# BOWL/CURVED SURFACE SANDER

## BASIC USE INSTRUCTIONS

Version 1.0

## Safety First


Disconnect saw from power source before fitting or removing insert.

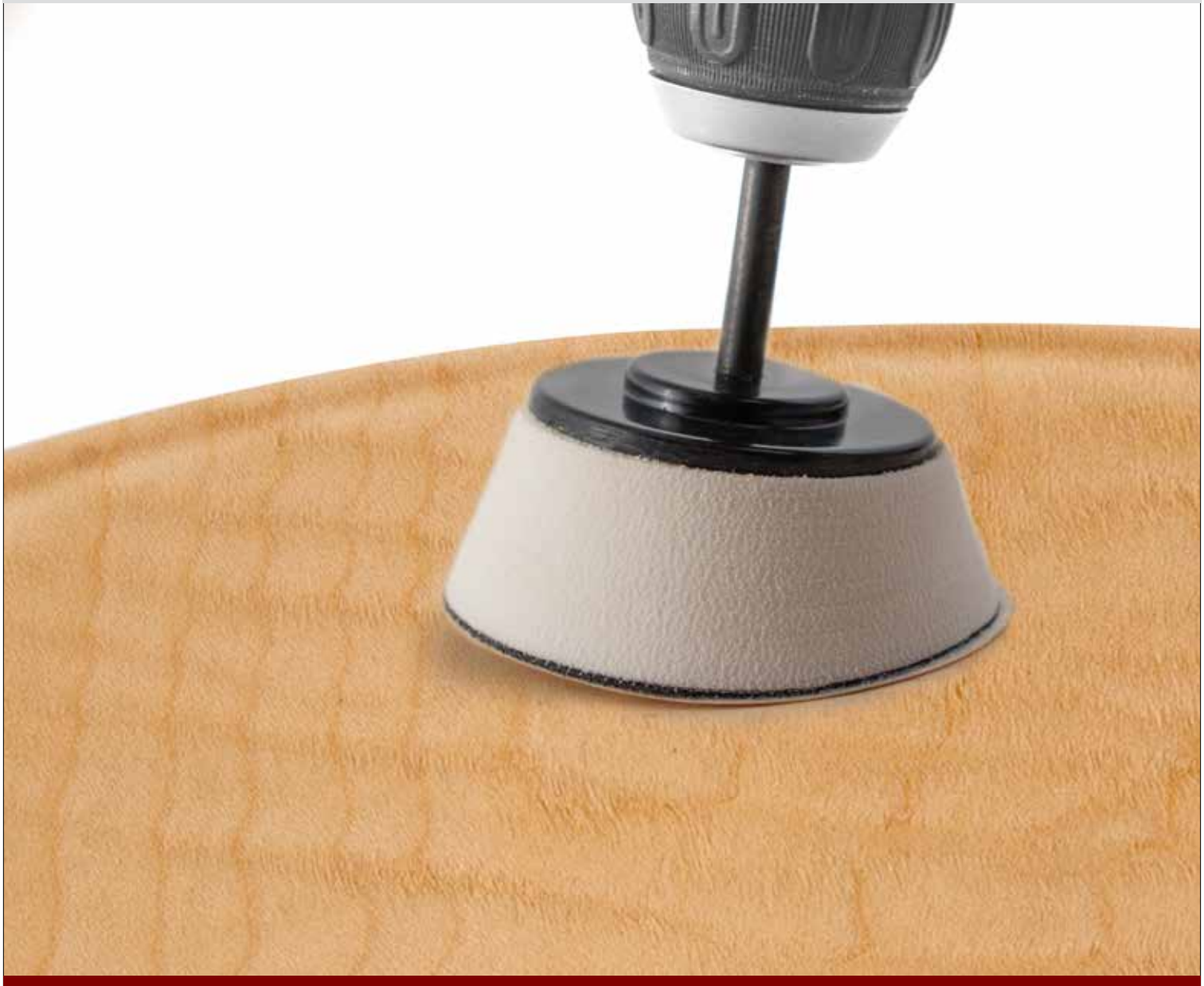

Always wear proper ear protection when working with machinery.


Use caution when handling sharp objects (saw blades, router bits, drill bits and so on). Use protective gloves whenever possible.


Always wear proper eye protection when working with machinery and tools.


Always wear proper respiratory protection when working near airborne dust particles.

