

KADET PRO

УСТРОЙСТВО ЗАТОЧНОЕ TSPROF KADET PRO РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ

TSPROF KADET PRO SHARPENING DEVICE
USER MANUAL



CONTENT

1. Purpose.....	17
2. Technical characteristics.....	17
3. Safety requirements.....	18
4. Construction.....	18
5. Preparing for work.....	19
6. Operating procedure.....	25
7. Cleaning and maintenance.....	27
8. Storage and transportation.....	27
9. Utilization.....	28
10. Warranty obligations.....	28
Certificate of acceptance and sale.....	29

ATTENTION!

Read this User Manual carefully before you start using the device. Improper use of the device may result in injury or damage to the device.

The manufacturer is not responsible for damage caused by improper use of the devices

1. PURPOSE

The TSPROF Kadet Pro sharpening device (hereinafter referred to as the Device) is a universal sharpening tool designed for double-sided sharpening of knives without removing the blade from the clamps for sharpening of the back side of the blade.

The device is designed for use in a domestic environment with an ambient temperature from 5 to 35°C.

2. TECHNICAL CHARACTERISTICS

CHARACTERISTIC	VALUE
Spine thickness of knives	up to 7 mm
Blade length of knives	up to 300 mm
Blade width of knives	up to 300 mm
Minimum sharpening angle	9°
Maximum sharpening angle	28°
Compatible with abrasives with a length of	from 10 to 160 mm
Compatible with abrasives with a thickness of	from 3 до 15 mm
Weight	2 100 gr

