

AUTOMATIC BREAD SLICER WITH PACKAGE BLOWER

OPERATION AND MAINTENANCE INSTRUCTION

PMBS 1500



PORLANMAZ
bakery machinery

IMPORTANT NOTE

- Before starting the equipment and performance of maintenance completely read this instruction.
- Provide this management to specialists in assembly and maintenance and make them sign it in necessary places.
- Porlanmaz Bakery Machinery Co. The manufacturer reserves the right to make the changes in a design which aren't worsening it qualities and consumer properties and aren't reflected in the given passport
- Porlanmaz Bakery Machinery Co. does not bear responsibility for problems at use of this equipment inappropriately.
- Porlanmaz Bakery Machinery Co. doesn't bear responsibility for problems at use of the equipment on inappropriate electric network
- Do not make changes to the equipment without coordination with the producer.
- The room in which PMBS is manufactured has to be constructed or reconstructed according to norms of technological projection of bakeries of Big power VNTP 02-92, part II, Bakeries.



Study this instruction before using the equipment. The producer doesn't bear responsibility in case of non-compliance with the present instruction. Works on maintenance and repair of the equipment have to be carried out only by the authorized service personnel.



The client bears responsibility for periodic maintenance



Before using of the equipment, it is necessary to execute grounding and to be convinced in absence of current leakage.

CONTENT

1. GENERAL INFORMATION

- 1.1. *Information about producing company*
- 1.2. *Information about equipment*
- 1.3. *Documentation*
- 1.4. *General view*
- 1.5. *Description*
- 1.6. *Work principle*
- 1.7. *Technical characteristics*
- 1.8. *Overall dimensions*
 - 1.9. *Materials' characteristics*
 - 1.10 *Operating Panel*

2. OPERATION OF THE EQUIPMENT

- 2.1. *Transportation*
- 2.2. *Environment conditions*
- 2.3. *Bread Slicer device*

3. ELECTRICAL SCHEMES

4.REQUIREMENTS.

1- GENERAL INFORMATION

1.1. Information about producing company

PORLANMAZ MAKINA MET.TEKS. INS. HIRD. SAN VE TIC. LTD. STI
FevziCakmakMah. Busan Organize SanayiBolgeseKosgebCaddesi 10643 Sokak No: 33 – 35 Karatay,
Konya / Turkey
Tel.: +90 332 251 03 18
Fax.: +90 332 251 03 19
Web: www.porlanmaz.com E-mail: info@porlanmaz.com

