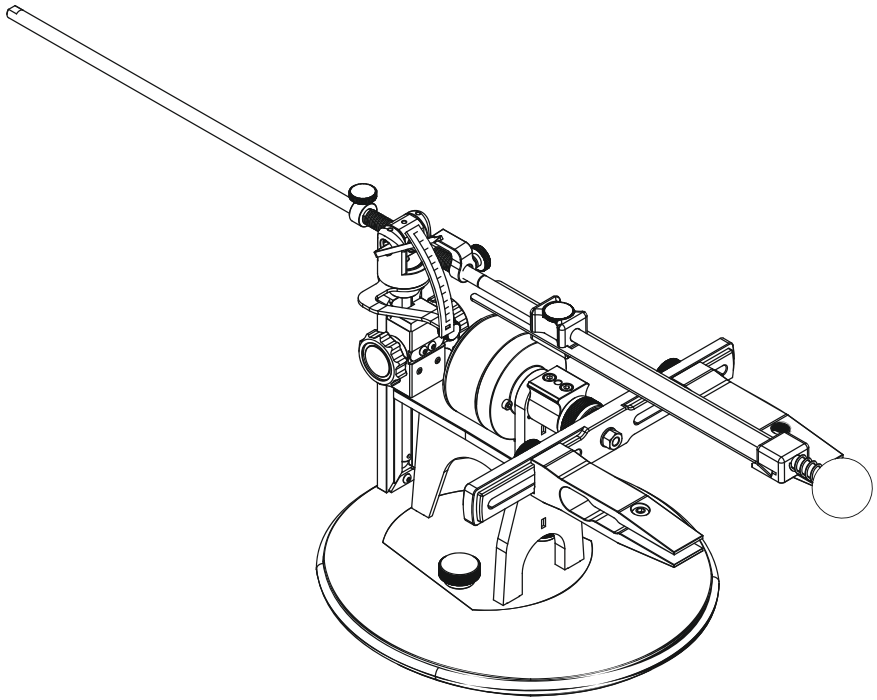
TSPROF



ИНСТРУКЦИЯ ПРОФИЛЬ К03
СИСТЕМА ДЛЯ ЗАТОЧКИ НОЖЕЙ

USER MANUAL TSPROF K03
SHARPENING DEVICE

СДЕЛАНО В РОССИИ | MADE IN RUSSIA

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1. TECHNICAL CHARACTERISTIC

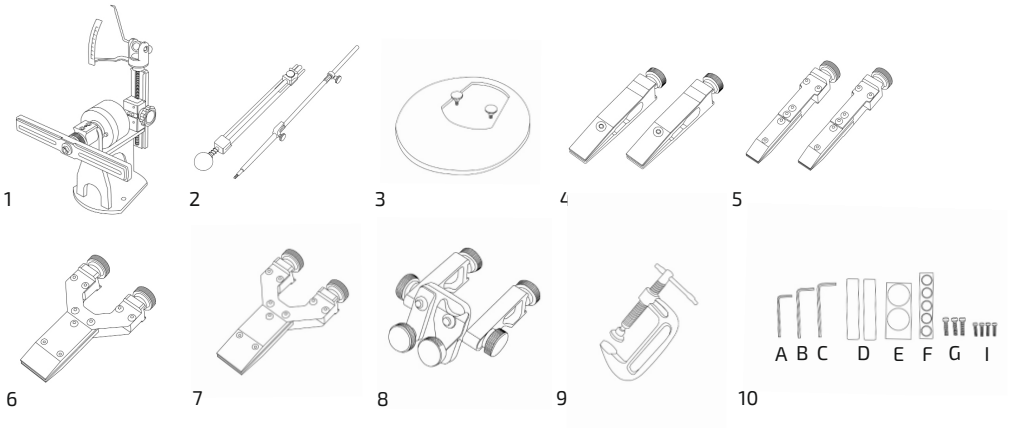
The TSPROF K03 is a universal sharpening system, designed for sharpening both sides of a blade without re-clamping, for creating a symmetrical blade bevel, correcting an unwanted blade, and general grinding and polishing of cutting tool edges.

