

Machine for cutting (shortening) the stem of picked and dried chamomile flower OGK 1003-A

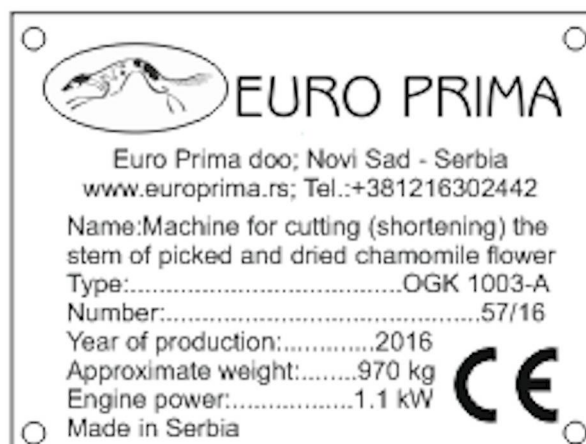


OPERATING AND MAINTENANCE MANUAL The original instruction

1. Identification of the machine

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<i>Description:</i>	Machine for cutting (shortening) the stem of picked and dried chamomile flower OGK 1003-A
<i>Engine power:</i>	1,1 kW
<i>Weight:</i>	970 kg
<i>Machine No:</i>	57/16; 2016 (RN1124)
<i>Additional equipment:</i>	
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3. Foreword

3.1 Target group for this manual

This safety and maintenance manual is meant for persons qualified in agricultural work and trained for handling the device.

3.2 For your safety

Before assembling and installing the machine, familiarize with this manual, because in this way you will be capable of reaching the maximum safety at work.

3.3 For the employer

Train your personnel at regular basis, and at least once a year, especially about the measures in Chapter 1, so that you reach maximum protection from injuries. Untrained and unauthorized persons must not use this device.

Your seller will provide you with the basic instructions regarding the use and maintenance of the machine.

3.4 The most significant symbols and marks

In order for this manual to be clear and easy to read, various symbols and marks are used. Their meaning is explained in the following text:

In the manual, pictograms are also used to help you master this manual as quickly as possible.

Note:

This symbol in the text points out to the instructions which will make your work easier, more efficient and safe.



Attention!

This symbol in the text may point out to the possible damage of the machine, tools, buildings, etc., but also that certain financial or legal responsibilities may be acquired if the instructions are not followed, for example losing guarantee rights.



DANGER!

This symbol in the text warns about the danger from injury or even potential deadly injuries of people and animals.

4. Protection from injuries

4.1 For your safety


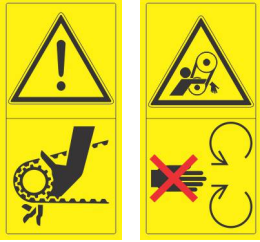





In this chapter there are general remarks related to your safety and protection from injuries. Each following chapter of the operating manual contains additional specific safety instructions, which are not described here. Follow these instructions:

- in the interest of your own safety,
- in the interest of the safety of others, and
- to ensure the protection of the machine.

There are numerous negative consequences that may result from the misuse of the agricultural machines. Therefore, you must strictly follow the instructions on injury protection. Never rush.

If you are the owner of the machine:

You are obliged to familiarize the workers with the applied injury protection measures. You must remind them and organise trainings at regular intervals.

	<p>Turn off the engine before any maintenance or repairing work.</p>
	<p>Do not open or remove protection shields while the motor is in operation. Wait until all the rotating parts of the machine are stopped before you touch them. Stay out of rotating parts of the machine.</p>
	<p>Danger of electrocution Before approaching the live zone, turn off the power supply. The access is allowed only for trained professionals who are familiar with this manual.</p>
	<p>Danger of tripping or falling</p>
	<p>Danger of squashing</p>
	<p>Danger of falling parts</p>
	<p>Place for attachment</p>

5. Protection at work

5.1 Identification of the operator

- **Only trained users are allowed to operate the machine**

Only trained adults, who are informed on the dangers related to operating, are allowed to work, service or repair the machine. As a rule, these people are experienced and trained for work with agricultural machines, or completely trained in a similar manner.

5.2 Connecting

- **Connect the power lines and cables only after the machine is assembled**

5.3 Operating the machine

- **The machine must not be put into operation before the user is trained for safe work.**

The machine must not be put into operation before the user is properly trained. The training may be obtained by reading this manual or by getting it from the authorised representative of the manufacturer. Untrained work may lead to damage of the machine or accidents.

- **Make sure that the machine is in perfect working condition.**

Do not use the machine unless it is in perfect working condition. Check all the important components and replace all the faulty ones before starting the machine. Faulty components may cause damage of the equipment or injuries to people.

- **Do not remove the protective equipment.**

The protective equipment must not be removed or malfunctioning. The safety microswitches must not be deliberately deactivated.

