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# УСТРОЙСТВО ЗАТОЧНОЕ КАDET EXPERT РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ

# TSPROF KADET EXPERT SHARPENING DEVICE USER MANUAL

СДЕЛАНО В РОССИИ | MADE IN RUSSIA

# ENGLISH

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# ATTENTION!

Please read this operating User Manual carefully before using the device. Improper operation of the device may result in personal injury and damage to the device.

The manufacturer is not responsible for damages caused by improper use of the device.

#### **1. PURPOSE**

The TSPROF Kadet Expert sharpening device provides double-sided sharpening of knives (without resetting), editing and fine-tuning of the sharpening edges of the blades.

The device is intended for use in domestic conditions with an ambient temperature from 5 to 35 °C.

### 2. TECHNICAL CHARACTERISTICS

CHARACTERISTIC	VALUE
Spine thickness of sharpened knives, mm	up to 7
Blade length of sharpened knives, mm	30 - 300
Maximum depth of the blade clamping (from the spine), mm	35
Length of the abrasives, mm	up to 150
Thickness of the abrasives, mm	3 - 15
Dimensions of the device in a working position without abrasive holder, HxLxW, mm	173*176,5*132
Device weight with abrasive holder, g	1800
Maximum sharpening angle (per side)*	28,5°*
Minimum sharpening angle (per side)*	8,5°*

\* The value is correct when the distance mentioned above reaches 17 mm and the thickness of the abrasive along with the blank is 9 mm





# **3. SAFETY REQUIREMENTS**

- For safe use of the device, please read this User Manual carefully.
- The device is not intended for use by persons (including children) with reduced physical or mental capabilities or lack of experience or knowledge, unless they have been supervised or instructed to use it by a person responsible for their safety.
- Children must be supervised to avoid playing with the device.
- Before you start working with the device, prepare the work area, freeing it from foreign objects.
- Make sure that the device is stable on the table. If necessary, secure the device with a G-clamp to the edge of the table.
- Do not operate the device in poor light.
- Do not apply excessive force to the knife during operation. When working with the device, it is recommended to use gloves with cut protection.
- Keep in mind that the blade of the knife may cause injury if handled carelessly.
- Do not leave unattended the device prepared for operation, open, not covered knife blade in the access area of children and animals.



1 - Stand 2 - Bumper 3 - Movable abrasive clamp 4 - Handle 5 - Abrasive holder 6 - Knife clamps, 2 pcs. 7 - Stationary abrasive clamp 8 - Coupling 9 - Hinged joint 10 - Fixation handle 11 - Rotary mechanism 17 - The rotary mechanism body frame 13 - Button 14 - Frame 15 - Flip lever 16 - Arched rack 17 - Rigid fixation screw 18 - Fixation screw

19 - Abrasive holder limiter

Your Kadet Expert sharpening devise has some 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 design of the device has increased resistance to dynamic effects on the sharpening angle;

**The frame for clamps** is designed to work with both double whole-milled clamps for Kadet Expert, and clamps for TSPROF K03 sharpening device.

# **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 until bumping;
- set the rack vertically until the button clicks (2);
- for the rigid fixation tighten the fixation screw (1) firmly.

#### 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! It is not allowed to fold the construction with an untighten screw! It is not allowed that the rack hits the stand sharply!

5.3. Setting the hinged joint:

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;
- install the thumb screw (3) on the workable side of the rack;
- fix the hinged joint with the thumb screw (3)



5.4. Setting the rotary mechanism:

- untighten the screw (3), almost to the end so it does not disturb the setting of the rotary mechanism;
- tighten the screw (3) so that the rotary mechanism (1) densely adjoins the rack (4);
- after setting the angle, tighten the screw (3) until bumping.



5.5. Installing the clamps:

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



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); after installing the parking bracket (3) on the coupling as shown in Fig. 6, install the guide (4) into the hinged joint (6) and then install the abrasive holder limiter (7).



