an all-day demo on Saturday with workshops in the days after.

This month we will start what we're calling a "Stupid Question" segment at the meeting. We'll have a box where you can anonymously put in a question that's been nagging you, but you didn't want to ask. I'll read a question and then ask for answers from the group. Hopefully we have enough knowledge within our group that most questions will be answered. We'll try it for a few months and see if benefits any of our members.

I'm looking forward to Emma's demonstration of how to make a wooden pipe at this meeting. I'm sure it will be entertaining and informative. And don't forget that this month we will be showing the results of the fall challenge, "Spheres". I can't wait to see what everyone's been up to.

See you all at the meeting this Saturday!

Tim Karpiak

NEXT MEETING: SATURDAY FEBRUARY 22: 1:00 – 4:00

Stupid Questions

As mentioned in the January newsletter, the meeting will start with the selection of two or three questions from the Dunce Box which will (hopefully) be answered by those without a pointy head!

Fall Challenge

We will then have a presentation of the results of the fall challenge which was to turn a sphere.

Pipe Turning

This will be followed with a demonstration by Emma Banner on turning a pipe.

PS. In order to test out the final product, donations of B.C. bud will be gratefully accepted!

SPRING CHALLENGE

The spring challenge is to create an **innovative hollow form**. Get creative!

The results will be presented at the June meeting.

JANUARY RECAP: ED PRETTY

Ed Pretty gave an informative demonstration that offered a detailed amplification and modification of the common direction of **Anchor, Bevel and Cut**. The following are the highlights.

(Some of the photos in this note are taken from Ed's website which can be viewed at: http://www.edswoodturning.com/)

A. ANCHOR

While this term is conventionally understood to refer to anchoring the tool on the tool rest, Ed noted that it is better understood as anchoring the tool to the body. Doing so will not only provide more control but will also reduce the level of effort and thus fatigue. In this regard, he noted several aspects to consider.

1. Handle/Arm/Body Contact

The power to feed a tool into the work should come through your leg muscles to your back hand. Accordingly, the handle of the tool and your upper arm should always be held against the waist/hip. While there may be circumstances where this is not possible, be aware that when using your arms away from your body, you will have much less control over the tool.

Note: Holding the handle on your hip/waist will result in a "shearing cut" angle that will produce a much better finish.

2. Stance

The default stance should feature your feet shoulder width apart, shoulders relaxed, and knees flexed (right). Of these, the last one is the most important one. If you are stiff legged/knees locked, movement will be restricted to hip rotation only which will limit control and prove very tiring.

3. Feet Position and Direction

There are two basic cutting movements: **lateral** where you are moving parallel to the axis of rotation (e.g. spindle turning) and **transverse** where you are moving perpendicular to the axis (e.g. across the face of a turning.)

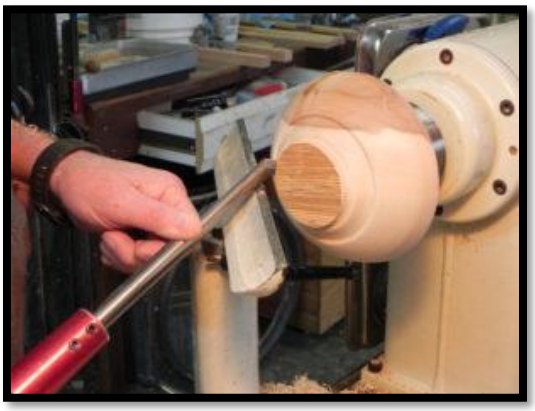
In the case of the former, the feet should be roughly aligned with the tool rest and pointed slightly in the direction of travel (right).

In the case of the latter, the feet should be roughly perpendicular to the axis (left).

4. Engaging the Tool Rest

One of the most important points Ed raised was when to engage the tool rest by pressing down with your hand/fingers …. and when not to!

When you are beginning to make a cut, the tool must be held firmly on the rest using your forward hand/fingers (right).



However, once the cut has proceeded to the point where there is enough wood to support the bevel you should disengage your hand/fingers **from the rest** (while keeping control of the tool) (left).

If you continue to engage the tool rest, it will limit the range of tool movement forcing you to make multiple entry cuts.

Ed's one-hand-on-the-tool demonstration dramatically illustrated the support provided by the wood (right).