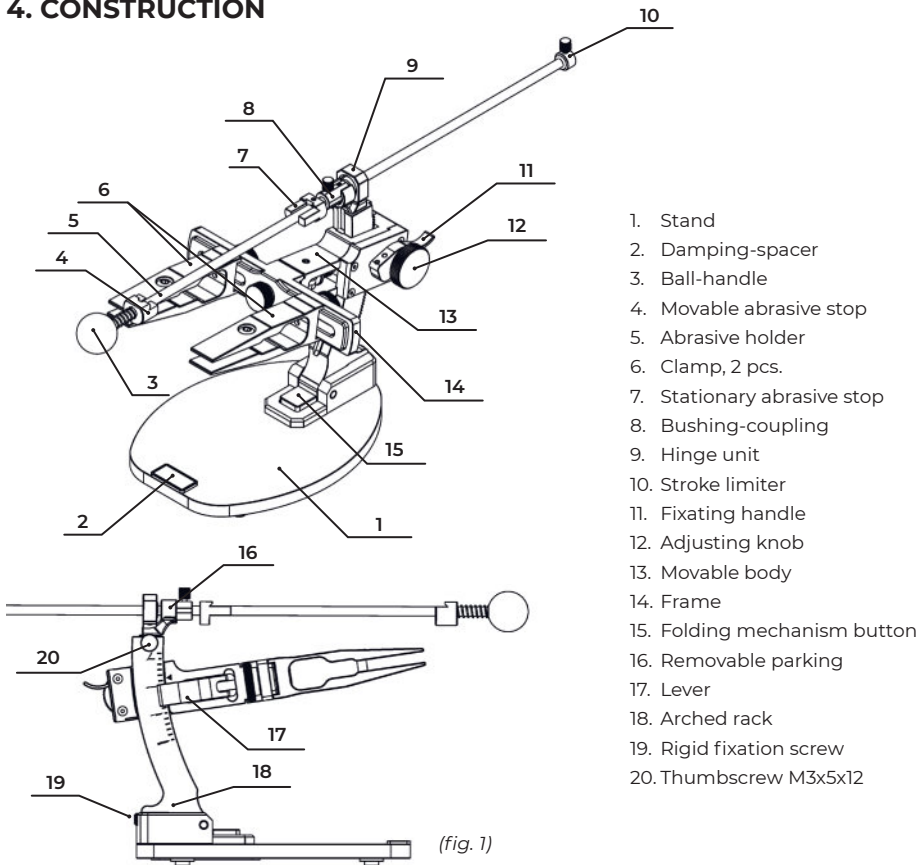
**WATCH VIDEO
TUTORIAL:**



3. SAFETY REQUIREMENTS

- ◆ Be sure to read this User Manual before using the device. The device should not be used by persons who are not familiar with this manual.
- ◆ This device is not intended for use by people (including children) of reduced physical, sensory or mental abilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.
- ◆ Minors must be supervised to ensure that they do not play with the Device.
- ◆ Before you start working with the Device, prepare your workplace. There should be no foreign objects in the working area of the device. The working area must be illuminated.
- ◆ To prevent cuts, do not touch the cutting edge of the blade with your hands. It is recommended that you wear cut-resistant gloves when handling the machine.
- ◆ Do not leave unattended the device prepared for operation, as well as an uncased knife blade in the access area of children and animals.

4. CONSTRUCTION



Your TSPROF Kadet Expert device has a number of features:

- ◆ The folding rack with a hinged joint and a collapsible abrasive holder allow you to significantly reduce the overall dimensions of the device for easy storage and transportation.
- ◆ The rotary mechanism with a clamp allows you to work without resetting the knife in the clamp and keep the same angle on both sides.
- ◆ The position of the cutting edge (hereinafter referred to as CE) remains unchanged at all stages of work, including changing the sharpening angle and turning the clamp. This is important for keeping the abrasive and its working stroke in the plane of the table, as well as for the convenience of observing the process of sharpening the CE.
- ◆ The arc stand is made of a single piece of aluminum and is integrated with a rack and pinion lift with serrated gearing. By rotating the adjusting knob, the rotating unit moves smoothly around the virtual center where the cutting edge of the knife is located. The locking knob, after adjusting the desired angle, allows the rotating unit to be securely locked in place.
- ◆ The design of the device has increased resistance to dynamic effects on the sharpening angle.
- ◆ The design of the device has increased resistance to dynamic effects on the sharpening angle clamps from TSPROF K03 sharpening devices.

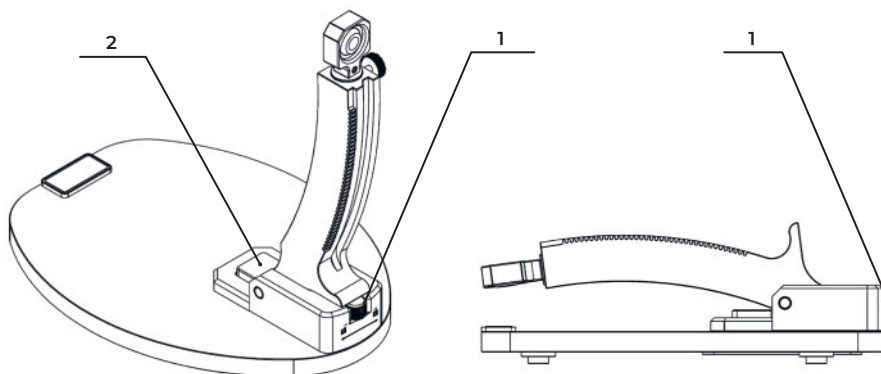
5. PREPARING FOR WORK

5.1 Working position of the rack:

- ◆ before setting the rack make sure that the rigid fixation screw (1) is tightened;
- ◆ set the rack vertically until the button clicks (2);
- ◆ to fix it firmly, twist the thumbscrew (1) up counterclockwise.

5.2 Folding of the rack:

- ◆ screw the rigid fixation screw (1) clockwise until tight;
- ◆ press the button (2) holding the rack steady.



