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INSTRUCTIONS FOR USE



Fruit Crushers **DZO 16 N (SHARK FRUIT 1.6)**

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1 Introduction

This User's Guide is intended for the users of DZO 16N type fruit crushers manufactured by VARES Mnichovice a.s. The User's Guide forms an integral part of the technical documentation which the manufacturer and supplier of the equipment makes available to users. The User's Guide contains all necessary information for an overall familiarisation with the features and functions of the crusher's individual parts, plus instructions pertaining to the regulations applicable for this type of products, for guaranteeing correct and safe procedures during: Installation – putting into operation – maintenance and cleaning – repairs – troubleshooting – handling and transportation – final disassembly of the machine at the end of its useful life and its subsequent disposal.




The fruit crushers manufactured by VARES Mnichovice a.s. are designed and manufactured to comply with the requirements on safe operation. This notwithstanding, when incorrectly used and handled, they might become a source of danger. This User's Guide must be kept by the user at a place where it can be available to the persons nominated to operate and maintain the machine. Before starting any work with the fruit crusher, the operator must be familiarised in detail with the instructions and information contained in this User's Guide and understand its meaning, which is a prerequisite for correct and safe use of this machine.

Please note: In the following sections of this User's Guide, provided there is no danger of misunderstanding or erroneous interpretation, a simplified name "crusher" or "machine" will be used instead of the full product's name, "fruit crusher".




Important: The fruit crusher's manufacturer - VARES Mnichovice a. s. – reserves the right to implement technical modifications its products and changes in the User's Guide without prior notification.

1.1 Symbols used in this User's Guide and on the machine

1.1.1 Safety symbols used in the User's Guide

Sign	Symbol	Meaning
A	 Text	Operator hazard: Failure to abide by this requirement or instruction might endanger people's safety!
B	 Text	Operator hazard: Failure to abide by this requirement or instruction might result in an electric shock!
C	 Text	Machine hazard: Failure to abide by this requirement or instruction might endanger the machine safety!


1.1.2. Safety symbols on the machine

Sign No.	Symbol	Meaning
1		WARNING! Covers with this safety symbol (<i>colour design: black triangle with a black lightning on a yellow background</i>) protect compartments housing electrical equipment. Before removing covers with this symbol, the machine's electrical equipment must be disconnected from power supply and the switched off state secured! (<i>The sign is complemented by text with a safety message</i>)
3		WARNING! Compartments bearing this safety symbol (<i>colour design: black triangle with a black exclamation mark on a yellow background</i>) are housing moving mechanical parts which can cause injuries. Before removing covers bearing this symbol, the machine's electrical equipment must be disconnected from power supply and the switched off state secured! The sign is complemented by a text with the following safety message: OPERATORS ARE STRICTLY FORBIDDEN TO PUT HANDS INTO THE CRUSHED MATERIAL DISCHARGE GATE
5		WARNING! This symbol orders operators to use ear protectors when working with the machine to protect their hearing organs against the noise generated by the running crusher (<i>colour design: a blue circle with a white silhouette of a human head wearing ear protectors</i>)

1.1.3. Other symbols used on the machine

Sign No.	Symbol	Meaning
7	Machine manufacturer plate	A plate with basic technical data allowing the machine to be identified and run.
8	Electric motor manufacturer plate	A plate with basic technical data allowing the motor to be identified and run.

1.1.4 Machine manufacturer plate design

VARES Mnichovice a.s.			
TYPE	DZO	LEVEL OF COVER	IP 23
YEAR OF MANUFACTURE		WEIGHT	27 kg
SERIAL NUMBER			
VOLTAGE	230 V, 50 Hz		
CURRENT	A		
INPUT	1.6 KW		

1.1.5 Location of symbols on the machine

Sign No.	Symbol location on the machine
1	Sidewall of the electromotor protective cover
2,3,5,	Front wall of the electromotor protective cover
7	Sidewall of the electromotor protective cover
8	Electromotor stator sheathing

2 Product identification

Garden refuse crushers type DZO 16 N are designed for crushing fruit for further processing (cider making ...). The crushers are by their design and parameters suitable particularly for hobby gardeners. The main advantage of these machines is their adequate performance, compactness, simple operation and ease of moving them.

The crushers are designed for work in an environment defined by ČSN 33 2000-3 with the following external conditions:

AB5 – ambient temperature -5 to +40°C with relative humidity up to 85%

AD3 presence of water – water mist

AE1 negligible dustiness

AF2 atmospheric presence of corrosive pollutants

AG2 medium mechanical stress

AH1 moderate vibration stress

The crushers must not be used outside in a rain or snow!

When running, the crushers do not generate excessive high-frequency electromagnetic interference. There are no limitations imposed on the machines from the external electromagnetic interference point of view.

It is assumed that the machines will be used in an electromagnetic environment compliant with generally applicable requirements defined by ČSN EN 50081-1 (residential, commercial and light industry premises).

Among the specified conditions for the crusher's designation is the compliance with instructions and procedures for the machine installation, operation, maintenance and cleaning, detailed in the following sections of this User's Guide.

Important: *The manufacturer (supplier) shall not be held responsible for any damages caused by the machine being used for any other than the stated purposes. In such case all responsibility transfers to the user!*

3 Technical data

3.1 Basic technical data

Product name: Fruit crusher
 Type: DZO 16 N
 Manufacturer: VARES Mnichovice a.s.