Sharpening angles K03 Standart*	7° to 23°
Sharpening angles K03 Expert*	7° to 35°
Overall System dimensions	250x220x330 mm
Weight of the K03 body abrasive holder	2,05 kg
Length of the assembled abrasive holder	710 mm
Length range of the abrasive stone	150 to 210 mm
Maximum sharpenable blade length	700 mm
Pivot-arm rotation angle	180°±0,2°

*dependent on the clamping, blade type, and the stone type used

2. COMPLETED UNITS

(depending on the kit ordered)



1	Body K03 - 1 pc.
2	Abrasive holder - 1 pc.
3	Stand - 1 pc.
4	Wholemilled clamp - 2 pcs.
5	Double clamp - 2 pcs.
6	Single clamp - 1 pc.
7	Single fillet clamp - 1 pc.
8	Smal universal table - 1 pc.
9	C-Clamp - 1 pc.
10	Spare Parts kit – 1 kit

10. Spare parts kit:

A	Allen wrench, L-shaped, 2mm - 1 pc.
B	Allen wrench, L-shaped, 2mm - 1 pc.
C	Allen wrench, L-shaped 3mm - 1 pc.
D	Clamp calibration plates - 2 pcs.
E	Felt pads - 2 pcs.
F	Clear rubber bumpers - 5 pcs.
G	Screw M4x16 – 3 pcs.
I	Screw M3 x 12 - 4 pcs.

**illustrations do not include accessories and abrasive stones*

3. SAFETY REQUIREMENTS

ATTENTION!

Before using the sharpening system, please read this User Manual carefully. Incorrect handling of this product could result personal injury or physical damage. The manufacturer assumes no responsibility for any damage or injury.

- When using the base, keep the system at a safe distance from the edge of the work-surface. The system is heavy and cause injury if it falls from even a small height.
- When using a C-clamp to secure the body of the sharpening system to a work-surface, make sure that the C-clamp is firmly tightened, and the body is securely retained.
- Before starting the sharpening process, be sure to install and correctly adjust the bar limiters (page 22).
- It's recommended to wear cut-resistant gloves during blade clamping, adjusting, and during sharpening.
- Cut-resistant gloves are widely and inexpensively available from TSPROF, or many other suppliers.
- During sharpening, beware of accidental rotation of the pivot-arm. This can happen if a pivot-arm tension is adjusted too low, or excessive pressure is applied to the abrasive stone. Properly adjust pivot-arm tension (page 20).
- Do not leave a blade, clamped in the system unattended. Keep system out of reach of children and pets.

MAINTENANCE TIPS

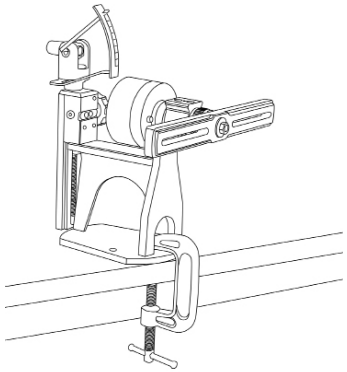
- The machine internals are security sealed; if opened, the warranty is void.
- To preserve appearance and prevent corrosion, periodically remove dust and dirt. Wipe system with a cloth slightly dampened with household oil. Remove excess oil with a cloth afterwards.
- Lubricate moving parts using a household oil.
- Check system condition before each sharpening session. Make adjustments if necessary (see Calibration, page 24).
- Movements of the abrasive holder bar during sharpening should be smooth and even, without any jerky motions or excessive pressure on the abrasive.
- When sharpening is complete, brush off any loose debris from the system and carefully clean all surfaces.
- For transportation, disassemble system in the reverse order. To avoid damage, wrap carefully and pack in an appropriate box or case. Do the same for long-term storage.
- Store in a dark, dry place at room temperature. In a wet or humid climate, place several packs of silica humidity absorbers inside the box or case, prior to storage, lubricate with household oil all places where corrosion could occur.
- Damage or excessive wear of threaded connections may appear after long use, especially at the clamp adjusting spring. To prevent this, we recommend regular use of household oil, as well as closely following the blade-clamping instructions. Replace clamp screws and springs periodically or as-needed.
- If any complex parts are worn or damaged, contact the manufacturer, TSPROF, for support.
- Dispose of the system as household waste as appropriate.