(fig. 2)

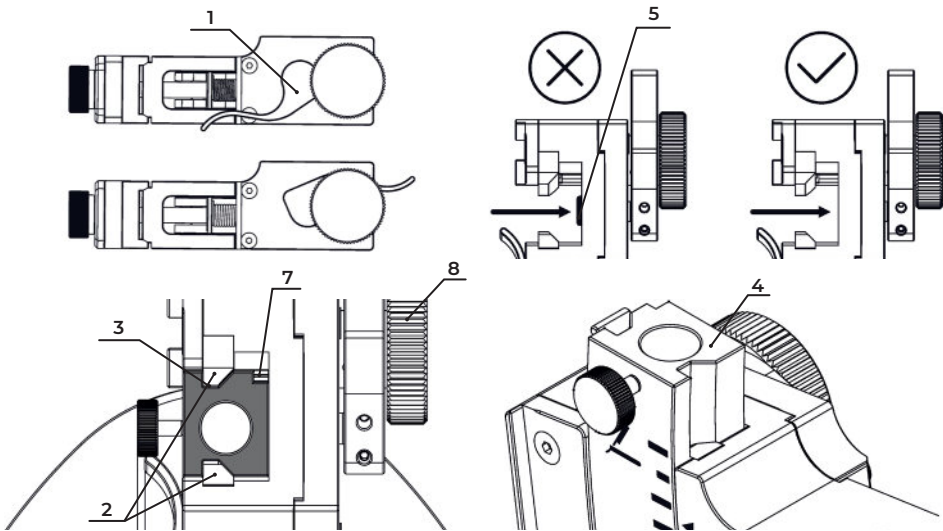


***It is not allowed to fold the construction with an installed rotary mechanism!
Avoid hitting the stand with the rack hard.
It is not allowed to fold the construction with an untightened screw!***

5.3 Setting the rotating mechanism:

Installation is performed with the removed hinge unit

- ◆ loosen the fixing handle (1);
- ◆ align the seat pads (2) with the slots (3) on the arched rack (4), with the pad (5) pressed down as shown in fig. 3;
- ◆ move the rotating body (6) smoothly, without sudden efforts, down the arched rack until the pinion engages with the teeth of the rack (7);
- ◆ further movement on the arched rack is done with the lift adjusting knob (8).

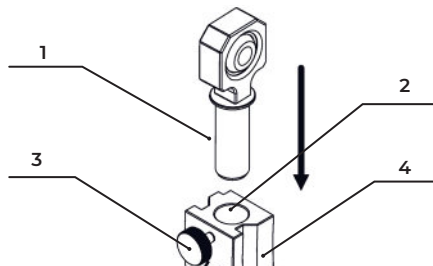


(fig. 3)

5.4 Setting the hinge unit:

Hinged joint (1) is supplied removed from the rack (4) in order to avoid damages.

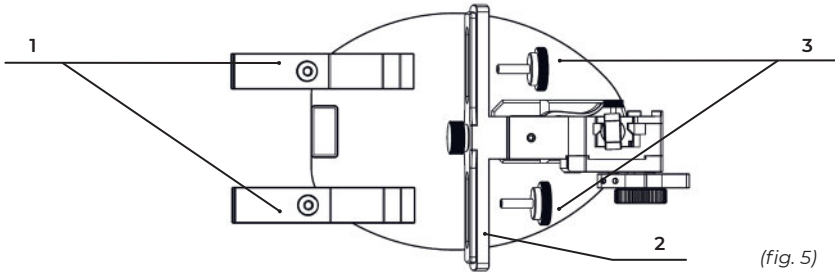
- ◆ place the hinged joint in the slot (2) with a light push;
- ◆ fix the hinge unit with the thumbscrew M3x5x12 (3).



(fig. 4)

5.5 Setting the clamps:

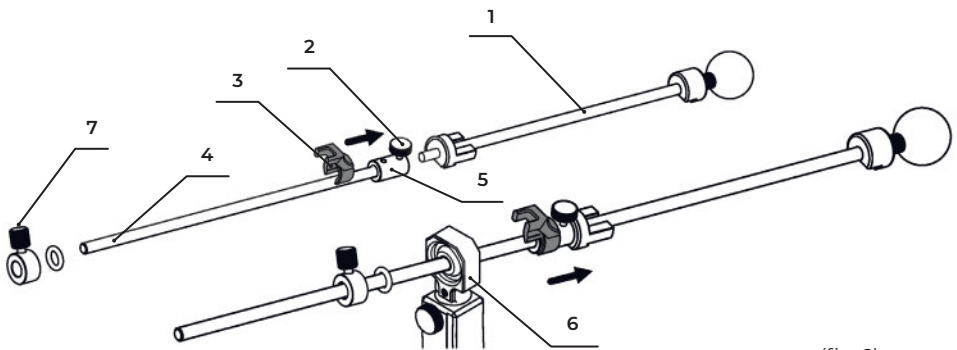
- ◆ place the clamps (1) one at a time on the frame (2) and tighten the thumb screw M5x18 (3) on each of them until bumping.