Indicator	Unit	Data - value
Model	-	DZO 16
Dimensions: length height width	mm	680 735 545
Nominal power supply voltage	V	230 V
Nominal voltage frequency	Hz	50
Installed output	kW	1.6
Electromotor speed	rpm	2800
Max. diameter of the material being crushed	mm	90 - 100
Machine weight	kg	27
Level of protection by cover (ČSN EN 60529)	-	IP 23

The shown types of garden refuse crushers have the following commercial designation:
DZO 16 N – SHARK Fruit 1.6

3.2 Other technical data

The machine's electrical equipment is Protection Class I equipment according to ČSN 33 0600 Clause 3.2. Protection against electrical shock is by automatic disconnection from power supply by an end-switch activated by removing one of the cover holding screws. The device complies with the requirements of ČSN 33 2000-4-41 Sub-clause 413.1.3.

For work environment according to ČSN 33 2000-3 refer to Chapter 3 of this User's Guide.

Machine noise level: Time-averaged level of acoustic stress emitted by a running machine is

$L_{pAeq,T} = 86$ dB.

Please note: The machine's basic technical data together with its identification data are shown on the manufacturer plate located on the electromotor cover.

Important: Identification data shown on the manufacturer plate must be always quoted when exercising any requirements concerning a specific machine!



4 Safety instructions

4.1 Work safety

- Before starting any works with the machine, the operator must familiarise him/herself in detail in the User's Guide with all functions, controls and disconnecting components designed to prevent danger. The machine may be used only for the purposes for which it is technically suitable, in accordance with the conditions specified by the manufacturer, and which by its design, construction and technical condition complies with safety regulations.
- Before the machine can start working, it must be standing on a firm and even ground, making sure that its stability is not impaired.
- When working with the machine, do not allow any other persons, especially children, come near the machine.
- The user must make sure that the machine is regularly maintained and cleaned.
- The user must take precautions to prevent unauthorised persons from operating the machine.
- Operate the machine on their own may only persons who are physically and mentally fit for such work, are over 18 year of age, and who have evidently familiarised themselves with this User's Guide, which must be kept at an accessible place.
- The operator must visually check the machine and take basic care of it. Any cleaning, maintenance or repairs may be carried out only with the machine's electrical equipment disconnected from power supply, i.e. with the power cord plug pulled out of the power mains socket.
- If the operator discovers a defect or damage which might constitute a work safety or operation hazard which he/she is not able to repair him/herself, he/she may not put the machine into operation.

- If the machine is put out of use for whatever the reason, its electrical equipment must be disconnected from power supply and its switched off state secured by pulling the machine's power cord plug out of the power socket.
- Safety markings, symbols and signs on the machine must be kept readable. When damaged or becoming unreadable, the user must restore them into their original condition (see sub-clauses 1.1.2 through to 1.1.4 of this User's Guide).



IT IS PROHIBITED!:

- **To plug the machine's electrical equipment to power mains when the machine is disassembled or some of its protection devices damaged (electrical equipment cover, covers of dangerous mechanical parts).**
- **To disable safety, protection and circuit breaking devices.**
- **To interfere in any way with the machine's design and its electrical circuits.**
- **Put into a running crusher any tools or objects other than the material to be crushed.**
- **To carry out any maintenance, cleaning and repairs unless the machine has been disconnected from power supply and the switched off state secured.**



4.2 Fire protection

- **WARNING!** Burning of plastics might generate dangerous emissions and hence it is necessary to abide by generally applicable fire regulations.
 - Water must not be used to extinguish fire of the electrical equipment. If a water- or foam-based fire extinguisher is to be used to put out the fire, power supply must be disconnected first!
 - Surface of electrical equipment covers, especially the electromotor surface, must be regularly cleaned.



4.3 Electrical equipment

- Electrical installation must be carried out in accordance with regulations and technical standards applicable for this type of equipment, particularly ČSN 33 2000-1, ČSN EN 60 204-1 and related regulations.
- Electrical wiring of the single-phase socket for connecting the machine to power mains must comply with the requirements of regulations and technical standards applicable for this type of equipment, particularly ČSN 33 2130, Part 2.3, ČSN 33 2180, Part 6, ČSN 33 2000-4-41, ČSN 33 2000-5-51 Chapter. 512, ČSN 33 2000-5-52 Chapter 521, ČSN 33 2000-5-54 Chapter 543 and related regulations.
- Protection of the socket circuit against electrical shock must be by automatic disconnection from power supply in accordance with the requirements of ČSN 33 2000-4-41.
- Works on electrical equipment as defined by ČSN 34 3100 may be carried out only by persons with corresponding technical qualification as set forth by Public Notice No. 50/1978 issued by the Czech Bureau of Work Safety (CBWS) and the Czech Mining Inspectorate (CMI), who have adequately familiarised themselves with the equipment.
- Before shipping, every machine undergoes in the manufacturing plant a final inspection pursuant to ČSN 33 1500.
- The machine operator must arrange regular inspections of the electrical equipment in specified intervals in compliance with Article 6 of CBWS Public Notice No. 48/1982, Article 4 of CBWS and CMI Public Notice No. 20/1979 and Clauses 3.1 and 3.6 of ČSN 33 1500.



4.4 Potential hazards when working with the machine

In spite of the machine being manufactured in compliance with the requirements of technical safety regulations, the machine's technical design cannot eliminate all risks, which might occur especially when being handled carelessly. **When using the machine, you must be aware of the following potential hazards:**

4.4.1 Mechanical hazards:

Hazards:

- Bruising of fingers, hands or feet when disassembling and assembling machine parts.
- Finger or hand injuries caused by rotating parts of the machine when putting a hand into the crusher's work compartment.

