TSPROF

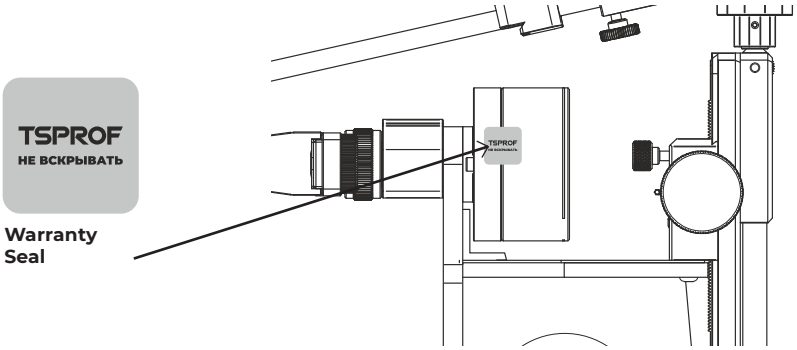
K03 PRO

TSPROF K03 PRO
SHARPENING DEVICE

USER MANUAL

ATTENTION!

The warranty seal is located on the cover of the rotary mechanism. If the warranty seal is broken, the manufacturer has the right to refuse warranty repair of the device.



The presence of the warranty seal means that the device is properly calibrated, and the error when turning the clamping arm over is no more than 0.3°. Such deviations are considered to be insignificant as they are invisible to the human eye and are not noticeable in operation.

Note: Repeated tests have shown that with an angle difference of 0.3°, the difference in bevels width will be between 1% and 3%, depending on the thickness behind the edge and the sharpening angle. For example: for a 3 mm bevel width, the difference in approach width would be between 30 and 90 microns. For comparison, the thickness of an adult human hair is 70-100 microns.

Content:

Watch the video:

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ATTENTION!

Before using the TSPROF K03 Pro sharpening device, please read this User Manual (hereinafter referred to as the Manual) carefully. Improper use of the Device may lead to its damage. Strict adherence to the rules of this manual will prevent possible injuries and damage to the Device.

The manufacturer is not liable for any damage caused by improper use of the Device.

1. Purpose

The TSPROF Profile K03 Pro sharpening device (hereinafter referred to as the Device) is a universal sharpening system that provides double-sided sharpening of knives without removing the blade from the clamps for sharpening the back side of the cutting edge.

2. Specifications

Specification	Value
Thickness of knife to be sharpened at the edge, mm	up to 7
Length of the blade of the knife to be sharpened, mm	30 – 400
Width of the blade of the knife to be sharpened, mm	from 13
Length of abrasives used, mm	up to 210
Thickness of abrasives used, mm	3 - 16 (with a plate)
Dimensions of the device in working state, without abrasive holder, LxWxH, mm	500 x 200 x 260
Weight of the device with abrasive holder, gr	2 600
Maximum sharpening angle (per side)	39°*
Minimum sharpening angle (per side)	10°*
Acceptable tolerance when turning the frame over	0.3°