4. PREPARING FOR WORK

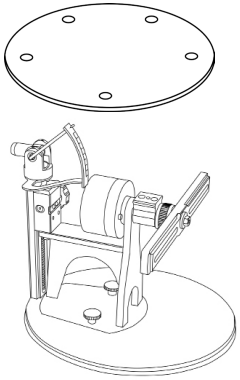
Option 1.
1. Apply felt pads (10E) from the spare parts kit to the contact surfaces of the C-Clamp.
2. On the underside of the body, attach 5 small clear rubber bumpers (10F) from the spare parts kit.
3. Fix the body to the table with C-Clamp.

Option 2.
1. Stick 5 large clear rubber bumpers (10F) from the spare parts kit to the underside of the base, as illustrated.
2. Locate the sharpener body in the hollow part of the base. Attach by tightening the two large thumb-screws.

Option 1



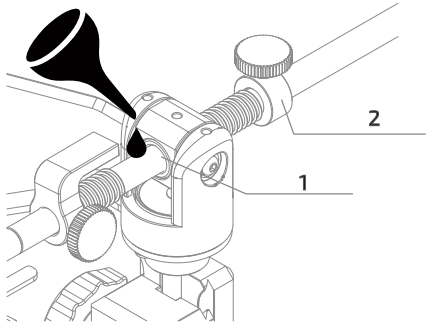
Option 2



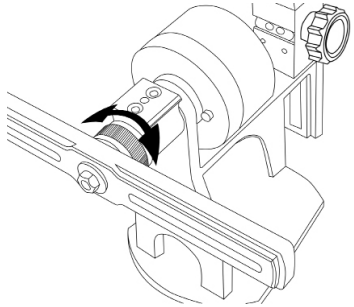
5. ASSEMBLY

1. Assemble the abrasive holder, then remove the far stopper along with its damping spring.

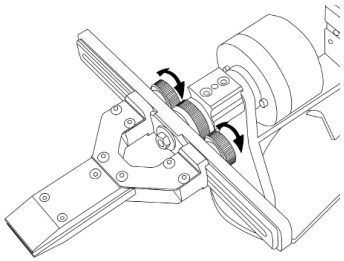
2. Install the abrasive holder into the hub sleeve (1), apply a drop of lubricant, then adjust the damping spring and stopper (2).

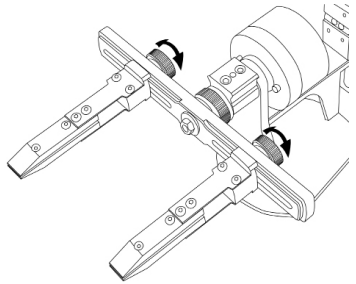


3. Adjust the pivot-arm tension. Turn the tension wheel, to set an appropriate pivot-arm tension. Set tension high enough that the pivot-arm doesn't rotate unintentionally during the sharpening process.

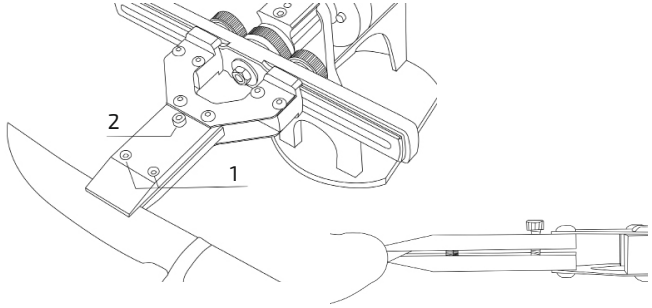


4. Install the selected clamp(s) on the pivot-arm and tighten the thumbscrew(s).
You can use any TSPROF clamp. Space the clamps at an appropriate distance from each other, depending on blade length and shape.

