

MACHINE FOR PROFESSIONAL SHARPENING OF BARBER'S TOOLS

# ADEMS Front Plate Inverter

**MANUFACTURER'S CERTIFICATE**



Togliatti, 2022

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## 1. PURPOSE AND SCOPE OF APPLICATION

Household machine ADEMS Front Plate Inverter is intended for professional sharpening of knife packages of automatic hair clippers.

## 2. TECHNICAL SPECIFICATIONS

|   |  |
|---|--|
| Types of sharpened tools                  | <i>On the side with "K" indication</i><br>✓ Movable knives<br>✓ Fixed knives<br><i>On the side with "P" indication</i><br>✓ Mincing machine knives |
| Power supply voltage, V                   | 220  |
| Motor rated input, W, not more than       | 250  |
| Variable faceplate rotation speed, rpm    | 1000...1500  |
| Faceplate acceleration time, seconds      | 5  |
| Faceplate breaking time, seconds          | 35   |
| Faceplate diameter, mm.                   | 350  |
| Machine dimensions, mm.                   | 503x395x375  |
| Net weight, kg                            | 33   |
| Weight in packaging, gross, kg            | 35.5   |
| Reverse motion                            | YES  |
| - clockwise, start button position        | I  |
| - counterclockwise, start button position | II   |



**ATTENTION**

Before you start operation visually check the machine and ensure that power cable and moving parts of the machine are not damaged. It is forbidden to switch the machine on in case there are such damages without eliminating it!



It is recommended to connect the machine to mains socket equipped with grounding wire.