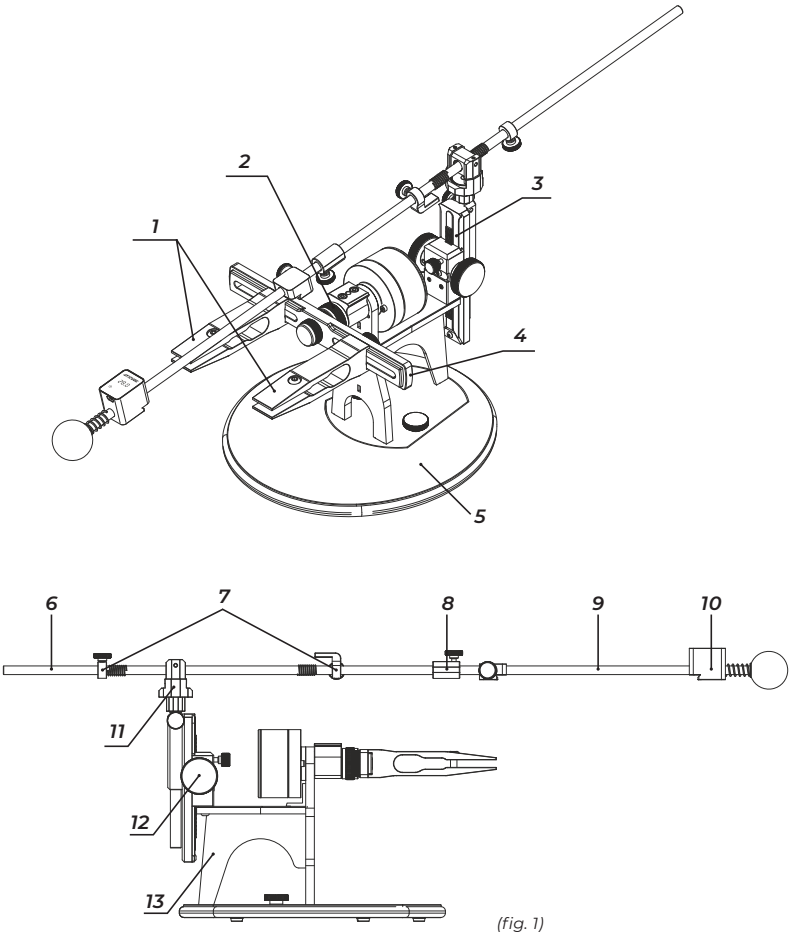
**when the knife protrudes 17 mm from the edge of the clamps, with an abrasive thickness of 4 mm and a blade spine thickness of 2.4 mm. Depending on the knife and abrasive parameters, the angles may vary.*

Table 1

3. Safety requirements

- Be sure to read this User Manual before using the device. The Device should not be used by persons not familiar with this manual.
- This device is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.
- Operation of the device by minors is permitted only under adult supervision.
- Before you start working with the Device, prepare your workplace. There must be no foreign objects in the working area of the Device. The working area must be illuminated.
- Make sure that the Device is stable on the table. When using a C-clamp, make sure that it is well tightened and that the housing is securely clamped to the work surface.
- To prevent cuts, do not touch the cutting edge of the knife with your hands. It is recommended to wear cut-resistant gloves when working with the Device.
- When sharpening, beware of accidental triggering of the rotating mechanism if the clamping force is weak or the abrasive holder is pressed too hard. Adjust the locking force properly (fig. 4).
- Do not leave the device prepared for operation unattended, as well as an open, uncovered knife blade in the access area of children and animals.

4. Design



(fig. 1)

1. Clamps
2. Locking adjustment ring
3. Rack-and-pinion height adjuster
4. Swivelling mechanism arm
5. Stand
6. Guide rod
7. Abrasive holder stroke limiter
8. Coupling
9. Abrasive holder rod
10. Electronic integrated angle finder
11. Hinge unit
12. Height adjustment knobs
13. Body

Your TSPROF K03 Pro device has a number of features:

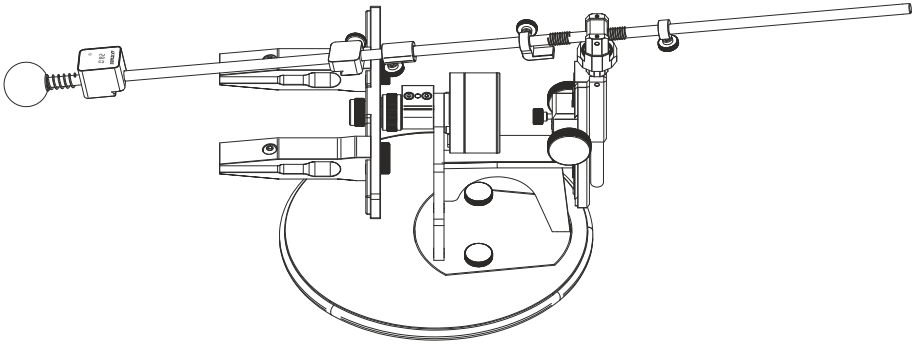
- **The abrasive holder** with electronic angle finder Axicube-i allows you to monitor the sharpening angle in real time and track any angle changes, e.g. when changing abrasives. It also allows you to set the sharpening angle with an accuracy of 0.1°. The display is easy to read in all lighting conditions. The angle finder sensor is vibration-resistant.

- **The steel guide rod of the abrasive holder** allows you to clamp the abrasive both with a bevelled backing plate and without it. After assembly, the abrasive holder rod has no angular deviations, both in the free state and under load.