Note: There are however exceptional circumstances where you should continue to engage the rest. These include:

a. When you are "cutting" a lot of air,

b. when you need to eliminate chatter which occurs when there is a rough portion of the turning which is not providing constant support of the tool, and

c. the need for tight control in cutting beads and covers.

B. BEVEL

1. Direction of Cut

The bevel determines the direction of the cut. As Ed characterised it, "*the bevel points the way*".

2. Contact

As noted above, the bevel must remain in contact with the wood to provide support and stability. However, too much pressure will produce heat and wood compression (which in turn will create a rippled surface and chatter). Only practice will enable you to determine how much pressure is appropriate in any given circumstance.

3. Hand Responsibilities

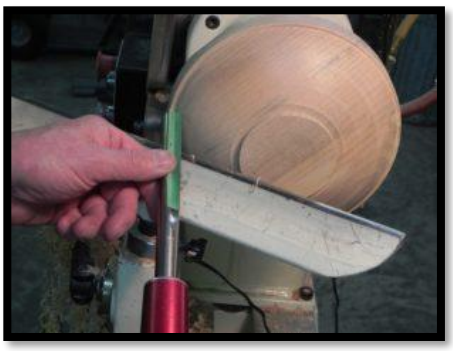
Ed analogized the differing responsibilities of your hands to the front and rear wheels of a rear-wheel drive automobile.

The back hand is the power hand. With the tool anchored to your body, leg movement is transferred into the back hand and to the tool. Doing this will help keep the bevel on the wood. The back hand also controls the rotation of the tool and how open the flute is which determines how aggressive the cut will be.

The front hand is responsible for keeping the bevel on the wood which, as noted above, will determine the direction of the cut. Light pressure should be applied at approximately 90 degrees to the bevel. While not always possible, holding the tool near the ferrule will provide greater control.

4. Front Hand: Pinch vs Grip

Ed strongly advises against gripping a tool with the front hand or wrapping your fingers around it (right). He noted that this will "prompt" you to use the forward hand to power the tool into the cut which will pull it off the turning.



He recommends that one should simply "pinch" the tool with two fingers. As shown in the photo (left), he places his index or "peter pointer" finger in the flute and his thumb gently on top.

5. Back Hand: Flute Rotation

In addition to providing power, the back hand is also responsible for flute rotation. To maintain bevel angle, this should be done with a “wrist up or down” movement. If you use a “hand up or down” movement, it will move the tool in an arc which will alter the bevel angle and thus engagement with the wood.

6. Engaging the Bevel

a. New Surface

When making a new cut where the tool is not supported by the wood, set the desired bevel position before entering the wood, engage the tool rest and initiate the cut. As noted above, once the tool is supported on the wood, remove the hand from the rest.

b. Established Surface

When engaging the bevel on a surface that can offer support, always begin the cut by placing the heel of the bevel on the wood (right).

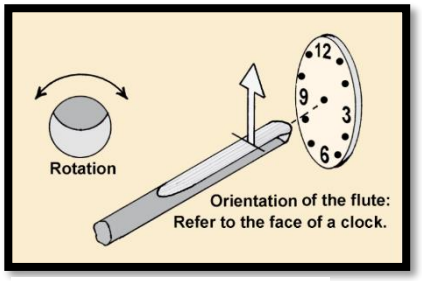
Then raise the handle until the cutting edge engages.

Never start the cut with the leading edge (left). You will have no control over the direction of the cut, and this will typically lead to a catch.

C. CUT

1. Flute Position

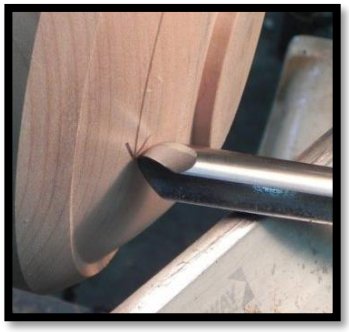
a. Fully Open



Doc Green's Woodturning Site

The flute is said to be fully open when it is in the 12 o'clock position (right). This is an extremely aggressive position and is rarely used since it will typically cause a catch.

b. Fully Closed

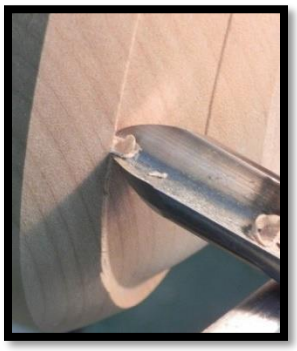


The flute is said to be fully closed when it is at the 9:00 o'clock position i.e. when it is at 90 degrees to the rotation (left).

