

Melanger 10-0,75-230-50-JR

OPERATOR'S MANUAL

TU 5131-001-02351413-2016



Allure

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Allure LLC

APRIL 2018

Identification Data for

Type and designation	Melanger 10,0-0,75-230-50-JR
Serial number	№
Year of release	2018
The name and address of the manufacturer	Allure LLC 107023, Russia, Moscow, Electrozavodskaya str., 21
Phone	+7 (495) 989 4290
E-mail	sp79653113668@gmail.com

ATTENTION!

Before starting operating the Machine the Manual should be read by operators, repairers and others who are responsible for the transportation of the product, its installation, commissioning, service and maintenance.

Please read the operating instructions and the safety rules given in this manual.

Do not start work until fully reading and understanding the material contained in this manual and other documentation supplied.

All security recommendations in the manual are obligatory.

Manual must be kept in accessible place for service personnel.

In addition to the measures referred to in the Manual, the law on the bases of labour protection and the rules for accident prevention and environmental protection in accordance with applicable laws should be observed.

Security must be in first priority when using the Melanger.

Manual does not reflect the minor design changes in equipment made by the manufacturer after the signing of the release of this guide, as well as for accessories and documentation coming with them. It only means that Melanger is improved to better meet your requirements.

ATTENTION!

Operating manual applies to the Machine with complete set of all units and does not take into account the changes reflected in the contract.

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Applications

1. Introduction

This "owner's manual" (the Guide) on the Machine should be seen as an integral part of the Machine and must be accessible for maintenance personnel.

Purpose of these guidelines is to provide all the information needed for transportation, commissioning, operation and maintenance of the product. The Manual provides guidelines for the safe, appropriate and cost-effective operation of the Machine. For the units of the Machine, for which it is appropriate, the Guide includes instructions for maintenance, replacement and adjustment. Compliance with these instructions helps avoiding danger, reduce downtime and repair costs, increase reliability and extend the lifetime of the Machine.

This guide has the sign of attention, with the following meaning:



The sign is put where it is necessary to be especially careful, precisely follow the requirements and instructions to avoid violations of the technological process and breaking the Machine.



Only a thorough daily implementation of guidelines to ensure the safety, maintenance of the Machine with care can ensure successful operation!

Failure to comply with the requirements of this manual frees the manufacturer from liability.

Use of Machine for other purposes than specified in this guide, is not permitted. The company Allure LLC is not responsible for damage caused by non-compliance with instructions and guidelines outlined in this Manual.

If there are issues that you cannot resolve yourself, consult with the customer service of the Allure LLC



Any request to perform work by our specialists should have indication to the model of Machine, serial number and the contract number.

2. General information

2.1. Designation of the Machine

This guide applies to the Melanger 10-0,75-230-50-JR (hereinafter the **Melanger**), designed for producing chocolate, masses, fillings from its ingredients.

2.2. Personnel qualification



Installation, commissioning, operation, maintenance and repair is allowed by personnel qualified and trained to work with Machine . Staff qualification must be proved by proper documents.

The owner or his authorized representative is responsible for training the untrained personnel and the necessary training of qualified personnel of the rules of safe operation and maintenance of Machine.

The staff which is being trained should work on the Machine only under the supervision of an experienced person authorized to provide training.

Staff training to operate the Machine by the Allure LLC company specialist can be done at the time of commissioning, or on the Allure LLC factory facilities.

We recommend the company, which uses the **Machine**, To Issue internal instructions, taking into account the professional expertise of the staff and, in all cases, documenting studying this Manual and implementation of instruction or training.

Operator	<ul style="list-style-type: none">• Trained personnel/specialist• Instruction at the workplace• Training by the manufacturer
Service-mechanic	<ul style="list-style-type: none">• Specialist• Instruction at the workplace• Training by the manufacturer
Service - electrician	<ul style="list-style-type: none">• Specialist• Instruction at the workplace• Training by the manufacturer



Please make an entry in the registry log of "Registration of staff development and maintenance verification ".

Failing to fill the log can lead to voiding the manufacturer warranty service for **Machine**.

2.3. Declaration of conformity

When you design a Melanger, in the selection of materials, parts and Melanger nodes, selecting components, manufacture of Melanger security Melanger was in conformity with the following European standards, directives and safety regulations:

- (E)N 954-1 safety of machinery. Details of control systems for safety. Part 1. The basic principles of design.
- EN1005-2 safety of machinery. The physical characteristics of the person. Part 2. Manual handling of machinery and component parts of machinery.
- EN1005-3 safety of machinery. The physical characteristics of the person. Part 3. Recommended limits of efforts for the operation of the machines.
- GOST r 51333-99 (EN 292-1-91, EN 292-2-91). Safety of machinery. Basic concepts, general principles for design. Terms, technology solutions and specifications.
- GOST r 51334-99 (eN 294-92), safety of machinery. Safety distances for the protection of the upper extremities from getting into the danger zone.
- GOST r 51335-99 (eNo. 349-93) safety of machinery. Minimum distances to prevent crush parts of the human body.
- GOST r 51337-99 (eN 563-94), safety of machinery. Temperature of those surfaces. Ergonomics data to establish limit values for hot surfaces.
- GOST r 51339-99 (eN 811-96), safety of machinery. Safety distances to prevent lower limbs from getting into the danger zone.
- GOST r 51343-99 (eN 1037-95), safety of machinery. Prevention of unexpected start-up.
- GOST r 51344-99 (eN. 1050-96), safety of machinery. Principles of risk assessment.
- GOST r 51345-99 (eN 1088-95), safety of machinery. Locking device of protective devices- principles of design and choice.
- GOST r MEK 60204-1-99 (eN 60204-1) safety of machinery. Electrical equipment of machines and mechanisms. Part 1: General requirements.
- EU directive on machinery (98/37/EG).
- EU directive on electrical equipment designed for use within certain voltage limits (73/23/EEC).
- STATE STANDARD 12.2.003-91. system of labour safety standards. Equipment production. General safety requirements.
- GOST 2.601-2006 ESKD. Operational documents
- GOST 9.014-78 ESZKS. Temporary corrosion protection products. General requirements.
- GOST 9.032-74 ESZKS. Varnish-and-paint coatings. Groups, technical requirements and symbols.
- GOST 9.105-30 ESZKS. Varnish-and-paint coatings. Classification and basic parameters of a method of staining.
- GOST 9.402-2004 ESZKS. Varnish-and-paint coatings. Preparation of metal surfaces before painting.
- GOST 12.1.003-83 SSLS Noise. General safety requirements.
- GOST 12.1.012-2004 SSLS. Vibration safety. General requirements.
- GOST 12.1.030-81 SSLS. Electrical Safety. Protective earth. Features.
- STATE STANDARD 12.2.003-91 SSLS. Equipment production. General safety requirements.
- GOST 12.2.062-81 SSLS. Equipment production. Protective fences.
- GOST 12.2.064-81 SSLS. Control of production facilities. General safety requirements.
- STATE STANDARD 12.2.124-90 SSLS. Food equipment. General safety requirements.
- GOST 12.4.040-78 SSLS. Control of production facilities. Mark.
- GOST 15.201-2000 development system and products. Products for industrial purposes. Procedure for development and production of products for production.
- GOST r 27.403-2009 Reliability in engineering. Test plans to control the probability of non-failure operation.
- 112-78, GOST meteorological glass Thermometers. Technical conditions.