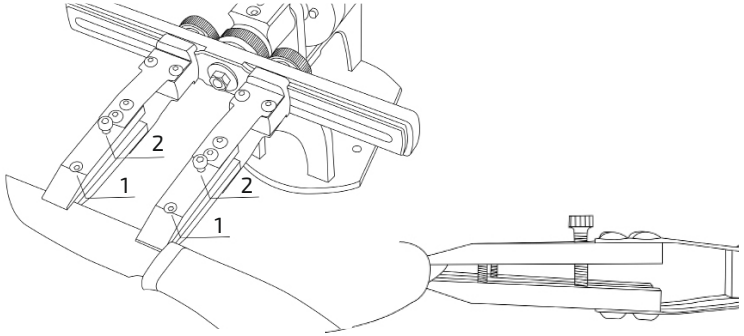




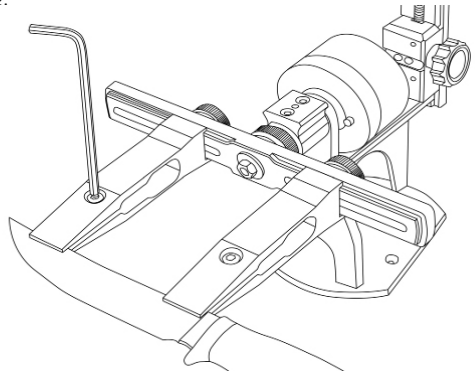
5. Loosen the far (2) and near (1), clamping screw(s), and insert the blade to be clamped. Use a piece of the leather or masking tape on the blade at the clamp contact point, to avoid marring the blade. Tighten near clamping screw(s) (1) slightly, then tighten the far clamping screw (2) more firmly. Clamp jaws should be parallel. To release the blade, loosen the screws in the reverse order.
** Illustration and instructions are for a blade for a full flat grind*



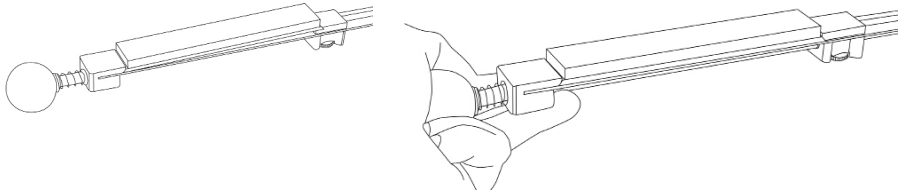
If the knife has a tapered blade, first lightly tighten the near clamping screws (1), then the far screw (2). Slightly loosen the near screws while tightening the far screw. The jaws should be at an angle to each other, as illustrated below. If the far clamping screw is not long enough, replace it with a longer M4x16 (14G) from the spare parts kit.



Whole-milled clamps allow to clamp a knife with a single screw, use a 4mm wrench for this purpose. Prevent overclamping.



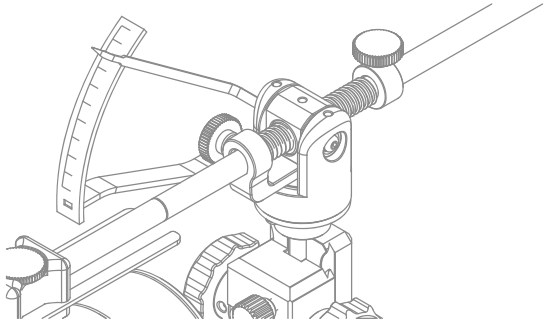
6. To install the abrasive stone, loosen the steel fixing thumbscrew on the far stone clamp. The distance between stone clamps should be 10 - 12mm less than the abrasive length. Tighten the fixing thumbscrew.



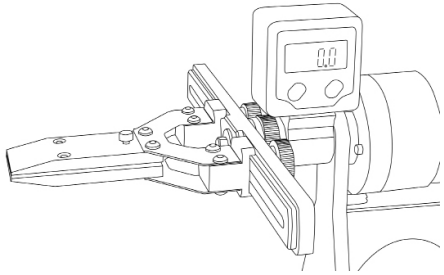
Pull on the near stone clamp to release the abrasive

6. SETTING THE SHARPENING ANGLE, PARKING

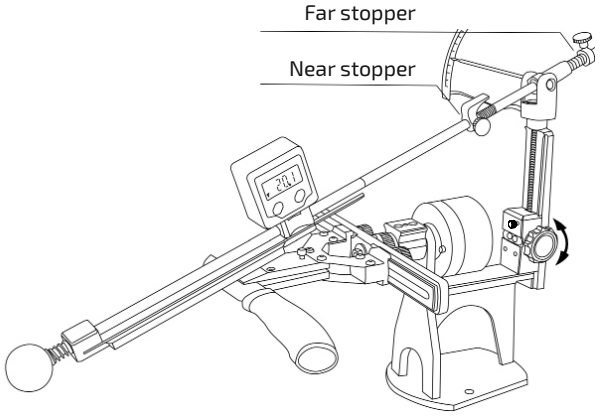
For convenience, you can "park" the abrasive holder when not actively sharpening. As shown below, place the parking foot on the bottom of the hinged unit.