(fig. 5)

5.6 Assembling and setting of the abrasive holder:

- ◆ loosen the screw (2) and insert the abrasive holder (1) into the coupling (5); secure it with the screw (2);
- ◆ install the parking bracket on the coupling (3), as shown in fig. 6;
- ◆ install the guide rod (4) in the hinge unit (6), and then install the abrasive holder limiter (7).

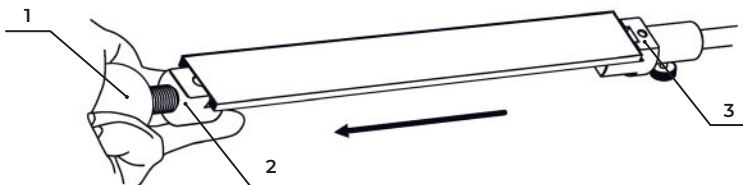


(fig. 6)

5.7 Setting the sharpening stone:

To set a sharpening stone on a standard length blank, 160mm:

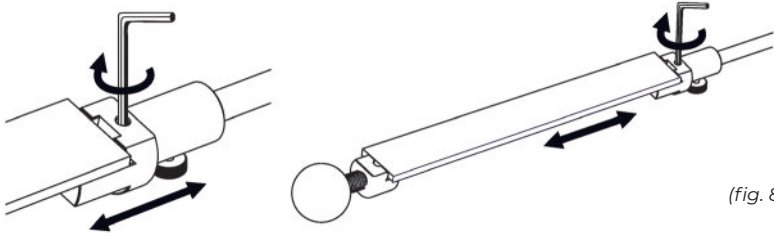
- ◆ pull the movable stop (2) towards you, overcoming the resistance of the spring;
- ◆ for convenience, put the holder with the wooden ball handle (1) in the palm of your hand or thumb;
- ◆ set the sharpening stone with a blank in the groove of the fixed stop (3);
- ◆ level the stone and release the movable stop (2).



(fig. 7)

To set a sharpening stone of another length, adjust the position of the fixed stop:

- ◆ loosen the fixed stop screw with a 1.5 mm allen key;
- ◆ adjust the position of the fixed stop;
- ◆ tighten the screw and set the sharpening stone.



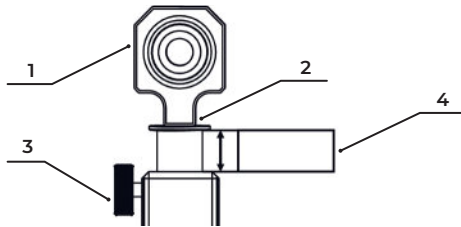
(fig. 8)

5.8 Abrasive thickness compensation:

When working with abrasives of different thicknesses, it is recommended to level the difference for consistency of the sharpening angle:

- ◆ before you start, take the first abrasive;
- ◆ loosen the thumbscrew M3x5x12 (3) securing the hinge unit (1);
- ◆ lift the hinge unit to the height of the abrasive (4), with the ledge (2) of the hinge unit resting lightly on the surface of the abrasive;
- ◆ fix the position of the hinge unit with the M3x5x12 screw (3);
- ◆ during sharpening, repeat the above steps when switching to a new abrasive of a different thickness.

When using sharpening stones of the same thickness, leave the hinged joint in the lower position.



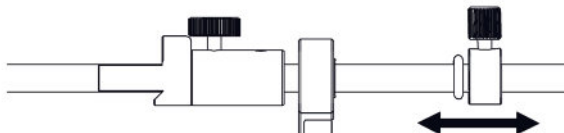
(fig. 9)

5.9 Abrasive holder limiter:

To prevent the sharpening stone from breaking off, set the abrasive holder with a limiter:

- ◆ loosen the thumb screw of the limiter;
- ◆ determine the maximum stroke of the sharpening stone so that it does not extend its plane beyond the cutting edge of the knife along the entire length;
- ◆ place the limiter close to the hinge unit and tighten the thumbscrew.