- GOST 2991-85 Boxes sealed the deal for cargo weighing up to 500 kg. General technical conditions.
- GOST 5264-30 manual arc welding. Welded connections. The main types, features and dimensions.
- GOST 6359-75 meteorological barographs of aneroid type. Technical conditions.
- GOST 7502-98 Roulettes, tapes measuring metal. Technical conditions.
- GOST 9150-2002 basic norms of interchangeability. Metric thread. Profile.
- GOST 10354-82 polyethylene film. Technical conditions.
- ISO 10374-93 analogue direct-acting electrical indicating and auxiliary parts to them. Part 7. Special requirements for multi-function instruments.
- GOST 11534-75 manual arc welding. Connections welded under acute and obtuse angles. The main types, features and dimensions.
- GOST 11708-82 basic rules of interchangeability. Thread. Terms and definitions.
- GOST 12969-67 Decals for cars and appliances. Technical requirements.
- GOST 14192-96 cargo marking.
- GOST 14254-96 degrees of protection provided by enclosures (IP code).
- GOST 15150-69 Cars, machinery and other technical products. Performance for different climatic regions. Category, operating conditions, storage and transportation in part the impact of climatic factors in the external environment.
- GOST 17187-81 sound level meters. General technical requirements and test methods.
- GOST 21130-75 electrotechnical products. Earthing Clips and grounding signs. Design and dimensions.
- GOST 23170-78 packaging for mechanical engineering production. General requirements.
- GOST 26582-85 food machinery and equipment. General technical conditions.
- GOST 30150-96 labelling machines. General technical requirements and test methods.
- GOST r 50342-92 thermoelectric converters. General technical conditions.
- GOST r 53228-2008 Scales manual actions. Part 1. Metrological and technical requirements. Tests.
- GOST r 52869-2007 pneumatic drives. The requirement for security.
- GOST r 51317.6.2-2007 electromagnetic compatibility of technical equipment. Immunity to electromagnetic interference technology applied in industrial areas. Requirements and test methods
- GOST r 51317.6.4-2009 electromagnetic compatibility of technical equipment. Electromagnetic interference from equipment used in industrial areas. Standards and test methods
- GOST r MEK 60204-1 2007-safety of machinery. Electrical equipment of machines and mechanisms. Part 1. General requirements
- RD 50-690-89, methodical guidelines. The reliability of the technology. Methods of evaluation of indicators of reliability by experimental data.

2.4. Manufacturer's warranty and liability

The manufacturer guarantees the compliancy of Machine with the above standards, directives and regulations, subject to following the terms of transportation, storage, installation and operation of the Machine, as set out in this guide.

The warranty period of exploitation for which the manufacturer undertakes to repair or replace the Machine on manufacturer's fault, is **12 months** unless otherwise agreed in the contract.

Beginning of the warranty period is calculated from the day of commissioning of the Machine, but not later than **3 months** from the date of shipment of the Machine from the warehouse of the manufacturer.



The manufacturer is not liable for injuries to persons or damage to property, if they are the result of:

- non-compliance with the storage rules set out in the Machine Manual;*
- accidental or not unintended operation of the Machine;*
- improper handling with Machine on maintenance and operation;*
- non-compliance to Manual instructions on any of the stages of operation the Machine;*
- operation of the Machine with improperly installed, or defective safety devices, as well as when dismantling or ignoring them;*
- changing parameters or design of Machine, not confirmed with the manufacturer;*
- increased wear because of the lack of maintenance;*
- improper repairs.*

2.5 General appearance and composition of Melanger

General view of Melanger, the location and designation of parts is presented in Fig. 1. List of components of Melanger is given in a Table 1.

Figure 1.