Check all the protective equipment before starting the machine.

Unprotected machine components can cause severe or fatal accidents.

During the processing of the herbs, the machine may produce dust. The machine itself does not have the aspirator for the dust, therefore, it is necessary to connect the machine to the aspiration device.

- **Make sure the immediate vicinity is clear**

Before starting, preparation and commencing operation, check the surrounding area of the machine. Check if the operator has clear view of the working area. Do not start any operation, until all the people and/or objects are removed from the close vicinity of the machine. Every use of the machine without checking the conditions around it may cause accidents.

- **Retighten all nuts, bolts and screws**

Nuts, bolts and screws should be checked at regular intervals and tightened if necessary. Screws/bolts can come loose unnoticed while operating. Damage can occur to the unit or injury to persons.

- **What to do in the case of a malfunction**

In case of a malfunction, stop operating immediately, turn off electrical power to the machine and secure the machine. The malfunction may be eliminated immediately, or a workshop must be assigned the task. Further operation, despite the malfunction, may lead to significant damage to the machine or even injuries.

- **Keep the children away from the machine**

Children do not have the sense of danger, therefore they should be denied every access to operating or stored machine.

5.4 Care and maintenance

- **Follow the care and maintenance chart**

Observe prescribed intervals for maintenance checks and inspections that are specified in the operating manual. Disobeying these intervals may lead to machine damage, poor quality of work or injuries at work.

- **Use only OEM spare parts (original equipment manufacturers)**

Many components have special characteristics that are essential for the machine's stability and its proper functioning. Only those replacement parts and tools that are delivered by the manufacturer have been tested and approved. Using other products may cause malfunctions or reduce the safety of the operation. By using non-OEM replacement parts, you may lose your warranty, and this frees the manufacturer from liability.

- **When performing maintenance work:**

- Turn off the power supply to the machine (drive shafts, the electrical energy and similar)
- Make sure that the machine is secured. Provide additional support if needed.
- Lower the machine off its transporting wheels.
- Do not use parts of the machine for climbing onto it.
- Never touch the V-belts while they are turning.
- Never touch the roller chains while they are operating.

Work safety during maintenance is guaranteed only if you observe these regulations.

- **Turn off the power supply**

Prior to carrying out work on the electrical system, disconnect it from the power supply. The equipment under electric power may cause damage to equipment and injury to people.

- **Tighten all screwed/bolted connections**

All screwed/bolted connections that are released during maintenance and repairing must be retightened. Screws/bolts may loosen during operation due to loose connections. Therefore, the parts of the machine may also loosen. This may lead to serious injuries of people or damage of the equipment.

5.5 Further regulations


- **Observe the regulations**


In addition to those listed above, please observe the following safety instructions:

- Accident-prevention regulations
- Generally recognised safety regulations, health requirements and road traffic regulations
- Information in this operating and maintenance manual
- Regulations in this manual pertaining to operation, maintenance and repair.

5.6 Potential causes of injury at work and measures for their elimination

- The machine is quiet and stable during operation.
- The edges of tin surfaces are secured by rubber protectors to prevent the users' injuries.
- Electric installation which is conducted within the machine is protected by a metal conductor and covered by the machine's construction.
- The power cable is protected against the mechanical damage.
- All the rotating parts are protected by the steel shields and secured by microswitches, so that every opening leads to stopping the machine.
- It is possible to restart the machine only after the shields are closed and the starting process conducted again. After any kind of stopping, the machine will not start unexpectedly, by itself. It can be started only by reconducting the starting process.

 <p>DANGER!</p>	<p>Operating without safety shields is strictly forbidden. Before any kind of intervention on the device, it must be shut down and the connection to the electrical network must be disconnected. After any kind of intervention on the machine or maintenance work, and before connecting to the electrical network and switching on, the protective covers must be returned to their places. Operating without the safety covers may cause injury at work!</p>
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 <p>Attention!</p>	<p>All the operators need to be familiar with this manual and must strictly observe it! Noncompliance of this manual may cause injury at work!</p>
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- During the finishing processing of the chamomile, the machine may make dust, therefore it is necessary for the user to wear the protective mask during operation.

6. Familiarisation with the machine

This section contains general information on your machine as well as information on:

- Range of application,
- Features,
- Designation of the assemblies,
- Technical specifications, i
- Scope of delivery.

6.1 The range of application of the machine

- The machine is meant for cutting or shortening the stalks of picked and dried chamomile flowers.

- **Proper use**

Using the machine for other purposes is considered a misuse. The manufacturer and the dealer are not responsible for the damage caused by misuse. The user, exclusively bears the risk and responsibility for the improper use.

- **Sturdy technology**

Its mechanical drive means the machine is not susceptible to breakdowns. Many years of testing the assemblies guarantees trouble-free operation.