This is the least aggressive position and it is typically used to start a cut. However, the cut will be very rough as the edge tends to "push" the wood. Accordingly, the tool needs to be rotated to the ideal cutting angle as soon as the tool is supported.

c. "Ideal" Flute Angle

While the best flute angle will depend on a host of factors, the presumptive "ideal" cutting angle is 45 degrees. This may need to be varied slightly depending upon species, moisture content, speed and so on.



2. Entry/Exit

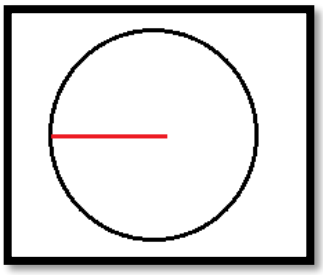
Ed recommends beginning a cut by “levering” the tool into the work rather than “pushing”. Drop the handle down and bring the cutting edge near the surface of the work. Then using the tool rest as a pivot point, raise the handle for a smooth entry into the wood. This is also recommended for making a controlled exit from a cut.

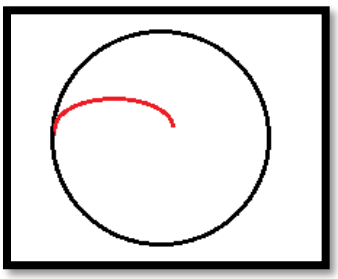
3. Tool Angle

To ensure an effective shear angle, a gouge or skew should be held at a slight upward angle i.e. with the handle lower than the cutting edge. This requires appropriate lathe height (centre of spindle at elbow height), tool rest height set such the tool’s cutting edge is on or just below the centre line and a relaxed stance.

Transverse Cut: Arc vs Straight

The conventional practice when making a transverse cut (e.g. facing off, hollowing a platter or bowl) is to keep the tool handle at a constant angle and the cutting edge on a straight line from the rim to the centre.





However, Ed recommends that you move the cutting edge in a slight arc (left). This will produce more of a shearing cut and thus a cleaner finish.

D. CATCHES

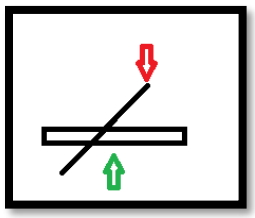
Ed indicated that there are two primary causes of catches.

1. Leading with Cutting Edge vs Bevel

If the cutting edge of a tool contacts the wood first, it will rotate and dig in as there is no bevel support for the tool. As noted above, always contact the work with the heel of the bevel first.

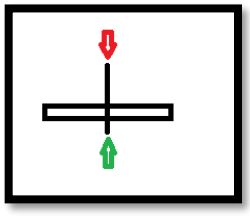
2. Cutting Edge and Rest Contact Not Aligned

The contact point of the tool on the rest should be in line with the cutting edge on the tool. More specifically, the line should be 90 degrees to the axis of rotation. If they are not in alignment, rotational force will cause the cutting edge to rotate into the wood producing a catch.



An extreme illustration of misalignment is shown in the drawing at left. The force at the cutting edge (red arrow) and the distance away from the supporting force of the rest (green arrow) will lead inevitably to uncontrollable rotation.

By contrast (right), when the load point (red arrow) is in line with the rest support (green arrow), the downward force can be resisted by the mechanical advantage of the length of the tool as well as body mass.



The solution is to constantly adjust the angle of the tool to the work in order to maintain an in-line position.

TOOLS FOR TURNING HOLLOW FORMS

This note discusses the various types of tools that can be used to create a hollow form through a narrow opening. It details only a few of the literally hundreds of tools that are available.

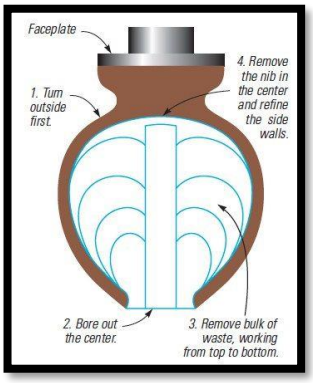
A. INTRODUCTION

1. The Basic Process

Once the outside of the form is completed, the procedure for most hollowing begins with drilling a hole to the intended depth using a bit secured in a Jacobs chuck in the tailstock.