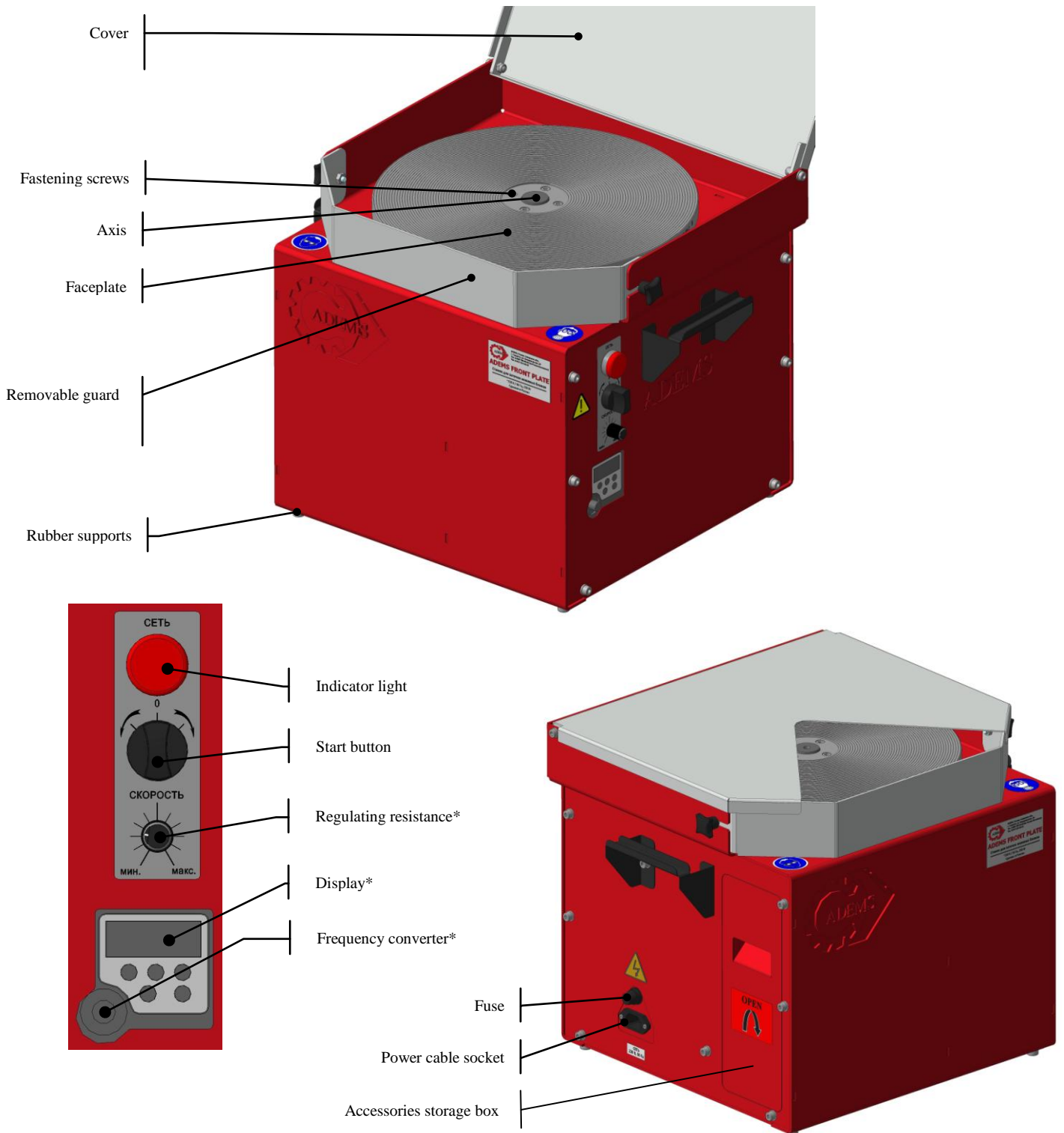


Use protective glasses and face respirator when you operate the machine. Glasses protect only against floating dust and grinding material particles but do not protect against flying debris.



### 3. DESIGN

Design and operating principle are described on the basis of Figure 1.



\*For machines equipped with frequency converter

Figure 1 Household cutter and tool grinding machine ADEMS Front Plate Inverter



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## 4. OPERATING PRINCIPLE

### STEP 1. Preparation of knife package

Disassemble hair clipper in order to take knife package out. Make sure that knife packages do not have harsh dints, nicks and damages. Wash knives with rubber solvent or kerosene.

### STEP 2. Preparation for operation

Faceplate has two sides marked with “K” and “P”.

“K” is the side with cone; “P” is flat side.

Grinder-man himself chooses faceplate side upcoming grinding.

In order to change faceplate side unscrew fastening screws, remove side guards, dismantle faceplate from axis, turn and install in its place on the axis, grease junction of faceplate and axis with some amount of lubricant to facilitate faceplate installation. Make sure that faceplate fits tight down to axis bottom. Fix it with fastening screws. Tighten the screws diagonally.

After you decided, which faceplate side will be used, you can start filling faceplate with grinding powder. Using atomizer screwed onto a bottle with prepared grinding oil apply thin layer of grinding oil onto a faceplate knurling covering the whole surface.

Then rotating faceplate with hand apply grinding powder for sharpening to the faceplate surface. With wooden spreader distribute powder granules evenly over the faceplate surface. Remove powder surplus from the faceplate.

#### ATTENTION

To prevent throwing of grinding powder outside the machine at the moment when “filled” faceplate starts rotation make sure that side guards are in their proper position.

In the beginning of operation connect machine to AC mains (220 V, 50-60 Hz) with power supply plug. Indicator light will turn on evidencing voltage supply.

Machine is equipped with a frequency converter that is why indication on its display turns on after power is supplied. Actual faceplate rotation speed (rpm) will be shown in the display. Set optimal speed turning regulating resistance handle.

#### ATTENTION

To prevent throwing of a large amount of grinding powder down from faceplate surface it is not recommended to set high faceplate rotation speed when you start the machine first time after grinding powder is applied.

Depending on direction of faceplate rotation turn start button to “I” or “II” position to start the machine. If you turn start button to “I” position, faceplate will rotate clockwise; if you turn start button to “II” position, faceplate will rotate counterclockwise. Faceplate starts rotation. Actual faceplate rotation speed will be shown in the display. Turn start button to corresponding position to change faceplate rotation direction.



### ATTENTION

Try not to operate machine for long time (more than 40 minutes without stop) at higher speed (more than 1500 rpm). It is recommended to make 10-20 minutes breaks after long operation of the machine at higher speed. 1200-1500 rpm is recommended faceplate rotation speed.