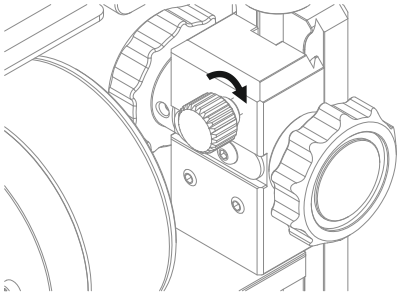
1. Either use the built-in angle indicator, or for more precision, install a digital protractor in the location pictured (the flat just above the pivot-arm tension adjuster) and zero.



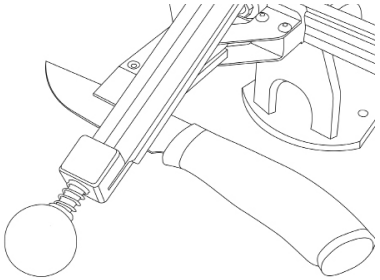
2. Install a stone in the holder and lean it against the blade. Put the digital protractor on the abrasive holder (stone must be centered on the blade edge). The thumbscrew on the far holder clamp is steel, to accept the magnet on the protractor. Rotate the large main angle adjustment wheel to set the desired sharpening angle.



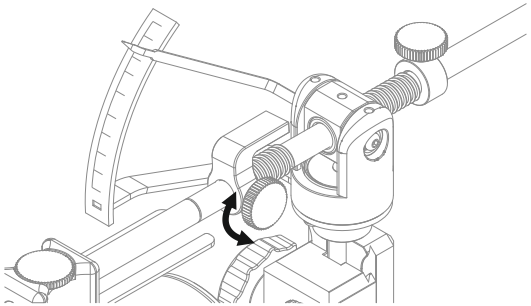
3. Lock the sharpening angle using the tumbscrew if desired, as illustrated below.
Before changing the angle again later, remember to loosen the locking screw.



4. Loosen the near stopper, and set the near edge of abrasive stone on the farthest edge of the blade, leaving about 1.5 - 2 cm of overlap.



5. Move near stopper to the hub and tighten the thumbscrew.



Adjustment of the far stopper is similar.

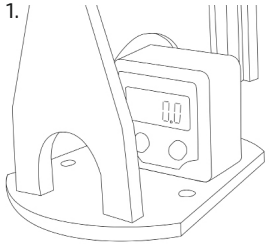
7. CALIBRATION

The TSPROF system is carefully calibrated during production. Settings or calibration can sometimes be disrupted in transportation, or if the unit has been disassembled for some reason.
Deviations less than or equal to <= 0.3 ° are not critical. It is not recommended to make adjustments of noncritical deviations. All adjustments should be performed on a flat, level, and solid surface.

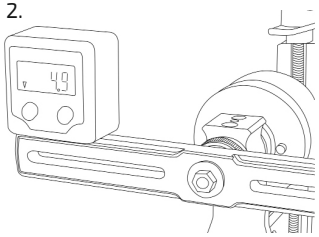
Calibration of the pivot-arm

Option 1.
1. Place the digital protractor on the reference plane (the base of the body, as illustrated) and zero it.
2. Move the digital protractor to the pivot-arm. If the difference is less than 1°, adjustment is not needed. If adjustment is needed, perform the following actions.
3. Hold the pivot-arm by hand, and loosen the central lock-nut with a 10mm wrench. Slightly turn the pivot-arm to achieve a zero value of the digital protractor. While still holding the pivot-arm in place, tighten the lock-nut.

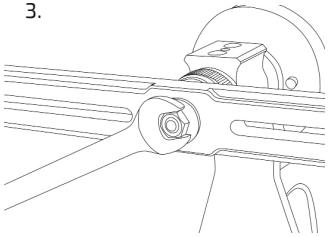
1.



2.

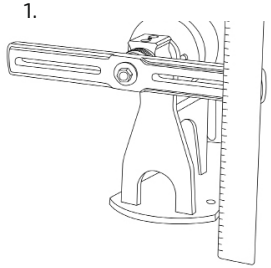


3.

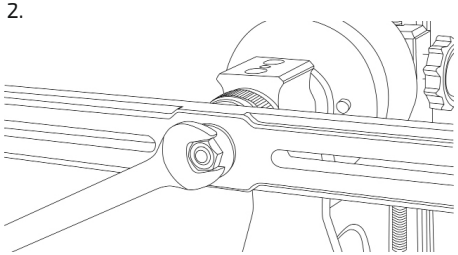


Option 2.
1. Place a machinist's ruler vertically touching the edge of the pivot-arm and rest it on a flat table surface. Observe and note the measurements on both sides of the arm.
2. Hold the pivot-arm by hand, and loosen the central lock-nut with a 10mm wrench.
Slightly turn the pivot-arm to achieve equal measurements on both sides.
While still holding the pivot-arm in place, tighten the lock-nut.