*Please read and fully understand any and all safety materials that came with your power tools or machinery before operation. Always follow all safety guidelines set in place by the power tool or machine manufacturer.*



## Bowl/Curved Surface Sanders

The 1/4" shank bowl sanders are designed to work with a variable speed drill with a ¼" chuck or larger. The idea behind using a variable speed drill as opposed to standard electric drills is to simply have the ability to be able to control the speed of the sander. This helps tremendously to help prevent over heating the sanding pad. When working on small projects we would recommend using close quarter electric drills since they are usually smaller than most drills and can be handled in tight quarters much easier. The sanders can also be used with flexible shaft drill chucks at slow speeds. The flexible shaft drill chucks will allow for you to get into very deep, tight projects like the bottom of a turned vase . Flexible shafts offer a great deal of control when sanding small projects and are often a preferred method of bowl sanding.

## How to properly work the sanders

One of the first rules of using these sanders is speed control. These sanders are NOT meant for use at high speeds. Heat is the enemy of any sanding project. The faster the bowl sander spins, the higher the likelihood the pad will heat up and melt the hooks on the pad or burn the wood. Controlling the sander at a safe and workable speed is key to positive, great looking results.

Our bowl sanders can be used two ways. First is while the bowl is still mounted on the lathe and spinning, or they can be used with any curved project not on the lathe like the curved surface of a chair seat.

When sanding curved surfaces like lathe turned wood bowls, we recommend keeping the bowl on your lathe. It makes sanding the bowl at multiple angles much easier. When sanding bowls on your lathe it is important to run your lathe at the slowest speed possible. Most lathe's can run from 300 to 400 rpms or higher.

Let the bowl sander do the work and do not apply to much force on the pad, excessive pressure could over heat the pad. This is especially true when starting with the lower grits to remove marks and blemishes.

Start from the lip or rim of the bowl and work into the bowl center. Crossing the center of your spinning bowl will produce uneven results. The ideal way to sand with these sanders on curved surfaces is detailed in Figure 1. Never let the pad of the sander contact the surface in full.

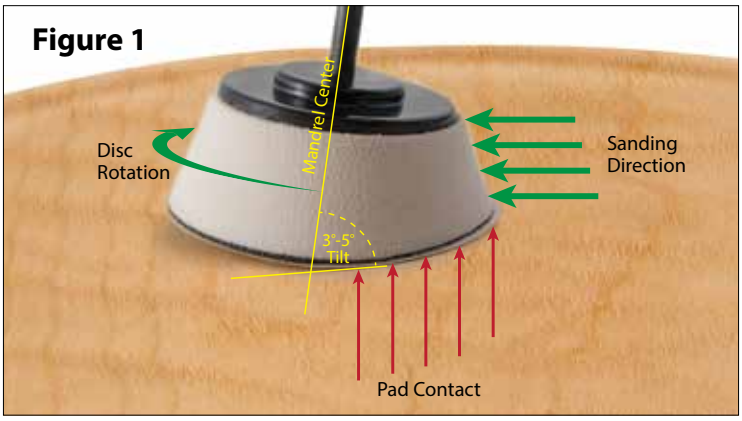
As you work through the sanding process into finer grits it is very important that you keep in mind the size of your project to the speed of your sander. The larger the item the faster the speed is turning at the outer edge of the project.

Slowing down the speed of your drill when you are working on the outer edge of the project is a must. Running both your lathe and drill at a high speed will likely cause unwanted results and could damage the bowl sander pads. The main reason to turn your lathe on to rotate the bowl, is so you can essentially work all sides of the bowl at once which will help produce more uniform results on your bowl.

**⚠ CAUTION**

*At no time should the entire sanding pad engage the work surface. If this happens the sandpaper will over grip the wood and will vibrate wildly. Use the sanding action shown below to avoid this.*

**Figure 1**




When using the sanding pads on a bowl that is not mounted to a lathe or sanding curved surfaces it is important to keep in mind your sanding direction, sanding pad contact point and the sanding disc rotation direction. As with any sanding project, the goal is to sand with the grain of the wood to avoid any scratch marks. The ideal way to sand with these sanders when the bowl is not rotating on the lathe or on curved surfaces is detailed in Figure 2.

Think of your bowl or curved surface with 4 distinctive zones as shown in Figure 2. You have two end grain sections and two side grain sections. At no point should the entire sanding pad engage the entire work surface. Keep the pad in contact with the surface at a 3-5 degree tilt as shown in figure 1 working with the direction of the grain.