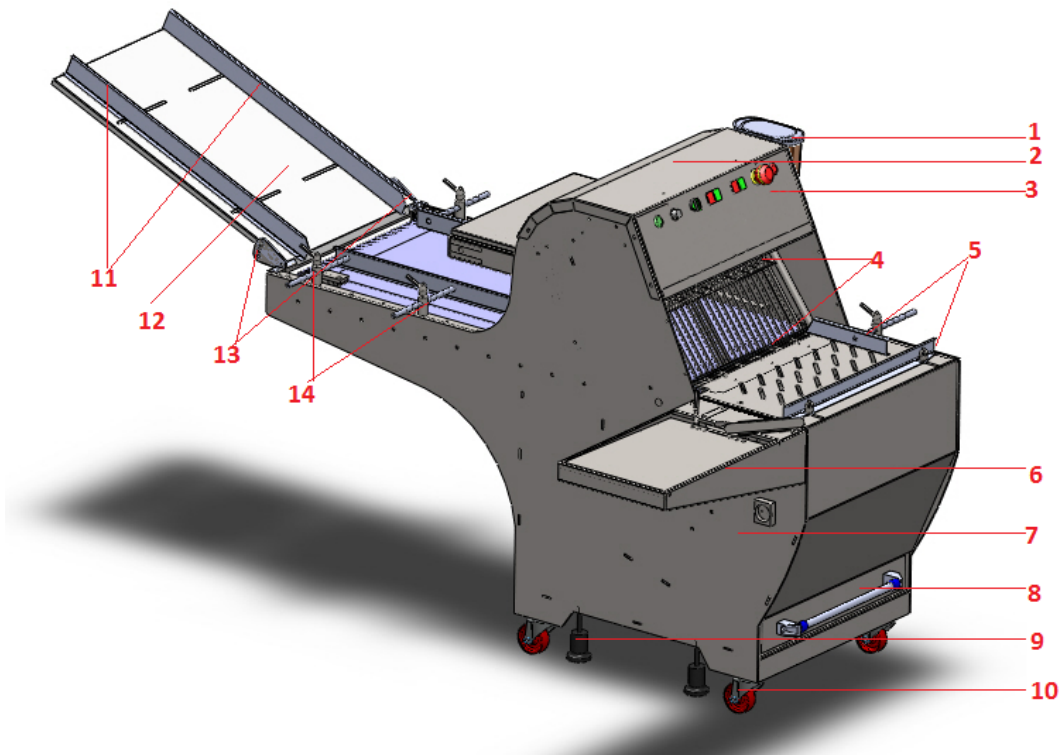
1.2. Information about equipment

PORLANMAZ bakery machinery	MODEL / TYPE	<input type="text"/>	AĞIRLIK / WEIGHT	<input type="text"/>
	GÜÇ / POWER	<input type="text"/>	İMALAT YILI / YEAR OF MANUFACTURE	<input type="text"/>
	VOLTAJ / VOLTAGE	<input type="text"/>	SERİ NO / SERIAL NUMBER	<input type="text"/>
TÜV AUSTRIA	CE	PG	PORLANMAZ MAKİNE METAL TEKSTİL İNŞ. HIRD. SAN. TİC. LTD. ŞTİ. Busan San. Sit. Fevzi Çakmak Mh. Kosgeb Cd. 10643 Sk. No: 33 - 35 Karatay - Konya / TÜRKİYE Tel: 0332 251 03 18 Fax: 0332 251 03 19 www.porlanmaz.com - info@porlanmaz.com	

1.3. Documentation for product

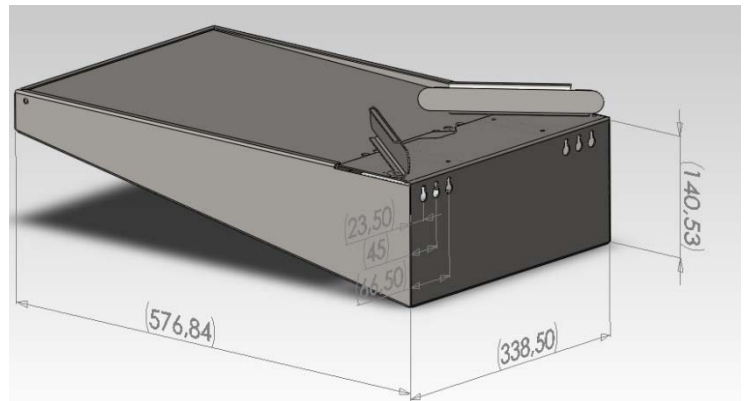
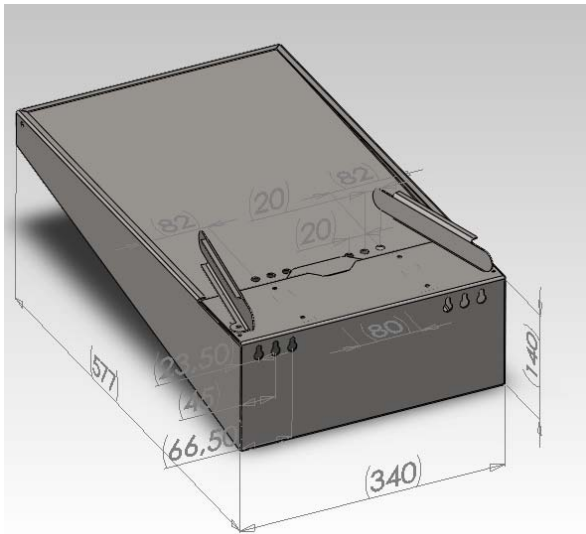


1.4. General view



1. Oil drain barrel
2. Protective cover
3. Operating panel
4. System of knives and legs greasing
5. Draw table and regulation
6. Package blower
7. Corpus
8. Drawer for crumbs
9. Wheels
10. Holder block
11. Side mount regulation
12. Feeding conveyer
13. Regulation of transfer truck (up-down)
14. Side mount regulation