Needless to say, the hole must be larger than the diameter of the shaft **or cutter** of the hollowing tool.

The vessel is first turned to the desired wall thickness at the mouth. The hollowing then proceeds in steps along the sides to the bottom. Retaining mass at the base until the very end serves to minimize vibration.



Typically, a straight or in-line tool (top) is used to enlarge the drilled hole. The angled/bent tool (middle) is then used to hollow the shoulder and side areas and the straight tool for the bottom. For forms with a relatively flat top, a swan neck tool (bottom) is used to hollow the shoulder area.

2. Tool Diameter

The further a tool hangs over the tool rest, the greater the required thickness of the tool bar. While the precise amount will vary depending upon various factors (e.g. user skill, wood density, lathe speed), the general rule of thumb is as follows:

Hollowing Depth	**Minimum** Diameter
4”	3/8”
6”	1/2"
8”	5/8”
12”	3/4"
14”	1”

B. CUTTERS

There is a wide array of “cutters” that can be used for hollowing, most of which are scrapers.

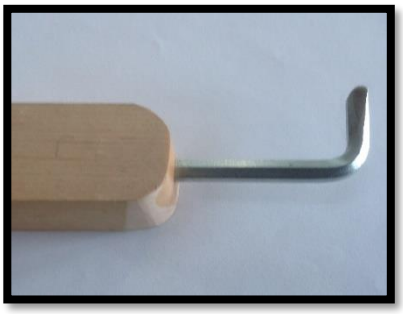
1. Homemade: Hex Wrench

One of the most popular tools for use on small vessels such as ornaments is a reground hex wrench (aka Allan wrench).

Made from either black alloy steel or chrome vanadium, these inexpensive tools allow you to create a range of different sized hollowers. The 90-degree version is particularly effective at hollowing the shoulder area of a small vessel.

(The straight tool can also be made from a concrete nail which is made from high quality carbon steel.)

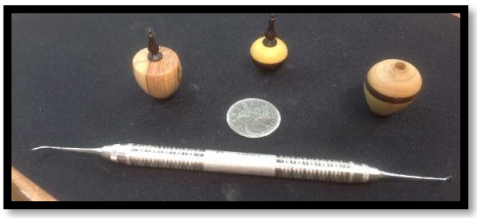
The further away the cutting edge is from the handle axis, the greater the tendency for the tool to twist which will typically lead to a significant catch. The most common response is to cut off a portion of the “foot” which brings the cutting edge closer to the centre. A bevel is then ground around the tip.

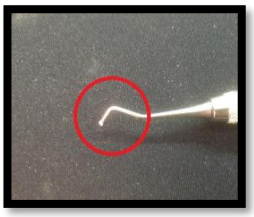


However, cutting away a portion of the foot means that you will lose some depth in hollowing. One alternative is to mount the hex wrench in a wide flat-bottomed handle (left). The increased surface area on the tool rest not only helps to counteract twisting, it also makes it easier to sharpen as the tool will sit flat on a grinder platform.

Micro-Mini Tool

For those who are interested in turning micro-mini hollow forms, you might want to consider the tool used by Tim Soutar. It is a dental scaler that has a very fine bevel ground on the tip. Magnifying glasses are essential! (Amazon: $9)





2. HSS Cutters

HSS cutters are the most popular choice for hollowing tools with the most common sizes being 1/8” – 1/4” square. They are also the least expensive ($5 for 4” length: KMS).

Short sections (usually 1 – 1.25”) are cut from the blank and a bevel is ground on one end.

The cutters can be sharpened using a grinder table and the face and edge of a grinder wheel and “touched up” using a diamond hone.

(For a video showing the former technique, see: https://www.youtube.com/watch?v=I0tiVBieiSY)

There are a few different ways of securing these cutters to a tool bar. One of the simplest is to secure it in a hole in the bar using CA glue.

