

# Mastering The Pull Cut

**Pull Cut Overview:** You all know how much I love the Irish grind on bowl gouges. In my opinion, it is one of the most versatile grinds you can put on a bowl or spindle gouge. This is one of the many advanced techniques you can execute with the long swept back Irish wing. This specialized cutting technique is a great to use when working near the tailstock (moving from the bottom of the bowl, up to the rim for example), where a conventional bevel rubbing sweep with the grain may not be possible because of the tailstock's position.



**Starting sequence... Wing bevel is rubbing wood and tool shaft is placed in a shear angle before cutting**



**A bevel-rubbing push cut with an Irish ground bowl gouge, cutting from the spigot to the rim**

Although we always try to cut the wood in the proper direction (supported fiber cuts), it is not always possible. For example, when you're turning the exterior profile of a bowl between centres and you're cutting from the bottom of the bowl near the dovetail spigot (bark side), up to the rim (pith side). You soon reach an area near the spigot where you cannot use your push cut, because the tailstock blocks your ability to get close enough to the dovetail for a bevel rubbing push cut.

This is a great time to use this technique! If you have an Irish ground bowl gouge, you can use the long swept back wings in a pull cut to remove the wood next to the spigot and complete the exterior profiling. A pull cut with an Irish ground bowl gouge is by my definition, where the mouth of the gouge (rounded cutting tip) trails the cutting surface of the tool, in this case the wings. Using this example, the sharpened edge of the wing actually cuts the wood; the mouth of the tool does no cutting.



**Close-up view of a typical push cut on the outside of a bowl**

In a traditional push cut with an Irish ground bowl gouge, the mouth of the gouge leads the cut and the wings follow. Using this example, the mouth of the gouge and a small portion of the wing near the mouth do the cutting. The bulk of the sharp wing surface does not cut, unless a very heavy cut is taken.

Both push cuts and pull cuts are effective cutting techniques that you can use to help refine the profiles on your projects. Deciding which one to use is determined by considering the mounting method, clearance issues, tool length, bevel angle, bevel length, grain direction and the profile of the form being turned.

---

## **Pull Cuts**



**Cutting on the outside of a green wood bowl, cutting from the spigot to the rim. Notice the fine shavings that are created**

Bevel rubbing pull cuts produce fine shavings and leave the surface of the wood very smooth. Even when you employ this technique, there may be a small area left near the edge of the spigot where you need to remove some more wood. In this case, I usually revert to a push cut in this tiny area, cutting in the opposite direction from the rim to the spigot. This will leave a rougher surface than a pull cut, since cuts in this direction are cutting unsupported fibers when the bark side of the blank is mounted towards the tailstock and the pith side is mounted towards the headstock.



**Fairing the curve on the outside of a dry bowl**

By using a pull cut to remove the bulk of the wood near the spigot, you eliminate the chance of tearing the grain in this area. Any rough surface left right next to the spigot could be removed by shear scraping with your Irish ground bowl gouge, or by using a dedicated set of shear scrapers.

---

### **Executing a Pull Cut**

There are many ways to execute a pull cut. When working on the exterior profile of bowls, here is the protocol I use:



### **Another view of the pull cut used to shape the profile on the outside of the bowl**

I prefer long side wings on my Irish ground bowl gouges. The long wings allow me to use the tool in many different configurations. When I want to make a pull cut on the side of the bowl, cutting from the foot to the rim, I use the left wing on the gouge. The wing is moved into a shear angle and the wing bevel is rubbed throughout the cut.



## **Irish ground gouges can be used on both wet and dry bowls to smooth and perfect the surface profile**

A bevel rubbing pull cut is not designed to remove large quantities of wood. Think of it as a finishing cut, where you want to remove small amounts of wood to perfect the curve, or shape of the project. If you need to perform gross shaping work, you should not use a bevel rubbing pull cut as it will not remove large amounts of wood fast enough.

If you rotate the wing where the bevel no longer rubs (only the cutting edge would be in contact with the wood), you can increase the aggressiveness of the cut. However, this will eliminate the many benefits achieved by rubbing the wing bevel and making fine, delicate shavings. This is one of those times when you can't have your cake and eat it too! If you want an ultra smooth surface off the tool, you must use the more delicate approach that rubs the side wing bevel.

If you are roughing the wood and just want to move the wood off quickly, the more aggressive non-bevel rubbing cut that will do just that. However, the surface will not be as smooth as when the bevel is rubbed. Pull cuts, push cuts, scraping and shear scraping are all different turning techniques offering advantages as well as disadvantages, depending on the timber and the circumstances at hand.

Think of them as tools in your toolbox, ready when necessary and as the project demands. Advanced techniques are often borne out of necessity, where an established technique is not working for one reason or another. As always our goal is to turn the form with the best finish possible off the gouge, so we have a minimal amount of sanding to perform.

---

### **Learn and Practice**

The next time you get a bowl blank on your lathe, spend a bit of time trying different cutting techniques. Get a book, or a video that will help you see how to achieve these techniques. If you prefer one on one instruction, look for a professional woodturner in your area that offers classes. A day or two spent refining your existing techniques with a professional will help you to grow and learn new techniques.

Also, join a local woodturning club, guild or association. Most have monthly meetings where you can watch demonstrations and even get a bit of hands-on instruction. Rubbing shoulders with other woodturners is a great way to make new friends and learn how to become a better woodturner. Watch as many demonstrations as you can, read books, take classes and watch videos by different woodturners to learn how each turner has mastered different aspects of woodturning.

Money spent educating yourself is always money well spent. Invest in yourself and it will pay big dividends in the future. Finally, nothing beats time in front of the lathe. Steal away a few hours here and there to do what you love, woodturning!

---

## Additional Information and Resources

1. If you've never used an Irish grind before on one of your bowl gouges, you're in for a real treat! Here is some more information on [Irish grinds](#).
2. Shear scraping is a technique that every woodturner needs to learn. It's one of the best ways to tweak the profile on your turning and smooth the surface before sanding. If done properly, the resulting shear scraped surface can be smooth enough to start sanding with 240, or 320-grit abrasives. Here is some more information on [Shear Scraping](#) and some [video clips](#).
3. If you would like more information on how I turn bowls, from the log to the finished bowl, I have a double disk set of DVD videos available, "[Bowl Turning, Step-by-Step](#)". These include segments on how to shear scrape the interior and exterior of your bowls, as well as proper use of the Irish ground bowl gouge.

---

**Safety Note:** Always follow all manufacturers safety instructions before working with your lathe, or any of the tools or products you may use. If you are unsure about any operation, obtain competent professional instruction before proceeding. Use and wear all necessary safety devices during turning and observe safe woodturning practices to prevent accident or injury.



Steven D. Russell is a professional studio woodturner, teacher and writer. He has written numerous articles for international woodturning magazines, which have been published in more than 78 countries around the world. Steve has demonstrated in numerous cities across the United States. His studio, **Eurowood Werks**, specializes in bowls, platters and hollow forms with unique visual and tactile treatments.

Steve is also the current and founding President of the **Lone Star Woodturners Association, Inc.**, an AAW member chapter. The LSWA is a 501(c)3 non-profit educational organization dedicated to teaching and demonstrating the art and craft of woodturning.

Steve is also a featured writer for the Guild of Master Craftsman's "Woodturning" magazine, published in London England. Woodturning magazine is the world's leading magazine for

woodturners. Look for his articles covering technical topics, or project based articles in an upcoming issue.

---

**Share this page:**

[What's This?](#)

[Facebook](#)