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, make so that the holder with a wooden ball handle(1) abuts your palm or thumb;
- set the sharpening stone with a blank in the groove of the fixed stop (3);
- align the stone and release the movable stop (2)



5.8. Setting the sharpening stone:

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.



5.9 Abrasive thickness compensation:

When working with abrasives of different thicknesses, it is recommended to level the difference

- take the first abrasive before starting to work;
- loosen the screw (3) that secures the hinged joint (1);
- lift the hinged joint to the height of the abrasive (4), while the protrusion (2) on the hinged joint should be slightly adjoin the surface of the sharpening stone;
- fix the position of the hinged joint with the screw (3);
- during the sharpening process, repeat these steps when switching to a sharpening stone of a different thickness.

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



#### 5.10 Abrasive holder limiters

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 hinged joint and tighten the thumb screw;

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



- 5.11. 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 hinged joint (2).



5.12. Setting the sharpening angle:

To set the sharpening angle, you need to:

- loosen the screw (3) and move the rotary mechanism (4) along the rack (1) until the pointer
  (2) aligns with the desired angle value on the sharpening angle scale;
- approximate angle values are given in the table below;
- tighten the screw (3).



IconMeaningsThe range of sharpening angles per sideRazor Sharpenssunder 8°'StateFillet-knife8-13°Kitchen knife13-18°Hunting knife, EDC knife18-22°Chopping anglesmore 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  $25\pm2$  %. 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  $4\pm1$ %.

5.13. Using digital protractor\*

For more accurate angle setting, use a digital protractor. To do this,

- set the protractor on the reference plane (3) on the abrasive holder;
- having supported the sharpening stone in the holder on the blade of the knife clamped in the clamps;
- reset the protractor reading with the button;
- without turning it off, move it to the reference plane (7) on the body of the rotary mechanism;
- the protractor will show the angle of sharpening on this side of the knife with an accuracy of 0.1°;
- smoothly install the rotary mechanism in the desired position according to paragraph 5.12;
- remove the protractor from the reference plane and start sharpening.



\*Digital protractor is not included in the kit.

# **6. OPERATING PROCEDURE**

Remember that you are working with a sharp knife. Be careful, when sharpening. Carelessness during sharpening can lead to serious injuries. Do not leave the device with the knife clamped unattended.

#### 6.1. Clamping the knife:

To prevent scratches on the surface of the knife it is recommended to tape the clamping spots before sharpening.

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

Do not overtighten the screws to prevent the clamp jaws from bending in the opposite direction!



#### 6.2. Choosing the sharpening angle:

Depending on the scope of the knife application, select the desired sharpening angle.

KNIFE TYPE	RECOMMENDED SHARPENING ANGLES (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											
STEAK KNIFE											
BREAD KNIFE											
KITCHEN KNIFE (HOME USE)											
PROFESSIONAL CHEF'S KNIFE											
PROFESSIONAL KITCHEN KNIFE											
PROFESSIONAL FISH KNIFE											
PROFESSIONAL MEAT KNIFE											
PROFESSIONAL VEGETABLE KNIFE											
TAPPING KNIFE											
CARVING AND BONING KNIFE											
FILLET KNIFE											
KNIFE FOR FROZEN PRODUCTS											
PENKNIFE											
FOLDING AND HUNTING KNIFE (FOR SHARPNESS)											
FOLDING AND HUNTING KNIFE (FOR KEEPING SHARPENING)											
CHOPPING KNIFE											
STRAIGHT RAZOR											

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

- use a marker to paint over the secondary bevel;
- set the sharpening stone in the holder;
- run the sharpening stone over the painted area;
- adjust the angle so that with one movement of the sharpening stone, the marker is completely removed from the painted area



6.3. Knife sharpening:

Each knife, steel and abrasive has its own features by 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 by rough sharpening, the pressure of the sharpening stone on the knife should be minimal;
- choose the gritness 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 lot;
- 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;
- rotate the frame 180° holding on the knife handle
- return the lever to its original position.
- BE ESPECIALLY CAREFUL WHEN TURNING THE KNIFE OVER!
- repeat sharpening on the second side of the knife;
- step by step, sharpen with abrasives of the required grain size.

