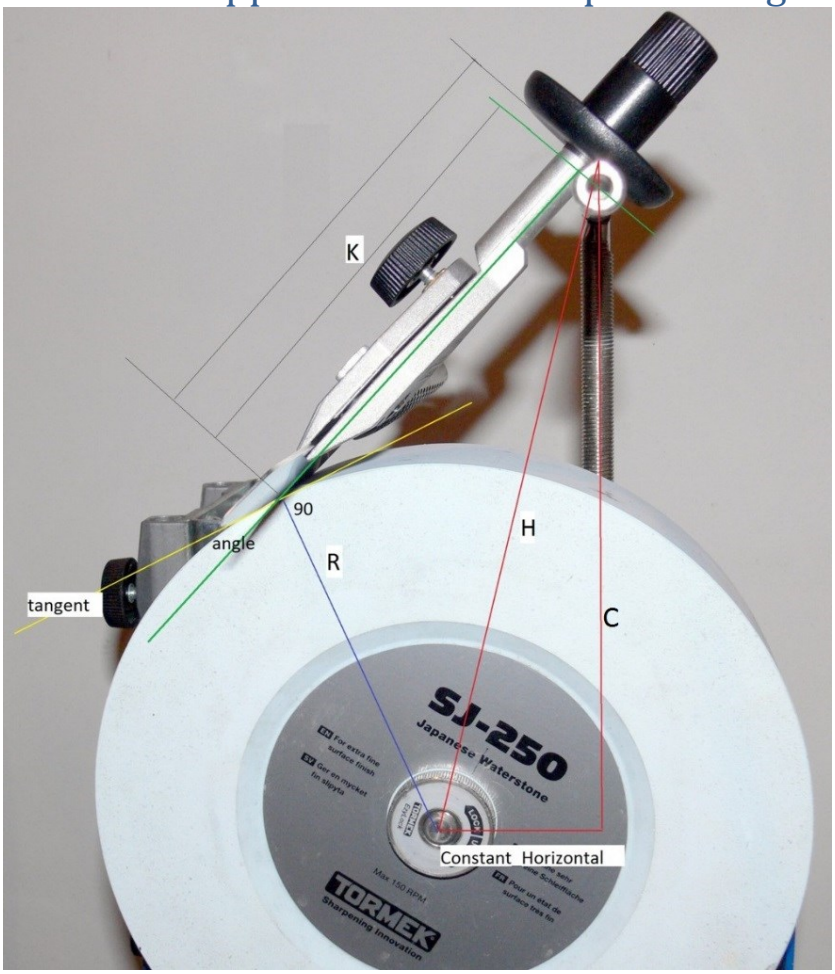
Computer Software
Scientific approach for an exceptional edge



We use computer software to set a desired grinding angle.
This software comes especially handy when you use several progressively finer grinding wheels of different diameter, and as you change to the next wheel you have to adjust height of the Support to maintain the same grinding angle.
Time-wise it is quicker than any other method.

Jig-Support-Wheel relations are shown on the sketch.
The Support height for a given grinding angle can be calculated by Pithagorean theorem; the right-angled triangle used in the calculations is shown in red on the sketch.
Hypotenuse is calculated by the formula:
$$H^2 = K^2 + R^2 - (2 \times K \times R \times \cos(90 + \text{Grinding\_Angle}))$$
and the other triangle side (Constant_Horizontal) is a distance from the Support centerline to the shaft centerline.

Support height from its base (i.e. the housing top) to the top of the support bar, for a given grinding angle = calculated value for the vertical cathetus **C** **minus** distance from the shaft centerline to the Support base (Constant_Vertical).

You can obtain Windows applet in the Sharpening Shop on our website.

