

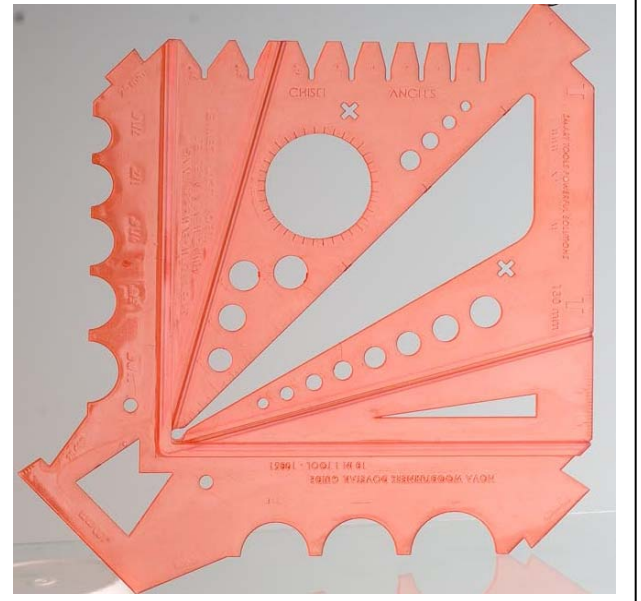
Nova 10 in 1 Chuck Gauge

For safety reasons please carefully read and understand these instructions.

The Nova 10 in 1 Chuck Gauge is designed to be used on still objects. Under no circumstances should the chuck gauge be used on a moving object. Failure to follow these instructions could result in personal injury and/or product breakage. If you are unsure of the use or application of this accessory please contact your reseller.

Nova 10 in 1 Chuck Gauge – Functions

1. Dovetail Gauge
2. Diameter Gauge
3. Center Finder
4. Dowel Gauge
5. Angle Checker
6. Bowl Chisel Gauge
7. Faceplate Mark out Tool
8. Furniture Dovetail Marking
9. Ruler Scale
10. Protractor



Function 1 – Dovetail Gauge

Dovetail Gauge – Used for creating dovetails into a recess.

Ideal for the expansion of the Teknatool Jaws into a chosen recess. This function is for bowl and platter turning where the projection (depth) of the wood blank is not too great. (Characteristically these items have a parallel wood grain.)

The chuck gauge has 5 set sizes for the dovetail function. These sizes are 25, 45, 50, 100 and 130mm.

For beginner turners we recommend the sizes 25, 45, 50 and the maximum width depth of 100mm. Sizes longer than 100mm greatly increases the danger of wood tearing out and dislodging from the chuck. For safety we strongly recommend that the turner use the appropriate Teknatool jaw for the chosen recess.

For the more experienced turner we suggest the 100mm and 130mm gauge. For increased safety we recommend the use of Teknatool's 100mm and 130mm Jaws for larger pieces.

Dovetail Gauge – Operation

1. Use the center finder to find the center of the bowl or platter base. (See center finder instructions)
2. Determine which dovetail gauge is ideal for the project/work piece. (For this manual we'll use the 50mm gauge as an example)
3. Adjust the toolrest height approximately in the center of the work piece.
4. Keep the distance of the toolrest fairly close to the work piece.
5. Lay the chuck gauge on top of the toolrest.
6. Align the left edge of the 50mm gauge with the center of the project, mark this spot using a marker or pencil.
7. Without moving the chuck gauge, make another mark at the right edge and draw a line between your two marks using the chuck gauge's ruler. This is your Radius.
8. Place your marker or pencil on the right edge of your line (the outer side).
9. Remove the chuck gauge only from your work piece (keep your pencil on it).
10. Using the handwheel on the back of the lathe, rotate the spindle while the marker is set firm on the mark. This is your Circumference.