The cutter can be sharpened “in place” or removed using a propane or butane torch to dissolve the CA glue. They can then be sharpened on the grinder platform. (Acetone can be used to clean off any glue residue.) For instructions see: https://www.youtube.com/watch?v=A928UJyOOcE

Although you can purchase a commercial version such as the Ellsworth Small Hollowers (right) which have 3/16” cutters in 3/8” rods (Packard: US$50/pair), you can purchase metal rod and have a machine shop drill the appropriate holes for a fraction of this price.

Some turners report difficulties sharpening these cutters “in place” and a nuisance removing and then re-gluing them. They favour those tools that have a tapped hole in the bar and a grub screw to hold the cutter in place (left). This allows one to quickly remove the cutter for sharpening.

One commercial version of these are the John Jordan Hollowing Tools. Available in either 3/8” x 10” or 1/2” x 12”, a pair cost US$75.

He also offers a set of 3 larger hollowers (3/4” x 16”) for US$205.

Once again, you could purchase metal rod and have a local machine shop drill and tap a hole for a fraction of this cost.

Another holding method, popularized by the Jamieson tools, is to secure the cutter in a slot in a round housing (right). One major advantage is that the housing (and thus the cutter) can be rotated which significantly increases its versatility.

However, given the size of the housing (3/4” dia.), it does require a relatively large access hole.

3. HSS Alloy: Kelton Hollowers

Made in New Zealand, these popular one-piece tools have an integral cutting tip which is made of a special HSS alloy. Users report that these offer good edge retention and can be used for both rapid wood removal as well as smooth finishing cuts.

They can **only be sharpened using a diamond hone**. Using a grinder will remove the special alloy rendering them ineffective.

There are three sizes available.

Miniature	10" long x 5/16" shanks	(LV: $40 each or $104/set of 3)
Small	13.5” long x 1/2" shanks	(LV: $43 each or $115/set of 3)
Medium	14.5” x 5/8" shanks	(LV: $54 each or $147/set of 3)

Several Guild members report good results using the miniature size for small hollow forms – especially the tight curve (swan neck) profile.

Note: Although written in 2004, this short note contains some good tips on using these tools: http://www.woodcentral.com/woodworking/forum/archives_turning.pl/bid/2104/md/read/id/29831/sbj/tips-for-kelton-hollower-use-early-draft/

4. Carbide Cutters

The popularity of carbide cutter tools has prompted the adoption of these cutters in a variety of hollowing tools.

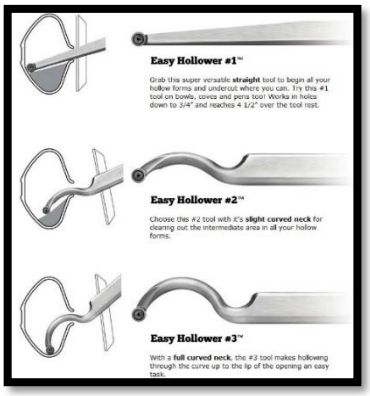
One of the first manufacturers was Hunter Tools which offers a wide array of hollowing tools. These include the Hunter #1 Tapered Tools (Set of 3: 3/8” shank) for US$250. Replacement cutters are US$20.

A new offering from Hunter is the Adjuster tool (left). Available in 3/8 or 1/2” shanks, the cutter head can be rotated from straight to just under 90 degrees. (US$165/$180).

For those who have a stabilizing rig, Hunter also offers square or round shank tools (3/16” or 1/4”) to replace HSS cutters (US$70).

Trent Bosch also offers carbide hollowing tools. With a 5/8” shank, a set of two is US$160 and a set of three is US$250.

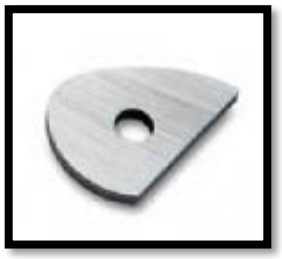
Finally, Easy Wood Tools also offers handled hollowers in the 3 conventional profiles. The tools have a flat shank which serves to minimize twisting.



The following are the prices of each at KMS:

#1: $175 #2: $185 #3: $185

5. Tear Drop



While these cutters can be used for rough hollowing, they are typically used for finishing cuts to produce a smooth surface. However, they do require a relatively large access hole.

Most of the commercial models now have a negative rake profile which makes them easier to control and less likely to catch. (Craft Supplies USA: US$18).