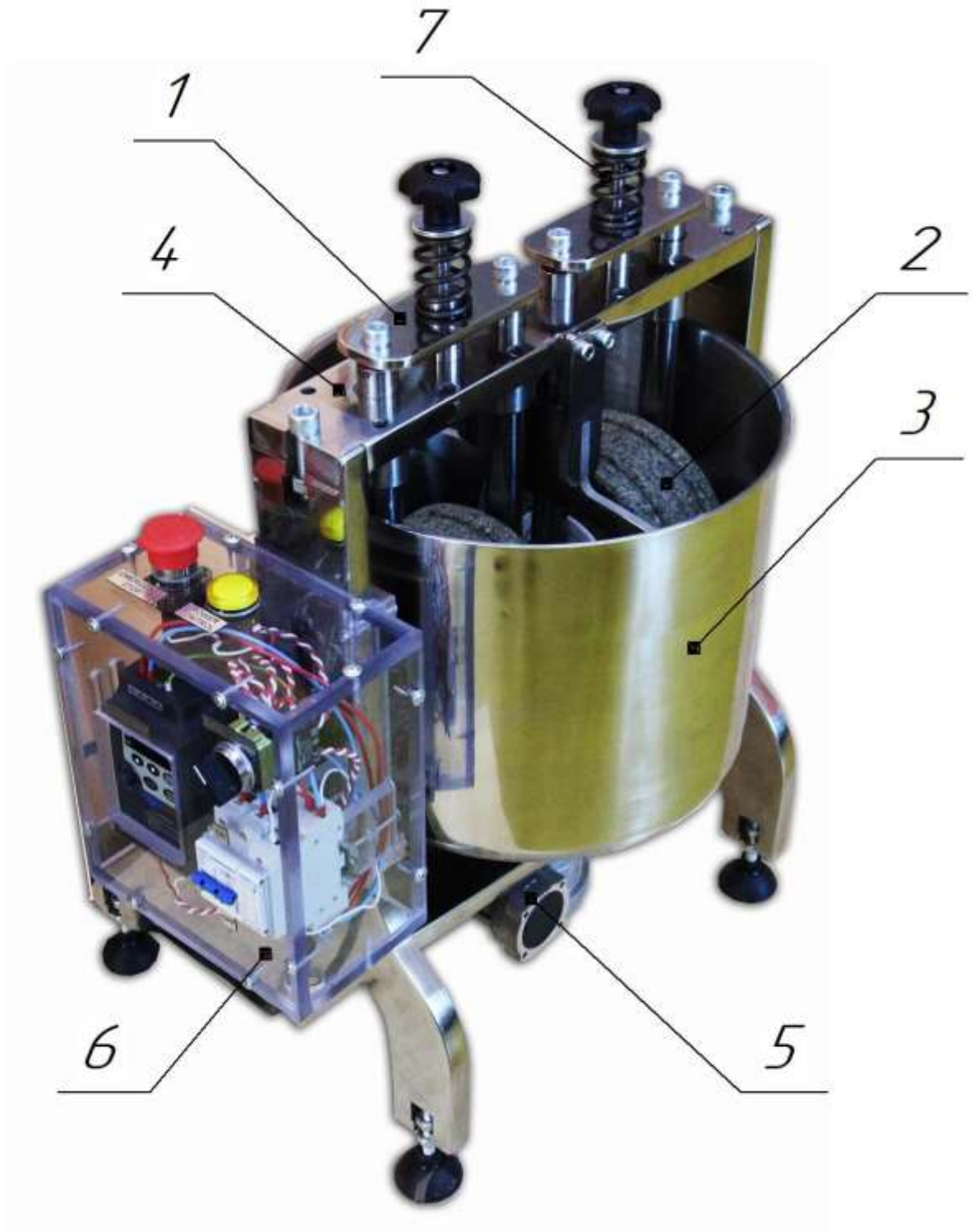


Table 1. List of components of the Melanger

№	Name of the unit	The number of the position in Figure 1
1	2	3
1	The bar of the spring clamping device of the millstones to the bottom of the bowl	1
2	A pair of granite runners with independent pneumatic pressuring	2
3	A bowl of food stainless steel, in the bottom of which is mounted a granite disk	3
4	A frame	4
5	Gear drive motor for the bowl	5
6	Control block	6
7	Springs for adjusting the pressure of granite runners to the bottom of the bowl	7

2.6. Principle

The construction of the equipment consists of a body 4, a bowl 3. A motor-reducer 5 is mounted on the frame, rotating the bowl 3 and two runners 2. The bottom of the bowl and two runners are made of solid dense granite. Suspension of runners to the upper beam is made through the joist 1 of the clamping device of the millstones. Pressing granite runners to the granite bottom of the bowl is carried out with the help of springs 7. When the bowl is rotated, the components on the granite bottom of the bowl are grinded and mixed with granite millstones. Stirring and removal from the walls of the cup of chocolate mass is carried out with the help of blades (scrapers). The control block is located on the left side of the frame.

2.7. Operation

The controls are located on the Melanger control block (Figure 2, 3).

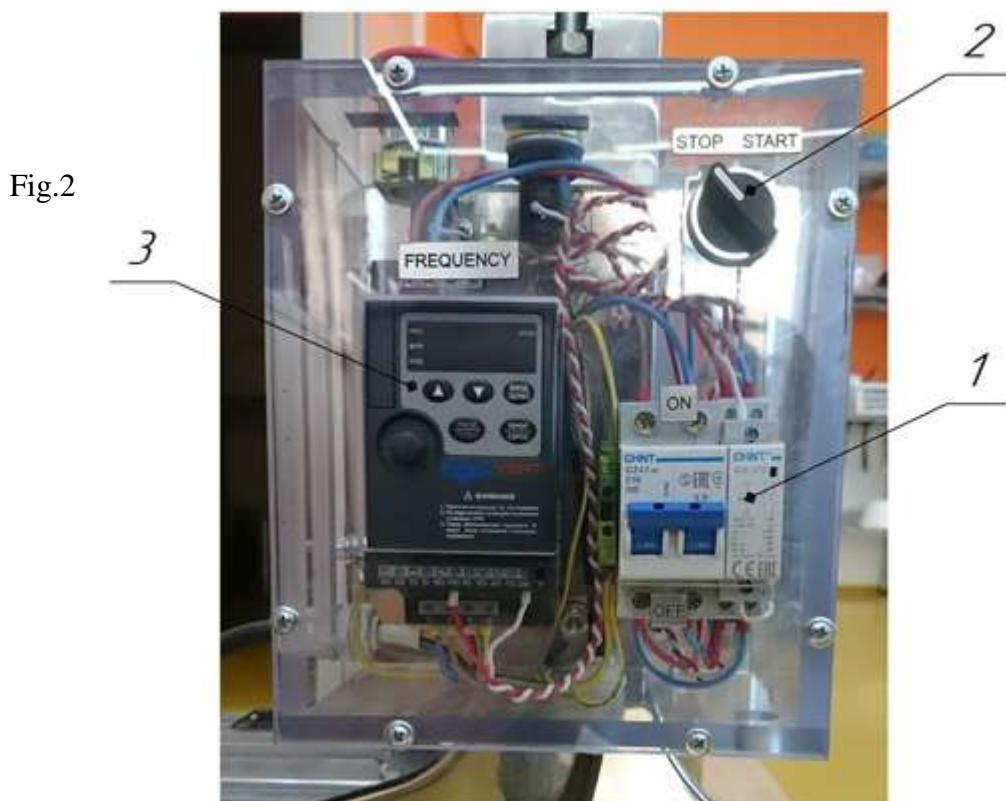
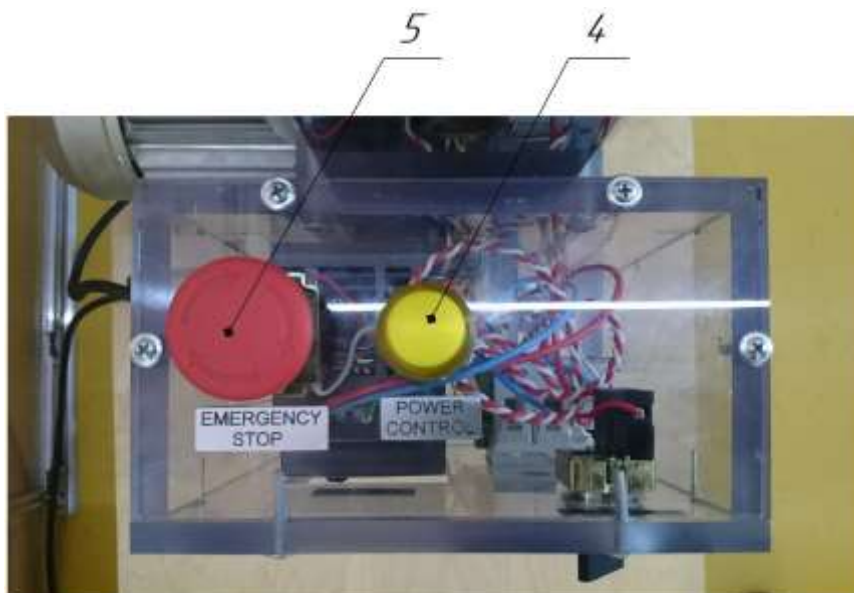