### STEP 3. Tool sharpening

Put a knife on faceplate as shown in Figure 2. Use magnet to hold and move knife along faceplate surface during sharpening. Pressing knife down to faceplate with the force of 1.5-3 kg evenly move it from periphery to the center and back. From time to time evaluate sharpening degree visually removing knife from faceplate. Repeat sharpening if necessary.

Turn start button to "0" position after sharpening is completed. Unplug the machine.

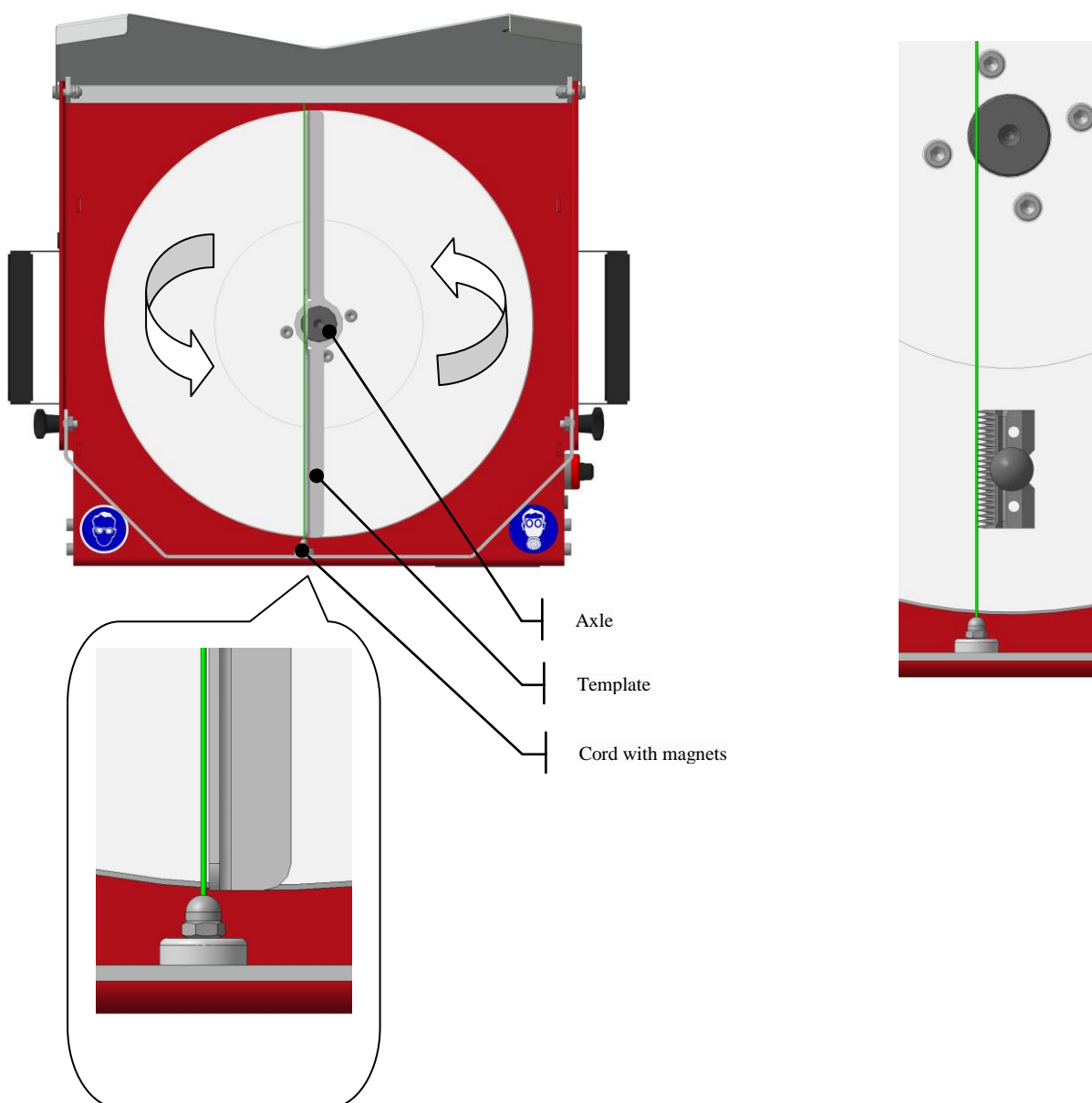


Figure 2 Adjustment of knife position during sharpening



Use a template delivered with the product to adjust knife position on faceplate. Put the template onto axle and turn into position in which it will be convenient to make back-and-forth motions during sharpening. Take a cord having magnets on its ends and fasten it above faceplate on the opposite machine walls. Moving magnets align the cord with template side face. If the cord is not strained enough you can strain it shifting the side wall. Loose butterfly screws beforehand. When you make back-and-forth motions during sharpening knife teeth tips should be in line with the cord.