Package blow table










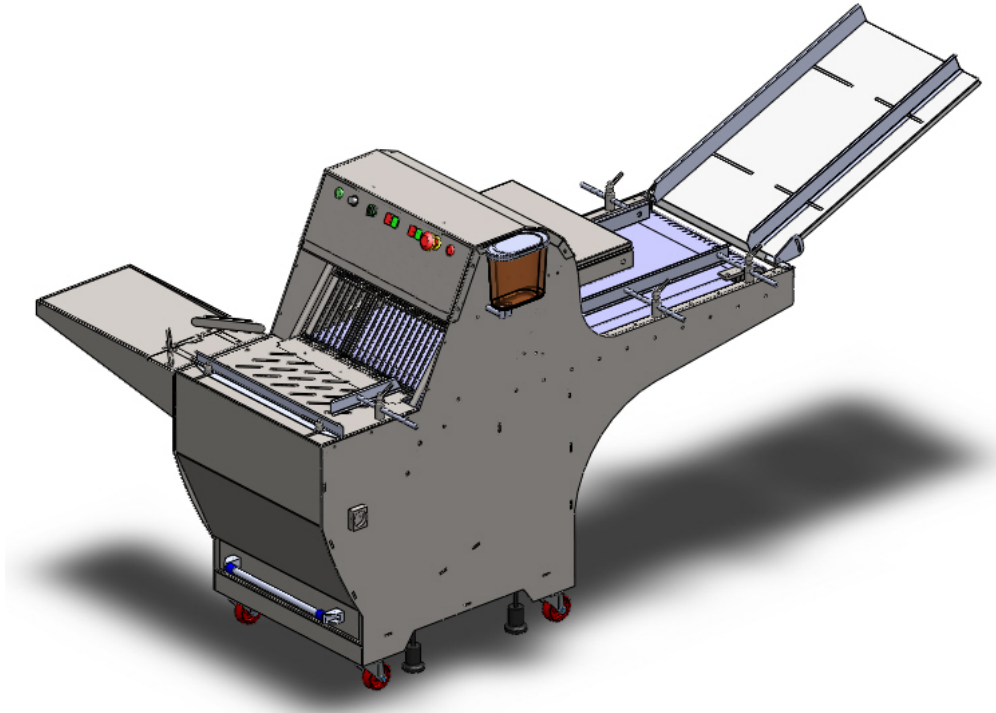
1.5. Description

Belt bread-cutting equipment represents the machine, which is carrying out continuous procedure of cutting of bakery products by means of system of the belt conveyor and is equipped with manual packing system with the blower helping laying of bread into packages. The system of packages can be built in according to the choice of one or two parties.

1.6. Work principle

Belt bread-cutting equipment by means of the lower and top adjustable belt conveyor passes bread to knives and cuts it. The cut bread is manually dumped into the package opened by a blower and the package comes off.

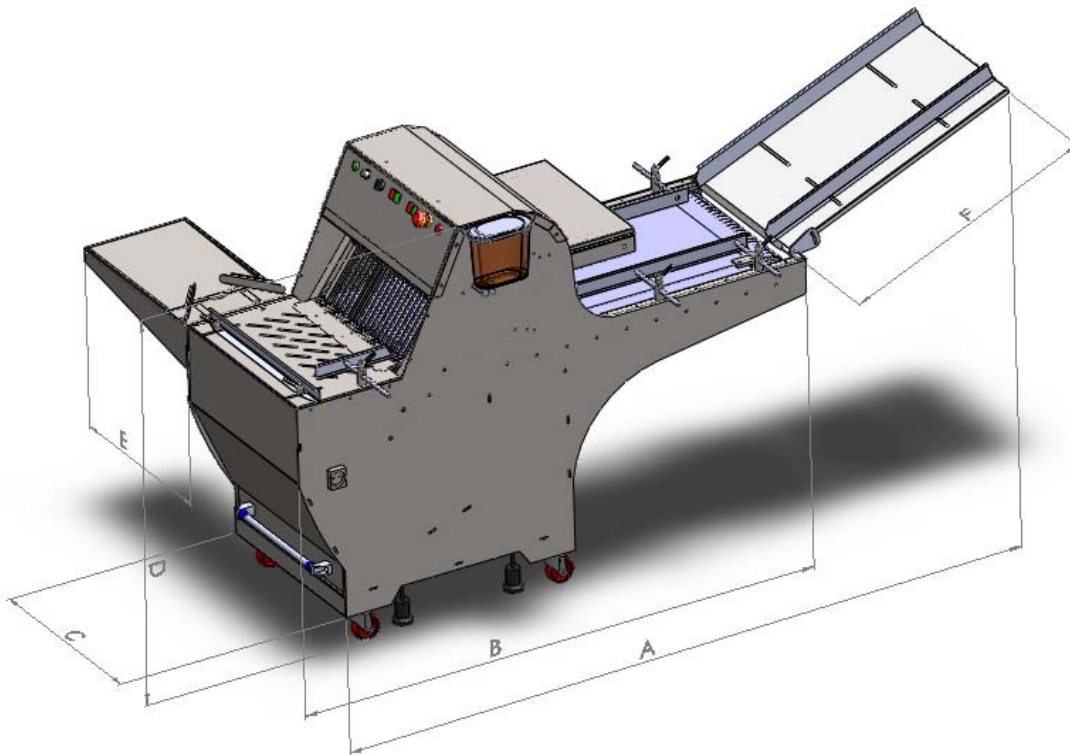
-  Productivity depends on feeding established depending on a grade and quality of bread..
-  Is issued for cutting of bread on pieces of the fixed thickness (10, 11, 12,13 14-15-16 mm) – thickness of cutting is understood as distance between longitudinal axes of knives which are established in frame grooves. For re-equipment under cutting of bread of other thickness, from the offered thickness, it is necessary to order a readjustment set at manufacturer
-  Works on installation, start-up, service and repair have to be carried out by the persons which are taught safe methods
-  works and having the certificate on the right of work with this equipment.
-  The bread slicer is used for cutting of bread weighing from 250 g to 1,5 kg.
-  The bread slicer provides fast and symmetric cutting of bread for the enterprises with mass production and consumption of bread
-  The bread cutting equipment has the knives' greasing system