- **Easy machine loading**

The reception box loading is easy. It can be done manually or by the conveyor belt.

6.2 The features of the machine

- **Safety**

The machine is designed in accordance with the EU regulations, in order to provide the maximum safety at work. The appropriate standards are applied in the machines' designing.

- **Basic features**

OGK 1003 A is a stationary machine meant for the selection, cutting and shortening the stems of picked and dried chamomile flowers. The machine's construction is very simple, with easy dosing and reception of the output material. Beside the cutting element, the machine is equipped with a sieve which is meant for selecting the flowers from the rest (cut stalks and pulvis).The device in operation vibrates, so it is necessary to attach it to the ground and level it properly.The machine is quiet and it does not make noise during operation.

General appearance of the machine with its dimensions are given in Picture below.

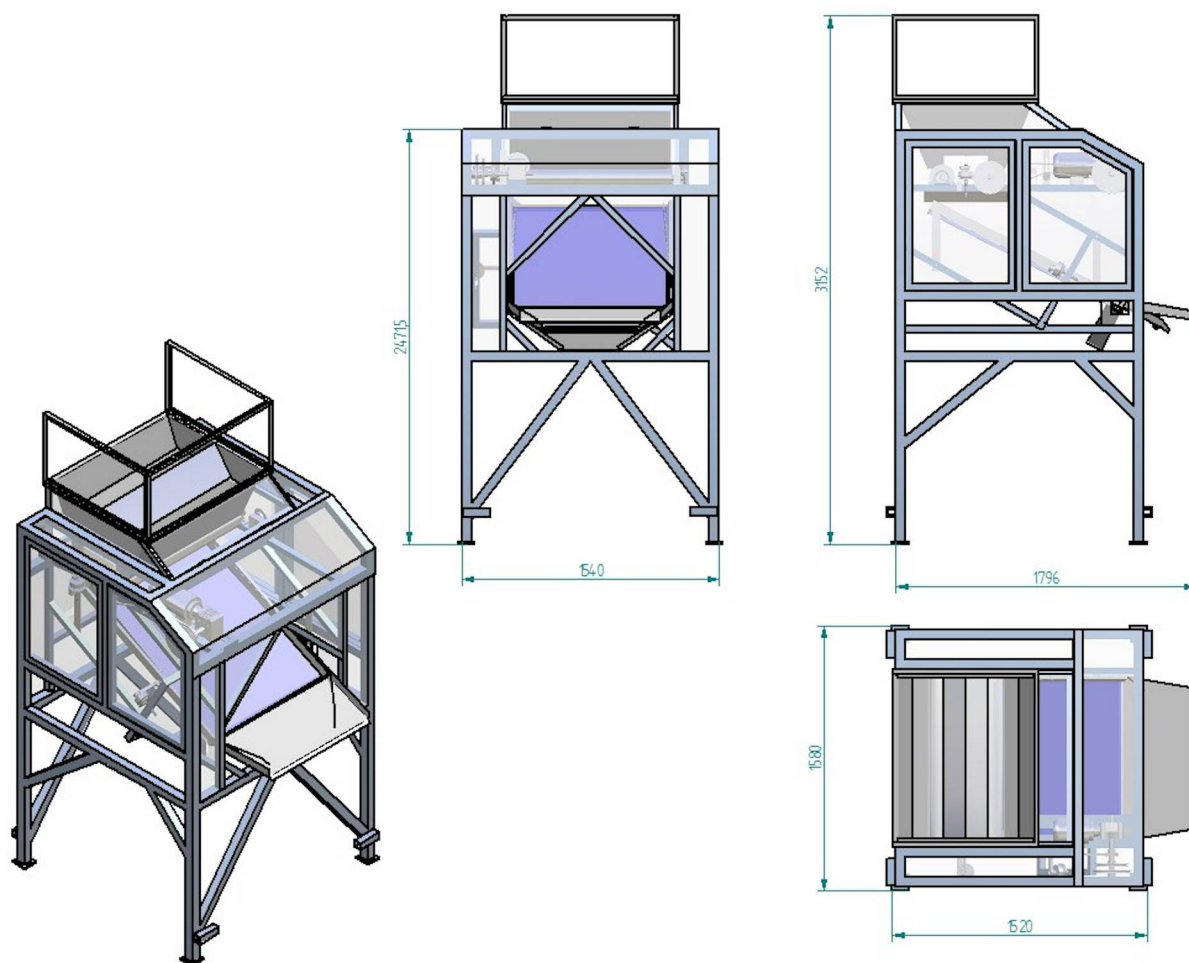


Fig.: The dimensions of the machine for cutting the stems from the chamomile flowers OGK 1003 A.

6.3 Designation of the assemblies

6.3.1 Electric installation

The machine is delivered with the power cable for connecting to electrical network. The protection system against the indirect touch voltage is provided through the fuses which are parts of electrical installation to which the machine is connected (control box of the machine). See electro scheme in the Appendix 1.

