USER MANUAL

for the Ermak-10 knife sharpener

Warning:

The sharpener is made from extruded acrylic (organic glass). It is a very nice and durable material, but it requires the user to follow a few simple rules.

1. Never use organic solvents for cleaning the sharpener (alcohol, petrol, acetone, White Spirit, etc.) or washing up detergents as they contain aggressive surfactants. These substances damage the finish, making it look mat and the parts will start cracking. Use only water and ordinary soap foam for the cleaning.

2. Protect the sharpener from impact and falling on hard surfaces.

3. Do not use excessive force when working with the sharpener. If suddenly something becomes stiff, check that you have loosened all necessary screws and that there are no unwanted objects under the moving parts.

4. Try to avoid intensive water penetration on the bearings. Even though they are covered, it is better not to expose them to excessive ingress. This especially refers to the bearing inside the tower. All the steel construction parts, including all fixings, are made from stainless steel and brass.

5. There is no need to lubricate the sharpener, lubricant is, in fact, not advised as it can retain abrasive particles.

6. Beware of the magnets - they are very strong. Slide the knife gradually, starting with the tip of the blade and working towards the heel! When taking the knife off, work backwards by first sliding in the heel of the blade, moving towards the tip. If you try to attach or take off the entire blade at one time, sudden strong jerk could cause you injury or damage the magnetic holders.

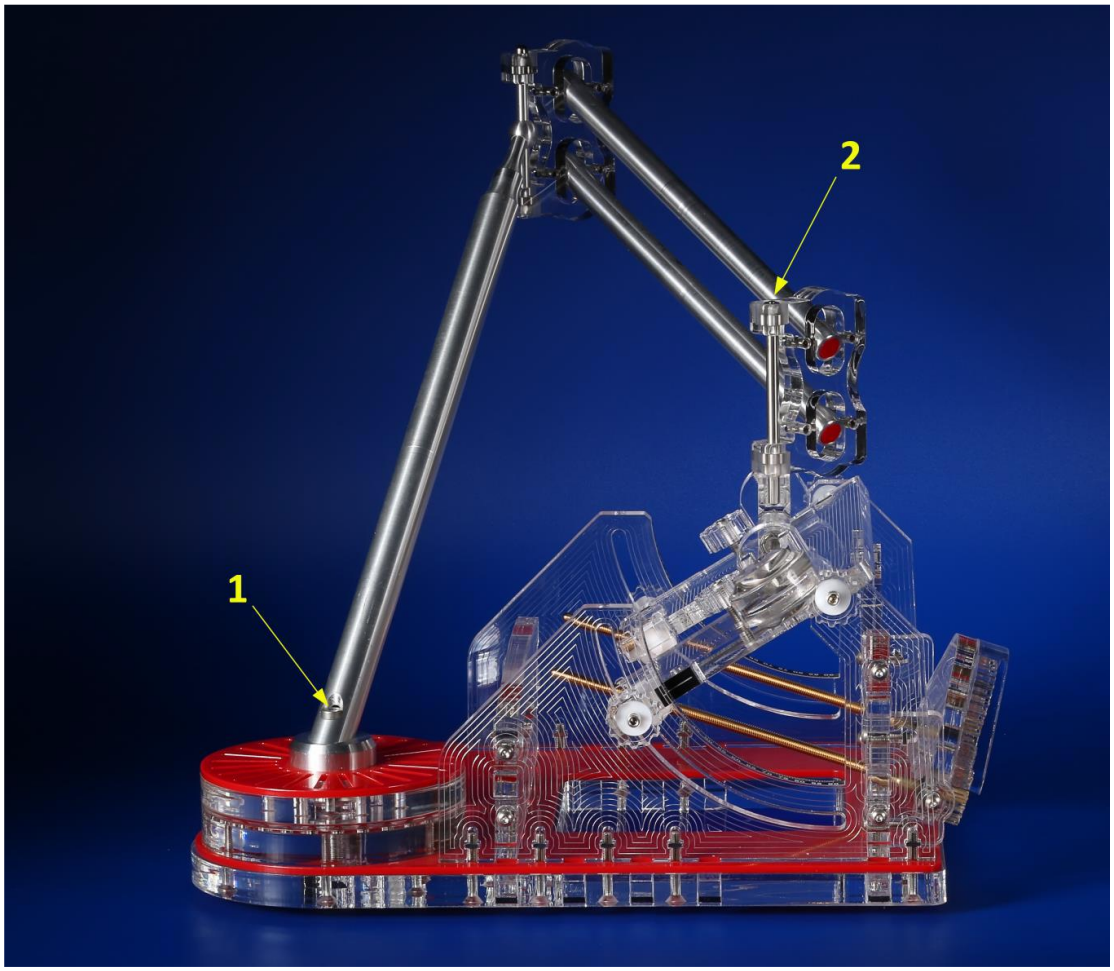
7. Before you start, cover the magnets on the holders using masking tape. This way, the blade will be protected from scratches, the contact between the blade and the holder will improve and it is possible to make marks on the tape for stable blade positioning during sharpening if necessary.