Despite the fact that there is a rubber damper in front of the limiter, avoid sharp impacts of the limiter on the hinged unit.

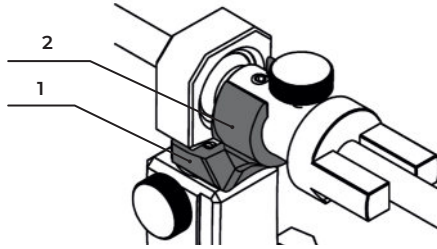


(fig. 10)

5.10 Parking of the abrasive holder:

To put the holder on the parking lot:

- ◆ turn the holder with the sharpening stone with working surface of the sharpening stone up;
- ◆ carefully place the parking bracket (1) at the base of the hinge unit (2).

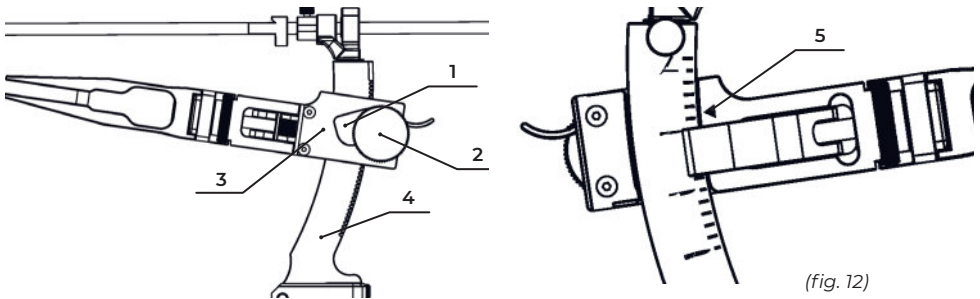


(fig. 11)

5.11 Setting the sharpening angle:

To set the sharpening angle, you have to:

- ◆ loosen the fixating handle (1) and rotate the adjusting knob (2) to move the rotating unit (3) along the stand (4) until the pointer (5) aligns with the desired angle value on the sharpening angle scale;
- ◆ approximate angle values are given in the table below;
- ◆ lock the lifting mechanism with the fixating handle (1). Sufficient fixation is achieved when the fixating handle is parallel to the lifting mechanism body.



(fig. 12)

Icon	Meanings	The range of sharpening angles per side
	Razor Sharpness	under 8°*
	Fillet knives	8 – 13°
	Kitchen knives	13 – 18°
	Hunting, EDC-knives	18 – 22°
	Chopping angles	more than 27°

The sharpening angles in the table are indicated per each side of the knife.



*when using whole-milled fillet clamps (not included).