The machine is powered by AC voltage 380V/400V, 50Hz, three-phase power supply with three phase L1, L2 i L3 conductor, protective PE conductor and neutral N conductor. The protection systems against the indirect touch voltage on the machine that can be used are TN-C i TN-C/S, as well as the TT system, provided that the ground resistance with the user is bigger than $R_e=1\Omega$ and the use of residual-current device (RCD) ($I_n=0,5A$) is obligatory.

The machine has the switch that prevents hazardous situations, that is, the unexpected start of the machine in case of interruption, restarting after the interruption or any kind of fluctation in the power supplying of the machine.

The data on minimal diameters of the power cables are given in Table.

Table: Diameters of the power cables depending on the EM power.

<i>Electro motor's power, kW</i>	<i>Minimal diameter of the power cable, mm²</i>	<i>Slow safety device electricity on electric net, A</i>	<i>Electricity of safety switch, A</i>
0,55	4x1,5 Cu	4	1,5
0,75	4x1,5 Cu	4	2,0
1,10	4x1,5 Cu	6	2,7
1,50	4x1,5 Cu	6	3,6
2,20	4x2,5 Cu	10	5,0
3,00	4x2,5 Cu	10	6,7
5,50	4x2,5 Cu	16	6,9

Electrical cabinet is in IP65 protection. There are fuses, safety switch of the machine and the contactors. The control of the machine is done through start/stop push-buttons. The machine has 2 emergency stop push-buttons (mushroom) which is near the user of the machine and on the control box of the electrical cabinet. When it is activated, all the devices on the machine are shut down. In order to start the machine again, you must rotate the emergency stop push-button (deactivate it) and turn on the machine again on the electrical cabinet door.



When switching on the machine it is necessary to connect the socket to the correct port. By starting the main switch and pressing the button reset, the red light turns off and turns on green light, this means the machine is operating.

If you press the reset button and the red light continuous to shine, it is necessary that a qualified person turns off the machine, open the electric cabinet and the switch lever turn on the machine. On the device RAF(inside electric cabinet) should appear green light. If the red light is shining, it is necessary to replace the socket on the order of two phases. All the cables on the machine, power and control cables that are outside the electrical cabinet are protected by the isolated metal hose that prevents mechanical damage.




If the green signal lights are activated, this means the machine is operating. If the green light is off and red light is on, this means that the machine cannot, and you need to check the cause.


All the hazardous places, where driving mechanisms are placed, are secured by the interlocking guard in accordance with **EN 1088**.

Safety of machinery — Interlocking devices associated with guards — Principles for design and selection.



The meaning of the warning stickers on the distribution cabinet:

	<p>Read and follow the instructions for safe operation and maintenance. You may use the machine only if you studied this manual carefully. This especially refers to the instructions related to safety at work.</p>
	<p>Turn off the engine before the repair and maintenance work</p>
	<p>Danger of electrocution Before accessing the live zone, turn off the power supply. The access is allowed only to professionals who are familiar with this manual.</p>

	<p>Maintenance work on the electric equipment can be done by trained users only. They must be familiar with all the hazards that may occur when working with electrical energy, as well as with this manual and the electro scheme given in the appendix. Prior to any kind of intervention on the electric equipment, it is necessary to switch off the main switcher and the power cable of the machine and make sure that no other person can turn it on without the knowledge of the maintenance worker.</p>
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6.3.2 The description of the machine

The layout drawing is shown in the Picture below.

Picture shows the machine for cutting the stems from the chamomile flowers OGK 1003 A.

It consists of the main frame (1), on which there are segment cylinders (2) They are driven by the belt gear (3), from the electromotive with gear box (4).

The belt tension is done by the tensioner (5).

Electromotor is started from the control panel of the electro cabinet (6).

On segment cylinders lies the knife's carrier (7), which is driven by the ex center belt (8), and belt gear (9).

Above the segment cylinders and knife carriers there is a receiving box (10).

The sieve (11), receives oscillatory movement from ex center belt (12) i belt gear (13).

Belt gears are secured by the protective net of belts (14), and chain gear (15) of segment cylinders (2), is secured by the protective chain net (16).

Within the main frame (1), there is a platform (17), for the person who controls the dosing of the chamomile into the receiving box (10).

For easier climbing onto the platform (17), there are the stairs (18).

The sieve (11) is connected to the main frame by the front (19) and back (20) slats.

When the season is over, the machine is set on wheels (21), for easier maneuver.

