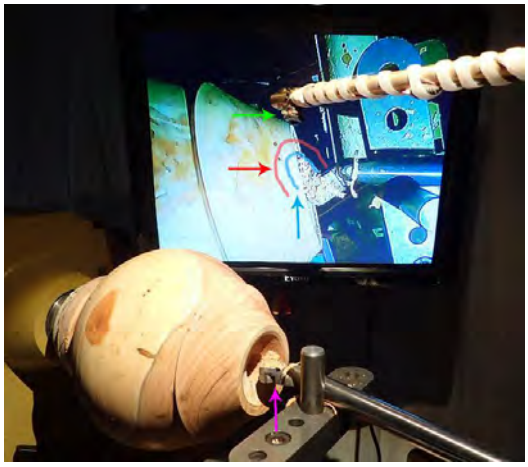
Carl Ford's Hollowing Rig



I use a Trent Bosch Hollowing Stabilizer rig with a Rolly Munro cutter head.

I really love the Bosch Stabilizer. Because, it takes all the stress out of holding the hollowing tool level and it does not let the hollowing tool twist or roll over. However, It DOES NOT restrict my movement. I still have a tool handle, like on my bowl gouges and free hand hollowing tools. I can keep that tool handle up against my body, unlock my knees and use my body to hollow out a nice shape. Just like, I do when turning a bowl. Just like, I have practiced over and over again, while learning to turn a bowl. I don't like any of the other hollowing rigs (Jamieson, Elbo, Monster, etc) because they restrict my movement and I have to maneuver the tools using just my arms. I can't use my body.

I use a "Munro Hollower II" cutter head with a carbide cutter. I purchase the cutter head from Steve Sinner and supply my own custom 3/4" steel bar. I like the older "Munro Hollower II" rather than the new "Munro Wundercutt 10 Hollower". The new one does not work as well for this application.

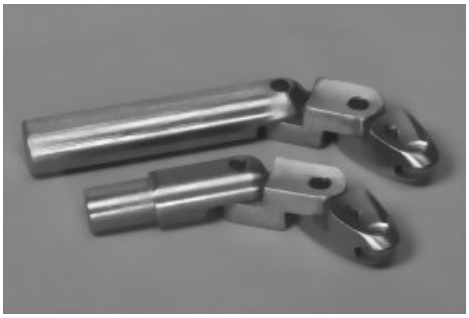
I have created my own TV system. Finding the right camera is a HUGE problem. Thus I recommend people purchase the Trent Bosch Visualizer system. It is not cheap at $650. However, making your own system may approach this cost after a few miss steps, etc.

Carl Ford's Hollowing Rig

For Katterskill Woodturners Demo on 4/14/2018.

Total cost roughly $1300.00

Basic Hollowing Rig

3/4" Trent Bosch Stabilizer from Trent Bosch (www.trent-boschtools.com) Note: Trent makes a 5/8" and 3/4" size Stabilizers. I recommend the 3/4" with a 3/4" bar. This will allow you grow into doing the biggest possible hollow form with this system. The 5/8" system is only 1/8" smaller thus it will not really allow you to do things that are a lot smaller. Using a 3/4" to 5/8" bushing in a 3/4" system DOES NOT work well! Because the busing walls are only 1/16" thick ALUMINUM and thus are to wimpy. There is to much play.		$350
1/2" Munro Hollower II Set Carbide from Steve Sinner (www.advancedlathetools.com). Then YOU must supply our own STEEL 3/4" bar. Or purchase 3/4" Munro Hollower 2 from Packard (item# 101241 for $370). Beware! This has an Aluminum shaft and may bend to easy! Beware! I have never tried the off the self Aluminum shaft from Munro. It may be a little over 3/4". If so, then it WILL NOT fit in the Bosch Stabilizer! I like the older "Munro Hollower II" rather than the new "Munro Wundercutt10 Hollower". The new one does not work as well for this application.		$195
18" long 3/4" Steel Bar from McMaster (www.mcmaster.com, item# 5227T282, Tight-Tolerance 12L14 Carbon Steel Rod, Ultra-Machinable, 3/4" Diameter, 3 ft. Length) Cut the 36" bar in half, cut platform for Munro head, then drill and tap for M6 x 1. Beware! Just any old 3/4" steel bar will probably not work. Because the 3/4" hole in Trent Bosch Stablilizer is DEAD ON 3/4". i.e. +/- .000" Normal steel bars are like +/- .005". Usually +.005" and will not fit in Trents hole!		$20
22" Hosaluk Steel Handle with 3/4" Hole from Packard (item #105407) Or get a 3/4" Handle from Trent Bosch. Or make your own custom handle. See Carl Ford's Custom Tool Handles in April 2015 AAW Journal. (www.carlford.us -> Jigs & Tools)		$75

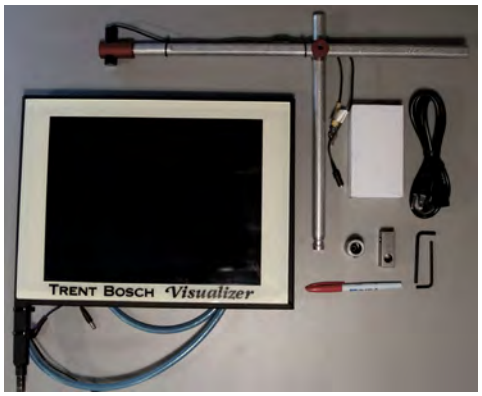
Laser for Hollowing Rig

Trent Bosch Stabilizer Laser Bars from Trent Bosch (www.trentboschtools.com) I DO NOT recommend trying to make your own! Why? When the going gets rough the hollowing rig will SHAKE THE LIVING HELL out of the laser. Thus the laser rig needs to be really robust. Trent's system may not be cheap. But, it is probably cheaper than making your own REALLY ROBUST system!		$175

TV for Hollowing Rig

Note: The "Trent Bosch Visualizer" system includes the Laser Bars. Thus you DO NOT need $650 Visualizer plus $175 Laser bars!