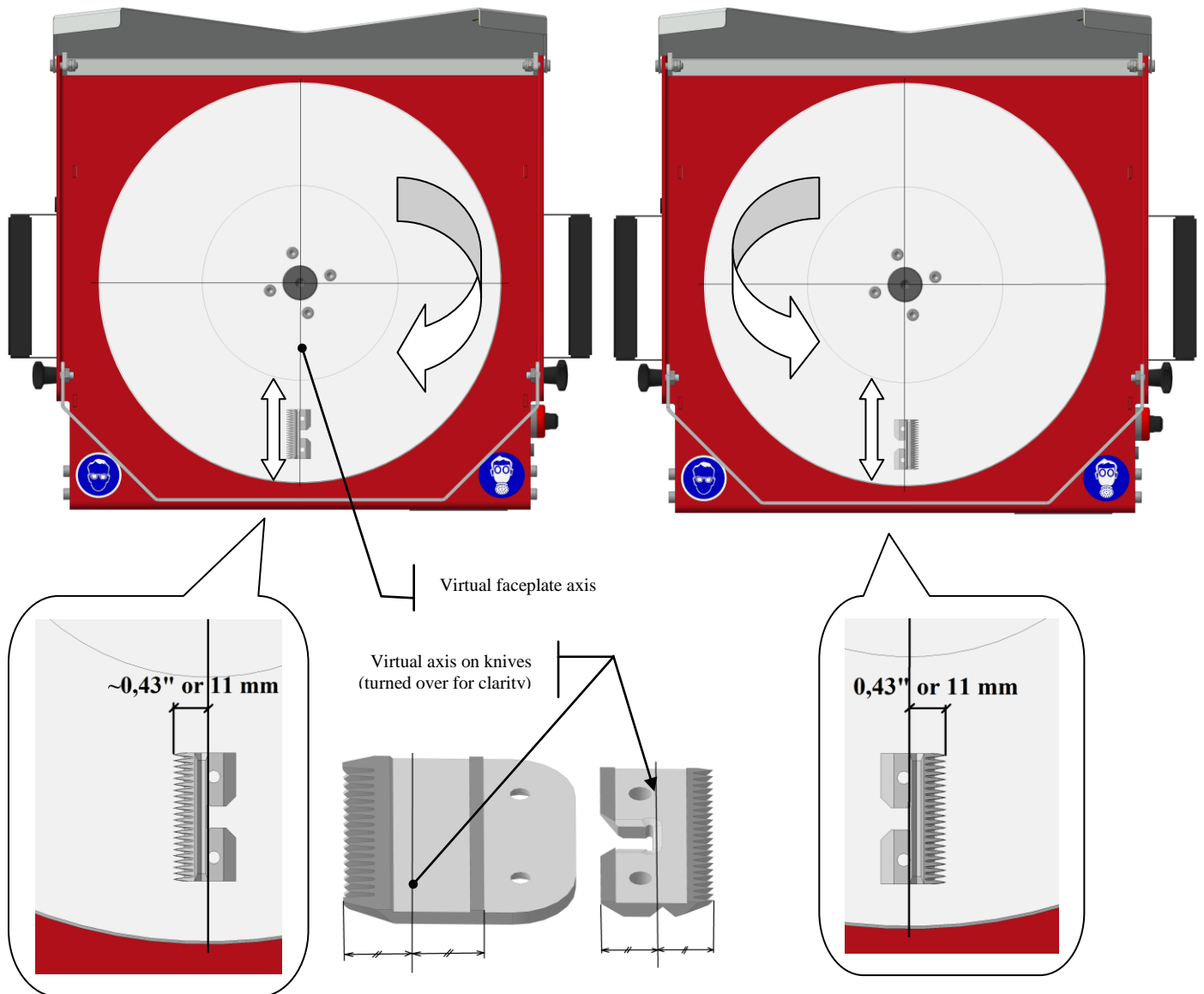


Figure 3 Knife position on faceplate

**ATTENTION**

Wait until faceplate stops. Do not try to stop faceplate with hands or other materials at hand.





#### **STEP 4. Finishing of sharpened knife**

Machine may have a special option for finishing of sharpened knives. The option includes finishing cast iron plate, pull-out lodgment and a holder body located in the bottom part of the machine.

In order to bring the plate into working position as shown in Figure 3, take