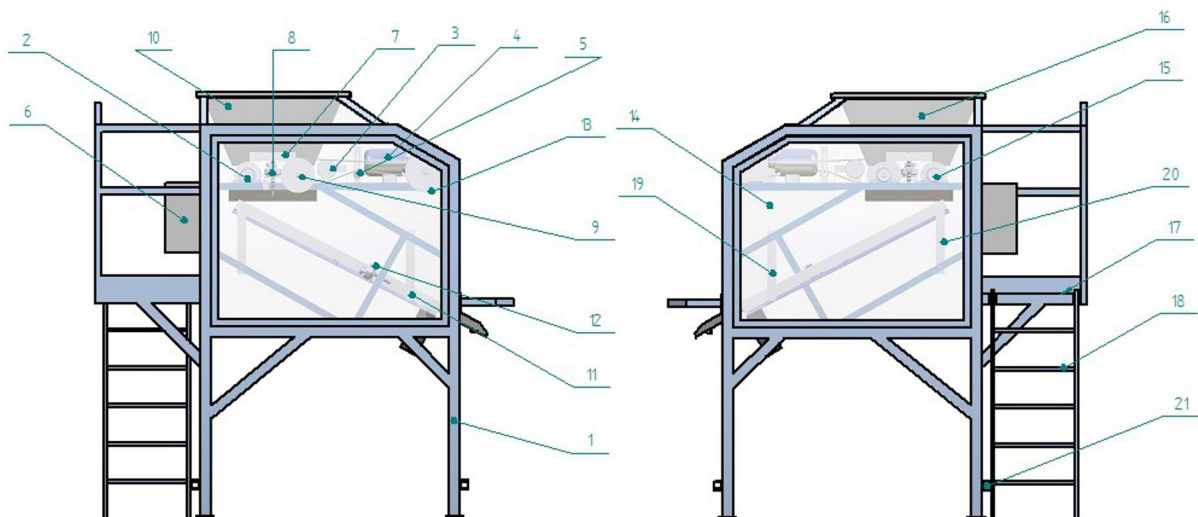


Fig.: Layout of the machine for OGK 1003 A

6.4 Technical specifications

Table.: Technical specifications:

Dimensions (Length / Width / Height)	1580 x 1796 x 2700 mm
Approximate weight	750 kg



Engine type	1.1 kW / 400V
Number of sieves	1
Number of knives	2
Performance	40-100kg/h depending on input material
Material	Steel
Sound pressure level (by A and C scale)	At measuring points in accordance with reference standards on the working spot, during the machine operation, it is measured: Leq A (dB) <u>68.5</u> Leq C (dB) <u>74.5</u>


6.5 The scope of delivery

- The machine comes fully assembled.
- **Do not assemble the machine by yourself.**
Do not assemble the machine by yourself, because that is the prerequisite for its good condition:
 - Respect the order of the working steps,
 - Handling the electric equipment safely.

Note:

If the parts are missing or are damaged during transport, please send a complaint to your seller, the importer or the manufacturer.

7. Instructions for installation, safe operation and maintenance

 <p>Warning!</p>	<p>Only qualified and trained persons, who are familiar with the instructions and measures of protection at work may handle the machine. The supervisor must check if all the workers on the machine are familiar with this manual and exclude from the process the ones that are not.</p>
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7.1 Montage instructions

The machine is unloaded from transporting vehicle by using a forklift.

The forklift should be driven only by trained operators. The operator must be familiar with the weight of the machine and apply all the measures of protection that must be applied during loading and unloading the machine from the truck.

The machine is accepted in specially marked places for this purpose.



Fig.: Correct lifting of the machine with a forklift

- The machine should be installed indoors, and sufficient space for handling, supervising and maintenance of the machine should be provided. It is placed on the flat concrete surface and fastened to the ground by bolts, if necessary.
- Before commissioning of the machine, the auxiliary wheels must be removed from it. In the picture, the process of removing the auxiliary wheels is presented.



Fig.: Removing the wheels from the machine

- After setting up the machine into the operating position and securing it on the ground, it is necessary to build the electrical grounding. Grounding should be done by a professional connecting the grounding of the production hall to the bolt on the machine which is designed for this purpose.



Fig.: The spot for the machine's grounding

- Around the machine, enough space should be left for the workers to operate. Before the commissioning of the machine, it is necessary to visually check it, determine the tension of the belt gear and check the segment cylinders, since hard objects may get into the cylinder opening.



Only trained personnel may turn on the machine. When starting the electromotor, it is necessary to take care of the direction of rotation of the cylinders. The direction of rotation should be one towards the other.

- Before pouring the chamomile into the receiving box, it is necessary to let the empty machine operate for a while. Monitor the operating machine. It must operate quietly and without great vibrations. Before the finishing process, you need to check if the knife is properly seated on the segment cylinder, and adjust it if necessary. By alternate tightening and loosening of the bolts on the knife carrier, you should set the tip of the knife in such a way that it touches the segment cylinder in its full-length.

