



# PRECISION MITER GAUGE JIG

## Owner's Manual



# Product Components

Your MiterSet Segments includes:

- 1 laser-etched, anodized aluminum plate
- 2 #5 tapered pins
- 1 owners manual
- 1 limited lifetime warranty card
- 1 plastic carry case with foam inserts



# Product Overview

MiterSet Segments is milled from a solid billet of 6061 aluminum. It is manufactured by CNC milling process and holes placement is accurate to within .001". The miter slot that bisects MiterSet fits all U.S. standard miter gauges with a width of .75". The MiterSet miter slot is oversized to .753" to allow for variations in miter bar size. If you are able to feel movement of the miter bar within the slot it will have no bearing on the accuracy of the angle you set. If the bar is too tight within the slot it may be due to burs that have formed on the bar over time. Lightly use a fine file to remove any burs from the miter gauge bar.

If you have purchased a Shopsmith version the miter slot is machined to .723" to fit the proprietary .72" miter bar of the Shopsmith miter gauge.

MiterSet has a 2mm neoprene rubber backer that provides cushion and anti-skid qualities.

After milling, MiterSet is etched to remove imperfections from the aluminum then anodized to form a protective seal to prevent oxidation.

The aluminum is then laser-etched to yield the numbers and letters on the face of the plate. The numbers and letters may get dirty over time but will not rub off. **See page 8 for cleaning instructions.**

# How to Use MiterSet Segments

MiterSet is an aluminum plate bisected by a miter slot. The number patterns on the left and right side of the plate represent the number of segments that you desire to cut. The angles for each segment count are built into the plate and are accurate to within .001”.

An angle is set by placing one pin in the 00 or pivot hole. Place the other pin in the hole next to the number of segments that you require for your woodturning or glue-up project. Slide a loosened miter gauge into the slot and press the face firmly to the pins. Then lock down your angle. It's that simple.



# How to Use MiterSet Segments – cont.

## Segmented Angle Chart

4 segments	45° angle
5 segments	36° angle
6 segments	30° angle
7 segments	25.714° angle
8 segments	22.5° angle
9 segments	20° angle
10 segments	18° angle
11 segments	16.364° angle
12 segments	15° angle
13 segments	13.846° angle
14 segments	12.857° angle
15 segments	12° angle
16 segments	11.25° angle
17 segments	10.588° angle
18 segments	10° angle
20 segments	9° angle

# How to Use MiterSet Segments – cont.

**Calculation of Angles** - MiterSet Segments works backwards using  $360^\circ$  in a circle. Imagine that your project requires 20 segments to make a full  $360^\circ$  circle. Divide  $360^\circ$  by 20 and it yields  $18^\circ$ . However, there are two angles on the segment that connect to other segments. Therefore, the value  $18^\circ$  must again be divided by 2, the number of angles on the segment. This yields  $9^\circ$  for the two angles to be cut.



# Troubleshooting Notes

If your MiterSet falls with the pins in place it is possible for the pins to become wedged in the sector holes. Simply push an awl or other pointed tool through the neoprene backer and gently force the pin out of the hole.



Some miter gauges have a narrow face and may require the addition of a sacrificial face extension to reach all sector holes on the MiterSet jig. We include a 6" aluminum bar for the Shopsmith version for just this purpose. Simply place the bar against the tapered pins and press the face of the gauge firmly against the bar. Then lock down the angle.

# Cleaning & Care

To clean the surface of the MiterSet plate use a water-dampened cloth. **Do Not** use abrasive materials such as steel wool or Scotch-Brite pads. Abrasives will remove the anodizing and leave the metal unprotected.

If sector holes become plugged it is best to use compressed air on a setting no more than 60 PSI to gently remove debris. Canned air used to clean keyboards is also an excellent way to clean sector holes.

Do not lubricate the tapered pins. The pins are milled to fit snugly but freely in the sector holes. Lubricating the pins will reduce the accuracy of your MiterSet. If a pin becomes wedged in a sector hole, see Troubleshooting on page 7 of this manual.

Returning MiterSet to its protective case is the best practice and will protect it from accidental drop or other shop hazards.