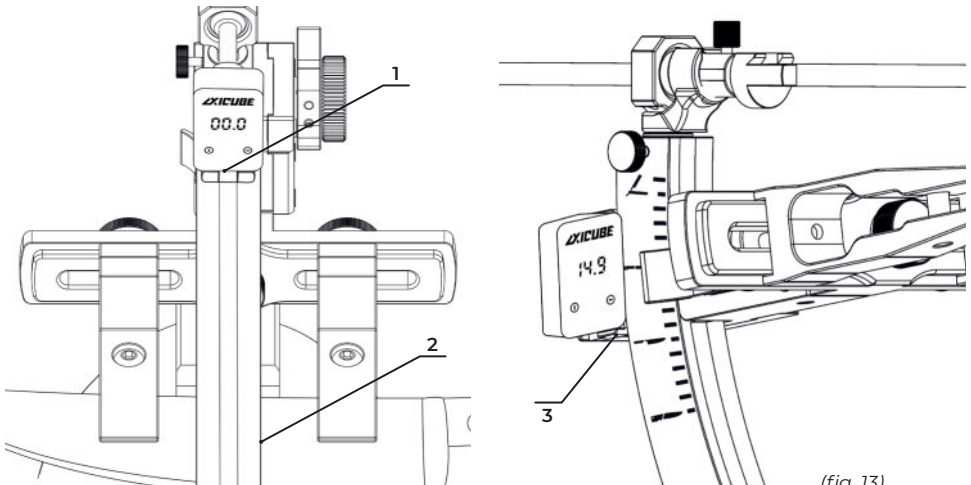


**The precise angle depends on the distance of the knife blade relative to the edge of the clamping jaws, the thickness of the sharpening stone together with the blank, the use of an abrasive thickness compensator. The maximum deviation of the table data from the actual sharpening angle when using the abrasive thickness compensator in the upper position is $25\pm 2\%$. Moving the CE in the jaws at a distance of 17 ± 8 mm leads to a deviation of the scale readings from the actual sharpening angle by $4\pm 1\%$.*

5.12 Using Axicube angle finder:

For a more accurate angle setting, use the Axicube digital angle finder:

- ◆ place the angle finder on the angle finder stand (1) on the abrasive holder, with the abrasive in the holder set against the blade of the knife (2) installed in the clamps;
- ◆ turn it on using the button  and set the readings of the device to zero by the button ;
- ◆ without switching it off, move it to the platform of the angle finder (3) on the body of the lifting mechanism;
- ◆ the angle finder will show the angle of sharpening of the given side of the knife with an accuracy of 0.1° ;
- ◆ set the sharpening angle according to step 5.11.



(fig. 13)

More about the Axicube:



The Axicube digital angle finder is specially designed for sharpening systems. It has magnets on three planes, detects the smallest changes with an accuracy of up to 0.05° degrees, allows to set the angle with precise accuracy. The Axicube is placed on the device facing the sharpener, which makes the process of setting the sharpening angle more comfortable. Built-in rechargeable battery is charged via USB cable. Battery life is 5 years in continuous operation.

6. OPERATING PROCEDURE



Remember that you are working with a sharp knife.

Use care and caution when sharpening.

Careless sharpening can cause serious injury.

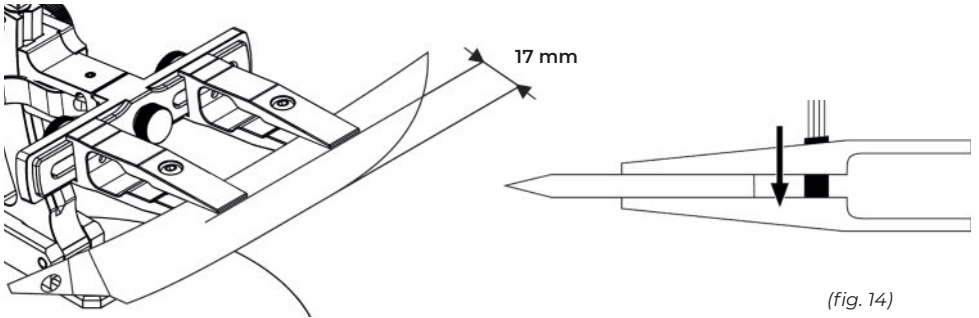
Do not leave the unit with the knife clamped unattended.

6.1 Clamping the knife:

To prevent scratches on the knife, it is recommended to tape the knife with masking tape before sharpening:

- ◆ position the knife in the clamps so that the longest straight section of the knife is as parallel to the frame as possible;
- ◆ tighten the clamp screws carefully with a screwdriver. The jaws of the clamps should fit the blade tightly, without gaps;

Do not overtighten the screws to prevent the clamp jaws from bending backwards!