Note:

The contact must be of the same intensity the whole length. If the knife is too tightened somewhere, it may be damaged at that place. Such a place is easy to notice because on the chest part of the knife's blade metal dust is accumulated, due to encroachment of the knife into the segment cylinder.

- Too much tension between the knife and the segment cylinder causes the encroachment of the knife into the cylinder. As a consequence, there is unsteady operating of the machine, too much vibration and discontinuous (with interruptions) rotation of the segment cylinders.



Fig.: Properly connected drive of the segment cylinders




The cylinders' and the knife carrier's driving belts should not be too tightened because, on this machine, they are also safety elements. They should enable slipping, in the case of intrusion of foreign bodies into the openings of the segment cylinders (nail, stone) as well as in the case of breakdown of the machine.



While adjusting the tension of the belt and chain on the machine, it is necessary to turn off the electromotor and disconnect the machine from the power source.


- Pouring the material into the receiving box (10) can be done by the belt conveyor or by handing the boxes with the material for processing to the person who controls the work of cylinders. If the material is loose (fine or not compact), it can be dosed with no fear of blinding of the machine. If the material is fine (re-processing of the pulvis separated under the sieve) it is necessary to dose the material very carefully, so that bloking of the cylinders (slipping of the belts) does not happen, due to large surface of cutting.
- If long stems accumulate between the segment cylinders and the knives, it is necessary to stop the machine and take out the accumulated stems manually. This is done exclusively while the machine is stopped. The operator must wear gloves.



Attention!

The protective shield of the segment cylinders and knives is equipped with the safety switch. Every opening of the shield will cause the machine to stop. While the shield is lowered, physical contact of fingers and the segment cylinders or knives is not possible. Deliberate deactivation of this safety element is forbidden! If malfunction occurs on the machine, do not use it until the malfunction is eliminated. Touching the segment cylinders or knives with your fingers may cause their cutting.





DANGER!

In case the machine blinds, the person operating must never try to unblind the machine if the electromotor is working. It must be shut down. Every working with fingers on segment cylinders (picture 5) or adjusting the knife's seating is done while electromotor is off and the machine is disconnected from the electrical network.

- If necessary, the resulting flowers may be processed again. From the separated pulvis, by
- If, after several days of work, you notice that the machine's operating quality is lowered (there is greater number of heads with stems), it is necessary to sharpen the knives. They are sharpened on the machines used in leather industry or paper industry (printing house). To sharpen the knives, it is necessary to remove them from the knife carrier. The knives cannot be replaced, because the holes for their attaching are punched as parts of it.

7.2 Cleaning

- Compressed air is used for cleaning. During cleaning, it is necessary to wear the protective glasses and the mask which prevents inhaling the dust.
- Clean the machine before storing. This will extend the lifespan of the machine.
- It is necessary to clean the machine before storing. This reduces the possibility of damage to the electric cables or similar parts by rodents.

7.3 Setting machine

The quality of the finishing flower products coming out of the machine depends on properly adjusted and sharpened knives. The machine has two knives, one for each segment cylinder.

The procedure for the adjustment of the knife:

1. Lift the basket into the servicing position.



2. Check the seating of the knife using taper metric thickness gauge.
The allowed gap is 0,00mm to 0,1mm.



3. In case adjustment of the knife is needed, all the nuts should be loosened in the way presented in the picture.



4. Slowly tighten the inbus screws if there is a big gap between the knife and the segment cylinder.

Slowly loosen the screw if the knife encroaches too much into the segment cylinder. Too great encroachment of the knife will damage the segment cylinder.



5. Recheck the seating of the knife using taper metric thickness gauge.



6. If the knife is properly adjusted, switch to the adjustment of the next screw in a row, where the knife is not properly seated on the segment cylinder.

7. After the knife adjustment, retighten all the screw nuts. While tightening, be careful not to disrupt the position of the screw.



8. Lower the receiving basket and lock it.

7.4 The process of replacements the knives

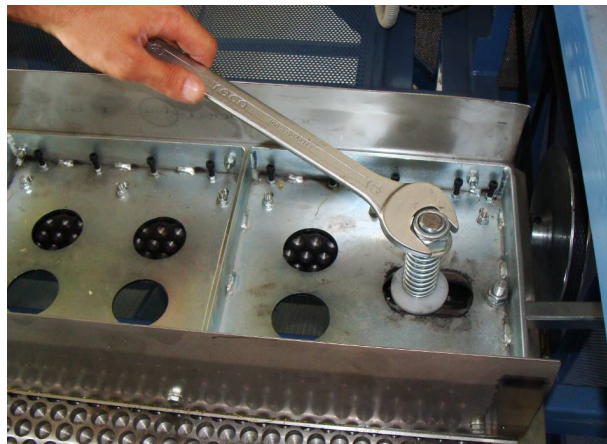
1. Lift the receiving hopper in a service position.