8. Do not attempt to tighten the clamping screws at any cost - they have been mounted using a dynamometer and there is no need to tighten them regularly during the entire life of the sharpener. Trying to tighten them harder may lead to excessive strain and consequently to cracking. If, for some reason, one of the clamping screws is loose, tighten it only lightly by rotating the screwdriver using just two fingers.

By following these simple rules, the sharpener will literally serve you for many years and you can enjoy its flawless operation and appearance.

The Ermak-10 knife sharpener represents the latest design, which involved several years of work and experimenting in the development of sharpeners. It reflects the demands of many users who own sharpeners of my production. And not only mine but also of many other famous designers.

The construction is actually a "kit", which can be assembled for the specific purposes using gentle hand movement. The frame of the construction is the "base".



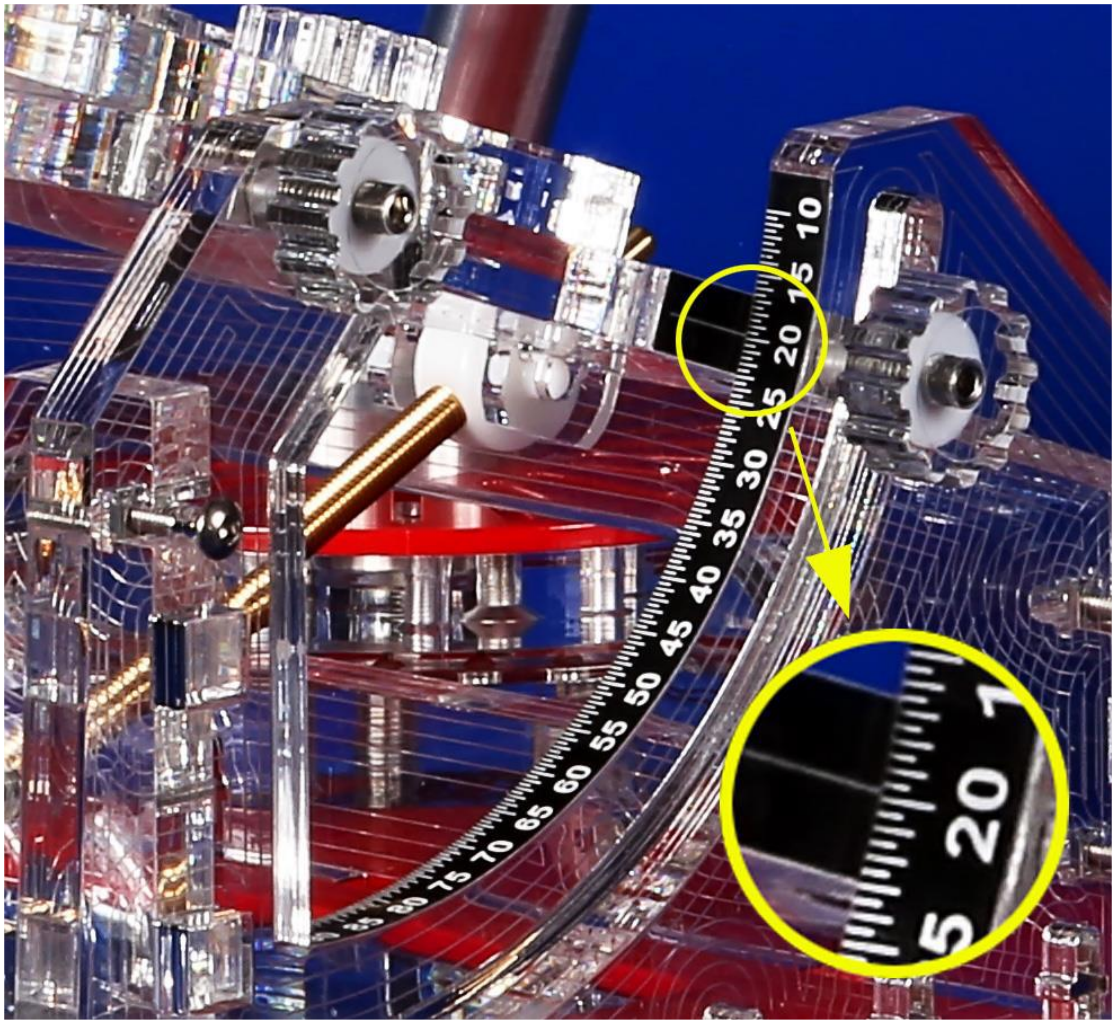
It contains all the main parts of a sharpener, with the exception of the table for placing the tool to be sharpened. The end user will receive the base as 3 main parts, disassembled and packed in a box. base with an adjustable tower joined with a platform, handle and a stone arm. To be able to assemble the sharpener, you must carry out two operations in the following order:

1. Use the DIN912 M6x20 screw, which is screwed to the top of the tower during transport, to fix the handle to the tower. There is no need for azimuth alignment, just screw it tightly in the opening in the tower using a HEX key.

2. Insert the vertical rod down through the bearings of the handle and tighten it using the DIN985 M5 lock nut (with a nylon insert). This operation must be carried out carefully and with conscious awareness of the whole process. To avoid damaging the handle joint, the nut must be tightened slowly, checking the vertical axial clearance until its complete disappearance. Do not attempt to tighten the nut completely. It is impossible! By using too much leverage, you could damage the joint.

Once assembled, set the sharpener into the initial working position. Loosen the 4 wing nuts on the edges of the platform and turning the cogwheel adjuster counter-clockwise set the angle of the base to approx. 20-30 degrees. Before changing the angle of the table, do not forget to loosen the fixing wing nuts by about half a turn and tighten them again before use once you have set the required angle. No excessive force is required during the tightening, the use of only two fingers is sufficient. There are fluoropolymer washers between the wing bolts and the joint to minimise frictional force, therefore tightening is very easy.