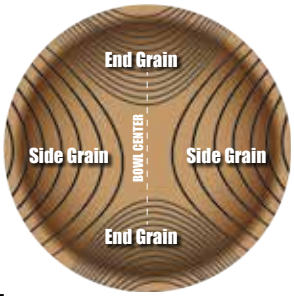



**Figure 2**

### *Light Pressure & Keep it Moving*

*Let the sander do the work. There is no need to apply heavy pressure when using these sanders. When working tight curves it's better to change to a softer pad vs pushing to hard. Always keep the sander moving, long pauses in one spot can cause damage to the sander and can create undesired results to your project.*

## Configure the Sander

This sanding package includes mandrels with a firm pad as its base, a medium pad for smaller radii and a soft pad for even smaller radii. The medium and the soft pads can quickly be attached to the mandrel hook and loop base. You can use them one at a time, or you can attach them both onto the mandrel at the same time. Typically, you would use both on the mandrel at the same time for extra tight areas that need just the right amount of touch to finish the project off. When using the extra pads, you don't need much pressure for the sanding discs to work properly. Let the softer pad conform to the bowl shape without applying excessive pressure.

*Choose the right pad for the job. From the firm mandrel pad to the soft black pad, use the one that best fits your needs.*


# Stack The Right Pads For The Job

**No Interface Pad**
Using the sanding disc without an interface pad would typically be used on slightly curved or flat surfaces. Ideal for larger platters and bowls

**Medium**
By adding the medium interface pad, you can sand curved surfaces like those found on medium sized or larger radius bowls.

**Soft**
By adding the soft interface pad, you can sand tighter or smaller curved surfaces like those found on smaller or tighter radius bowls.

**Soft and Medium**
Adding both pads together gives you an ability to really get into tight, small areas.

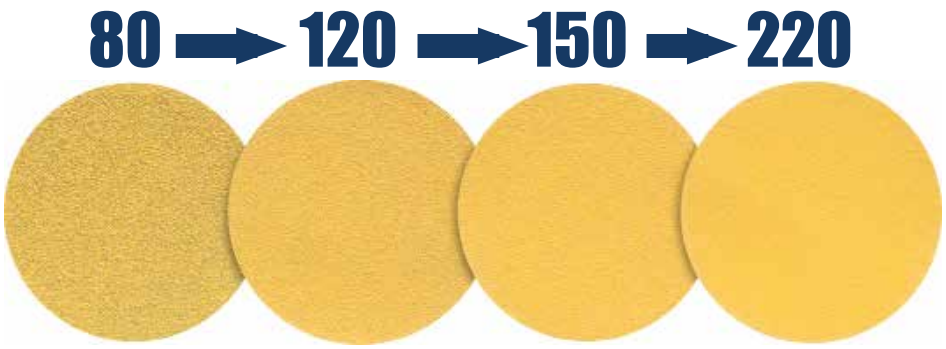
# Abrasive Disc Grit Progression

## What is Grit Progression?

The basic concept of grit progression is relatively simple. When sanding most any project, your wood is full of uneven marks, scratches and blemishes. After using a lower grit abrasive like 80 grit if needed to remove larger marks and blemishes you will have noticeable scratches and marks left behind. Even when sanding with the grain these markings are usually visible. From the 80 grit we typically step up or progress up to 120 grit. This will remove a great deal of the marks and scratches left behind by the previous grit. We typically repeat this process and step up to the next grit and continue doing so until we achieve satisfactory results.

*80 grit - 220 grit abrasive discs...*

*The grits in our sander packages typically range from 80 grit to 220 grit. This is the most commonly used grit range used for turning wooden bowls. Bowl sander will work with grits finer than 220 grit (sold separately)*




# Maximum Bowl Sander Speed

## Keep it Under Control / Keep it Cool...

While it is okay to use the Bowl Sander on workpieces attached to a lathe, you must consider the combined RPM of the drill and the lathe. Heat and to much pressure will melt the hooks on the sander

*Do NOT exceed the maximum combined RPM as shown below.*

Coarse grits and the smaller diameter bowl sanders tend to heat up more quickly than fine grits and larger bowl sanders. Running the bowl sander at a rate of speed that is too high will heat up the pad and damage the hooks. You MUST keep in mind the larger the bowl the faster the outer edge of the bowl spins.

The hooks are made from plastic and may melt which will cause the hooks to lose grip with the abrasive disc.

| MAXIMUM ROTATIONS PER MINUTE | |
|---|---|
| **Mandrel Size** | **Maximum Combined RPM** (Lathe and Drill RPM Combined) |
| 1” | 300-500 |
| 2” | 400-500 |
| 3” | 500-600 |

**⚠ CAUTION**

*When running the lathe at 300 to 400 RPM and sanding your bowl at the same time, keep in mind that you are creating at least twice the amount of friction which could damage the sanding pads. To help prevent damage to your sander, slow the speed of the lathe down as much as possible when using the powered sander to finish your project. You can also slow down the rotational speed of your electric drill if possible to compensate for the lathe rotation.*