

Leg Angle Setup Block Reference Chart

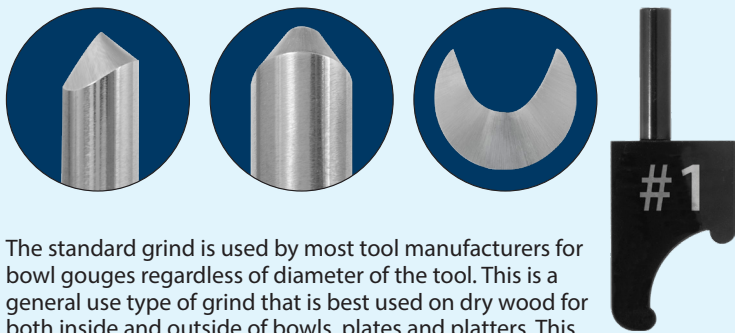
Use the reference chart below for choosing the correct setup block as well as the correct leg angle position of the Vari-Grind Jig

<p>Bowl Gouge Standard Grind On Bowl Gouge</p> <p>Setup Block #1 Leg Angle: 2nd notch down or at 23 degrees</p> <p>The Standard Grind can be used basically everywhere, however it is best suited for dry wood and twice turned bowl blanks when dry.</p>	<p>Bowl Gouge Long Grind on Bowl Gouge i.e. Ellsworth</p> <p>Setup Block #2 Leg Angle: 5th notch down or at 45 degrees</p> <p>Ellsworth type (long swept back wings) edges are great for turning green wood and shear scraping.</p>	<p>Bowl Gouge Short Grind</p> <p>Setup Block #2 Leg Angle: 4th notch down or at 40 degrees</p> <p>Bottom feeder type edge (very short and steep) that is ideal for cleaning up the deep inside of bowl bottoms. Presented at almost 90 degrees to the bottom.</p>	<p>Spindle Gouge Fingernail Grind</p> <p>Setup Block #1 Leg Angle :2nd notch down or at 23degrees</p> <p>Bottom feeder type edge (very short and steep) that is ideal for cleaning up the deep inside of bowl bottoms. Presented at almost 90 degrees to the bottom.</p>
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4 Basic Types of Grinds

Before starting on the Vari-Grind method, it is a good idea to know the 4 basic grind types used in this method. The following grinds are useful for different turning applications. The following describes three common grinds for bowls, plates and platters and one for spindle work such as finials, pepper mills turned lidded boxes and many other spindle projects. Each of these grinds is achieved using the guidelines scribed on the sides of your setup blocks.

Standard Grind on Bowl Gouge



The standard grind is used by most tool manufacturers for bowl gouges regardless of diameter of the tool. This is a general use type of grind that is best used on dry wood for both inside and outside of bowls, plates and platters. This grind is easy to use for most skill levels.

Long Grind on Bowl Gouge



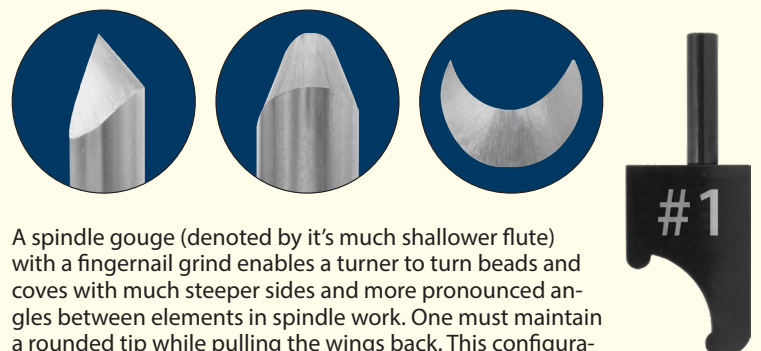
This is generally the most useful all around bowl gouge grind and is the preferred grind for green wood. It is also suitable for dry wood. Very large cuts in green wood are a breeze with this grind. Excellent for shear scraping both inside and outside of bowls, plates and platters. This type of grind is similar to the Ellsworth and the Irish or Celtic grind.

Short Grind on Bowl Gouge



The short grind is a special type of grind that is useful for finishing the bottom of bowls with tall sides, such as calabash or semi-hollow forms. This type of grind is best used with narrow openings which prevent using long grinds or standard grinds on the very bottom of the inside. It is also known as a "Bottom Feed Grind" by many in the woodturning world.

Fingernail Grind on Spindle Gouge



A spindle gouge (denoted by its much shallower flute) with a fingernail grind enables a turner to turn beads and coves with much steeper sides and more pronounced angles between elements in spindle work. One must maintain a rounded tip while pulling the wings back. This configuration avoids catching the edge of the wings when rolling a bead or scooping out a cove.

