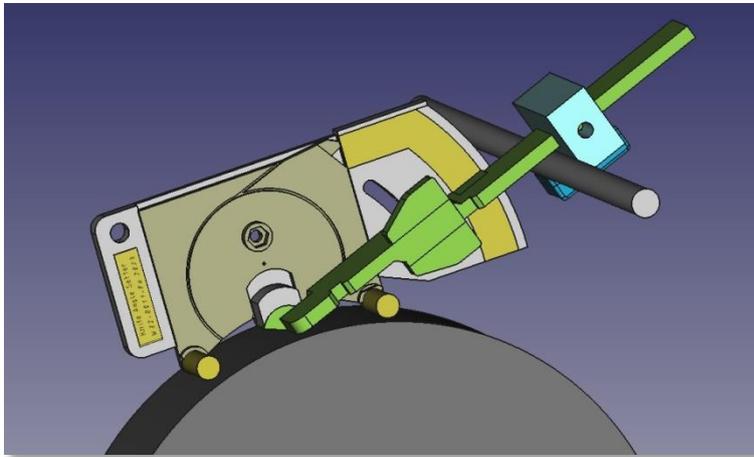


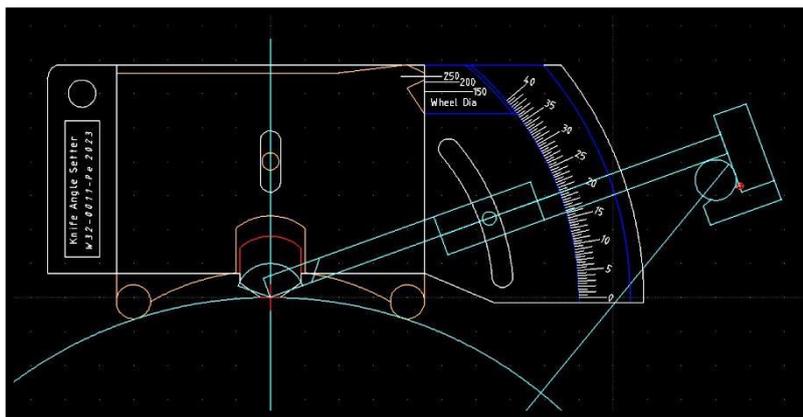
Knife Angle Setting Tool

Knife Angle Setter W32 for Tormek T4 and T8 or similar sharpening machines, works with wheel sizes from diameter 150mm to 250mm. (wheel size is self-adjusted). The tool is very easy to handle and you can quickly switch between different wheel sizes and angles.



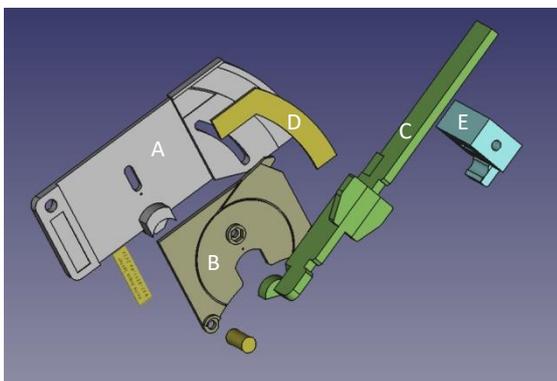
With this tool you can set the grinding angle of knives on a grinding machine with rotary grinding wheels or honing wheels from diameter 150mm and up to 250mm without using any calculator or caliper. There is no need to measure wheel size, usb height or projection length. It is self-adjusting in terms of wheel size and scale display. It also shows the current wheel size on a small scale. The ruler on the tool always hits the right point on the

wheel regardless of wheel size (same point as your knife tip). It is possible to set grinding degrees from 6° up to 40° with an accuracy of 0.5 degrees. It works with usb support diameter =12mm and jig diameter =12mm.



It is designed and drawn in Cad and the function is based on using two points (shafts) to self-center on a wheel and place the edge point of a ruler where the tip of the knife meets the grinding wheel. "The Edge of the Knife" The ruler in the Tool lies against the grinding wheel at the grinding point and rests against the USB support and shows the current angle on a degree scale.

The length of the ruler from the tip to the T-cube (Usb support) is a copy of the projection length of your jig+knife. Max projection length = 190mm. To set your chosen angle (dps) just adjust the usb height until you reach the angle on the Tool's degree scale.



The parts of the tool are printed in a 3d printer and some parts are also milled in a CNC router to reach the fine tolerance required on some important dimensions. The scale is made in brass and engraved in a CNC milling machine when the tool is assembled and all parts are fixed in place. There are three moving parts that works together to achieve the function so dimensional accuracy is important.

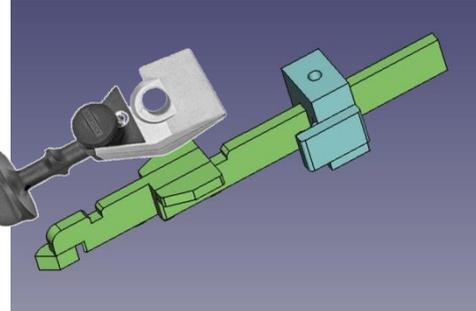
- A= Mainpart
- B= Centerplate
- C= Ruler
- D= Scale
- E= T-cube

How to use!