Fig.2

Fig.3



The Melanger is controlled by signals coming from the control unit.

- Switch 1 (mains fuse) is intended for switching on the power supply of the Melanger,
- Switch 2 starts the rotation of the bowl,
- The handle on the device 3 is designed to change the speed of rotation of the bowl,
- Indicator 4 is lit when power is available;
- Button 5 of the emergency stop of the Melanger;

When the current protection is activated, the Melanger is automatically switched off.

3. Technical data and specifications

3.1. Technical characteristics of the Melanger

Main parameters and dimensions shall be in accordance with table 3.1.

Table 3.1

№	Name of the parameters and characteristics	Values of the parameters and characteristics
1	2	3
1	Characteristics of the power supply	230 V ~ 50/60 Hz
2	Main drive power, kW	0,75
3	Product batch Max, kg	10
4	The power of pressing granite runners, kg	10-60
5	The maximum rotation speed of the bowl, RPM	117
6	Overall dimensions, mm, no more	550x485x700h
7	Weight, kg, not more	78

3.2. Conditions for connecting of electrical equipment of the Melanger

The Machine power is supplied by single-phase mains with Earth and the following characteristics:

- voltage 230 V
- frequency of 50/60 Hz;
- power, not less than 0,8 kW.

4. Safety

4.1. General requirements for the safety

The Manual provides the basic safety instructions on handling Machine, including transportation, storage, operation, maintenance, repair.

Safety at work on the Machine is ensured activities in the design of the Machine in accordance with the requirements laid down in European standards, norms and guidelines. Despite this, the Machine can be dangerous in cases of misuse by unqualified personnel or use for other purposes.

The danger situation is possible:

- for the health and life of the operator or third party;
- for the machine and other property.

Any person who maintains moving the Machine, its commissioning, maintenance and repairs, must read and understand this manual and in particular the section "safety requirements" and strictly implement the guidelines requirements!



Requirements for security, besides this chapter are contained in the relevant sections of the Manual and applications delivered.

The following safety instructions must be observed in addition to the General requirements for the safety and injury prevention.



4.2. Safety measures


4.2.1 The danger warning Signs

In this guide, apply the danger warning signs, have the following meanings.

	Mechanical danger that threatens the life and health of people, and can also cause great damage to property.
	Electric danger that threatens the life and health of people, and can also cause great damage to property.

On the Melanger there are signs of warning about the danger, having the following meaning.

	<p>Electric danger that threatens the life and health of people, and can also cause great damage to property. The sign is located on the side of the control unit Fig. 2-2.</p>
	<p>The use of a socket with earthing terminals is mandatory.</p>

	<p>Inattention to warning signs and non-compliance with the safety instructions can lead to serious consequences for the health of the personnel and material damage!</p>
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Damaged and lost characters must be restored without fail!

4.2.2. Protective and safety devices

Power supply of the Melanger is carried out by an electric line with grounding. Protection from spontaneous activation of the drive when recovering the suddenly disappeared supply voltage is provided by the control unit, which establishes zero control signals on its outputs after power recovery. The most probable causes of protection operation: jamming, failure or overheating of the engine, deviation of the electrical network parameters from the norm.

4.2.3. Requirements for service personnel


General requirements for service personnel

Personnel authorized to work with Machine, as well as to commissioning, maintenance and repair the Machine, is obliged to:


- get health and safety training in accordance with the manufacturer's instructions, developed on the basis of the operating instructions, standardly applied safety instructions;
- familiarize with the General rules of operation and maintenance of the Machine with safety instructions contained in this manual;
- familiarize with constructive and technological properties of the Machine and attend a special instruction on the work of the Machine of this model.




Responsibilities on maintenance of the Machine should be clearly defined and strictly adhered, that in the part of ensuring security - the competence of each employee is clearly defined. It also means that operation on the Machine in special modes (for example, when setting up) may only be carried out by specially trained personnel!