- **The hinge unit** due to improved design, offers sharpening in a range of angles from 8°* to 39°, with a total angle of up to 78°

- **The rack-and-pinion height adjuster** is made of polyacetal. It is marked with a scale of sharpening angles. The movable part of the height adjuster is attached to the body with a dovetail joint. A locking screw prevents accidental movement of the height adjuster. The lifting rod is used to increase the sharpening angle. The device allows a two-stage adjustment of the sharpening angle: rough adjustment with the height adjuster and fine adjustment with the lifting rod.

- **The swivelling unit** has a unique mechanism that facilitates rotation and provides reliable auto-locking of the clamping arm. Thanks to the system of springs and bearings, the arm rotates without wearing out the mechanism. The body of the auto-swivelling mechanism is made of durable aircraft-grade aluminum, anodized in black. The swiveling mechanism cover is coated with a polymer-ceramic coating.



** when using fillet clamps*

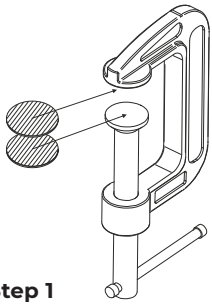
5. Preparation for work

Option 1 Using the device without the stand.

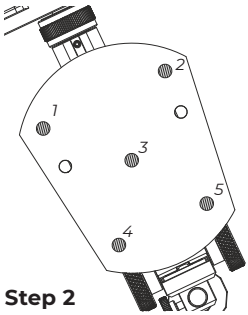
Step 1. Glue the pads from the spare parts bag to the contact surfaces of the C-clamp.

Step 2. Place 5 self-adhesive shock absorbing pads from the spare parts bag on the bottom of the sharpener body.

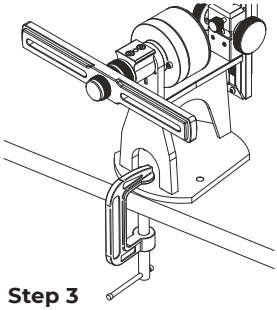
Step 3. Secure the body to the table with a C-clamp.



Step 1



Step 2

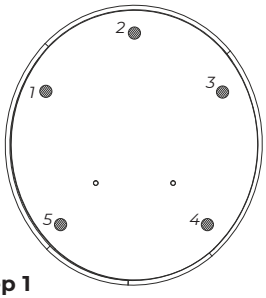


Step 3

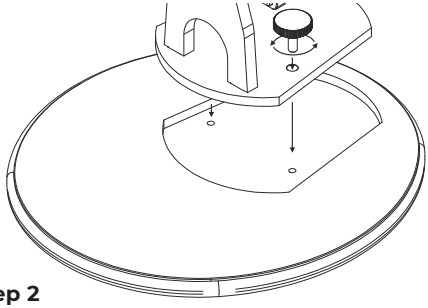
Option 2 Using the device with the stand.

Step 1. Place 5 self-adhesive shock absorbing pads from the spare parts bag package on the bottom of the stand.

Step 2. Place the device body in the recess of the stand and securely fix it with thumbscrews.



