

# Turning Reference Guide™ by Ron Brown

There are exceptions to every rule except this one:

Six types of tuning tools are needed to make up a basic turning set, these turning tools are:

- Spindle Gouges
- Skews
- Bowl Gouges
- Roughing Gouges
- Scrapers
- Parting Tools

## Spindle Tool Chart

Tool Type	General Tool Use and Information	Basic Sharpening Methods
 <p><b>Spindle Gouge</b></p>	Known by its shallow flute, used to shape Humps, Hollows, and flats/tapers (Beads, Coves, cylinders/flats)	Normally sharpened with fingernail grinding jig. Point is 45 degrees with swept back wings.
 <p><b>Roughing Gouge</b></p>	To transform a spindle blank to round, often beginning with straight sides. NEVER used on bowl blanks. Serious injuries have occurred. Use for SPINDLES ONLY!	Simple straight grind usually with platform. Angle usually 45 deg.
 <p><b>Skews</b></p>	To make planning cuts, peeling cuts, turn beads, shoulder cuts, can be used as a negative rake scraper. Most often used to smooth a cylinder.	Two types: Straight and curved. Usually platform, usually done by hand. Jigs available. This tool benefits from honing.
 <p><b>Parting Tools</b></p>	Cutting Tool. Sometimes used for scraping. Makes tenons, through cuts possible. Width ranges from Thin 1/16" to 1/2" (Bedan) 1/4" width is extremely useful. 1/8" standard.	Flat square grinds. Included angle (total) from 70 deg to 50 deg. Bedans can be 45 deg.

## Bowl Turning Tool Chart

Tool Type	General Tool Use and Information	Basic Sharpening Methods
 <p><b>Bowl Gouge</b></p>	Known by its deep flute, bowl gouges are used to shape the outside of a bowl plate or platter. Then used to hollow the interior. Best used for FACE GRAIN (grain perpendicular to bed ways) Many grinds used at turners individual preference	Traditional grind is very straight and best used for cutting straight across bottoms. Platform ground straight across. Swept back wings - best for shaping sides. Sharpened with fingernail jigs.
 <p><b>Bowl Scraper</b></p>	Mostly used to smooth difficult changing grain. A small burr is raised during the sharpening process and the burr does the cutting. Best used for light finishing cuts. Can be used on inside and outside profiles. Also used to hollow small boxes and vessels.	Platform ground to 10° – 15° off vertical (shallow). A hardened HSS or Carbide burnisher is often used to enhance the burr and raise it even higher for a more aggressive cut.

## Dedicated Hollowing Tool Chart

Tool Type	General Tool Use and Information	Basic Sharpening Methods
 <p><b>Hollowing Tools</b></p>	Specialty tools often used for deep hollowing and/or to get under a shoulder or lip. Often utilizes carbide cutting tips.	Varies depending on shape of cutting tip. Some require special holding jigs.

## Ron Browns Pearls of Turning Wisdom...

- Sharp Lathe Tools tend to be easier to use and are more enjoyable to use.
- Speed formula: diameter in inches X speed in RPM's should equal 6,000 to 9,000 (10" X 800 RPM= 8,000).
- Rub the bevel on all cutting tools; not on scraping tools. ABC= Anchor the tool, Rub the Bevel, Pick up the Cut. Have safety gear on hand and use it; full face shield, dust mask.
- Rotate the piece by hand before turning the lathe on - check for interference.
- Start at slow RPM to check for balance, and then speed up. Speed can be our friend. If you are afraid, slow down. "Life's too short to turn ugly wood" *John Jordan. Carpe Lignum, Torne Lignum – Seize the wood. Turn the wood.*
- Variable speed lathes are better.
- Learn to hone. Learn to use your tools well and keep them sharp. Sharp tools are safer. Sharp tools produce better results. Invest in a good sharpening system and learn to use it well. Then teach others. Don't skip grits. Never jump more than 50%, i.e. 100 grit to 150 grit to 220 grit to 320 grit
- Have a plan before you start and be flexible.
- Turn green wood often. It is like lettuce, cut what you can use or it will spoil.
- Your family will love whatever you make. Listen to your spouse; they usually have a better eye for design. Never point out your mistakes to others.
- Spindle turning often requires more imagination than bowl turning. "Never scrape when you can cut." *Mike Mahoney.* If you must scrape, raise a fresh burr.
- Get and learn to use a 1/4" wide parting tool. Learn to make lots of "Fun Stuff" like tops, pens, stoppers and so on. It will make you a better turner and your family will think you are a genius especially at Christmas. Invest in education like classes, seminars and symposiums. Spend the money for personal one-on-one instruction with a professional turner.
- If you are not failing every now and then, you are not learning. You learn the most when you teach others.
- Buy good quality M2 High Speed Steel tools.
- Learn to turn right and left handed.
- You can use a bowl gouge on spindle work, usually not the other way around.
- Sandpaper is cheap; throw it away often and use fresh paper.
- Sign and date your work pieces along with the kind of wood.
- Buy the best chuck you can afford, and then buy lots of jaws for it.
- Make your own tool handles. Try someone else's tools. They might know something you don't.
- Join an AAW (*Association of American Woodturners*) chapter then go to the meetings. Read turning magazines. Buy educational DVD's.