1.



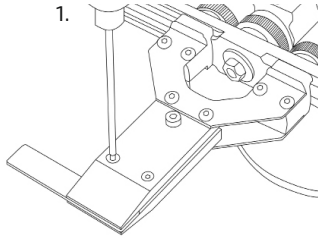
2.

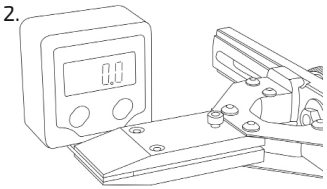


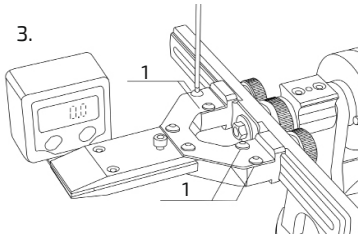
Clamp angle calibration

Calibration is sometimes required to equalize the asymmetry of the angles after pivot-arm rotation. A digital protractor is required for this calibration step. The system should be firmly located on a flat and level surface.

1. Install the clamp-calibration plate (10D) from the spare parts kit in the clamp.
Clamp jaws should remain parallel.
2. Place the digital protractor on the calibration plate, along the axis of rotation of the clamp and zero it.
3. Rotate the pivot-arm with clamp and repeat the measurements. If the value is more than 0.3°, loosen screws (1) and use the arms to adjust the angle 1/2 the previously measured difference. Holding this value, tighten the screws.

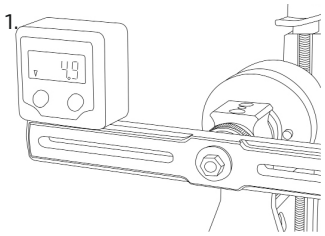
1. 

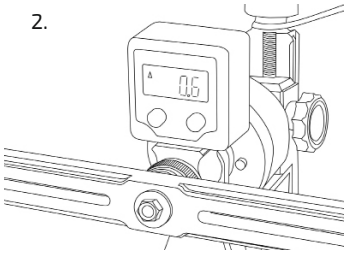
2. 

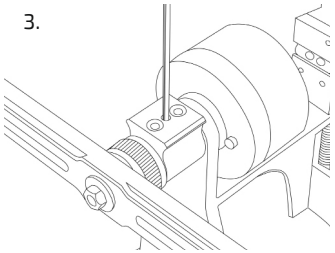
3. 

Digital protractor reference plane horizontal calibration

1. Mount the digital protractor on the pivot-arm and zero it.
2. Place the digital protractor in the location shown below (the flat just above the pivot-arm tension adjuster). If the deviation is more than 0.3°, slightly loosen the adjusting screw with a 2mm allen wrench. While holding by the hand from the bottom, adjust the angle using the digital protractor, then tighten the upper adjustment screw.

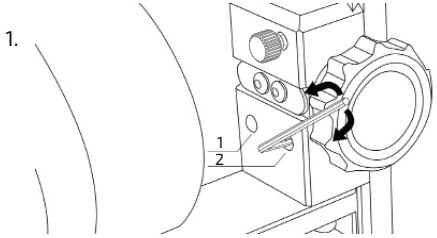
1. 

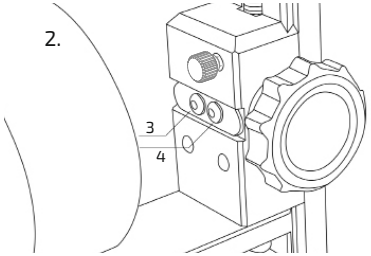
2. 

3. 