Step 1

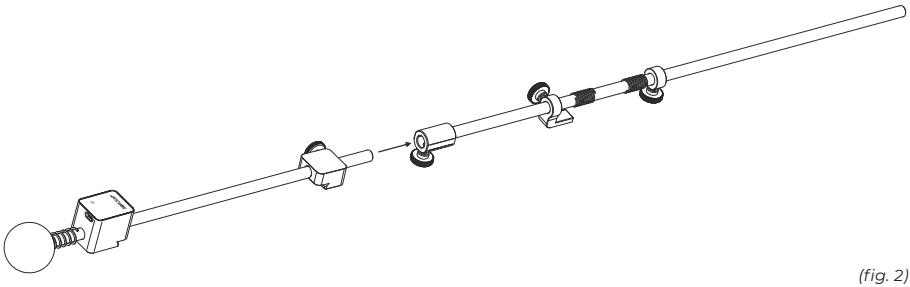


Step 2

6. Assembly

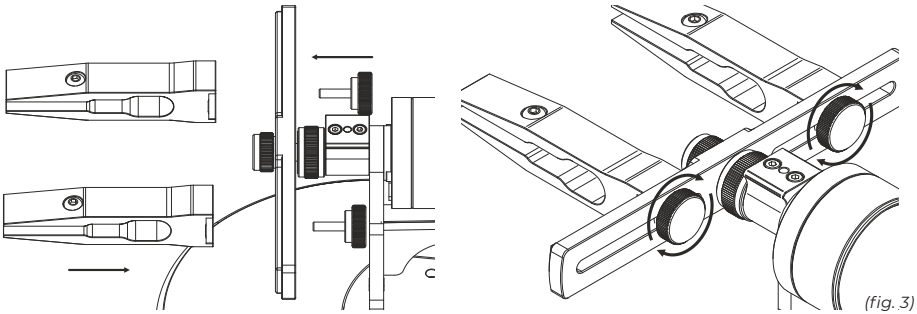
6.1 Assemble the abrasive holder.

6.2 Install the abrasive holder into the coupling on the guide rod and fix it (fig. 2)



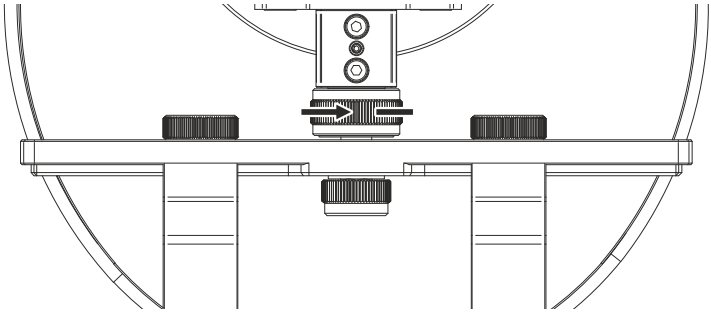
(fig. 2)

6.3 Install the clamps on the clamping frame and tighten the fixing screws. You can use different types of clamps together. Place the clamps at the required distance from each other depending on the length and geometry of the blade (fig. 3)



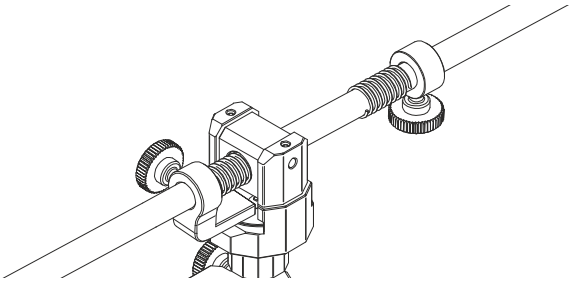
(fig. 3)

6.4 Turn the locking adjustment ring to set the desired frame locking force (fig. 4)



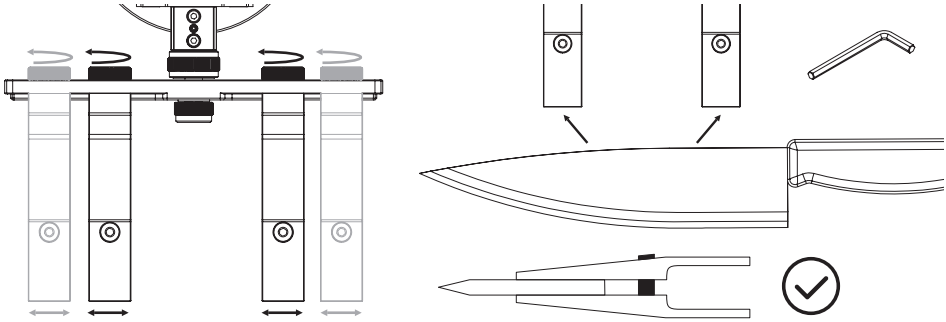
(fig. 4)

6.5 Insert the abrasive holder rod into the eye of the hinge unit with the springs, stroke limiter, and L-shaped parking limiter positioned as shown. The L-shaped parking limiter position should allow you to place it on the disc of the hinge unit (fig. 5)