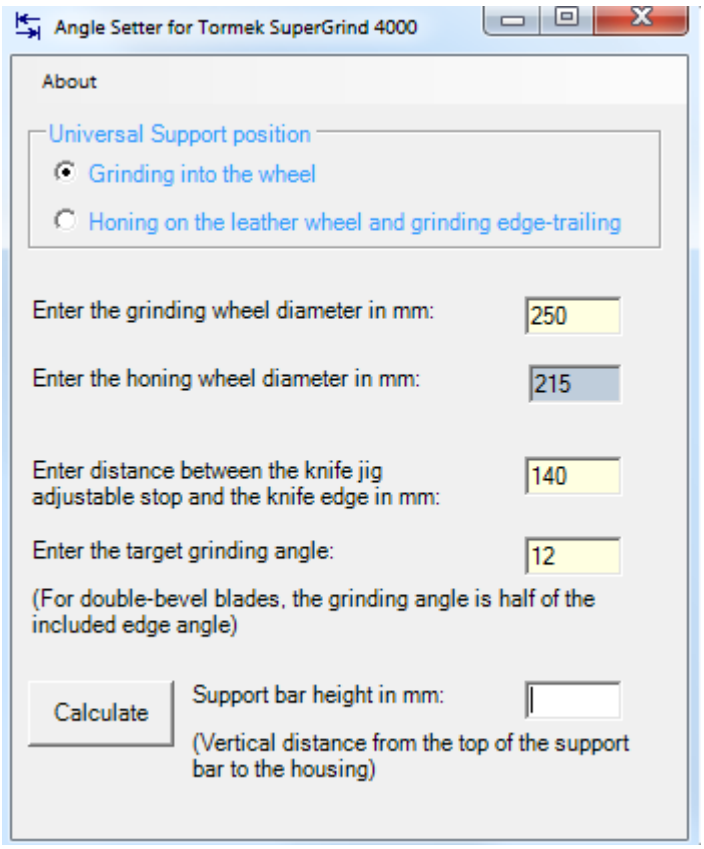
Applet Installation

Extract (unzip) the download.

WINDOWS 7-10+ This applet runs on Windows 7, Windows 8, Windows 10 and future Windows OS.
Run by clicking the **TormekSG4000_Angle_Setter** and click Install when prompted.
This installs and runs the applet; if needed the application can be uninstalled via Add/Remove Programs in the Control Panel.

How to use the applet for Tormek SuperGrind 4000

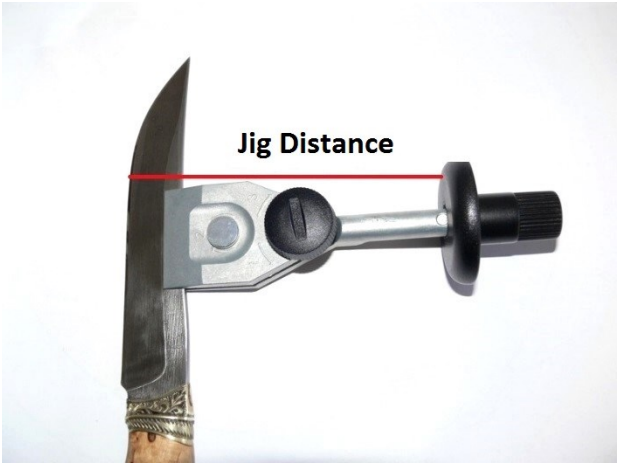
Windows



You have to take two measurements in mm – you will need them for applet input:

1. Wheel diameter (a new wheel is 250 mm) - measure your wheel, and enter the actual value.

2. Having mounted the knife in the knife jig, measure the distance between the knife jig adjustable stop (the flat black plastic part) and the knife edge in mm, shown in the following photo.



Run the application, select the grinding/honing option, enter the wheel diameter, jig distance and the target grinding angle in degrees per side, and press the Calculate button.
For your desired grinding angle, the applet will give you the Support bar height as a vertical distance from the top of the Support bar to the housing.

The Support bar height is set with the help of a caliper depth probe as shown below.