	<p>Work on electrical maintenance of Machine must be conducted by two trained specialists, having Permit to the maintenance of electric equipment with voltage up to 1000V.</p> <p>Unauthorized individuals in the service area of the Machine are not allowed.</p> <p>Before switching on the voltage after installation or repair of electrical equipment or after a long interruption, ensure correct grounding.</p> <p>Access to the control unit to unauthorized persons is prohibited.</p> <p>Areas surrounding the control unit shall not be cluttered or jammed.</p> <p>Failure to comply with these requirements may result in electrical hazard or its risk possibility!</p>
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Dismantling or disabling any security devices is - unacceptable.

	<p>Working with disconnected security devices, gives rise to all kinds of mechanical and electrical dangers.</p>
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The operator must always maintain the Machine in perfect condition. Keep work area clean.

	<p>If there is dirt or foreign objects, if there is no order in the arrangement of the workplace tools, devices, movable goods etc. - there is a danger of confusion, slipping, or being hit by falling heavy objects on lower limbs.</p>
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Errors, noises and obvious flaws shall immediately be reported by service personnel to the person in charge and recorded in the work registry. In the case of danger - Machine should be immediately shut down.

The use of personal protective equipment


When operating the Machine the personnel, as appropriate, should use personal protective equipment:

- dust masks with appropriate filters (when shipping products or materials that emit harmful substances in the work area that can get into the lungs);
- durable thick gloves to protect hands from mechanical damage during technical maintenance and repairs;
- Sturdy boots with soles to prevent slipping (if slippery fluids are used in production) as well as protecting the operator legs from injuries (protection from pinching or falling objects);
- special robe, which could not catch hold of parts of Machine. Sleeves should be rolled up only inwards. Loose clothes, ties, neckwear, jewelry watches, rings, bracelets, etc. are dangerous;
- headdress, closing the hair;
- earplugs (hearing protection from noise) if necessary.

4.3. Security measures during transportation and installation of the Machine


Before switching on the Melanger, make sure that its start-up is not dangerous for people near it, remove foreign objects from the Melanger and from the working area, familiarize yourself with the device, the operating principle and the Melanger control system.


- check the Machine (damage during transportation);
- training the customer's personnel;


	All metallic parts of the melange (motor housing) that can be energized above 25V are grounded through the power plug.
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4.4. Security measures when preparing the Machine

It is strictly forbidden to disable the interlocks provided by the electrical diagram!


	If you disable the locks provided for in the electroscheme of the Melanger, all kinds of mechanical and electrical hazards may appear.
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	When the input switch is turned on, the white warning light comes on, signaling the presence of voltage on the melange. Neglect of this information leads to an increased risk of occurrence of all types of mechanical and electrical hazards.
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	The Melanger should be disconnected from the AC mains supply after completion of work. Failure to comply with this requirement leads to an increased risk of electrical hazards.
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	After pressing button 4 (Fig. 2), the input contacts of the switch and the contacts of the terminal set remain under hazardous voltage at the control unit. Neglect of this information leads to an increased risk of occurrence of all kinds of electrical hazards that threaten the life and health of people.
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Do not use the Melanger in a hazardous (e.g., wet) environment, as humidity can lead to short circuits in the electrical system.

	When using the Melanger in a humid environment on the surfaces of the Melanger, which normally do not have contact with live parts and which the operator contacts, dangerous high voltage may appear.
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Dangerous zone between the Machine and other equipment in the production room (if available) should be fenced or protected by the user. Ensure sufficient illumination of the workplace (at least 150 Lux).

	Do not work in dark workplace for higher risk of errors of the operator and the breakdown of the Machine.
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Observe the recommended operating modes of the Melanger


	In cases of non-compliance with the recommended modes of operation of the Melanger, the danger of possible breakage of the Melanger and / or injury to the operator increases.
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Melanger is not intended for use with combustible and explosive materials.

	If flammable or explosive materials are used, there is a risk of fire and / or explosion.
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When using materials that emit harmful substances with concentrations exceeding the permissible limit, we recommend that you:

- identify the type of hazard;
- conduct a risk assessment that takes place during the Machine processes the product;
- develop a security system for this product;
- provide the necessary accessories, such as devices monitoring, or remove harmful substances, shut-off devices, quickly triggered before a dangerous product will get into the hands of others, due to the specifics of a particular production.
- to reduce the concentration of harmful substances in the air of the working area by the exhaust hood system and use a reliable ventilation in accordance with the characteristics of production and local regulations on labour protection;
- use of personal protective equipment.


	Failure to follow the recommendations of this manual on transportation of hazardous materials, leads to the risk of contact or inhalation of hazardous gases or dusts (risk of damage to the skin, eyes, and respiratory tract irritation, as well as diseases of the internal organs).
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Since the list of harmful materials is very wide, this guide does not provide recommendations for all occasions.

Compliance with these recommendations does not exempt the user from performing additional security measures due to the specifics of a particular production.

Do not stand on the Machine in carrying out any works.

	Failure to do so could result in overturning the Machine, which leads to an increase in the risk of all mechanical hazards that threaten the lives and health of people, and can lead to great material damage.
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4.5. The technical design changes



Any modifications or changes in the Machine unauthorized by the manufacturer are not allowed for reasons of safety for people and the Machine.

The user can use the spare and wear parts recommended by the manufacturer only.

Otherwise, the manufacturer is not liable for the operability of the Machine.

4.6. Machine noise level

In standard operating conditions the Machine operator workplace noise level does not exceed 60 DBA. The Machine in typical conditions (load the hopper from 60 kg of cocoa beans, the noise level does not exceed 75 DB(a). Uncertainty of measurement of noise conforms to ISO 3746 and 95% probability with confidence equal to $\pm 1.96 O_R$ of the measured values, where $O_R = 3$ DBA.

Noise characteristics were measured in accordance with the methodology of ISO 3746-95 and ISO11204-95 in the light of the requirements of BS EN 415-3: 2000.



At adverse operating conditions, when the average noise level for the 8 hour shift exceeds 80 DBA, one must use safety equipment (ear muffs, ear plugs), and/or reduce the time in these modes.

The above values of noise level are not necessarily safe for work on the Machine. Despite the existence of a correlation between emitted and perceived noise, this cannot be used as a reliable option to determine whether or not you want to take further precautions.