lodgment with hand using a slot, lift it slightly and pull it out together with a plate from holder body niche.

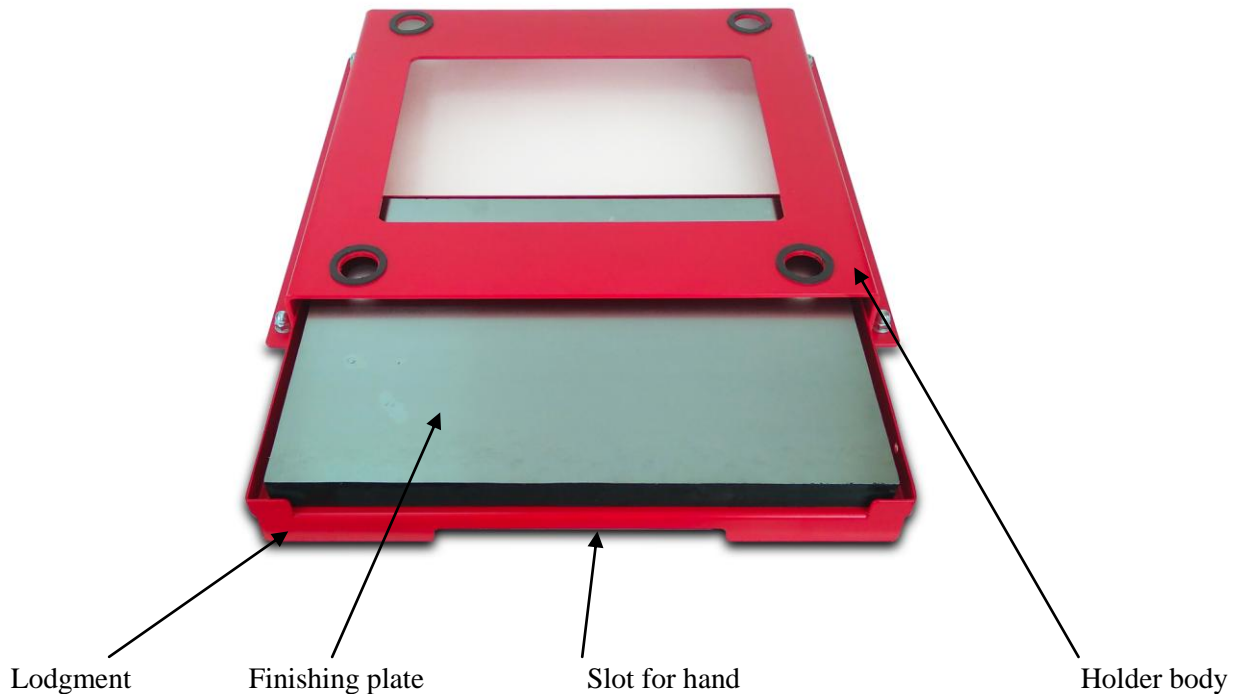


Figure 4 Finishing plate

Put some grinding powder and grinding oil suspension of on the plate (very small amount) making pasty texture and distribute it evenly in the finishing area. Holding a knife in the area covered by suspension with a magnet and pressing the knife to the plate with 1.5 – 3 kg force make finishing movements along the path shown in Figure 4.