6. Homemade Swan-Neck Tool

In the February 2010 Newsletter, John Gayfer described how he made a swan neck hollower. He purchased a length of metal rod for $15. A short section of the rod was cut off using a Zip wheel cutter in an angle grinder and he shaped it into a “swan neck” configuration with his vise.

He then drilled and tapped a hole to hold the cutter which was made from an old planer blade. Since these are made of very hard metal and difficult to drill, he simply cut a slot in the cutter using the Zip wheel (right). The cutter can be rotated to hollow different portions of the interior and can easily be reshaped for a variety of hollow forms.

For added strength, he inserted the unit into a 3/4" rod and secured it with a tapped hole and grub screw. He then turned a handle to hold the larger rod.

C. STABILISING RIGS

While you can use handheld tools for relatively small turnings, for larger (and deeper) hollow forms, you will need a stabilising rig in which the cutting tool is secured in a metal frame. The two most popular forms are the captured rig and the articulated arm.

1. Captured Rigs

While there are several commercial captured rigs, by far the most popular one is the Jamieson Hollowing System.

The cutter is held in a boring bar and a wide D-handle which, in turn, is secured in a secondary backrest. This configuration serves to absorb virtually all the twisting force when turning and enables one to hollow using mere finger pressure on the handle. (US$233 (Handle, Back Rest, 1/2" dual purpose Boring Bar).

For a review of how this unit works, check out the following video:
https://www.youtube.com/watch?v=Q28OFqFNkZU

Oneway also offers a “Jamieson-style” captured rig (US$233: Handle, Back Rest).

Note: The simplicity of this design makes it easy to create a homemade version and there are literally thousands of turners who have done just that (including many Guild members). To his immense credit, for years Jamieson even included instructions on his website on how to build your own! (These were removed some years ago, presumably for liability concerns.)

Hollowing Rig: Mike Neal

As discussed in the June 2017 Newsletter, Mike made a few enhancements to the basic Jamieson design when he built his rig.

As he frequently does very deep hollowing, he "beefed up" the handle by using 1¼" Schedule 40 pipe with welding elbows welded to the pipe (right). And, as his bars range in length from 12" to 24", he made them from 3/4" to 1.5" steel bar.

On most captured rigs, the backrest sits on a flat plate which is secured to the ways. Since it takes some time to set up the plate, Mike's backrest fits in a second banjo which allows him to quickly install the unit and easily adjust the height.

Finally, he applied UHMW polyethylene strips on the top and bottom of the backrest slot which not only ensures a smooth motion but also absorbs some vibration.

2. Articulated Arm

Captured rigs require a long bed lathe and are cumbersome to store. Some turners prefer an articulated arm system which can be used on a short-bed lathe, take up less shop space and are easy to store. They also claim that this tool provides them with better control when hollowing although this is challenged by fans of captured rigs.

While there are many commercial versions available, the following are some of the more popular ones.

Trent Bosch Hollowing Tool Stabiliser (5/8":US$275)
https://trentboschtools.com/product-category/stabilizers/

Gizmo Hollowing Tool
(Contact JT Turning Tools for a price: info@jtturningtools.com)

Hope Easy Arm Hollowing Jig
(Contact Black Forest Wood Company in Calgary for pricing: https://blackforestwood.com/)

3/4" Elbo Hollowing Tool (US$270)
https://www.wtwtim.com/elbotool-a.htm#HeadingAnchor:58QdOga

Note: Arm Brace Handles

A few manufacturers offer arm brace handles for use in hollowing. While this tool does offer greater stability than a mere handle, it still requires considerably more effort than either of the two rigs noted above.

One of the earliest and best offerings was the D-Way Hollowing Tool whose outrigger does a good job of counteracting twisting torque. However, it cannot be used with a laser and at US$185, the price is near that of captured or articulated rigs.

D. MISCELLANEOUS TOOLS

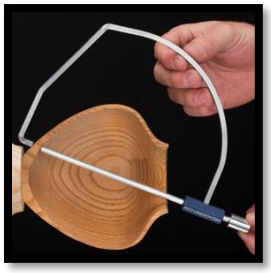
1. Tool for Measuring Thickness

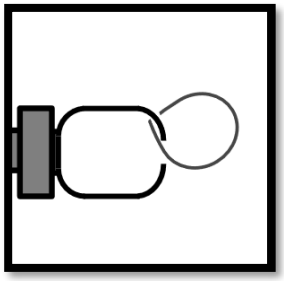
One of the crucial requirements in hollow forming is the ability to measure the thickness of the turning to avoid breaking through the side wall. There are two tools which are commonly used: calipers and a laser.

a. Calipers

Depending upon the shape of the form and the size of the opening, you may be able to use a conventional thickness caliper. (Left: LV $63 – 67).