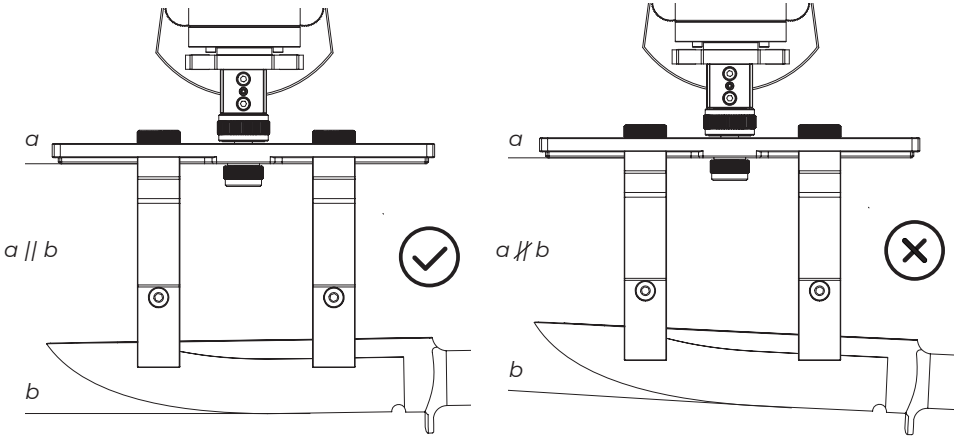
(fig. 5)

6.6 Position the clamps according to the size of the knife. The clamps must have a tight fit with the knife (fig. 6).



(fig. 6)

6.7 For creating even bevels, the most common approach is to position the longest straight section of the cutting edge parallel to the frame (fig. 7).



(fig. 7)

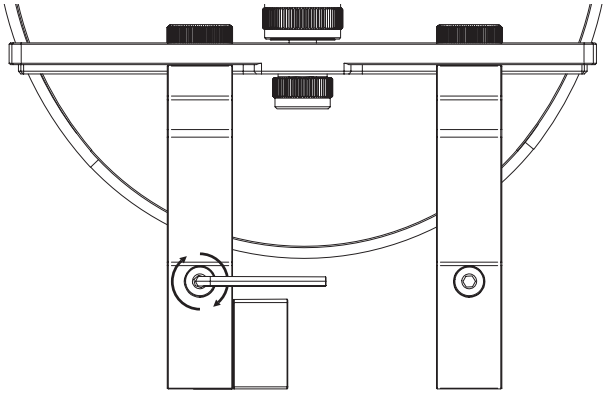
7. Angle finder calibration and setting the sharpening angle

For proper operation of the electronic angle finder you have to calibrate it. To do this, you should use the calibration prism that is included in the kit.

Calibration sequence:

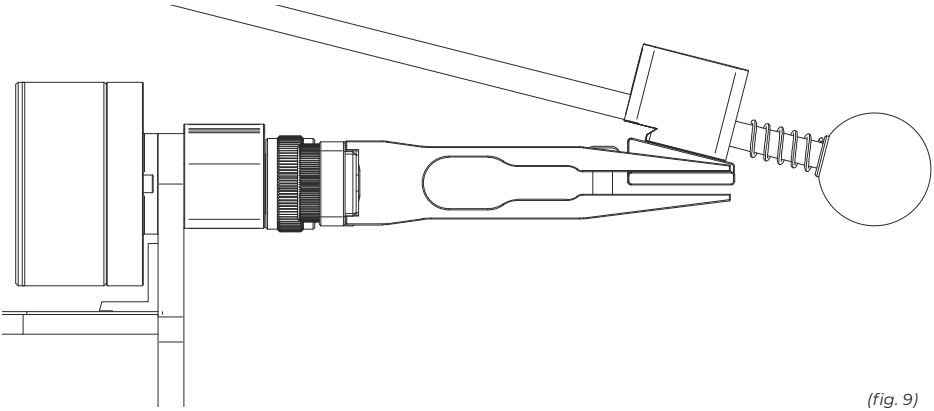
7.1 Place the clamp on the left side of the turning frame, as close to the axis of rotation as possible (fig. 8).

7.2 Place the calibration prism close to the clamp with no gaps, so that its edge does not protrude after the edge of the jaw of the clamp. Tighten the clamp with the hex wrench (fig. 8).



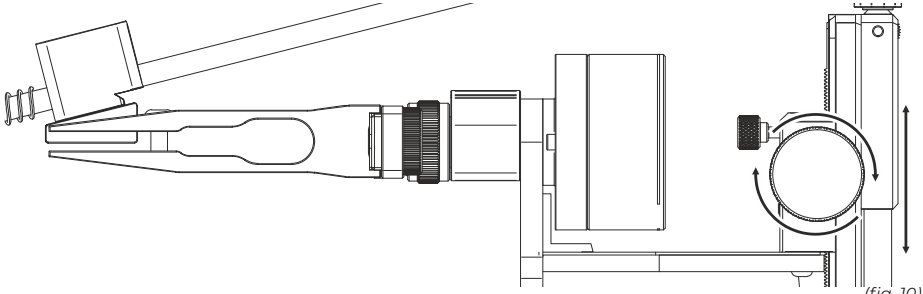
(fig. 8)

7.3 Place the body of the angle finder on the prism and use the limiters to adjust its position so that it does not protrude beyond the prism edge (fig. 9).