Factors influencing the practical level of perception of the noise emitted include the characteristics of the working premises, other noise sources, etc. e.g. the number of Machines, and other related processes, as well as the time during which the operator is exposed to noise. However, the above information will allow the user to assess the dangers and risks faced by staff.

4.7. The residual risks

The personnel requirements of the above Melanger for this model reduces the residual risks to the level achieved in the same equipment, adequate security is proven experience of its operation.

However, the personnel must know and remember about the existence of residual risks, because the fulfilment of the above requirements **are not completely obviate the danger.**

5. Scope of supply, marking, packing, storage, unpacking and handling

5.1. Scope of supply

The scope of supply is provided in the packing list, which is composed in accordance with the contract for the Machine.

5.2. Marking

5.2.1. Each Machine has on its frame side surface, a nameplate attached containing:

- the country of the manufacturer;
- full company of the manufacturer;
- the mark of the manufacturer;
- the address of the manufacturer;
- product model, serial number, year of manufacture;
- power supply, voltage and frequency;
- power;
- weight.

5.2.2. The transport marking on the packaging contains:

Main inscriptions:

- full or conventional name of consignee;
- the name of the destination (the station), and the short name of a transport route (road, if necessary); name of reloading place (when necessary);
- package number (in the numerator-the pack number in the lot, in the denominator-the number of places).

Additional inscriptions:

- full or conventional name of consignor;
- the name of the item (the station) of road and short name of the sender (if necessary);
- inscriptions of transport organizations.

Information box:

- the dimensions of the package, santimeters;
- NET and gross weight, kg;
- cargo volume, m³.

Manipulation signs:

- "Beware - delicate";
- "the place of slinging";
- "Top, do not tilt";
- "Center of gravity";
- "do not stack";
- "No Humitidy".

5.2.3. Additionaly cargo space is indicated by:

- model of the Machine;
- serial number of the Machine.

5.3. Packaging

Machine comes in a crate or a partial package on a pallet, film wrapped. The type of packing is negotiated with the buyer and is fixed in the contract on delivery.

All the Machine accessories, spare parts and documentation are packed in boxes, placed in a box for Machine packing or next to it (on partial packing) and securely fastened.



The manufacturer is not liable for damage of the Machine, occurred during the transport in package inadequate to normative and technical documentation of the manufacturer.

5.4. Acceptance



When receiving the Machine check the integrity of the packaging. The manufacturer does not hold liability for the Machine, delivered with damaged factory packaging.

Found damage should be confirmed by the forwarder by a note in the transportation documents.

5.5. Storage

Storage of packaged Machine shall be:

- for any climate areas in heated and ventilated warehouses under the following conditions:
- ambient temperature: (+5-+40) °C;
- relative humidity: not more than 80% at 25 °C;
- dew is not allowed;
- the impact of corrosive gases is not permitted.

Storage at temperatures below minus 20° (C) may damage electronic components.



Failure to follow recommended storage mode increases the **risk of damaging** the Machine and/or **injury to** the operator.

Warranty storage period Machine in the factory packaging is 1 year under specified storage conditions.

5.6. Unboxing

When unpacking, it is recommended that you first remove the top board of packing box and then the side boards. Care should be taken not to damage the Machine by the tools during unpacking.



Before unpacking the Machine should be kept under operating conditions temperature to align Machine temperature and facilities (usually 24 hours).

When unpacking, verify the completeness of the delivery against the packing list and/or for possible damage during transportation.

If there are discrepancies, please contact your manufacturer.

5.7. Transport

Machine can be transported by any means of transport provided a reliable fixation and packaging ensured to keep from damage, in accordance with the rules of transporting goods, applicable for each mode of transport.

Transportation must be subject to the following conditions:

- ambient temperature: (-20 to + 50)°c;
- relative humidity: not more than 98 % at temperature of 25°c;
- dew is not allowed.



Transport at temperatures below minus 20° (C) may damage electronic components.



Failure to follow recommended guidelines conditions of transportation increases **the risk of possible damages** of the Machine and/or **injury to the operator**.

Before delivering the Machine carefully plan its unloading and transport to the place of installation. At the time of the delivery transport and lifting devices must be fully prepared. Before delivering the Machine remove possible obstacles for the transportation from the place of unloading to place of installation.



Incorrect handling can lead to an accident or cause damage or malfunction of Machine, for which the manufacturer is not liable.



Use vehicles only with sufficient carrying capacity, i.e. more than the transported weight!
The weight of packed *Machine* is specified on the box.
When you unload the *Machine* in packed form, make sure to follow the instructions marked on the outside of the package!
During transportation to the place of installation and when placed on the floor, ensure that *Machine* is not subjected to strong shocks or drops.

6. Installation and initial start-up

6.1. Installation location

Machine does not require special foundation and is not anchored to it. It is enough to ensure the flat floor of sufficient load-bearing capacity and space.

There must be sufficient space for the operator and the maintenance and repair.

6.2. The Climatic operation conditions

Machine is designed for operation in premises with artificially controlled climatic conditions, for example in closed heated and ventilated premises (no direct sunlight, rain, wind, sand and dust from the outside air, the absence or substantial reduction of impacts of condensation of moisture) under the following conditions:

- ambient temperature: (+5-+40) °C;
- relative humidity: not more than 80% at 25 °C;
- dew is not allowed;
- the impact of corrosive gases is not permitted.

The temperature variation of the workspace is not specified.

Dust content of the work shop shall be within sanitary norms.

The place of installation of Machine should be selected in such a way as to exclude local heating or cooling (Sun, heating, draughts, etc.).

Machine is not intended for use in explosive environments or near inflammable objects.



If you fail to comply with the requirements, there is **the danger of fire and/or explosion**.



The manufacturer is not liable for defects or injuries caused as a result of non-compliance with the requirements on service conditions.

6.3. Installation of the Melanger

Set the Melanger to work in accordance with points 6.1 and 6.2.