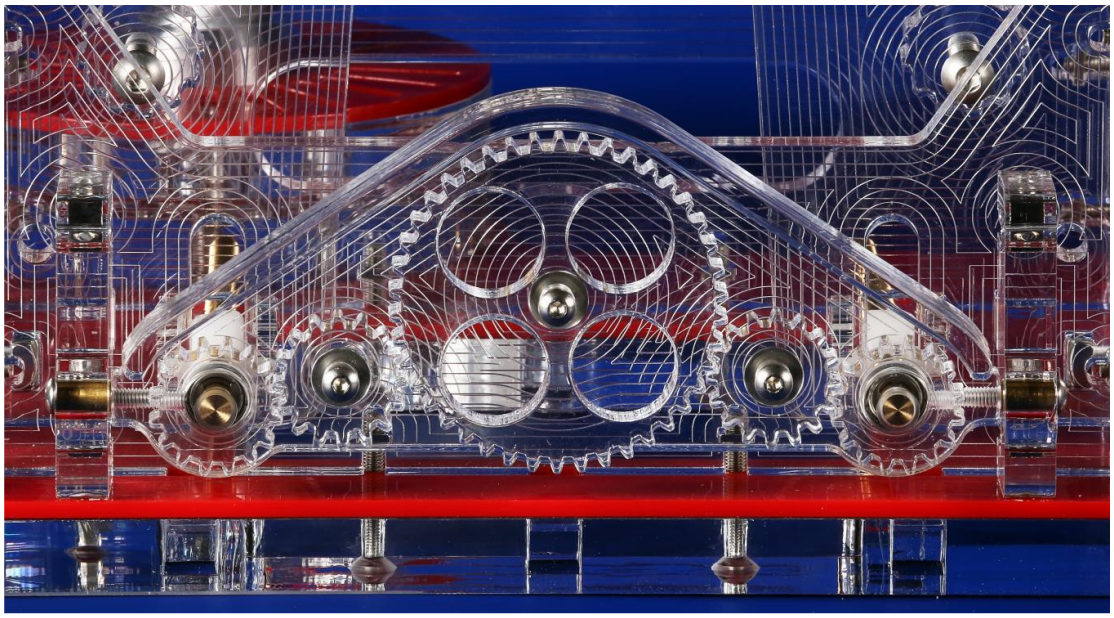
The E10 sharpener, when compared to the E7-E9 models, does not come with adjustable legs as there is no need for it to be levelled. This sharpener has rubber stick-on pads on the platform. It must be stable on the table without "rocking". Levelling is not required. To determine the angle of sharpening (do not forget that the sharpening angle on the table is set at half), just turn the cogwheel adjuster until the mark on the side of the platform meets the mark on the side scale.



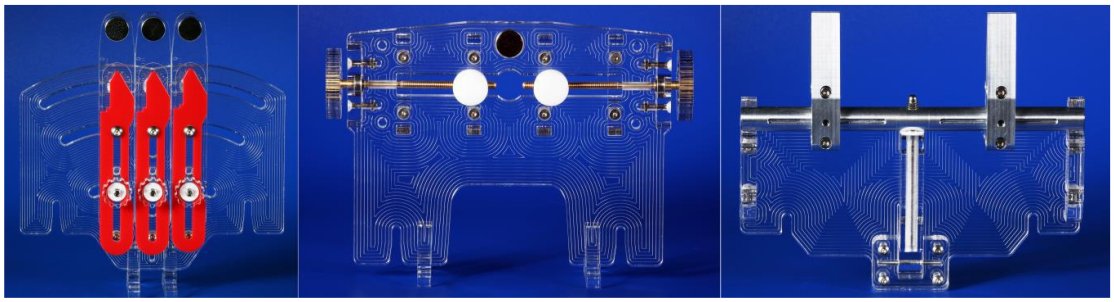
The precision of the scale allows you to determine the sharpening angle to an accuracy of 0.25 degrees (the position of the pointer between the 0.5 degree increments on the scale). This should be sufficient even for the most demanding users. Should any of the three blade tables be changed, the sharpening angle will not alter! It will stay constant!

All our sharpeners now come with a non-removable cogwheel cover, free of charge. The adjustment controls are now more compact and more comfortable, especially when working with magnetic holders. The large cogwheel used to noticeably obstruct working with the wing nuts when releasing the clamps, especially when working with the middle support nut. This

nut is now absent - it has been replaced with a guide surface, which has significantly simplified working with and the removal of the middle support.