Adjustment of the rack-and-pinion mechanism

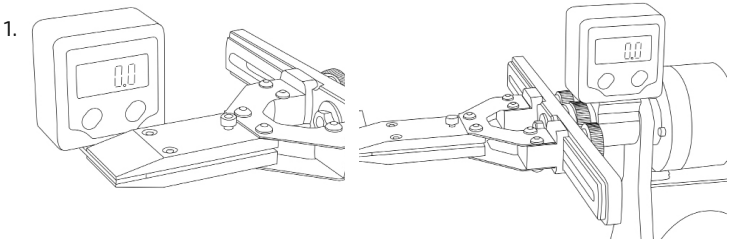
1. Using the 2mm allen wrench (10A) from the spare parts kit, adjust the pinch screws 1 and 2, as shown below. Adjust to minimize free up and down movement of the rack-and-pinion lift. Changing the angle by turning the main thumbscrew should have slight resistance.
2. Using the 2mm allen wrench (10A) from the spare parts kit, adjust screws 3 and 4 to optimize the main thumbscrew preload.

1. 

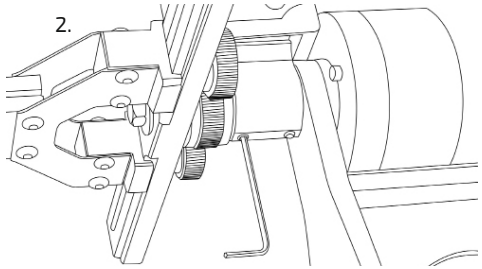
2. 

Digital protractor reference plane parallel calibration

**Perform after clamp angle calibration*
1. Place the digital protractor on the system stand and zero it. Next, set the protractor on a reference plane (as illustrated below), and if the value exceeds 0.3° make an adjustment as needed.

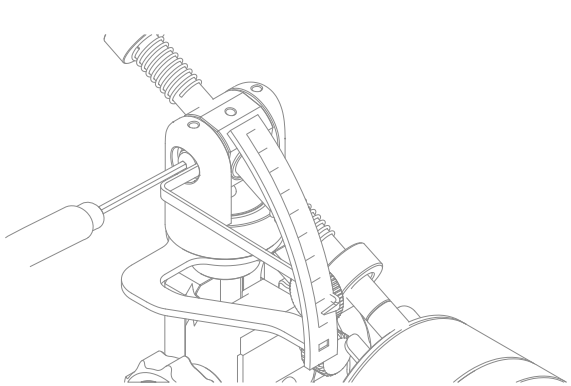
1. 

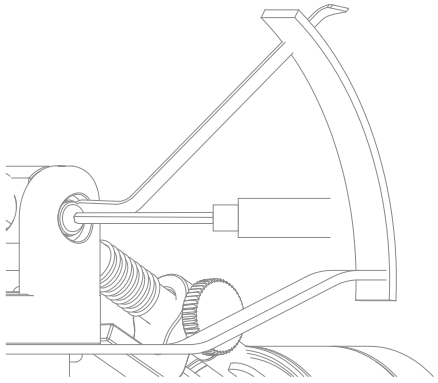
2. With the 2mm allen key. (10A) from the spare parts kit, set the angle of the reference plane using the adjustment screws.

2. 

Calibration of the built-in angle gauge

1. Lower the abrasive holder so that the guide bar rests at the hinge unit (see illustration). Loosen the screw holding the arrow of mechanical protractor with 2mm allen wrench, and adjust the arrow to indicate a 36° angle (illustration). In this position of the abrasive holder, the angle is 36° by design.





8. WARRANTY

This product is warranteed for 1,5 years, starting from the date of the product purchase. During the warranty period, the manufacturer is will repair, or replace parts or the whole product if there are defects in material or assembly. This warranty applies only if the product was used according to the operating instructions, it was not disassembled or repaired by unauthorized persons, and has not been damaged due to improper handling. All system parts must be presented. This warranty does not cover normal wear and tear of the product. The warranty does not apply to defects resulting from:

- Non-compliance with the rules of operation, or use of the product for the purposes for which it is not intended;
- Unskilled assembly resulting in poor performance of the product, or damage to or failure of its parts;
- Mechanical or chemical damage;
- Damage or product malfunction caused by pets, pests, or other people;
- Jamming of the movable elements caused by the foreign objects;
- Failure to store or transport according to recommended guidelines;
- Unauthorized modifications to the product, or installation of non-factory parts;
- Excessive wear due to commercial use, or due to improper maintenance and improper care;
- Changes in the appearance of the product due to normal wear and tear, which do not affect the performance.

Отклонение при развороте рамки Deviation after pivot - arm rotation	
Проверено Checked	« » 20
Ответственный исполнитель Inspector	

подпись/signature