You should do the following:

1. Free the equipment from a transport package.
2. Perform a visual inspection of equipment for mechanical damage.
3. Check the tightness of the threaded connections.
4. Install the equipment on site to use it on a flat and solid horizontal area.
5. Make an electrical connection of the Melanger to the 230 V 50/60 Hz line with ground. The connecting cord (cable) should be placed in such a way as to prevent its damage (kink, fracture, cut, etc.)

If necessary, open the body of the Melanger for the implementation of preventive and repair work is only allowed to qualified personnel!



The electrical outlet must be grounded and be rated for a current of at least 6 A!

6.4. An initial start-up

The equipment is controlled from the control panel 6 (Fig. 2). After connecting the Melanger to the mains, turn on the machine 1 (Fig. 2), the indicator 4 (Fig.3) should light up, which indicates the presence of voltage in the network and the readiness to start the equipment. Turn knob 2 (Fig. 2) to the "START" position. Set the necessary rotation speed of the bowl by Handle 3 (Fig. 2.)



ATTENTION! *The operators working clothing should not have any hanging straps, belts etc., to avoid getting in the moving parts of the machine!*

Adjustment of the pressing force of granite runners is carried out by pressing device 7 (Fig.1). To increase (decrease) the pressing force of the runners, use the regulator 7 (Fig. 1).



ATTENTION! *Keep extreme caution while being close to working machine. To avoid injuries - any work inside the bowl while machine is running/bowl rotating - is PROHIBITED!*



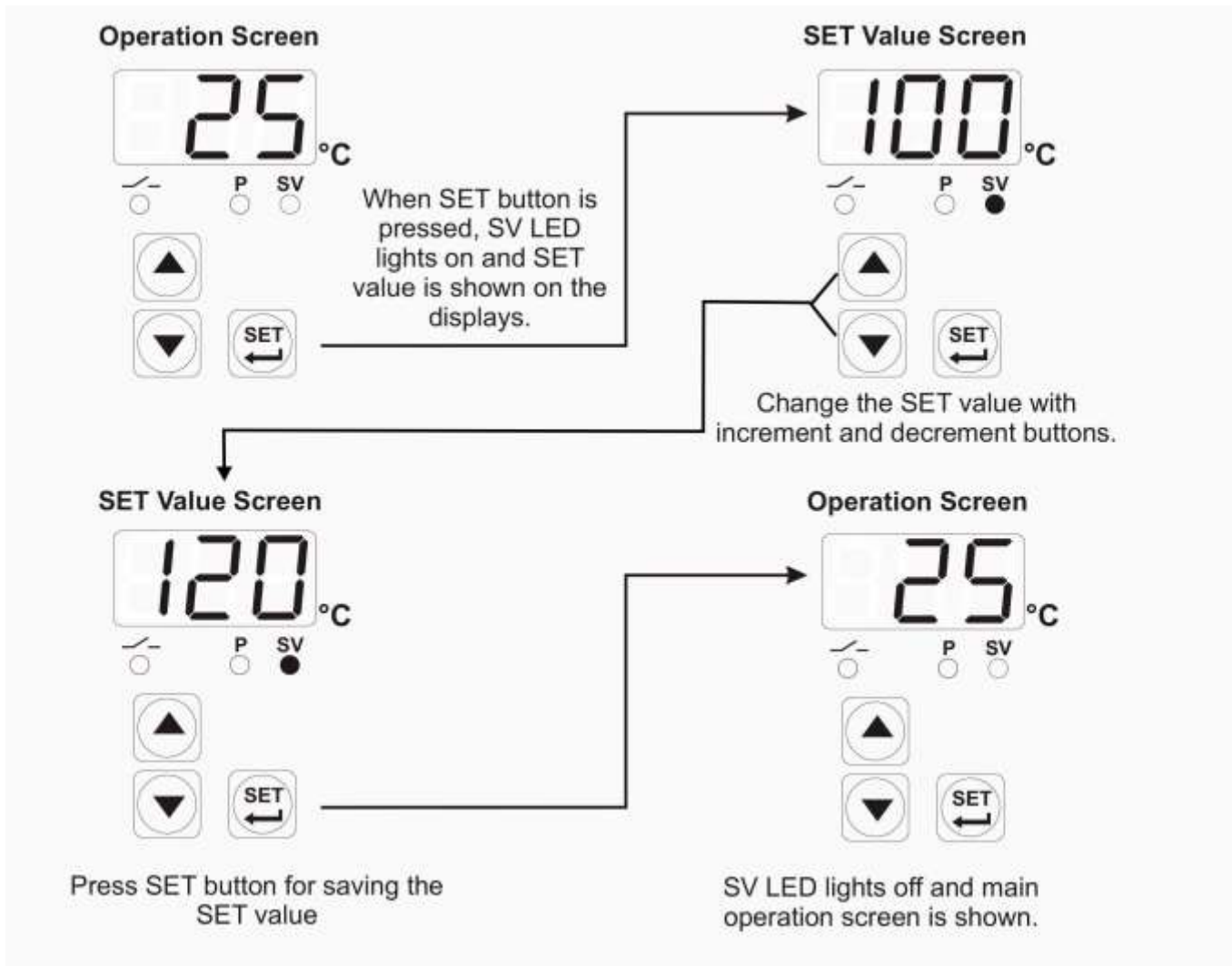
ATTENTION! *In case of any emergency situation immediately disconnect the equipment from the electrical circuit!*

It should be remembered that the grinding and mixing process is accompanied by the substantial generation of heat

For correct preparation of the mass, it is necessary to control the temperature of the mass by the thermocontroller (if the scope of supply includes a thermal controller).

To decrease the intensity of the heat generation process either the rotation speed of the bowl should be decreased or the pressure of the millstones. The heat generation mainly depends on the bowl rotation speed. Adjusting the rotation speed of the tank to reduce the temperature of the mass can be carried out both in manual mode and also in automatic mode (if the scope of supply includes a thermal controller).

In order to control the maximum temperature of the mass in automatic mode, you need to set the desired maximum temperature on the thermal controller (the default is 65 ° C). This is done by pressing the "SET" button and then pressing the "UP" or "DOWN" buttons sets the desired temperature and is fixed by pressing the "SET" button.