(fig. 14)

6.2 Selecting the sharpening angle:

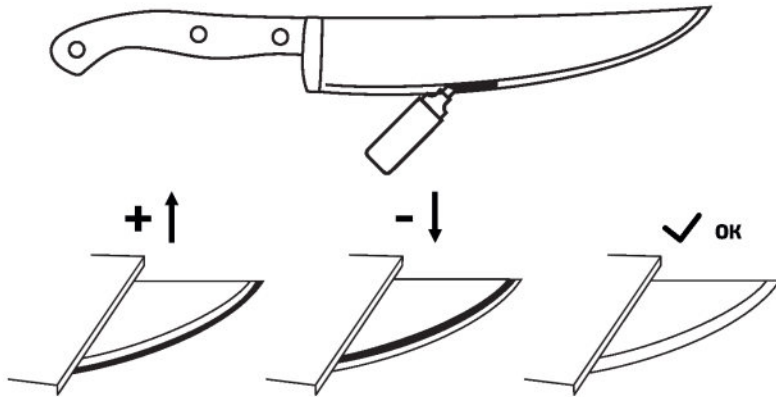
Depending on the use of the knife, select the desired sharpening angle. The table below will help you with this:

Knife type:	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
Table knife for meat and vegetables											
Bbread knife											
Home kitchen knife											
Professional chef's knife											
Professional kitchen knife											
Professional fish knife											
Professional meat knife											
Professional vegetable knife											
Carving and boning knife											
Fillet knife											
Folding and hunting knife (for sharpness)											
Folding and hunting knife (lasting sharpness)											
Penknife											
Universal knife											
Chopping knife											

*the overall sharpening angle is indicated

You can also sharpening a knife catching an existing angle. To do this you have to:

- ◆ use a marker to paint over the knife's secondary bevel;
- ◆ 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.

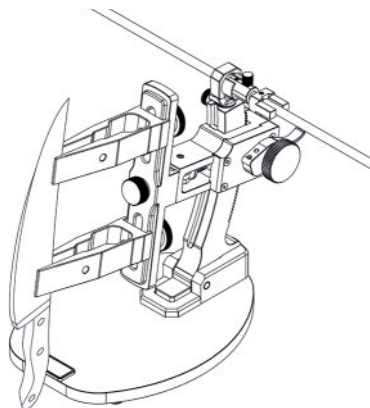
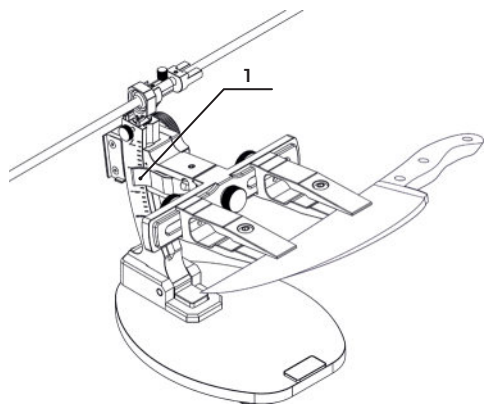


(fig. 15)

6.3 Knife sharpening:

The general principle of sharpening is described below, which can be changed depending on the characteristics of a particular knife:

- ◆ sharpening is done by moving away from yourself;
- ◆ even for roughing work, the pressure of the abrasive on the knife should be minimal;
- ◆ select the grit size of the abrasive, depending on the task;
- ◆ sharpening on each side is carried out before the burr occurs;
- ◆ the presence of a burr can be checked with your finger, with a careful movement on yourself;
- ◆ if a burr appears, move the abrasive holder to the side and place it in the parking;
- ◆ turn the knife over as described below. During all manipulations, be sure to hold the knife by the handle;
- ◆ pull the lever of the rotary mechanism (1) towards you;
- ◆ by the handle of the knife turn the frame by 180°;
- ◆ return the lever to its original position;
- ◆ **BE ESPECIALLY CAREFUL WHEN TURNING THE KNIFE OVER!**
- ◆ repeat the sharpening on the back side of the knife;
- ◆ sharpen step by step with abrasives of the required grit.



(fig. 16)



There are many details about the correct sharpening of a knife.
Learn more about the various aspects of sharpening on our Youtube channel:
<https://www.youtube.com/c/TSPROFSharpening>

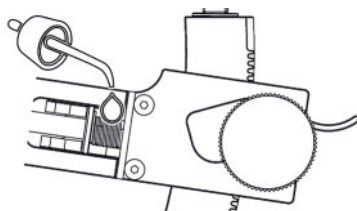
7. CLEANING AND MAINTENANCE

After finishing your work, remove dirt from the device and clean all surfaces thoroughly.