- Arm injury or injury of other parts of the body when inserting long foreign objects (other than the material to be crushed) into a running machine.
- Leg injury or injury of other parts of the body caused by a tumbling machine while being carelessly moved.

4.4.2 Electrical hazards:

Hazards:

- By direct or indirect contact with live parts (i.e. parts conducting electricity) when removing electrical equipment covers, or by damaged insulation.
- Electrical shock by touching damaged parts of the electrical equipment, particularly while manipulating a long extension power cord.
- Electrical shock caused by unsuitable positioning of the extension power cord's plug/socket connection in a place where it can be mechanically damaged or in a wet place, e.g. wet grass, puddles after rain, etc.
- Electrical shock caused by the failure to abide by the instructions for connecting the machine to power mains, as set forth by sub-clauses 5.3 and 6.1 of this User's Guide.
- Disabling the protection against electrical shock by using an unsuitable, very long extension power cord with small wire cross-sections, resulting in a high impedance of the circuit breaking loop's protective wire.

4.4.3 Hygiene and health hazards:

Hazard of damaging the hearing organs by the generated noise above 85 dB (L_{Aeq}). The acoustic stress of the machine running under normal work conditions has been determined by measurements as $L_{pAeq,T} = 86$ dB. When working with the crusher, the operator must wear ear protectors!

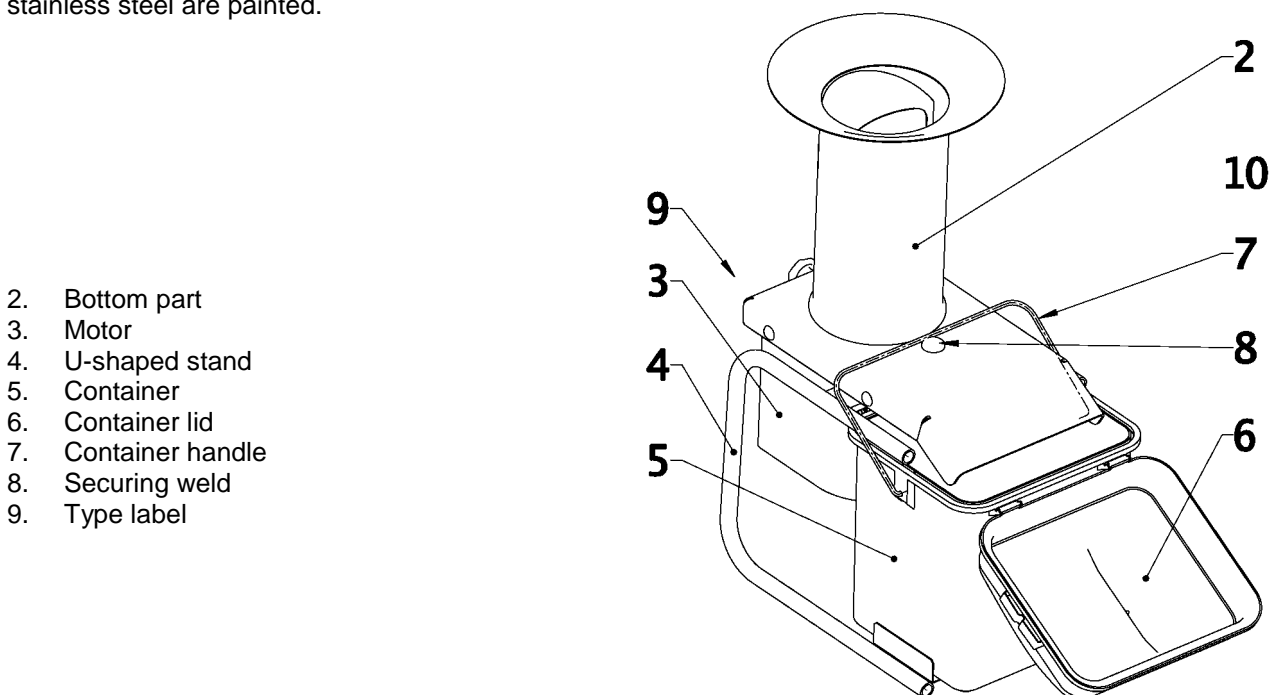
5 Description of the machine

5.1 Work places

Work places are places at either side of the machine where the operator stands. When cleaning and maintaining the machine, adequate free space must be available around the entire machine.

5.2 Mechanical parts

The machine comprises of the following major parts, the position of which is shown in Figure 1 and which are described in the following sections of this User's Guide. Components which are in contact with the material being crushed are made of stainless steel used in food industry. Components not made of stainless steel are painted.