Alternatively, you might want to purchase a caliper designed specifically for hollow forms such as the Mike Jackofsky Hollow-Pro Calipers (Craft Supplies: US$57-67)





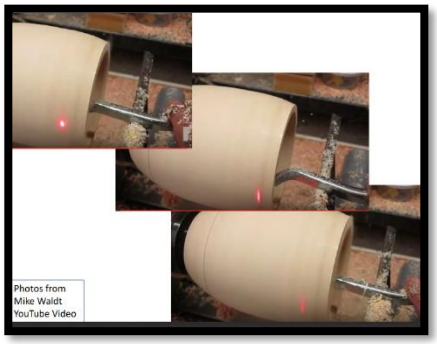
However, the cheapest and most flexible tool for measuring the thickness of the walls of a hollow form is simply a bent piece of 16- or 18-gauge wire. Popularized by David Ellsworth, this “tool” relies on eyesight to determine thickness by comparing the gap on the outside with the overall size of the gap.

The ends should be rounded to avoid scratching the wood and must be in line with one another and perpendicular to the surface to get an accurate reading.

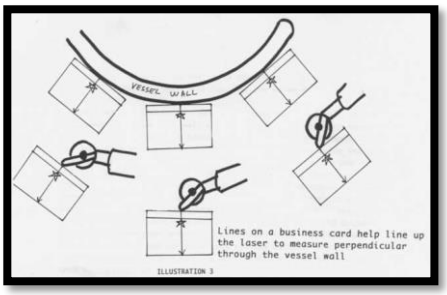
b. Laser

The second, and the most popular tool for those with a stabilising rig, is a laser pointer. Suspended above the boring bar, the unit is positioned such that the beam is offset from the cutting edge to the desired wall thickness.

As the vessel is hollowed, the light moves to the outside of the form. When the laser light "falls off" the turning, the desired thickness is reached.



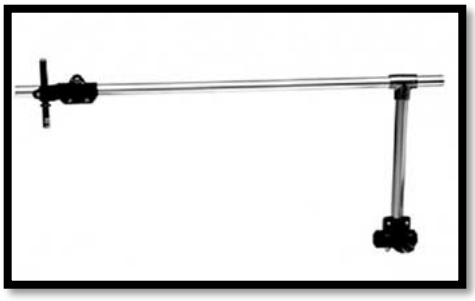
Mike Nathal

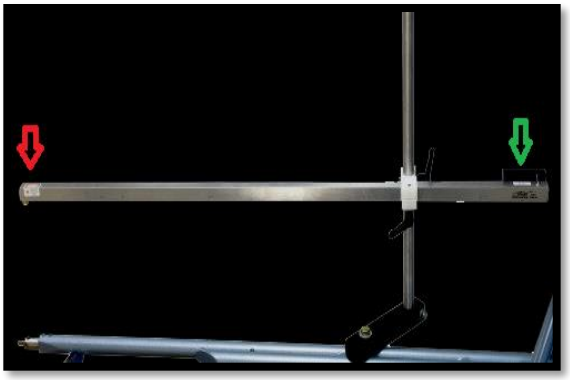


Lyle Jamieson

Needless to say, the laser must be repositioned as the curvature of the turning and thus the location of the cutter changes.

The simplest form of laser rigs uses an inexpensive laser pointer with an internal battery. Most of these have a push button on the side which activates the light. While there are various suggestions for keeping the switch depressed, one of the most popular originated with Lyle Jamieson – namely a bovine castration ring located over the switch. (Jamieson Laser: US$140)

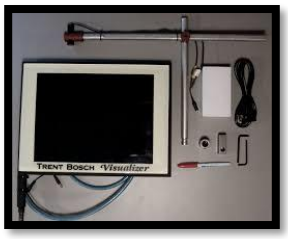




However, many users report that the vibration these units are subject to causes the battery contacts to fail frequently. A preferred configuration is one that has a laser diode (red arrow) wired to a "remote" battery (green arrow) at the end of the laser bar. Laser diodes, which can be purchased for a few dollars on the internet, also have a focusing ability which means a smaller and more accurate "pinpoint".