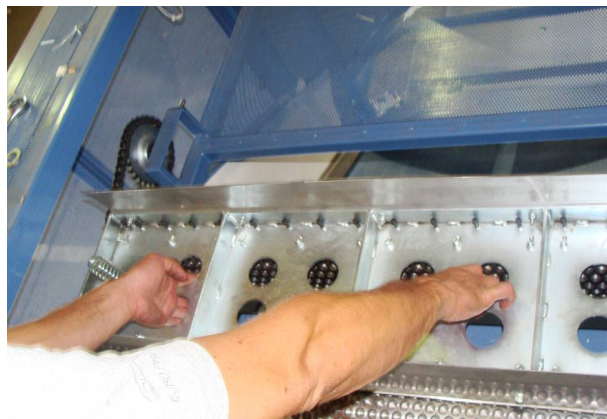
2. Remove the screws M10.



3. Remove the two screws, two springs and two plastic. Pay attention not to cut down the knives.



4. Take off knife holder.



7.5 Hopper installation

1. Take off the limiter.

2. The basket should be in the raised position when it is slipped over on the hinges.



3. Position the basket.



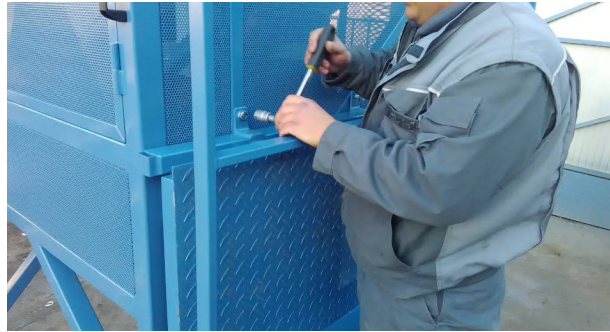
4. Return and screw the limiter.

7.6 Platform installation

1. Unscrew the screws for fixing the platform from construction.



2. Place the construction on its place and return the screws and fix the platform.



3. Raise the platform in the horizontal position and open the platform holders to the maximum position (limiter).




4. Screw the screws (flowers).




7.7 Parking and storing the machine

- Never store the machine that is set on wheels.
- To secure the stability of the machine, it is necessary to remove the wheels and set the machine on dry and flat surface.
- Children are not allowed to be close to the machine, whether it is in operation phase or in storage.

7.8 Instructions for maintenance

 DANGER!	<p>Service may be done only by the professionals, who are familiar with the instructions and protection measures. Before any kind of intervention inside the electric cabinet, disconnect the main power supply cable off the electrical network. The main switch off button is on the side of the electric cabinet.</p>
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 DANGER!	<p>All the interventions inside the electrical cabinet need to be done by a trained person who is familiar with this manual and the electrical scheme which is given in the appendix. Prior to any kind of intervention inside the electrical cabinet, it is necessary to disconnect the power cable from the electrical network and switch off the main switcher on the side of the electrical cabinet.</p>
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The machine is designed in such a way that it needs minimal maintenance. The process itself makes vibrations, so it is necessary to occasionally check the tension of screws/bolts. The intervals of checking and screwing torques of the bolts/screws are presented in the table.

Screwed connections

Retighten screws

All screws must be retightened

- After the first few operating hours
- depending on the frequency of use,
- at least once every season.

Torques, general

All screwed connections are to be torqued in accordance with the table. If different torques are necessary, these will be mentioned. The minimum is 8.8.

Torque in Nm			
Screw size	Screw grade		
	"8.8"	"10.9"	"12.9"
M6	9.9	14	17
M8	24	34	41
M10	48	68	81
M12	85	120	145
M16	210	290	350
M20	425	610	710
M24	730	1050	1220

- All the roller bearings are closed and there is no need for their maintenance. If you determine that a bearing blocks or makes noise, you should replace it.
- The machine requires occasional checks of the belts and chains, and if they are properly tightened. It is necessary to occasionally lubricate by grease the interface between the knife carrier and the plastic knife slideway. When you do this, the machine will operate more quietly.
- Bearing housings of the segment cylinders are lubricated once in a season.
- After the season is over, it is necessary to check the knives, and sharpen them if needed.

7.9 List of replaceable parts

- The machine is designed in such a way that all the parts are long-lasting and the replacement is needed after many years of usage. The parts considered expendable and liable to replacement are given in Table.