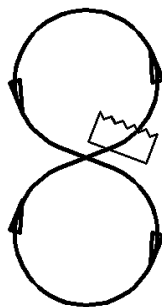


Figure 5 Diagram of knife movements during finishing

After finishing is completed remove burrs from inter-dental space of the knife using brushes included into scope of machine delivery.

Upon completion of operation wipe finishing plate with moist rags, dry the plate and pull it in the holder



body niche.

**ATTENTION**

Grinder-man determines duration and intensity of finishing process.

**STEP 5. Grinding powder change**

In case it is necessary to change grinding powder we recommend removing of used material from faceplate surface. Use rubber solvent or kerosene to remove grinding material. We recommend dismantling of faceplate for this purpose! Direction of rags movement should correspond to faceplate rotation direction. Do not remove grinding material across faceplate knurling.

**STEP 6. Cleaning**

It is recommended to completely wash the faceplate after sharpening three clipper blades. Use the liquid for washing dishes «Fairy» or nefras.

**ATTENTION**

The service life of the faceplate is not more than 500 clipper blades sharpeners.

We recommend cleaning of a machine after use: brush grinding material aside with a soft brush and wipe it with moist rags

**ATTENTION**

In order to avoid damaging of machine surfaces make sure that rags used for machine cleaning does not contain chemical contaminants (solvents, etc.) and fine chips. Before you use rags make sure that there is no grinding material on painted surfaces to be wiped. It will help to keep appearance of the machine for long time.

**STEP 7. Knife package assembly**

**ATTENTION**

It is recommended to demagnetize the knives before assembling the knife block.

Assemble knife package

Turn the machine on and check its operational integrity.

**ATTENTION**

After both faceplate surfaces are worn out completely recondition or replace the faceplate. You can get information reconditioning service or replacement costs in our Service Center (dial **8-927-215-66-55**).



## 5. INSTALLATION, ADJUSTMENT, SETTING-UP, GREASING

Take machine out of the box. In case the machine was kept under low temperature for long period, leave it in a room for 6 hours to warm it up to room temperature. Put the machine to assigned working place close to mains socket (not more than 0.9 m far). When connected to power source power cable of the machine should not be strained: 20% of the cable should lie on the working table. Install rubber supports under machine foot screws.

### ATTENTION

Machine faceplate should rotate freely by hand. Make sure that nothing prevents free rotation of faceplate!

Each time you finish operation of the machine it is necessary to clean abrasive dust off surfaces thoroughly in order to avoid penetration of the dust into rubbing components.

Cover machine with dust guard if you do not use the machine for long time (more than 2 days).

When removing faceplate you have to unscrew fastening screw, which fix the faceplate to axle. In order to facilitate dismantling of faceplate, put small amount of lubricating oil to the faceplate and axle junction point. Wait until oil penetrates inside the faceplate and axle junction point. Then dismantle faceplate with hands located on both sides in virtual axle center plane exerting even force. Faceplate fit is rather tight that is why if you failed to dismantle the faceplate (in case non-regular dismantling) it is recommended to place the faceplate back with hands or with light (up to 5 kg) hammering with rubber hammer in the area of screw hole in order to fit the faceplate against the stop on the axle. After try to dismantle the faceplate again. Before you start to install the faceplate to its proper position make sure that mounting face of the axle and wheel mounting surfaces are free from abrasive material, burrs or scratches; dents on axle face are not allowed also. Apply thin layer of grease (LITOL or TSIATIM type) onto axle mounting face and faceplate hole. Tighten the screws one by one crosswise in several steps increasing tightening force. Repairing of damages such as dents and scratches is performed with not more than 1000 Grit abrasive leaves.