One of the more popular commercial versions is that from Advanced Lathe Tools (US$175) (http://advancedlathetools.com/laser-assembly/)

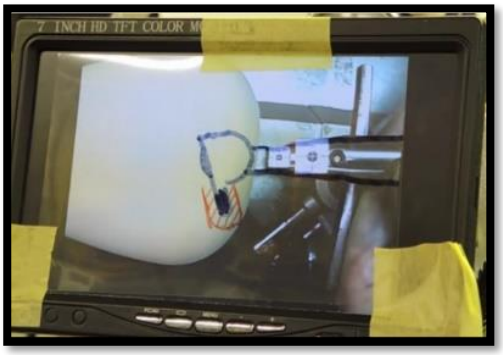
Note: Video System



This is a relatively new method of determining the thickness of a hollow form. While the process was first developed by Trent Bosch for his Visualiser tool (US$695), there are several sources that set out how to make a homemade version.

The system consists of a small camera that is located on a bar above the turning and is connected to a monitor (tv or computer). A clear plastic overlap is attached to the monitor screen and a felt pen (blue) is used to outline the cutter on the hollowing tool. A different colour pen (red) is then used to indicate the desired thickness.

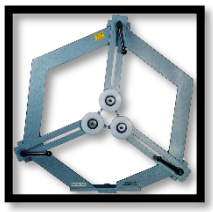
When the cutter "disappears" inside the hollow form, the pen outline on the monitor enables the turner to identify its location and when the desired thickness is achieved.



For more information on how the system works as well as instructions on how to build a system, see: https://www.youtube.com/watch?v=pidLwThKHSw

2. Steady Rest

A steady rest is a jig which mounts on the ways and minimizes vibration or movement of a blank when turning. Typically located at near the mid-point of a turning, it is an essential tool if you are going to do deep hollowing. The following are some of the commercial versions available:



Advanced Lathe Tools (16"): US$375

Robust Tools: (16"): US$595

The Oneway Bowl Steady is unique in that it only uses stabilising wheels on one side of the burning and thus can be used on any size of turning. (US$122).

Homemade

Bearing in mind high shipping costs, as well as the simple design of these rigs, there are many on-line sites which provide detailed instructions on how to make your own.

One of the better ones can be found at:
http://www.tnvalleywoodclub.org/plans/Steadyrest%20by%20JDC.pdf

3. Chip/Shaving Removal

If allowed to build up inside, the shavings will compact and produce a typically fatal catch. This is particularly the case if hollowing green wood. While you can use a bent coat hanger in a pinch, the most popular methods are either compressed air or a shop vac.

NOTICE RE: APRIL DEMONSTRATION

As noted in the President's note, John Jordan has had to cancel his demonstration in April. However, Kai Muenzer has agreed to step in to provide a demonstration and workshops.

A resident of Calgary, Kai has been turning for 13 years. He was a guest demonstrator at the AAW Symposium in Portland and has demonstrated at a number of guilds in Canada and the U.S.

You can see more of Kai's work at his website: https://kaimuenzer.com/

REMINDER: NICK AGAR DEMONSTRATION: ANACORTES, WA

The Northwest Washington Woodturners is sponsoring a day-long demonstration by Nick Agar on March 21, 2020 in Anacortes, WA.

Nick is one of the leading turners in the world and is an outstanding demonstrator. While perhaps best known for his Viking Sunset pattern, he is a remarkably innovative turner who is an expert in various texturing techniques as well as colouring and gilding.

For more information, check out their website notice at: https://www.nwwwt.org/news/

PARTING OFF

Thanks to Chris, Tim K, Vik and others for their preparatory work on the remote demonstration, Barrie for the photos and members of the Executive for their grace under pressure!

Special thanks this edition goes to our Treasurer Peter Pardee for the immense amount of time he spends behind the scenes managing our finances. Fair Warning: Behind that mild-mannered exterior, lurks the heart of a honey badger if you try to submit an expense claim without a receipt!

CONCLUDING THOT