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In the proper sharpening of the knife, there are many nuances. You can learn more about the various aspects of sharpening on our Youtube channel: https:// youtube.com/tsprof

# 7. CLEANING AND MAINTENANCE

At the end of the work, clean the device from the remnants of abrasive and metal dust. For this purpose, use a brush, then wipe with a soft cloth. Do not wash the device with abrasive and cleaning agents and under running water. For proper operation of the device, it is necessary to lubricate the rubbing surfaces with industrial oil. Lubricate the rack seat with oil at least once a month. At least once every six months lubricate the axis of the rotary mechanism.



#### 8. STORAGE AND TRANSPORTATION

Store the device in its original packaging or in a place protected from dust at a temperature of +1°C to +40°C. It is allowed to convey all types of transport at temperatures from-40°C to +50°C. In the case of transportation of the device at minus temperatures, its use is allowed only after staying for at least two hours at room temperature.

# 9. UTILIZATION

Utilization of the device and packaging is provided in accordance with the rules in the field of waste management of production and consumption. If possible, utilization of paper, polymer, and metal is provided in containers intended for these materials.

### **10. WARRANTY OBLIGATIONS**

Current warranty conditions are listed on the Manufacturer's website. In case of discrepancies, the terms and conditions posted on the Manufacturer's website have priority. The warranty period of the device and the is 1 year from the date of purchase, but no more than 1,5 year after the date of manufacturing.

The warranty period can be extended according to special programs from the Manufacturer.

The date of sale is the date of registration of goods and transport documents and/or the date of filling out the warranty card.

The present warranty entitles the buyer to repair the product free of charge in the event of defects related to materials and assembly. Warranty, as well as non-warranty and post-warranty repairs are made only directly by the Manufacturer.

The warranty period does not apply to consumables.

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

WARRANTY REPAIRS ARE NOT CARRIED OUT IN THE FOLLOWING CASES:

- if the equipment is not used for the intended purpose specified in the operating instructions;
- in case of external mechanical damage of the equipment;
- in the event of deficiencies due to non-compliance with the rules of storage and transportation, force-majeure, as well as adverse atmospheric or other external influences on the equipment, such as rain, snow, high humidity, heat, aggressive environments, etc.;
- if damage occurs due to non-compliance with the operation rules specified in the Manual or self-introduction of design changes;
- if foreign objects get into the equipment;
- in the event of defects and breakdowns due to untimely scheduled maintenance and preventive maintenance, including cleaning and lubrication of the equipment in accordance with the instructions of the operating instructions.

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

The equipment is withdrawn from the warranty in case of violation of the operating rules specified in the operating instructions.

To send the product for warranty, non-warranty, post-warranty service@tsprof.com

Address for sending the product: 000 "TSPROF Rus", Votkinskoye Shosse, 298, B4, Izhevsk, Udmurt Republic, Russian Federation, 426039

# СВИДЕТЕЛЬСТВО О ПРИЕМКЕ И ПРОДАЖЕ

Устройство заточное TSPROF Kadet Expert N°\_\_\_\_\_соответствует технической документации и признано годным для эксплуатации.

Дата приемки:	
Подпись контролера:	
Расшифровка подписи:	
Штамп ОТК:	

Дата продажи:	
Подпись продавца:	
Расшифровка подписи:	

# **CERTIFICATE OF ACCEPTANCE AND SALE**

The TSPROF Kadet Expert sharpening device  $N^{\circ}$  \_\_\_\_\_ complies with the technical documentation and found to be serviceable.

Date of acceptance:	
Signature of the inspector:	
Transcript of the signature:	
The inspection department stamp:	

Date of sale:	
The signature of the seller:	
Transcript of the signature	