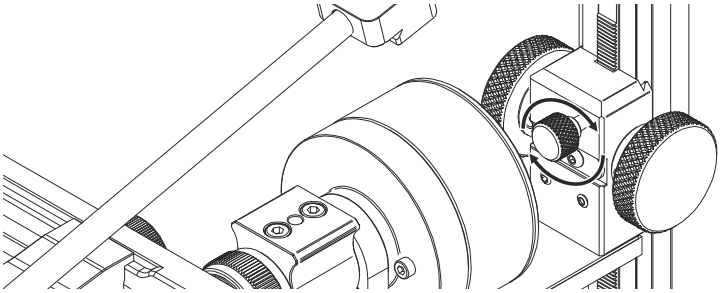
(fig. 9)

7.4 Use the height adjusting knob to change the position of the height adjuster so that there is no gap between the angle gauge and the prism. You can check the presence of the gap with a light (or remove the angle gauge from the rod and place it on the prism for calibration) (fig. 10).



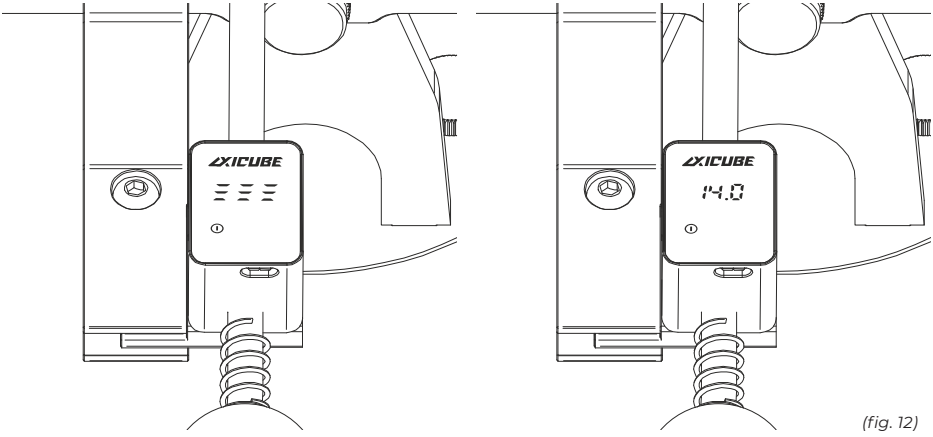
(fig. 10)

7.5 Lock the height adjuster with the screw (fig. 11).



(fig. 11)

7.6 Turn on the angle finder, press the power button and hold it for 6 seconds, waitfor flashing signs on the display, then release the button (you will see flashing signs «===») (fig. 12) and press it briefly again and the display will show a value of 14° (fig. 12). To cancel the calibration, do not press the button for 10 seconds.



(fig. 12)

The electronic angle finder is ready for use. It does not need to be calibrated again when you switch it on.

Important!

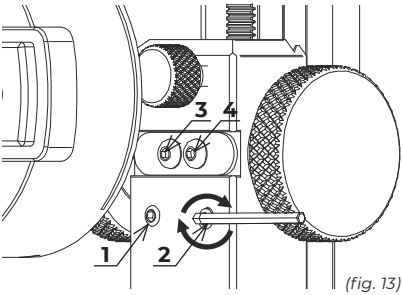
When you change the position of the Device or move it to another surface, it is necessary to re-calibrate it to avoid deviation of the electronic angle finder readings from the real values.

Note. The angle finder is programmed to show 14.0° after calibration, regardless of the angle of the inclination of the surface on which it rests.