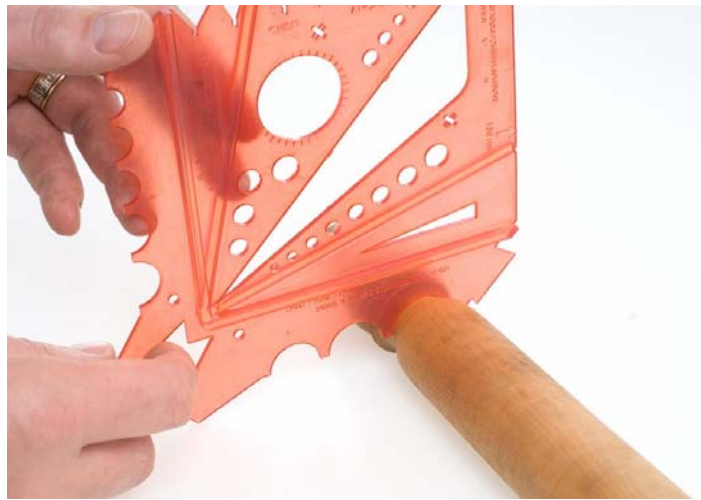
11. Using a standard Skew Scraper or a Teknatool Dovetail Chisel turn and remove the required unwanted wood stock. **FOR SAFETY REASONS WE STRONGLY ADVISE AGAINST USING ANY OTHER TOOL.** It is best to work with a tool which is already ground to the correct angle. All that is necessary then is to keep the leading edge of the chisel flat on the wood, moving forward and out to form the recess to the required diameter and depth.
12. To check the angle of cut use the right edge face of the gauge and lay it against the workpiece. The right edge of the gauge should touch the corner of the recess depth. If the edge of the gauge is not touching the recess depth of the workpiece, then the cut is too deep. The work piece must be turned so the recess depth touches the corner of the gauge. This will ensure that the jaw is securely fastened to the workpiece.

Function 2 – Diameter Gauge

Diameter Gauge – Operation

1. Turn a piece of wood to its desired diameter.
2. Using the diameter gauge feature, sit the required gauge on the workpiece.
3. Check that the chuck gauge is perpendicular to the horizontal axis of the work piece. If the diameter of the workpiece is correct the gauge should perfectly slot in.
 - If the chuck gauge does not slot in the workpiece or then the workpiece is too big and more turning is required. Visually, there should be no gap between the gauge and work piece. You can check this by holding it up to a light.
 - If the chuck gauge does slot over the work piece but the work piece does not touch the edges of the gauge, then the workpiece was overturned. You may have to redo or re-size the diameter.
4. Repeat steps one to three until both the workpiece and the chuck are concentric to one another.

WARNING!!! Make sure that the workpiece is not moving when checking the diameter gauge. Failure to do so would reduce and wear the chuck gauge's material.



Diameter Gauge – Gauge for checking bead diameters

A quick and easy check for determining the different diameter sizes in a work piece. (Ideal for cutting beads).

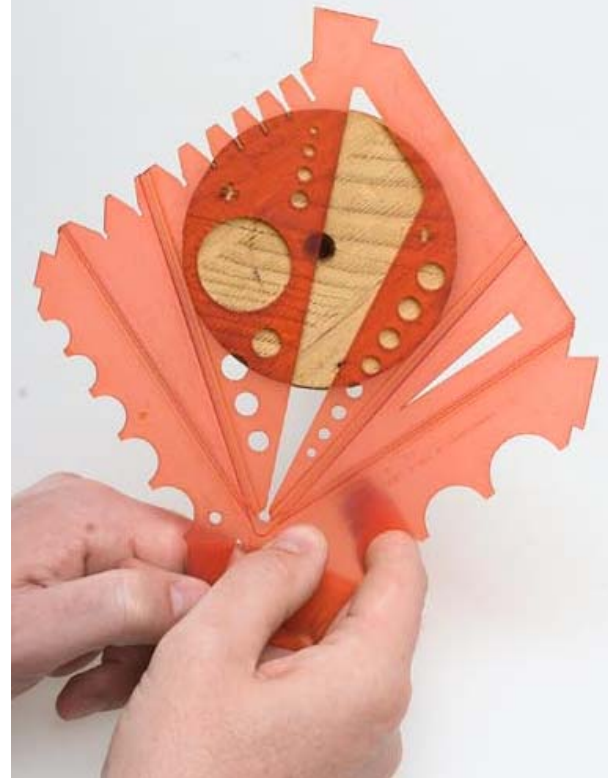
Function 3 – Center Finder

Center Finder – Finding the center of a circle or square stock

Method of finding the center of a workpiece by drawing two lines across the diameter of the project at a distance of 45 degrees or more. Excellent for finding the center of work pieces up to a maximum of 170mm in diameter.

Center Finder – Operation

1. Depending on the size of the workpiece you may use two different guides
 - The 45 degree guide is for diameters ranging from 120 to 170mm
 - The 30 degree guide is for diameters less than 120mm
2. Lay the workpiece on the flat face of the gauge.
3. If the workpiece is circular, have the edges of the workpiece touching both sides of the centre finder (as shown in the image).
4. Once you have the workpiece lined up with the guides, use a pencil or marker to draw a line along the straight edge of the gauge, through the centre of your workpiece.
5. Rotate the workpiece by approximately 45 degrees, and repeat steps 3 and 4 to draw a second line.
6. You will finish with a cross on your workpiece. Where the two lines meet is the centre of your project.