### ATTENTION

Do not try to hammer faceplate on the periphery. Use of metal hammer is forbidden! Contact of faceplate knurling with any metal objects directed to it forcefully for any purpose leads to helix deformation and as a consequence, faceplate will cease meeting original requirements

### ATTENTION

Before you start machine up after replacement of faceplate make sure that faceplate is in proper position and fastened with screws. Rotate faceplate by hand – make sure that there is no obvious run-out and nothing impedes faceplate movement!

Our company constantly improves machines that is why slight changes in machine design not mentioned in the the current Manufacturer's Certificate are possible.



## 6. SCOPE OF DELIVERY

Scope of delivery includes:

- |  |           |
|--|-----------|
| - household machine ADEMS Front Plate Inverter   | - 1 pc.;  |
| - magnet   | - 1 pc.;  |
| - grinding powder (silicon carbide F220)   | - 200 g.; |
| - grinding powder (aluminum oxide F240)  | - 200 g.; |
| - grinding oil for sharpening (concentrate to be diluted with hot distilled water of 70 degrees - 50/50) | - 250 ml; |
| - knives lubricating oil   | - 100 ml; |
| - atomizer   | - 1 pc.;  |
| - wooden spreader  | - 1 pc.;  |
| - set of brushes for deburring   | - 1 pc.;  |
| - rubber support   | - 4 pcs.; |
| - Allen key No 5   | - 1 pc.;  |
| - power cable  | - 1 pc.;  |
| - case   | - 1 pc.;  |
| - template   | - 1 pc.;  |
| - cord with magnets  | - 1 pc.;  |
| - Manufacturer's Certificate   | - 1 pc.   |

## 7. OPTIONS

### 7.1. Set of additional accessories



Figure 5 Set of additional accessories

Scope of delivery includes:

- |                  |          |
|------------------|----------|
| - holder body    | - 1 pc.; |
| - stand          | - 1 pc.; |
| - abrading plate | - 1 pc   |

We offer consumable materials sets to expand machine functionality.



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## 7.2. Consumable materials set for 3 months



Figure 6 Consumable materials set for 3 months

Scope of delivery includes:

- commercial lubricating oil for knives (100 ml) - 1 pc.;
- grinding oil for sharpening (concentrate which should be diluted with hot distilled water (70 degrees) 50/50 ) (500 ml) - 1 pc.;
- grinding powder (silicon carbide F220 – 100 gr.) - 3 pcs.;
- grinding powder (aluminum oxide F240 – 100 gr.) - 2 pcs.

## 7.3. Consumable materials set for 6 months.



Figure 7 Consumable materials set for 6 months

Scope of delivery includes:

- commercial lubricating oil for knives - 2 pcs.;
- grinding oil for sharpening (concentrate which should be diluted with hot distilled water (70 degrees) 50/50) (500 ml) - 2 pcs.;
- grinding powder (silicon carbide F220 – 100 gr.) - 6 pcs.;
- grinding powder (aluminum oxide F240 – 100 gr.) - 4 pcs.



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#### 7.4. Consumable materials set for 12 months



Figure 8 Consumable materials set for 12 months

Scope of delivery includes:

- commercial lubricating oil for knives - 4 pcs.;
- grinding oil for sharpening (concentrate which should be diluted with hot distilled water (70 degrees) 50/50 ) (500 ml) - 4 pcs.;
- grinding powder (silicon carbide F220 – 100 gr.) - 12 pcs.;
- grinding powder (aluminum oxide F240 – 100 gr.) - 8 pcs.



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## 8. ACCEPTANCE CERTIFICATE

- 8.1. Household machine for professional sharpening of knife packages of automatic hair clippers of the ADEMS Front Plate type serial No 2/\_\_\_\_\_-2022 is classified as fit for operation.
- 8.2. Guaranteed service life – 12 months from the moment of sales.
- 8.3. Manufacturer's address: 39, Kommunalnaya street, Togliatti, 445034, Russian Federation
- 8.4. Electric motor serial number \_\_\_\_\_.
- 8.5. Serial number of the frequency converter \_\_\_\_\_.

Date of manufacture \_\_\_\_\_

QC Department Head \_\_\_\_\_



## 9. REMERKS, COMMENTS, NOTES



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