- 2. Bottom part
- 3. Motor
- 4. U-shaped stand
- 5. Container
- 6. Container lid
- 7. Container handle
- 8. Securing weld
- 9. Type label

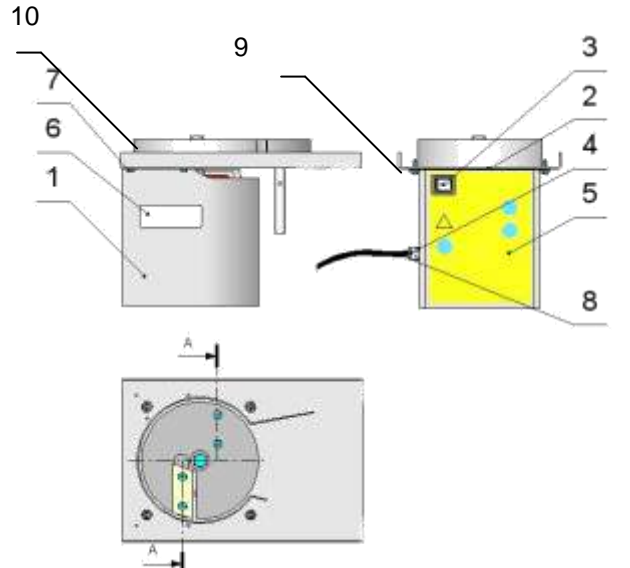
5.2.1 Top part

(see Fig. 1)

The part is formed by a circular chute, a bull-headed tube and a top part of the crushing mechanism with four holes for fastening screws. The entire top part including the bulkheads is made of food industry stainless steel.

Figure 2

1. Motor cover
2. Cover gasket
3. Electromotor switch
4. 9 mm diameter outlet
5. Operator safety instructions plate
6. Manufacturer plate
7. 4.8x10 TEXO screw
8. Power cord
9. Bottom part



5.2.2 Bottom part

The bottom part comprises of a base plate to which is welded a cylinder of the crushing mechanism's working compartment. To the base plate bottom is attached a U-shaped stand. Into this stand is inserted a plastic container in which the crushed material is collected. When crushing fruit, a bag is inserted in the container (see Chapter 4.3.3). The container is during the crushing process secured by a handle to the body of the crusher. This will prevent the container from moving due to the machine's vibrations. When the container is removed (by pulling it out forward), a flap automatically shuts the discharge gate, preventing the operator from getting injured by putting a hand close to the crusher's rotating parts. When the container is replaced under the crusher, the flap opens again.

Please note: It is prohibited to open the flap while the crusher is running and put hands inside this compartment or insert any objects in it! DANGER OF INJURY!

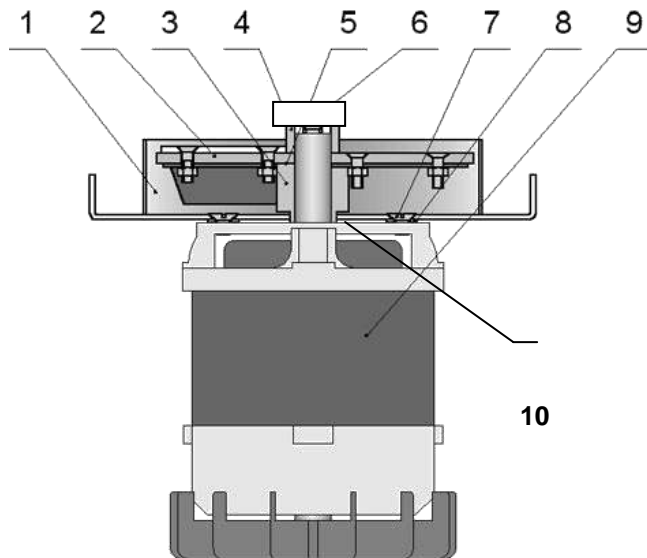
To the base plate is attached by four screws a flanged electromotor, the shaft of which passes through a packing ring to the centre of the crushing mechanism's work compartment. The electromotor is protected against the effects external environment by a welded sheet metal cover. The arrangement of other parts of the machine's bottom is shown in Fig. 2.

5.2.3 Work mechanism and power drive

The machine's work mechanism is a rotating stainless steel disc, fitted on the front side with a single blade. The disc is mounted on the electromotor shaft and secured by a central screw. The electromotor is attached by sunk head screws to the crusher's bottom part base plate. The work mechanism is powered by a flanged, single-phase, asynchronous, short-circuit-armature electromotor with permanently connected capacitor. Running direction of the motor cannot be changed without changing its internal winding, which guarantees that the cutting disc will rotate in the correct direction. The design and arrangement of the machine's working mechanism is illustrated in Fig. 3.

Figure 3

1. Bottom part
2. Cutting disc
3. Bottom roller, 17 mm, stainless steel
4. Top roller, 17 mm, stainless steel
5. Distancing (limiting) washer
6. M 8x35 stainless steel, propeller head screw
7. M 8x16 screw, stainless steel, with sunken head
8. Ø 8.4 washer, stainless steel
9. Electromotor
10. WA-20 (20x30x7) NBR 70 packing ring



5.3 Electrical equipment

The machine is designed as Protection Class I equipment according to Clause 3.2 of ČSN 33 0600. The machine's electrical equipment is designed for connection to a single-phase, 1/PE+N ~ 230 V, 50 Hz power supply. The machine is connected through a H05VV-F 3G1, 3 x 1 mm² power cord, with one end rigidly connected to the machine and the other end fitted with a single-phase, 10/16 A plug. Using extension power cords must comply with the requirements of ČSN 34 0350. The machine's electromotor is switched on and off by a switch, situated on the side of the electromotor cover. Protection against electrical shock is by automatic disconnection from power supply in accordance with Sub-clause 413.1.3 of ČSN 33 2000-4-41.



WARNING! The machine does not have any protection against temporary power failure, i.e. against power failure followed by restoration of power supply. In the event of power failure, the machine operator must disconnect the machine from power supply by pulling the power cord plug out of the power socket.

Before shipping, every machine undergoes in the manufacturing plant a final inspection pursuant to CBWS Public Notice No. 48/1982 and ČSN 33 1500. Due to the simplicity of the machine's electrical equipment, a schematic wiring diagram is not included in this User's Guide.