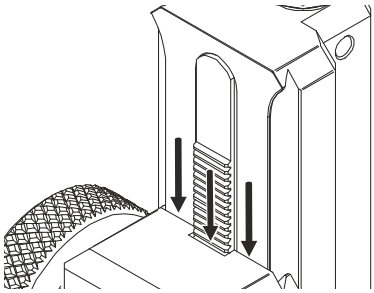
8. Calibration of the rack-and-pinion height adjuster

8.1 Using a 2 mm hex key, adjust clamping screws 1 and 2 (fig. 13). Using the same 2 mm hex key, set even clamping pressure on the rack-and-pinion lift handle with screws 3 and 4 (fig. 13).

8.2 To ensure smooth operation of the rack-and-pinion lift, apply several drops of I-20A grade oil to the joint and the rack (fig. 13b).



(fig. 13)


(fig. 13b)

9. Operating procedure

9.1 Knife clamping.

- To prevent scratches on the blade, cover the spine of the knife with masking tape before clamping it.
- When clamping the knife, make sure to position the blade's longest straight section as parallel to the frame as possible.
- Tighten the clamp screws with a hex key. The jaws of the clamps must fit the knife tightly, without gaps.
- Do not overtighten the screws, to avoid deflection of the jaws in the opposite direction!
- Adjust the stroke limiters of the abrasive holder.

9.2 Choosing the sharpening angle.

Choose the appropriate sharpening angle for your knife. Table 2 will help you with this:

Recommended sharpening angle (degrees°)

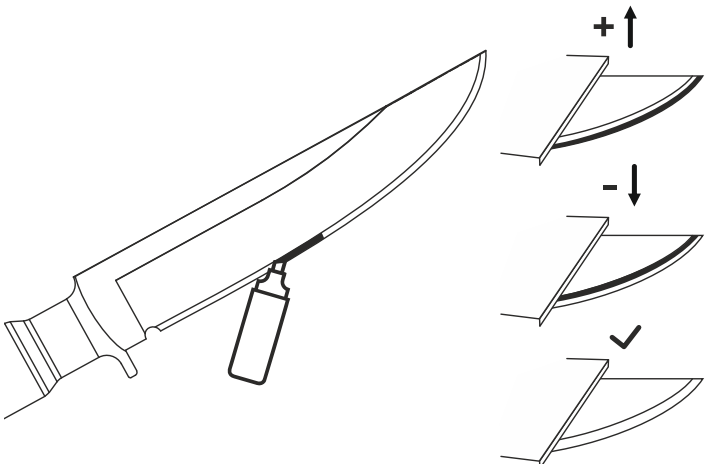
	13 | 15	16 | 20	21 | 22	23 | 25	26 | 29	30 | 34	35 | 40	41 | 45	46 | 50	51 | 55	56 | 60
Fillet knife											
Chef knife											
Cleaver											
Hunting knife											
Folding knife (EDC)											

Table 2

**the specified angle is the total sharpening angle*

You can also sharpen the knife at an existing angle.
To do this:

- paint the blade's secondary bevel with a marker;
- place the abrasive in the abrasive holder;
- run the abrasive over the painted part;
- adjust the angle so that one movement of the abrasive erases the marker completely from the painted area (fig. 14).

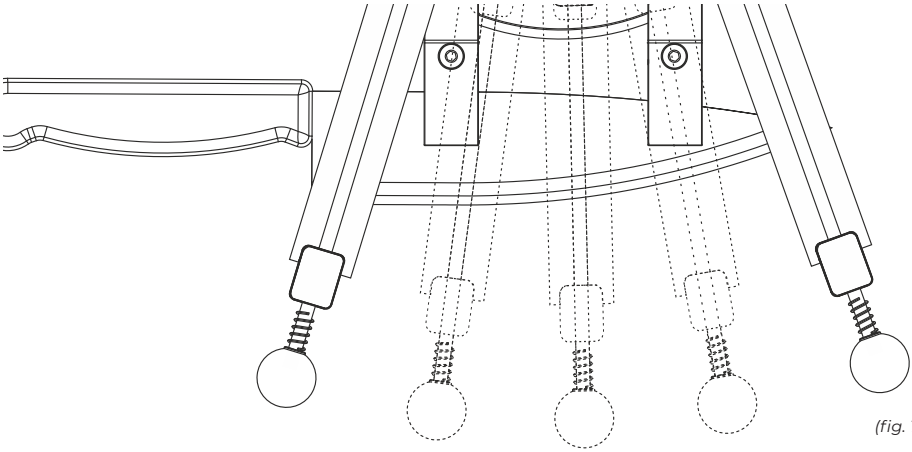


(fig. 14)

9.3 Knife Sharpening.

Each knife, steel and abrasive have their own characteristics. The general principles of sharpening are described below, which can be modified to suit the particular knife.