Function 4 – Dowel Gauge

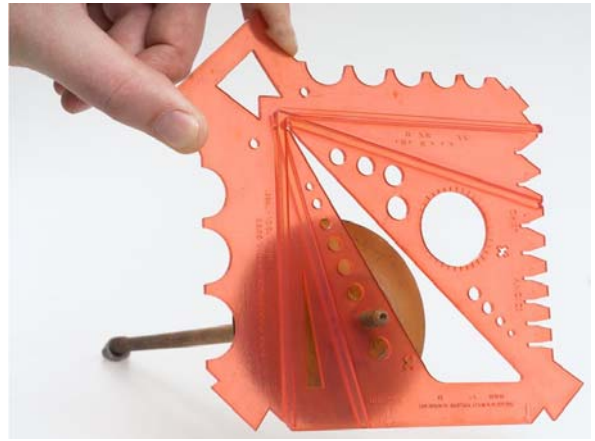
Center Finder – Gauge for Checking Dowel Sizes

Easy gauge for checking different turned dowels.

Dowel Gauge – Operation

1. Turn a piece of wood to its desired diameter.
2. Using the dowel gauge, insert workpiece into chuck gauge.
3. Check that the chuck gauge is at a right angle (90 degrees) to the horizontal axis of the work piece (shown in the image). If the diameter of the workpiece is correct the gauge should perfectly slot in.

- If the chuck gauge does not slot in the workpiece, then the workpiece is too big and more turning is required. You can check this more accurately by holding the piece and gauge up to a light.



- If the chuck gauge slots in the workpiece and the work piece does not touch the edges of the gauge, then the workpiece was overturned. You may have to redo or re-size the diameter.

4. Repeat steps one to three until the workpiece is touching the chuck gauge around the full circumference.

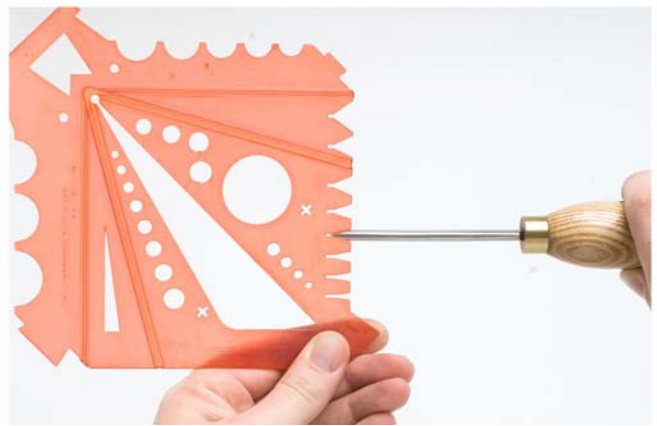
WARNING!!! Make sure that the workpiece is not moving when checking the diameter gauge. Failure to do so would reduce and wear the chuck gauge's material.

Function 5 – Angle Checker

Angle Checker – Gauge for checking cutting angles of knives, chisel, scissor and other cutting tools.

Comes in 8 different angles

1. 70 degree - For scrapers
2. 50 degree - Ideal for gouges
3. 45 degree – For axes and parting tools
4. 35 degree – For heavy duty gouges and and mortise chisel
5. 20,25,30 degree – For chisels, gouges and plane blades
6. 15 degree - For carving tools and knives



Angle Checker – Operation

1. Hold the cutting tool you would like to check safely.
2. Using the angle checker, insert the cutting tool in the chuck gauge.
3. If the degree of the tool is correct it should perfectly slot into the gauge.
 - If the chuck gauge does not slot in the workpiece, then the cutting tool is too big and grinding is required. You can check accuracy by holding the tool and chuck gauge up to a light.
 - If the tool does slot into the chuck gauge but the tool does not touch the edges of the gauge, then the tool was over ground. You may have to redo or re-size the diameter.

WARNING!!! User must be aware of the cutting angle of the tool.

Function 6 – Bowl Chisel

Bowl Chisel – Gauge for checking bowl angles.