5.3.1 Safety devices

The electromotor power supply circuit has a safety end-switch which automatically disconnect the electromotor power supply circuit when the top cover of the crusher, covering the machine's work mechanism, is removed. The safety micro-switch is controlled by one of the screws holding the top part (see Fig. 1, Position 9).

6 Installing the machine

The machine is supplied assembled, with the power cord connected to the electromotor terminal box. The machine is installed outside, near the place selected for processing and with adequate space to manipulate the material to be processed. The machine must be placed on a firm and even ground to guarantee its stability when running.



When manipulating the machine during installation, proceed as instructed in Chapter 12 of this User's Guide.



WARNING! Never put and run the machine outside when it rains, the machine's electrical equipment is not, due to the used level of protection by cover, resistant against undesirable effects of water. Danger of electrical shock and damaging the machine.

Before installing the machine, power supply must be available for connecting the machine to power mains in compliance with the instructions specified in Clause 6.1 of the se User's Guide.



WARNING! *Due to the fact that crushed material is handled in the vicinity of the crusher, there is an increased danger of slipping and tripping in this area.*

6.1 Connecting the machine to power supply

The crusher's electrical equipment can be connected only to the corresponding single-phase, 230 V, 50 Hz power socket with a protective contact connected to a protection wire. The circuit of the single-phase socket for connecting the crusher to the power mains must be wired in accordance with the requirements of regulations and technical standards applicable for the equipment of this type, in particular ČSN 33 2130, Part 2.3, ČSN 33 2180, Part 6, ČSN 33 2000-4-41, ČSN 332000-5-51 Chapter 512, ČSN 332000-5-54 Chapter 543 and related regulations. The circuit must be at the point of connection protected against excessive current by a fuse or circuit breaker of a maximum nominal value of 10 A, and due to the environment and working conditions of the machine, must be equipped with a current protection device of a maximum nominal tripping differential current $I_{\Delta n} = 30 \text{ mA}$! This will provide the machine with an enhanced protection against electric shock. If it is necessary to use an extension power cord to connect the crusher to power mains, the extension power cord must be fitted with a plug and a socket of the same type and of the same nominal current rating and the same nominal voltage rating and designed for the use in external environment. The cross-section of the power cord's wires must not be smaller than 1.5 mm^2 and 2.5 mm^2 for extension power cords up to 25 m and 50 m long, respectively.



WARNING! *Extension power cords longer than 25 m should be used only in exceptional circumstances, and an increased care should be taken to protect them against mechanical damage. Using extension cables longer than 50 m is not permitted, as reliable functioning of the protection against electrical shock cannot be guaranteed.*

Extension power cords must be laid in accordance with the requirements of ČSN 34 0350 Article 3509 and Article 3510, guaranteeing their adequate protection against mechanical damage and making sure that they are not in the way in the area through which they are running. As a protection against mechanical damage, use mainly protection by correct positioning, i.e. run the power cord through places where it will not be exposed to any danger of mechanical damage.

7 Putting the machine into operation

Before putting the machine into operation, the operator must evidently familiarise him/herself with basic information about the machine, its functions, safety instructions as defined in Chapter 4 of this User's Guide and with the principles of maintenance specified in Chapter 9 of this User's Guide. Before first starting the machine, check whether all its parts are adequately mechanically attached and make sure that there are no foreign objects in the work compartment. If no defect has been found, proceed to put the machine into operation according to the following instructions.

- Set the machine's electrical drive switch into the position I "ON".

Please note: *You don't have to check rotating direction of the electromotor. The electromotor is factory-wired to drive the work mechanism in the correct direction.*

- After the crusher's electromotor has reached full operating speed, you can start loading material into the crusher.



Warning: *When the crusher has stopped due to overloading, it is prohibited to take the contents out of the work compartment by hand and put hands into the interior, unless the machine is in standstill and its switched off state secured by turning off the switch and pulling the power cord plug out of the power supply socket!*



Warning: *When working with the crusher, operators must wear personal protection aids: ear protectors to protect their hearing organs.*



WARNING!: *Frequent overloading of the electromotor might lead to the generation of excessive heat and damage the motor.*

8 Shutdown

After finishing the work, shut the crusher down as follows:

- After finishing the work, let the crusher run until the work mechanism is completely empty, i.e. until no crushed material comes out any more from the discharge gate, then switch the crusher off by turning the switch lever to the position O "OFF".
- Pull the crusher power cord plug out of power supply, clean the cord, wind it into loose coils and put into the crusher's chute.
- Clean the crusher following the instructions in Chapter 9 of this User's Guide and put it to a place where it will be protected against the effects of outside environment.

9 Maintenance and cleaning

Regular and correct maintenance is one of the conditions that will effect the machine's safety, correct functioning and life. Inadequate and irregular maintenance might result in increased repair costs and put the machine out of service for excessively long time.

The machine is designed and built to make its cleaning simple, with the need of dismantling the machine parts kept at the minimum.



Warning: *All operations described in this chapter must be carried out only after the machine has been disconnected from power supply and the disconnecting of the machine's electrical equipment secured by pulling the power cord plug out of the power socket.*



Please note: *The machine must not be cleaned by pressurised water or steam! The machine's electrical equipment is not, due to the used level of protection by cover, resistant against undesirable effects of water. Danger of electrical shock and damaging the machine.*

DO NOT TURN THE MACHINE "BOTTOM UP" !

When maintaining and inspecting the machine, abide in addition to the safety instruction of this User's Guide also by the requirements of generally applicable safety regulations!