1

Choose your tool to sharpen



2

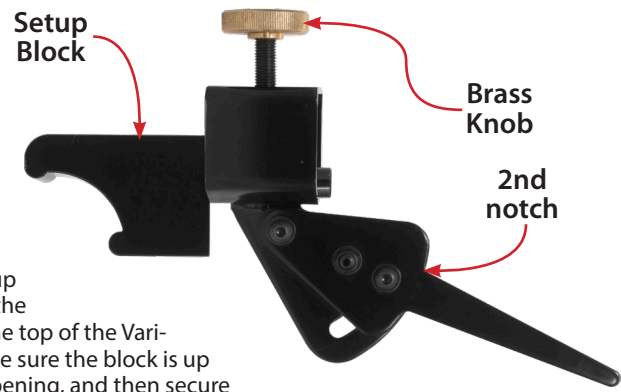
Select the corresponding setup block



When selecting the proper setup block, you need to base your choice off of the tool you are sharpening and the grind type that is shown in the "Leg Angle Setup Block Reference Chart" section of these instructions. In this example we are going to sharpen a bowl gouge. This means we will select the setup block marked #1 with a Standard Grind.

3

Insert Setup Block into Vari-Grind Jig



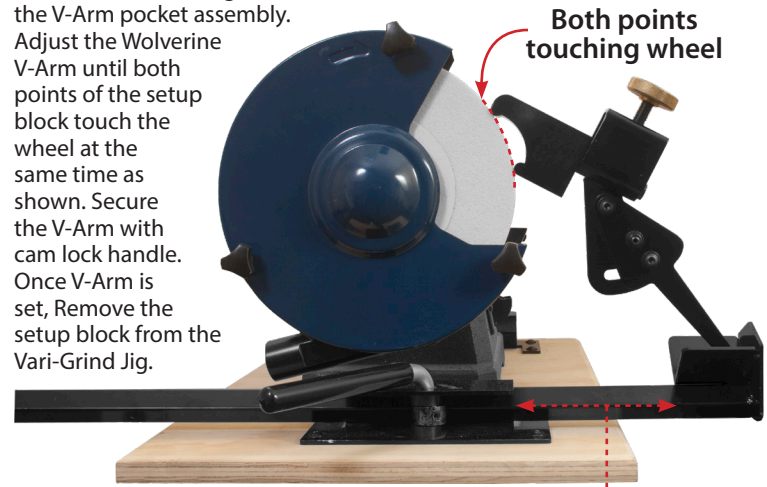
Insert the setup block #1 into the opening on the top of the Vari-Grind Jig. Make sure the block is up against the opening, and then secure the block with the brass knob.

Set the top edge of the Vari-Grind leg to the 2nd notch as shown above. Secure the position with the locking wing nut.

4

Adjust the Wolverine V-Arm

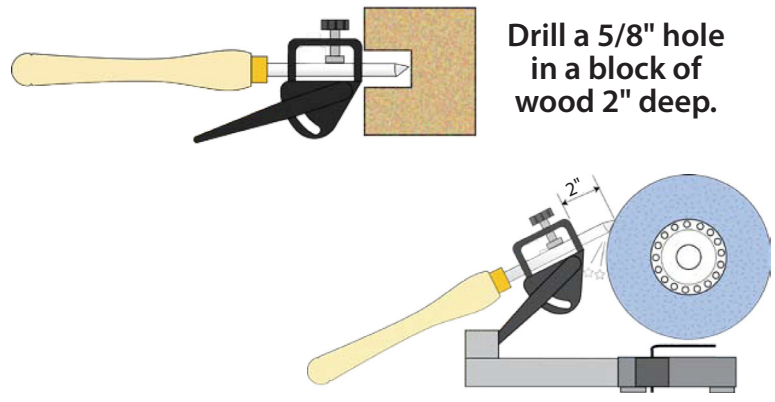
Rest the Vari-Grind leg into the V-Arm pocket assembly. Adjust the Wolverine V-Arm until both points of the setup block touch the wheel at the same time as shown. Secure the V-Arm with cam lock handle. Once V-Arm is set, Remove the setup block from the Vari-Grind Jig.



Adjust in or out until both points on setup block touch the wheel

5

Make a Setup Block for the 2" Tool Projection



Drill a 5/8" hole in a block of wood 2" deep.

To set the 2" projection of your Vari-Grind, we will use a shop made setup block as shown above. Insert your tool into the Vari-Grind jig and do not lock into place. Next, insert the tool into the hole of the setup block until the tool touches the bottom of the hole. Then, butt the Vari-Grind Jig up against the block of wood and tighten the Vari-Grind Knob. Keep this setup block for future re-grinds and the ability to keep the same shape of the tool.

Shop Note:

Typically, the 2" projection is the most commonly used projection depth. 1-3/4" can be used to create a more "blunt" tool edge depending on your preference.

6

Start to sharpen



Set your tool and Vari-Grind Jig into the pocket and using a "rolling" motion, grind your turning tool to the desired sharpness.