We recommend lubricating the rotating mechanism axis after each use.

For proper operation of the device, it is necessary to lubricate the rubbing surfaces with industrial oil.

Do not wash the device with abrasives or detergents or under running water!



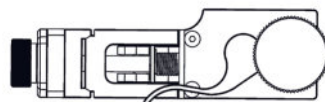
(fig. 17)

8. STORAGE AND TRANSPORTATION

Store the device in its original packaging or in a dust-free place at the temperature from +1 to +40°C. It is allowed to transport the device by all means of transport at the temperature from -40°C to +50°C. If the device is transported at subzero temperatures, it may be used only after staying for at least 3 hours at room temperature.



Warning! To avoid loss of the locking force of the lifting mechanism, store the device only with the locking knob loosened (Fig. 18).



(fig. 18)

9. UTILIZATION

Dispose of the device and packaging in accordance with the procedure established by the norms and rules in the field of consumption waste management. If possible, dispose of paper, plastic, metal waste in the containers designated for these materials.

10. WARRANTY OBLIGATIONS

The current warranty conditions are listed on the Manufacturer's website.
In case of discrepancies, the terms and conditions posted on the Manufacturer's website take precedence: <https://tsprof.com/help/warranty>

The warranty period for the product is 1 year from the date of sale, but no more than 1.5 years from the date of manufacture.

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

This warranty entitles the Buyer to have the product repaired free of charge in the event of defects related to materials and construction. Warranty, as well as non-warranty and post-warranty repairs shall be made only directly by the Manufacturer.

The warranty does not cover packaging materials.

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

Warranty repairs are not available in the following cases:

- ◆ when using the equipment for purposes other than those specified in the operating instructions;
- ◆ in case of external mechanical damage to the equipment;
- ◆ in case of defects due to non-compliance with storage and transportation rules, force majeure circumstances, as well as unfavorable atmospheric or other external effects on the equipment, such as rain, snow, high humidity, heating, aggressive environments, etc;
- ◆ when damage has occurred due to failure to observe the operating conditions specified in the manual or to make structural modifications on your own;
- ◆ when foreign objects get into the equipment;
- ◆ in the event of defects and breakdowns due to untimely routine maintenance and preventive maintenance, including cleaning and lubrication of the equipment in accordance with the instructions in the operating manual.

Setting, adjustment, maintenance and preventive maintenance of equipment (for example: cleaning, washing, lubrication, replacement of technical fluids) is not a warranty service and is provided on a fee basis.

The equipment is removed from the warranty in case of violations of the rules of operation specified in the operating instructions. To send the product for warranty, non-warranty, post-warranty service, it is mandatory to send a claim to service@tsprof.com.

Address for sending the product: Russia, 426039, Udmurt Republic, Izhevsk, Votkinskoye shosse, 298, office B4, «TSPROF Rus» OOO

СВИДЕТЕЛЬСТВО О ПРИЕМКЕ И ПРОДАЖЕ CERTIFICATE OF ACCEPTANCE AND SALE

Устройство заточное TSPROF Kadet Pro соответствует технической документации и признано годным для эксплуатации.

The TSPROF Kadet Pro sharpening device complies with the technical documentation and found to be serviceable.

Serial no.:

Дата приемки:

Date of acceptance:

Контролер:

Inspector:

/

Заполняется при продаже:

Filled in at the time of sale:

Дата:

Date of sale:

Подпись продавца:

Seller's Signature:

TSPROF

RUS

TSPROF.COM

+7 (800) 550 22 14

+7 (3412) 79-40-19

INFO@TSPROF.COM

Производитель:

Россия, 426039, Удмуртская Республика, г. Ижевск,
Воткинское шоссе, 298, помещение В4, ООО «ТСПРОФ Рус»

ENG

SHOP.TSPROF.COM

+1 (877) 638 82 48

SALES@TSPROF.COM

Manufacturer:

ООО «TSPROF Rus», Votkinskoye Shosse, 298, B4,
Izhevsk, Udmurt Republic, Russian Federation, 426039