9.1 Routine maintenance and cleaning

- Before starting work, always check whether the power cord insulation is not mechanically damaged or pulled out of the cable gland in the protective cover of the electromotor, and check also the condition of the power cord plug.
- If you are using an extension power cord, check the state of its insulation and the state of the socket connectors.
- Before starting work, always check if all screws and nuts on the machine are tightened.
- Keep the outside surface and the inside of the machine clean.

DO NOT TURN THE MACHINE "BOTTOM UP" !

- Before putting the crusher out of service for a protracted period of time, clean the crusher's inside with the top part removed. Proceed in accordance with the instructions of Clause 9.2 of this User's Guide.

9.2 Disassembling the machine

To gain access to the crusher's working mechanism, proceed as follows:

- Loosen and remove the central screw connecting the top to the bottom part of the crusher.
- Remove the top part of the crusher and make the cutting disc accessible. Remove any remnants of crushed material, clean and thoroughly dry all parts of the crusher.

9.3 Replacing and sharpening the cutting blade

After removing the top part of the crusher, unscrew the central screw of the electromotor shaft and remove the cutting blade from the shaft. When loosening the screw, insert a piece of wood between the disc and the cover to prevent the disc from rotating. Loosen and remove the two sunk head screws holding the blade to the disc. Remove the blade. When replacing the blade for the first time, you can turn it by 180° and use the other sharp side. When sharpening the blade, use a fine hand file or, when the blade is not too blunt, sharpening steel.



Note: Preferably use a new blade. Sharpening reduces the blade's weight and puts the cutting disc out of balance. Large imbalance will cause vibrations of the whole crusher and excessive stressing of the electromotor bearings.



Important! When machine-sharpening the blade, you must simultaneously cool it with water, otherwise the blade edge will lose its hardness and cutting ability!

Before fitting the blade to the cutting disc, carefully clean all contact surfaces, both on the blade and the disc. Always use new nuts. The nuts are self-locking, and when loosened, lose their effectiveness.

10 Troubleshooting

(see the table below)

When trying to find out the cause of trouble or defect, you should realise that not all problems must be caused by a defect in the machine itself. Some problems can be caused by defects in power supply.



IMPORTANT! All repairs of the electrical equipment must be carried out by a qualified electrical technician as specified by CBWS and CMI Public Notice No. 50/1978, who fully familiarised himself with the equipment!



IMPORTANT! All repairs and troubleshooting operations must be carried out with the machine power drive turned off and the switched off state secured by pulling the power cord plug out of the power supply socket.

11 Spare parts

A list of available spare parts with corresponding illustrations and order numbers is presented on page 15 and 16. Among other information, the purchase order must state:

- Machine type and serial number
- Part number and catalogue number as shown on page 15 and 16
- Number of pieces

PROBLEM	CAUSE	HOW TO FIX IT
1. the crusher's electromotor cannot be switched on	<ul style="list-style-type: none"> ◆ The crusher is not connected to power supply ◆ Power failure ◆ Circuit breaker of the socket circuit to which the crusher is connected has tripped ◆ The screw holding the top part to the bottom part (on top on the right when looking from the front) got loose and tripped the safety switch. 	<ul style="list-style-type: none"> ◆ Insert the power cord plug into a power supply socket ◆ Call an electrician ◆ Put the circuit breaker back into the ON position or replace the burnt fuse ◆ Tighten the safety switch controlling screw
2. the crusher's electromotor when switched on does not spin (it "grumbles")	<ul style="list-style-type: none"> ◆ The cutting disc has been blocked by a foreign body 	<ul style="list-style-type: none"> ◆ Remove the top part as instructed in Clause 9.2 of this User's Guide and remove the foreign object
3. material is not crushed properly	<ul style="list-style-type: none"> ◆ The blade is blunt 	<ul style="list-style-type: none"> ◆ Sharpen or replace the cutting disc blade as described in Clause 9.3 of this User's Guide
4. when running without load, the crusher vibrates	<ul style="list-style-type: none"> ◆ The cutting disc is due to repeated sharpening of the blade out of balance 	<ul style="list-style-type: none"> ◆ Replace the blade with a new one

12 Packaging, Transportation, Manipulation and Storage

12.1 Packaging

The machine is packaged in a carton box.

12.2 Transportation and manipulation



IMPORTANT! *When handling the machine by a lifting device, abide by safety regulations applicable to such operations!*

The machine can be manipulated by hand. When manipulating the machine, please take into account its weight, size and centre of gravity. When manipulating the machine by a lifting device, never put your hands or other parts of your body underneath those parts of the machine which are not properly secured or which are moving. The machine can be transported on standard delivery vans or trucks of adequate payload capacity. During the transportation, the machine must be secured on the vehicle's loading surface against undesirable movements and against tumbling!

12.3 Storage

The crushers must be stored in a dry, closed room and protected against the effects of weather. The crushers must be always stored packaged and standing on an even, firm floor.

13 Disposal

After the end of the machine's useful life, or when repairs would be uneconomical, the machine must be dismantled and individual parts disposed of in accordance with the requirements of the Environmental Protection Act and Waste Disposal Act as follows: - metal parts must be sorted out by type of metal and offered for sale to a scrap metal dealer, - parts made of plastic and similar non-biodegradable materials must be sorted out and offered for sale to an appropriate waste dealer.