Tab.: Spare parts list for OGK 1003-A (1124/16RN)

<i>No.</i>	<i>Code</i>	<i>Description</i>	<i>Number of installed parts on the machine</i>
1	336409	Photoelectric detector with 2m cable X	1,00
2	334674	Electrical cabinet 600x600x200 NSYC	1,00
3	332172	Magnetic switch 2NC contact 4	1,00
4	331655	Motor switch 2.5-4A GV2ME08	1,00
5	331655	Motor switch 2.5-4A GV2ME08	1,00
6	331186	Switch DM 1.6-2.5A GV2ME07 (p	1,00
7	331025	Switch DM 1-1,6A GV2ME06 (before	5,00
8	334606	Electric motor 90 S-4 B-5 1,1kW 3F	1,00
9	33618	Worm gearbox NMRV P063 015 P	1,00
10	335272	Drive drum f 168 OGK	1,00
11	335273	Tightening drum f 168 OGK	1,00
12	332103	Bearing 2202 2RS SNR	4,00
13	03139	Bearing 6004 2RS SNR	4,00
14	03092	Bearing 608 2RS cx	2,00
15	03072	Bearing 6204 2RS SNR	1,00
16	332518	Bearing housing S 206 FKL	4,00
17	333655	Bearing LE 206 2F.Y FKL	4,00
18	33524	V-belt 13x1825 pine	1,00
19	33525	V-belt 13x1850	1,00
20	332243	V-belt 13x2150 optibelt	1,00

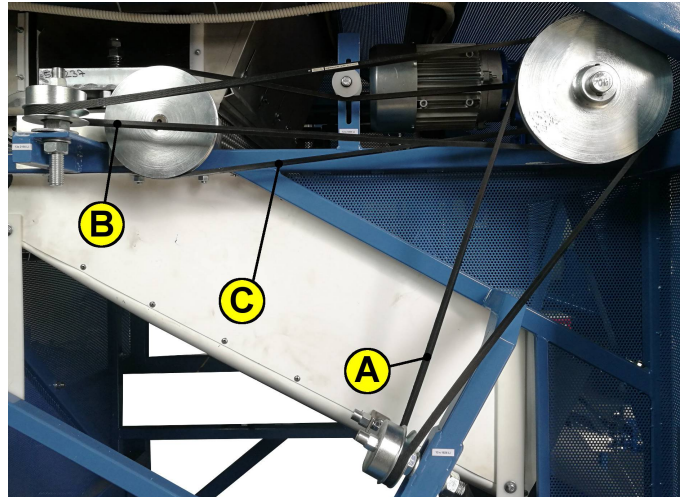


Fig.: Belts on OGK machine

7.10 For your safety

- **Turn off the electric supply to the machine during maintenance**
Turn off the electric supply to the electronic control systems during the maintenance work. It is not possible to exclude the occurrence of possible damages on the electronic control systems.
- **Electromotor**
All the maintenance work on the electromotor should be carried out following the instructions issued by the manufacturer of the motor.
- **Special safety information**
Perform the maintenance operations only if you possess the required knowledge and suitable tools. The lack of specialist knowledge or the use of unsuitable tools may cause accidents.
- **Use OEM (original equipment manufacturers) spare parts**
Use only OEM replacement parts for components that are of particular importance to safety. The dimensions, strength and material quality must be guaranteed. If non-OEM replacement parts are installed, the warranty expires.
- **Secure the machine from the inadvertent starting**
Maintenance and repairing the faults on the machine may be done only if the electronic control system is switched off. Serious accidents may result from the inadvertent starting.

8. Eliminating malfunctions

- Many malfunctions can be eliminated quickly and easily. Please, look at the table with possible malfunctions and procedures for their elimination.

<i>Malfunction</i>	<i>Cause</i>	<i>Elimination procedure</i>
Electromotor cannot start	Electromotor, microswitches	Check if the power cable is plugged in to electrical net. Check if the EMERGENCY STOP button is deactivated.
		Check if all the safety shields are properly and completely closed. The engine will not start if some of the safety shields are open.
		Contact the manufacturer

• Technology

<i>Malfunction</i>	<i>Cause</i>	<i>Elimination procedure</i>
The sieves make noise	Bolts for attaching the sieves	Retighten the bolts/screws and secure them against unscrewing
The operating machine is not stable	The machine is not leveled or anchored	Level the machine. Every frame support must lie tightly on the ground. Anchor the machine if necessary.
The machine does not cut all the stems of the chamomile flowers	The knives are not properly set or are damaged	Adjust the knives. Damaged knives should be either sharpened in special workshops or replaced by the new ones.
	Segment cylinders are not parallel to each other and to the knives	Center the cylinders
Segment cylinders or the knife do not move	The belt gear is too loose	Tighten the belt gear or replace it if it is damaged

9. The disposal of the machine

- **Metal parts**

All the metal parts must be delivered to the company that takes care of metal waste, so that it can be recycled.

- **Tyres**

Tyres must be recycled.

- **Electronic elements**

Circuit boards and other electronic waste are regulated by the rules about special waste. If there are no companies in the area, that would take care of the waste, you can send it to the manufacturer, who will take over the responsibility. The waste will then be processed and removed. The machine must be properly disposed of, so that its damaging effects to the environment are minimal. Please respect the measures for proper disposal.



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