To reduce the intensity of heating reduce the frequency of the bowl rotation and the force of pressing. The most influence on heat release is provided by the rotation speed of the bowl.



In the event of an unforeseen stop of the equipment, it is necessary to take actions to maintain the temperature of the mass in the molten state, using external heating from fan heaters or covering with heat-insulating materials. If heat cannot be saved, measures must be taken to unload the bowl and clean it of the mass.




6.5. The Emergency Shutdown of the Melanger

In case of an emergency, stopping the melange requires:

- Press the red "STOP" button 5 (fig. 3) on the top control panel of the melange and turn off the electrical network by turning off switch 1 (Fig. 2).

7. Maintenance

7.1. General safety instructions for maintenance

	<p>Melanger maintenance and repair work must only be carried out by trained, qualified and certified technicians. Before the beginning of works on maintenance service and repair personnel must familiarize with section "Security ensurance".</p>
	<p>Before beginning any maintenance work on the Melanger, the possibility of its unintentional switching must be eliminated. The power supply must be turned off. It is also recommended that you unplug the power socket.</p>
	<p>Hang a warning label on the control cabinet to avoid accidental pressing keys or switches. Install fencing to prevent access or interference by unauthorized persons.</p>



Regular maintenance is essential for safe and long Melanger perfectly work. The work described in this section must be carried out in a timely manner.

Please following the maintenance work, in order to make an entry in the log book maintenance with a brief description of the work, as well as the champion and the date of the work.

No log entries may result in denial of warranty service Melanger manufacturer.

Maintenance on any subject you can get a free consultation by phone service.

7.2. Scope of maintenance work

The scope of works on maintenance service includes:

1. Checks to be done daily before machine is started;
2. Works performed monthly.

7.2.1 Daily maintenance

1. Perform the external inspection of the Machine. The Melanger must be kept clean. Dust should be removed with a vacuum cleaner or a dry cloth, and when necessary damp cloth with neutral detergent, avoiding the accumulation and leaving of water on the surface.
2. Check all fasteners, retighten if necessary.

7.2.2 Monthly maintenance

1. Perform the visual contamination check on surfaces of the runners along the axis of rotation. If necessary, clean them.
2. Perform the daily maintenance.



Maintenance of motor gearbox is not required.

8. Spare parts Order, call customer service

Spare parts, accessories, call customer service for warranty or post-warranty repair is carried out only on *written* application form.

In the process of technical improvement of the Melanger's design is subject to some changes. So when ordering spare parts, and call the service engineer the application should indicate the following:

1) Model and serial number of the Melanger. This number is indicated on the machine marking plate, also in the manual's section "Information on acceptance";

2) Description of parts quantity.

To identify parts, we recommend that you use catalog of Assembly units and parts.

Components (bearings, electrical equipment, etc.) to acquire by type or number, put directly on them, indicating the master data or the position marked on the diagram.

For details of broken-down specify a brief description of the problems with the old part and, if possible, the reasons for which they have.

9. Recommendations for working on the Melanger Allure JR5T.

1. Turn on the toggle switch 1 (Figure 2.)

2. To start the tank rotation, set the switch 2 (Figure 2) to START position.

3. Heating. Before loading cocoa butter, granite parts (millstones) must be heated with a hair dryer. Preheating is performed without rotation or at low speeds of the tank (positions up to "2" on the regulator). Heating can be continued with the formation of lumps in the initial stage of loading. An empty bowl can also be heated in the oven to 50-60 ° C.

4. Pressure. Set the initial clamping of the millstones to the bottom of the tank using loading nuts. The distance from the metal (load) bar (8, Fig.3) to the upper plane of the washer should be within 45-50 mm. (Figure 4). When tightening the load nut, each full turn increases the clamping force by approximately 3.5-4 kg.

5. Download. Load the cocoa-nibs in portions of approximately 100 grams. Observe the rolling millstones. If the millstone starts to stop, pause for 1-3 minutes in the next portion of the cocoa mass. If there is an active sticking of cocoa-grits on the fixed parts in the tank, use a hairdryer to heat the mass. (Do not use the scapula, scrapers while rotating the bowl).

6. Grinding. After the end of the loading, it is necessary to control the rotation of the millstones and the temperature of the chocolate mass.

6.1. Set the speed of rotation of the bowl with the help of an adjustment knob at a frequency of at least 35 Hz

6.2. If your Melanger is equipped with a thermocontroller, the temperature of the mass is automatically adjusted by reducing the speed of rotation of the bowl. If the temperature is set to 64 ° C, then when the temperature reaches 65 ° C, the bowl rotation speed will be reduced by more than 2 times the maximum. After the mass has cooled down to the set temperature (64 ° C), the rotation speed of the bowl will be returned to the original one and manual speed control by the speed controller will be available.

6.3. Ideally, the rotation should be smooth and continuous, without stopping the millstones. If there is regular shutdown of the millstone, it is necessary to increase their clamping to the bowl. To do this, tighten the load nuts until the millstones rotate again. It is permissible for the millstones to stop for a short time not more than 5-10 seconds. Watch for the density (fat content) of the mass, if necessary, add cocoa butter.

7. Removing the upper joist. After the grinding and conching of the chocolate mass is complete, stop the rotation with the switch 2 (Fig. 2), turn off the Melanger with the switch 1 (Fig. 2).
- Disconnect the connector of the temperature sensor (if your Melanger is equipped with a thermocontroller).
 - Remove the metal flask of the temperature sensor from the bowl.
 - Loosen (unscrew by 3-5 turns) a pair of the upper load nuts.
 - Unscrew the black plastic nuts (or metal butterfly nuts) securing the joist to the vertical posts.
 - Unscrew the load nuts, remove the springs and the guide sleeves.
 - Taking the edges, remove the upper joist from the tank with the millstones. Place on a pallet for further cleaning and disassembly.



8. Further disassembly. Unscrew the M6 bolts located on top of the load plate 8 (Figure 3). After removing the thumbscrews, remove the load bar. The supports of the millstones easily come out of the guide bushings of the upper joist.

9. With prolonged operation of Melanger it is recommended to set the rotation speed of the bowl at least 40 Hz.

Annexes

Annex 1: Passport.