Warning: *In order to protect the environment, it is prohibited to dispose of plastic parts by burning them!*

14 Warranty and Warranty Conditions

The vendor provides a warranty on the machine's functionality over the period which is specified in the purchase contract (minimum 12 months after the product's purchase), provided the machine works in a single shift operation. The warranty applies to all defects and faults caused by faulty material. The warranty is valid provided the machine has been run in accordance with this User's Guide, routine maintenance has been performed and no interference made with the product's design and construction. The user does not repair defects during the warranty period, but notifies the vendor and arranges how the defects should be repaired. The warranty does not cover natural wear and tear of the parts and defects caused by mechanical damage, incorrect installation or manipulation, penetration of foreign objects into the machine's working mechanism or by the effects of natural disasters. The vendor will not be responsible for losses or damages caused by repairs, replacements of parts, etc., which have not been performed in accordance with the instructions of this User's Guide and with the requirements of generally applicable safety regulations.

Warranty Certificate

A Warranty Certificate belongs to the sold product of the corresponding type and serial number as part its accessories. It must be presented every time a claim is made. Provided warranty conditions have been met (Chapter 14 of the User's Guide), we provide the consumer with a

24-month warranty after the date of sale

The warranty does not apply to defects caused by external phenomena such as for instance faults in the power mains, damage caused by the effects of natural disasters, unsuitable operating conditions, damages suffered during transportation and manipulation, or when the product was used in contrary with the User's Guide. The warranty is also null and void after unauthorised interference with the equipment by the owner or other person or organisation.

Provided the warranty conditions have been met and a purchase document and a correctly filled in Warranty Certificate presented, the vendor will repair all defects caused by faulty manufacturing or faulty material free of charge, so that the product may be duly used again.

The seller must properly and in full fill in the Warranty Certificate. Incomplete or illegally modified Warranty Certificates are invalid. The warranty period is extended by the time the product was in a warranty repair. We recommend that together with the Warranty Certificate and the purchase document, you keep also documents of the product repairs.

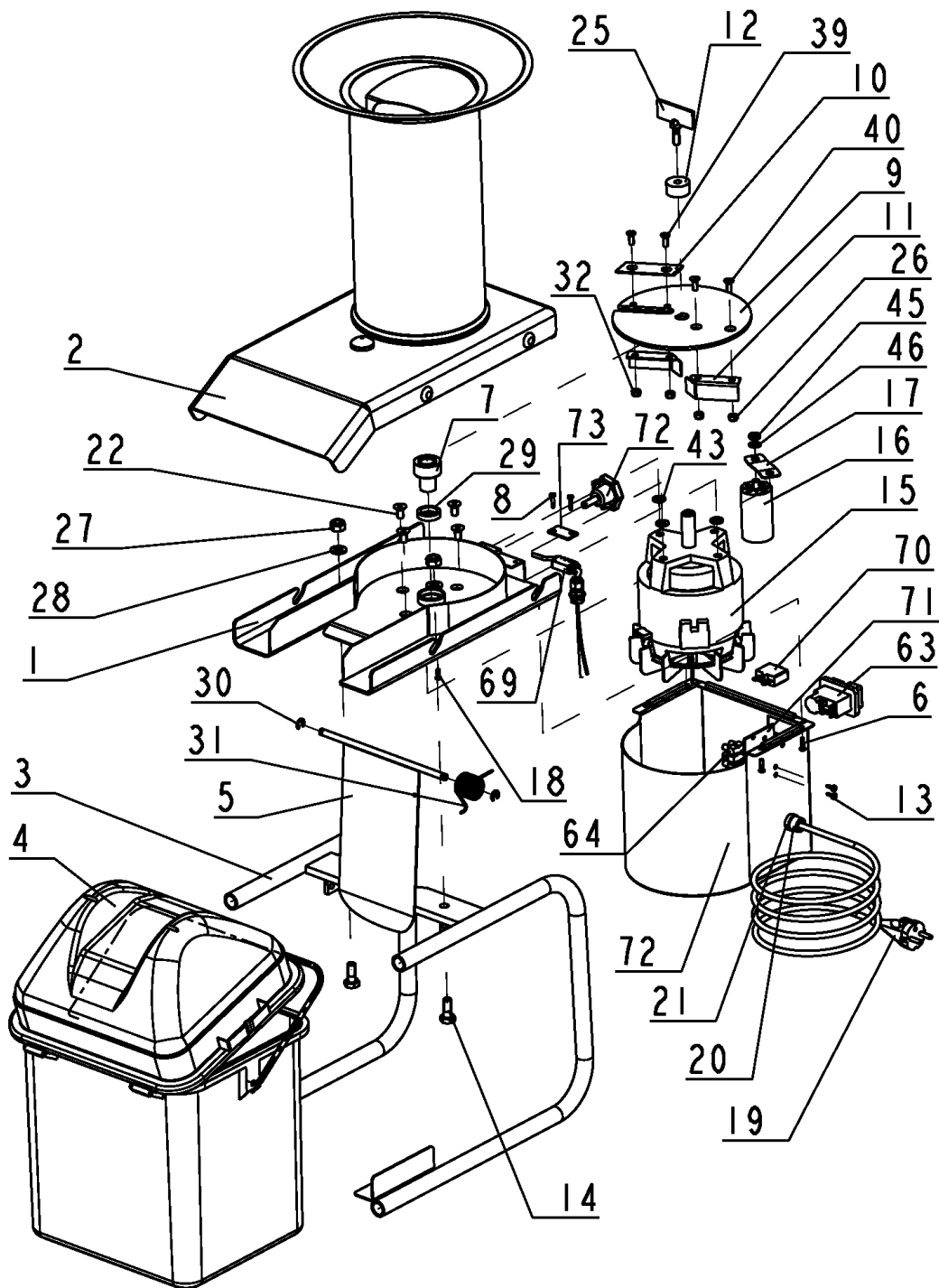
If it is found out during the repair that the claimed defect is not covered by the warranty conditions, the costs of repairs will be paid for by the clients.