Comes in 3 different angles 22, 45 and 55 degree's

Bowl Chisel – Operation

1. Choose the angle you would like to use on the chuck gauge.
2. Holding the blunt tool safely, lay the stem of the cutting tool in parallel to the chuck gauge (as show in image). If the angle of the cutting tool is correct both surfaces should connect.



- If the cutting tool's top edge is not parallel to the top edge of the chuck gauge, then the cutting tool angle is too big and needs grinding.
- Hold the tool and chuck gauge up to a light. If the cutting tool's edge touches the top surface of the chuck gauge, but light can be seen between the tool and chuck gauge, then the angle of the cutting tool is too small. You may need to grind to the appropriate size.

WARNING!!! User must be aware of the cutting angle of the tool.

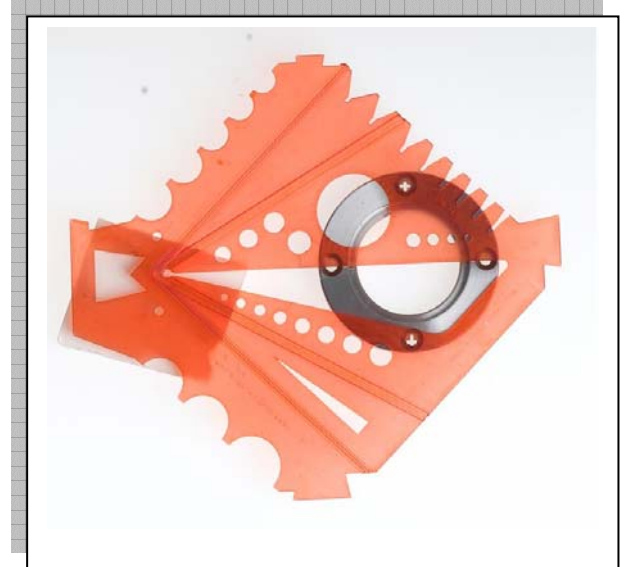
Function 7 – Face Plate Mark out Tool

Face Place Mark out Tool – A quick easy method to mark out Teknatool's 50 and 80mm faceplates.

Face Plate Mark out– Operation

1. Find the center of the workpiece. (See center finder instructions)
2. With the center of the workpiece marked, locate the center point on the imperial scale of the gauge.
3. With the center of the workpiece held against the centre gauge mark, mark the vertical crosses and the horizontal circles. (There should be 4 marks).
4. Remove the chuck gauge and match the faceplate holes to those you have drawn on your workpiece.
5. Screw and tighten accordingly. (Pre-drilling may be required for denser or long spindle turn projects)

Repeat process 1 to 5 for the 80mm faceplate.



Function 8 – Furniture Dovetail

Furniture Dovetail - The dovetail gauge is an approximate guide for checking dovetail bits and jigs.

Angle's Ratio: 1 in 7 approximately 8 degree's

Furniture Dovetail - Operation

1. Take a dovetail bit or a jig.
2. Attach the flat end of the tool to the flat piece of the chuck gauge.
3. Adjust accordingly.

Note: Check will only work with tools or jigs of 8 degrees.



Function 9 – Ruler Scale

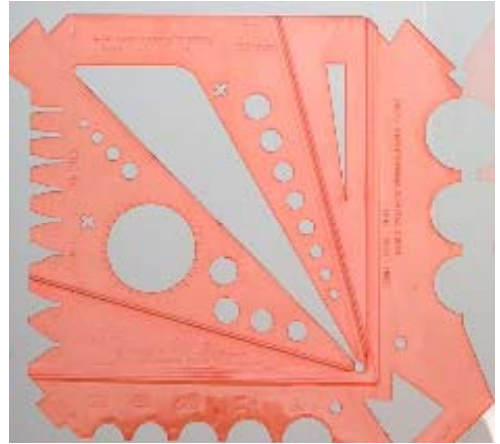
Ruler Scale – Scale for measuring short distances

2 Scales

1. Metric Scale from 0 to 100mm. Ideal for marking long spindle work projects. (Outside Scale)
2. Imperial Scale from 0" to 5". Ideal use for the centre tool and faceplate mark out function (Internal Scale)

Ruler Scale - Operation

1. From a mark ascertain a fixed location in the workpiece.
2. Set the chuck gauge so that mark is on the start of the datum (Zero). Rule and mark accordingly.



Function 10 – Protractor

Protractor – Scale for checking angles at 10 degree intervals

Protractor - Operation

1. From a mark ascertain a fixed location in the workpiece.
2. Set the chuck gauge so that mark is on the start of the datum (Zero). Scribe and mark accordingly.



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