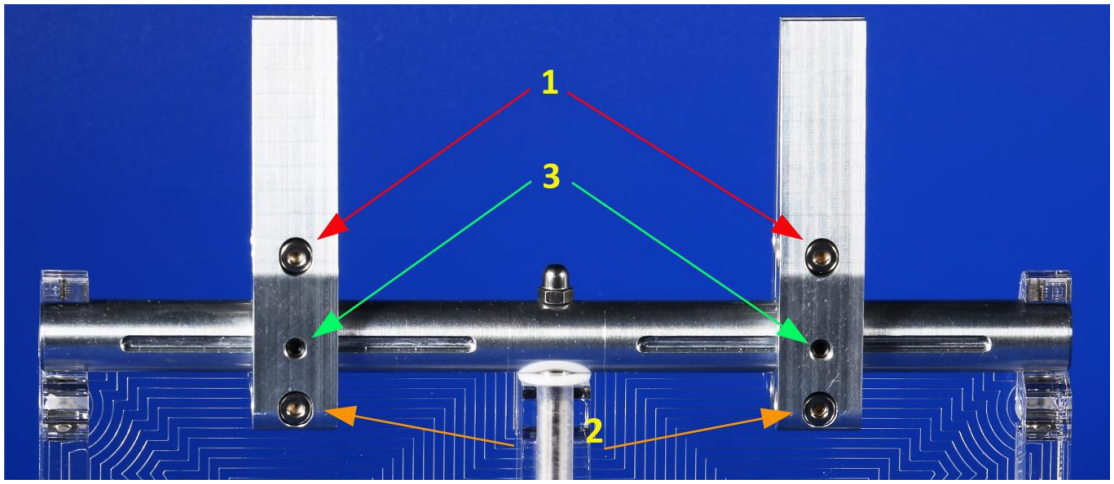


At first sight, the blade tables that come with your chosen sharpener kit only slightly differ from the previous E7-E9 sharpener constructions, but the differences are there, especially with regards to the clamps.



The table for carpentry tools is exactly the same as previous models, in this case it is difficult to improve anything. There has been a change in the positioning of the dorsal stop marks as they are now applied using laser engraving and not glued as before. This makes the mark reading easier as they are always visible and the stops themselves have a more complex shape with a little step, which also serves as a scale pointer. There is now only one transparent slider under the stop, with its step being in the right cut-out of the dorsal stop.

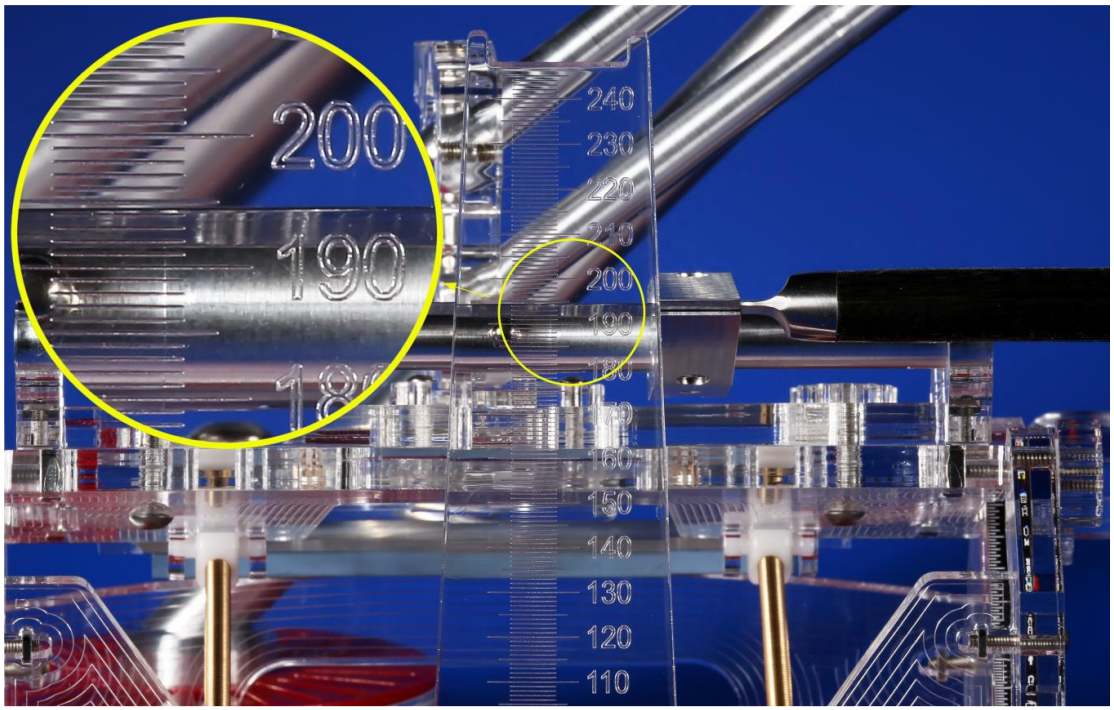
The biggest change can be seen on the table with clamps, which is now much more interesting. There are no flat springs on the clamps, they are now more compact and ergonomic. Even the construction itself is much lighter. The most important thing is that the clamp-blade triangle can be easily removed with a single action and necessary adjustments can be made to the blade: examine under a microscope, wash in a basin or anything else required. You can see a visual demonstration of this process in a video that can be found through a link in the description of the sharpener. Follow these instructions to place the blade into the clamps.