- Sharpening is performed with back and forth movements. The abrasive is moved along both sides of the cutting edge until it forms a symmetrical double-sided blade grind (fig. 15).



(fig. 15)

- Sharpen step by step with abrasives of different grit sizes, from the coarsest (F120) to the finest (F1000 and higher).
- Each time you finish sharpening one side of the knife, push the abrasive holder aside and park it in the hinge unit.
- Visually control the symmetry of the knife's secondary bevel width on both sides.
- Be sure to hold the knife by the handle when turning it to the other side (180°).
- Continue sharpening the other side of the knife.

There are many nuances to quality knife sharpening.
You can learn more about knife sharpening and our company's products on our Youtube channel: https://www.youtube.com/@TSPROFSharpening

Scan the
QR code

10. Operating instructions of the TSPROF K03 Pro sharpening device

- Use liquid oils (I-20A or its analogs) for lubrication of moving mating surfaces of the Device.
- Before using the device check that it is in good working order. In case of malfunctions, please contact the Manufacturer for all repair related questions.
- Movement of the abrasive stone holder during sharpening must be smooth, without sudden jolts or excessive pressure on the abrasive holder.

11. Cleaning and maintenance

After finishing work, remove metal chips and any contamination from the Device and thoroughly clean all surfaces. Wipe areas prone to corrosion (all uncoated parts of the Device, including screws and springs) with a cloth lightly moistened with oil (I-20A or its analogs).

12. Storage and transportation

Store the device in its original packaging in a dark, dry, dust-free place at temperatures from +5 to +40°C. When storing and operating the device in humid climate, put several silica gel bags in the box with the device and treat areas prone to corrosion with industrial oil. In order to avoid corrosion and change of operating characteristics of the Device elements, it is not recommended to use Balistol, WD-40 and silicone-based oils for lubrication.

Transportation by all means of transportation is allowed at the temperature from -40 °C to +50 °C. In case of transportation of the Device at subzero temperatures, its use is allowed only after it being for at least 3 hours at room temperature.

13. Disposal

Dispose of the Device and packaging in accordance with the procedure established by the norms and rules in the field of production and consumption waste management. Paper, polymer and metal waste should be sorted in accordance with the separate waste collection regulations set in your region.

Dispose of the electronic angle finder separately from the sharpening device. Donot dispose of electrical devices together with household waste, please contact ahazardous waste collection point. Contact your local municipal authorities about recycling or contact certified companies specializing in recycling such devices in your area.

14. Warranty

The current warranty conditions are specified on the Manufacturer's website. In case of discrepancies, the conditions posted on the Manufacturer's website shall prevail.

The warranty period for the product is 1 year from the date of sale, but not more than 1.5 years from the date of manufacture.

The warranty period can be extended according to special programs of the Manufacturer. The date of sale is the date of registration of shipping documents and/or the date of filling in the warranty card.

This warranty entitles the Buyer to repair the product free of charge in the event of defects in materials and assembly.

All types of repairs, including warranty and post-warranty repairs are performed only at the Manufacturer's production sites.

The warranty does not cover packaging materials.

Warranty repair of partially or completely disassembled equipment is excluded. Such repairs are possible on a chargeable basis.

Warranty repair is not carried out in the following cases:

- in case of external mechanical damage to the equipment;
- in case of defects due to non-compliance with the rules of storage and transportation, force majeure, as well as adverse atmospheric or other external effects on the equipment, such as rain, snow, high humidity, heat, aggressive media, etc.;
- in case of damage caused by non-observance of the operating conditions specified in the manual or by unauthorized modifications;
- if foreign objects get into the equipment;
- in case of defects and breakdowns due to untimely scheduled technical and preventive maintenance, including cleaning and lubrication of the equipment in accordance with the operating instructions.

Certificate of acceptance and sale

This TSPROF K03 Pro sharpening device complies with the technical documentation and found to be serviceable.

Serial number:

QC date:

/ / 20

QC manager:

/

Filled in at the time of sale:

Date of sale:

/ / 20

Seller's signature:

/

TSPROF