Product name and type:

Serial number:

Date of sale:

Seller's stamp:



Spare parts list:

Position Number :	Catalogue Number:
1	DZ911N
2	DZ910N
3	DZ1038
4	0030
5	DZ1030
6	DZ1037
7	DZ906N
8	SP100
9	DZ902N
10	DZ901
11	DZ903N
12	DZ904A
13	SP101
14	DZ1020N
15	DZ907A
16	k2
17	DZ920/N
18	DZ1037
19	DZ916
20	DZ915A
21	DZ915B
22	DZ1025N
25	DZ930
26	DZ965
27	DZ1022N
28	DZ1021N
29	DZ1033
30	DZ1034
31	DZ1035
32	DZ1029
39	DZ1028
40	DZ1036
43	DZ1026
45	VZ049
46	DZ966
63	DZ980
64	EL100
69	DZ913
70	DZ981
71	DZ921S
72	
73	

ES PROHLÁŠENÍ O SHODĚ

EC Declaration of conformity

Výrobce: <i>Manufacturer:</i>	VARES Mnichovice a. s.,
Adresa: <i>Address:</i>	Ondřejovská 699, 25164 Mnichovice, CZECH REPUBLIC
IČ: <i>Identification Number:</i>	00662437
Jméno a adresa osoby pověřené sestavením technické dokumentace: <i>Name and address of the person authorised to compile the technical file:</i>	VARES Mnichovice a. s., Ondřejovská 699, 25164 Mnichovice, CZECH REPUBLIC
Výrobek (stroj) - typ: <i>Product (Machine) -Type:</i>	Drtič ovoce typ SHARK Fruit / Fruit crusher type SHARK Fruit
Výrobní číslo: <i>Serial number:</i>	
Popis: <i>Description:</i>	Drtiče ovoce jsou určeny pro drcení ovoce před jeho dalším zpracováním, např. moštováním. Drtiče jsou svojí konstrukcí a parametry určeny zejména pro zahrádkáře. / <i>Fruit crushers are intended for crushing of fruit before its further processing, e.g. cider. Crushers are through their construction and parameters designed primarily for gardeners.</i>
	Základní technické údaje / Basic technical data
	Typ / type: DZO 16 N Napájecí napětí / nominal voltage: 1/N/PE AC 230 V, 50 Hz Příkon / input power: 1,6 kW Otáčky rotoru / rotor speed: 2 800 min ⁻¹ Stupeň ochrany / degree of protection: IP 44 Rozměry stroje (dxvxš) / dimensions (lxhxv): 680 x 735 x 545 mm Hmotnost / mass: 27 kg Max. průměr drceného material / max. diameter of ground material: 90 až 100 mm
Prohlašujeme, že strojní zařízení splňuje všechna příslušná ustanovení uvedených směrnic (NV): <i>We declare that the machinery fulfils all the relevant provisions mentioned Directives (Government provisions)</i>	Strojní zařízení NV č. 176/2008 Sb. <i>Machinery Directive 2006/42/EC</i> Elektrické zařízení nízkého napětí NV č. 17/2003 Sb. <i>Low Voltage Directive 2006/95/EC</i> Elektromagnetická kompatibilita NV č. 616/2006 Sb. <i>Electromagnetic Compatibility Directive 2004/108/EC</i>
Harmonizované technické normy a technické normy použité k posouzení shody <i>The harmonized technical standards and the technical standards applied to the conformity assessment:</i>	ČSN EN ISO 12100-2, ČSN EN 1050, ČSN EN 61029-1 ed. 3 +/-A11+/-Opr.1, ČSN EN 13683+A2, ČSN EN 13478+A1, ČSN EN 1672-2+A1, ČSN EN 61000-6-1 ed. 2:2007, ČSN EN 61000-6-3 ed. 2:2007.
Poslední dvojčíslí roku v němž byl výrobek opatřen označením CE: <i>Last double issue of the year when the product was CE marked:</i>	09
Posouzení shody provedla akreditovaná laboratoř: <i>The conformity assessment carried out by the accredited laboratory:</i>	Státní zkušebna zemědělských, lesnických a potravinářských strojů, a. s., Třanovského 622/11, 163 04 Praha 6 - Řepy, ČR <i>The Government Testing Laboratory of Agricultural, Food Industry and Forestry Machines, Joint-stock company</i> - Závěrečná zpráva č. 33 727 - The final report No. 33 727

Poznámka: Veškeré předpisy byly použity ve znění jejich změn a doplňků platných v době vydání tohoto prohlášení bez jejich citování.
Note: All regulations were applied in wording of later amendments and modifications valid at the time of this declaration issue without any citation of them.

Místo a datum vydání: V Mnichovicích, 04.05.2012
Place and date of issue:

Osoba zmocněná k podpisu za výrobce:
Signed by the person entitled to deal in the name of producer:

Jméno: Karel Vodenka ml.
Name:

Funkce: předseda představenstva a.s.
Grade:

Podpis: VARES Mnichovice a.s.
Signature: Ondřejovská 699
251 64 Mnichovice
DIČ: CZ00662437 ③