1. Bolts for clamping the blade. They are designed for clamping the blade and preliminary fixing of the clamps' position.

2. Bolts for fixing the clamps' position.

3. The adjusting bolts (do not tighten) prevent the clamps from rotating and also limit their horizontal movement using symmetrical grooves on the guide plate. After having loosened the adjustment bolts, the clamps can be moved to one side.



To clamp and place the blade, follow these instructions:

- Set the required distance between the clamps and then place the blade inside them.
- Fix the blade in place using the bolts no.1 to prevent it from slipping out.
- Place the clamp-blade triangle onto the revolving tilting table platform.

- Place the blade table with the blade on the platform and tighten it up using the wing nuts.

- Move the stand-ruler to the cutting edge of the blade (see picture above).

- Read the values for the cutting edge and ruler.

- Turn the blade on the supports 180 degrees.

- Read the values on the ruler again.

- Set the average value.

- Leave the blade in the clamps, lightly move both of them up or down to achieve the required average value.

- Check the position of the blade using the ruler.

- Repeat the steps if necessary.

- Once you have reached the desired result, tighten bolts no.1, do not press on the clamps themselves to prevent them from moving.

- Tighten bolts no.2 - they will fully fix the clamps into position.

- Get ready to sharpen.

Tip: do not try to achieve an ideal symmetry (i.e. accurate to the micrometer) of the blade when turning. It is not necessary. Perfectionism is a good thing but to a reasonable degree. Try to carry out measuring from the central part of the blade placed opposite the centre of the rotating clamps. By the way, the options for adjusting the rotation symmetry can be used in the case of adjusting the width of the taper towards the cutting edge to compensate the asymmetry of the sharpening.

Otherwise the use of the sharpener is no different to the E8 or E9 models. The motion kinematics are the same but the weight of the entire motion system has dropped significantly due to the decrease in the amount of metal used in this area. However, it has not reflected at all in its stiffness. It is basically better looking and visually lighter. Also the handle on the stone arm has been improved. It is now easier to hold and feels nicer in the hand. The magnetic holders have also been changed. For very light clamping, the supports can be turned with the magnets facing down. Just unscrew the bolts in the support axis (there are no lock nuts, they now use brass inserts). The removal has now been significantly simplified. However, I do not think that this adjustment will be made regularly, rather as an exception. The clamping table comes with clamps for 3mm thick blades, which covers approx. 80-90% of all blades. For thicker blades, it is necessary to purchase a different set.