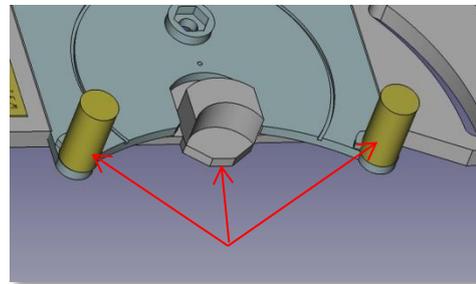
A. Start by attaching the knife you want to sharpen to selected knife jig and copy the projection length to the Tool by placing the jig + knife on the Ruler, let the end of the ruler rest against the inside of the jig handle (the same surface on the jig that rests against the usb support) move the T-cube on the ruler against the knife blade and lock it on the ruler with the lock screw. The projection length from jig+knife is now copied to the Tool.

There is a plate on the ruler that can be helpful to hold the jig and knife in place when you copy the projection length. And there are spaces for screws and parts on the ruler to facilitate the jig to fit.

The shape of the ruler is adapted to fit Tormek Jig Kj-45 and other similar jigs. It is possible to do all settings with the ruler attached to the main-part so you don't have to disassemble it when you do the settings.

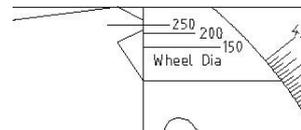


B. Set the wheel size on the Tool by loosening the centerplates locking screw, place the tool on the wheel and carefully move the centerplate down so the two 10mm metal shafts hit the wheel together with the centre point on the main-part. Three points should now rest against the wheel. Lock the centerplate with the screw on the backside.

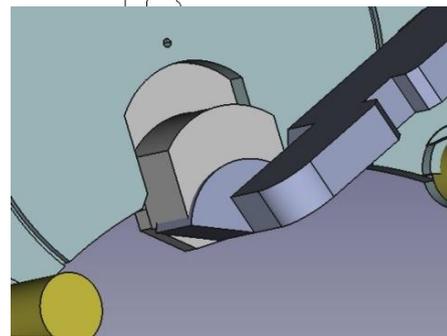


The degree scale is now self-adjusted to show the right degree according to wheel size.

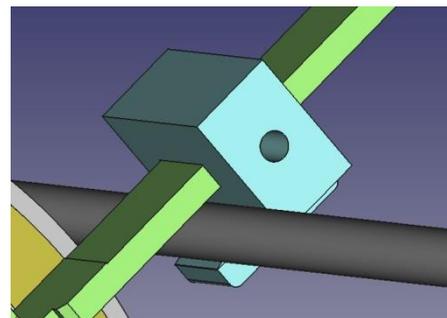
There is a small scale on the centre plate which shows your set wheel size.



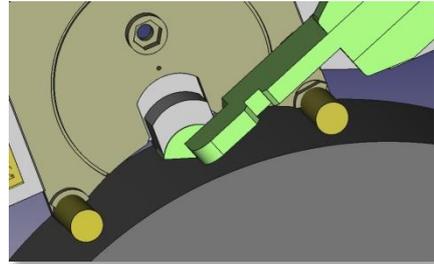
C. Place the ruler so the rounded end fits in the mainparts rounded house. It ensures that the tool always hits the right point on the grinding wheel and can rotate, to display different degrees, without changing the point of impact on the wheel.



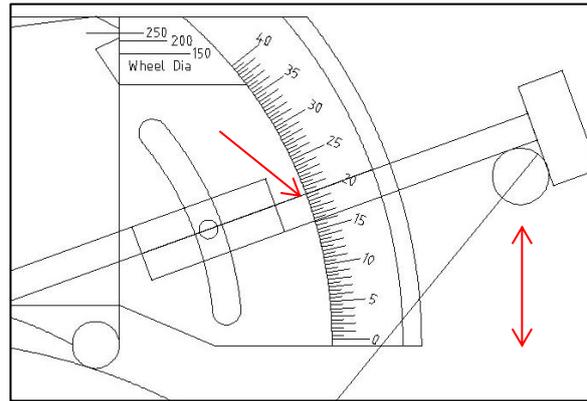
Let the opposite flat part of the ruler rest on the Usb support on the grinder and the T-cube against the usb shaft. It is important that these surfaces are in contact with the Usb support in order to show the correct degree number on the scale. There is also an "optional" lock function on the T-cube to secure that the parts stays in place on the usb support.



D. Gently press down the tool with the ruler so the shafts and ruler tip stay in place and touch the wheel surface. The ruler tip will always stay in the center regardless of what angle you set the ruler to or what size of wheel you have because of the vaulted house it is placed in.



E. Then use the adjustment screw on the usb support to adjust the usb height and set the angle you want to use. Raise or lower the usb support while following along with the tool to reach the right angle on the scale. Now you can lock the settings if you like with the lock screw on the back side.



Ready to grind... Good luck!



There is a simple control function in the tool. Use a digital Angle cube to check the setting. Place an angle cube on top of the Tool and zero the cube. Then move the cube to the ruler and it will show the angle value you have set.



Also see attached pictures in the file "W32-pictures.pdf" to get more visual information of the function and use in real life.

More information about the construction and how to use it can be obtained through the email below. I will be happy to answer all your questions.

Perra

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