You DO NOT need both the Laser and Visualizer. You can ONLY mount the Laser **OR** the Camera for Visualizer. Thus you CAN NOT use both of them at the same time!

Trent Bosch Visualizer from Trent Bosch (www.trent-boschtools.com) I DO NOT recommend trying to make your own! Why? Finding the right camera is a HUGE problem. It is going to takes lots of trial and error. Purchasing a 1/2 dozen or more cameras is going to cost you $150+. The small cameras on Amazon come DIRECTLY for China. You often can not return them or not at a price that makes sense. They are OFTEN not as advertised, low quality, or just CRAP! The sellers, often are fly by night! **If you want to make your OWN system. Then please do it on your OWN! DO NOT ask me for help!** I ABSOLUTLEY do not want to offend Trent Bosch by publishing info he has spent a lot of time and EXPENSE developing! Even, if I wanted to, I could NOT tell you which camera I am using! It is no longer available on Amazon. The cameras change really fast on Amazon. Like 10 seconds after you order one it is no longer available! After you wait for 2+ weeks for something to come (or not come) from China there is like no chance in hell you can order the same thing again! I think if you make your own system you will only save $150. I know it seems like you should be able to save more. But, when you add it all up, add shipping costs, allow for a few screw ups and misc items like power supplies, cords, etc.		$650

Kaatskill Woodturners' Association

By Wally Cook

A Visual Treat – There has been a lot of talk about Trent Bosch's Visualizer product, and we got a taste of what the product might do. Carl Ford built a variant of the Bosch Visualizer – and in doing so, reinforced the value of the OEM Bosch product.

Carl Ford begins a hollowform to demonstrate a visualizer system

First, what does this product do? The visualizer itself is a camera system that acts in place of a laser mounted system that defines the thickness boundaries of a hollowform. However, the camera components ride on a hollowing rig which is integral to its use. Listed below is a list of components:

1. **Bosch Stabilizer**: An articulated arm, the stabilizer serves as both a tool rest and platform for controlling a separate handheld hollowing tool. The stabilizer can hold a 5/8" or ¾" tool shaft (two different ordering options) in a movable arm. The stabilizer slides into the banjo and must keep the cutting edge of the tool at center of the spindle height; a bushing (shopmade) is helpful to avoid resetting the height of the platform.
2. **Hollowing tool:** Carl used a Rollie Munro Hollower II tool with a shopmade ¾" bar. There are other options available from Trent Bosch. The tool needs to be a compatible size to seat in the 5/8" or ¾" hole in the stabilizer arm.
3. **Laser or Camera Stabilizer Bar:** This unit holds either a laser or a camera and mounts on top of the Bosch Stabilizer . Carl's experience in making this component underlines the importance of holding either laser or camera steady! He concluded that it is far better to purchase Trent's product than to try to make your own. The laser or camera guide is useless if it shakes during operation. In addition, the quality of camera is critical.
4. **Visual Display:** The visual display is wired to the Laser/ Camera stabilizer bar and shows in real time the disposition of the cutting edge. To be clear, you view the outside of the hollowform with a precise indication of where the cutting edge is inside the hollowform. In Carl's opinion, the solution is ingenious, being both accurate and avoiding any time lag on the screen. An acetate sheet is adhered to the display. When the tool edge is pictured outside the hollowform, it allows the user to mark the outline of the

After shaping the outside, Carl drilled a hole in the form. Depth is controlled by a laser guide

The visualizer approach uses an acetate sheet to mark the dimension of the cutter, as well as the desired thickness. This representation is shown graphically on the screen and moves with the tool.

The entire camera and hollowing system in use. Carl concluded that the OEM Bosch Visualizer is the better option than a shop made alternative.

cutting edge as well as the desired thickness of the hollowform. These boundary lines are drawn around the display of the cutting tool. They move as the tool cuts; the inner boundary shows the edge of the tool and the outer boundary indicates the desired thickness of the hollowform wall. The outer boundary (Carl set his for 3/16") is graphically displayed – when the boundary shows as moving to the edge of the hollowform, the cutting tool has attained the desired thickness. In that regard, the camera system works like a laser guide but has the advantage of being clearly seen on any part of the hollowform.

Carl demonstrated the hollowing of a vessel using a variant of the Bosch system. He found that running the lathe in reverse and cutting the opposite side provided more flexibility in movement. To finish the bottom, a cylindrical jam chuck was used, and Carl wrapped thin saran in layers around the jam chuck and hollowform. The hollowform made of green maple turned out great -- consistent thickness (3/16") through its walls.

Although Carl assembled his own camera system and laser/camera mount, he concluded that the Bosch Visualizer was a good value proposition and encouraged the audience to seriously consider the Bosch Visualizer, rather than cobble together a shopmade variant. The Bosch system is around $350 for the hollowing stabilizer and another $650 for the laser/camera mount and display system.