1.7. Technical characteristics

Productivity	1500 ps/h
Maximal Bread Height	165 mm
Maximal Bread Length	480 mm
Cutting thickness	by request
Transfer truck Length	123 sm
Blower	1 ps.
Knives' Greasing System	by request
Electrical power	1,21 kWt
Weight	340 kg.

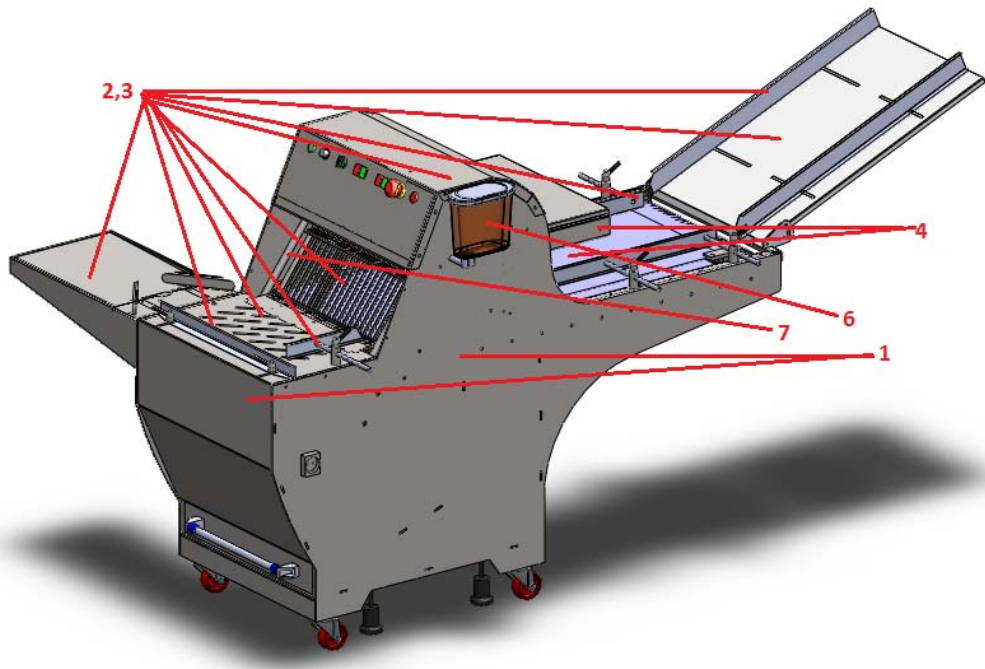
1.8. Overall dimensions

- ✓ Overall dimensions of dough forming machine are shown in the picture
- ✓ *Porlanmaz* reserves the right to change the product sizes. The customer bears responsibility for coordination of the special options of use at an order stage.



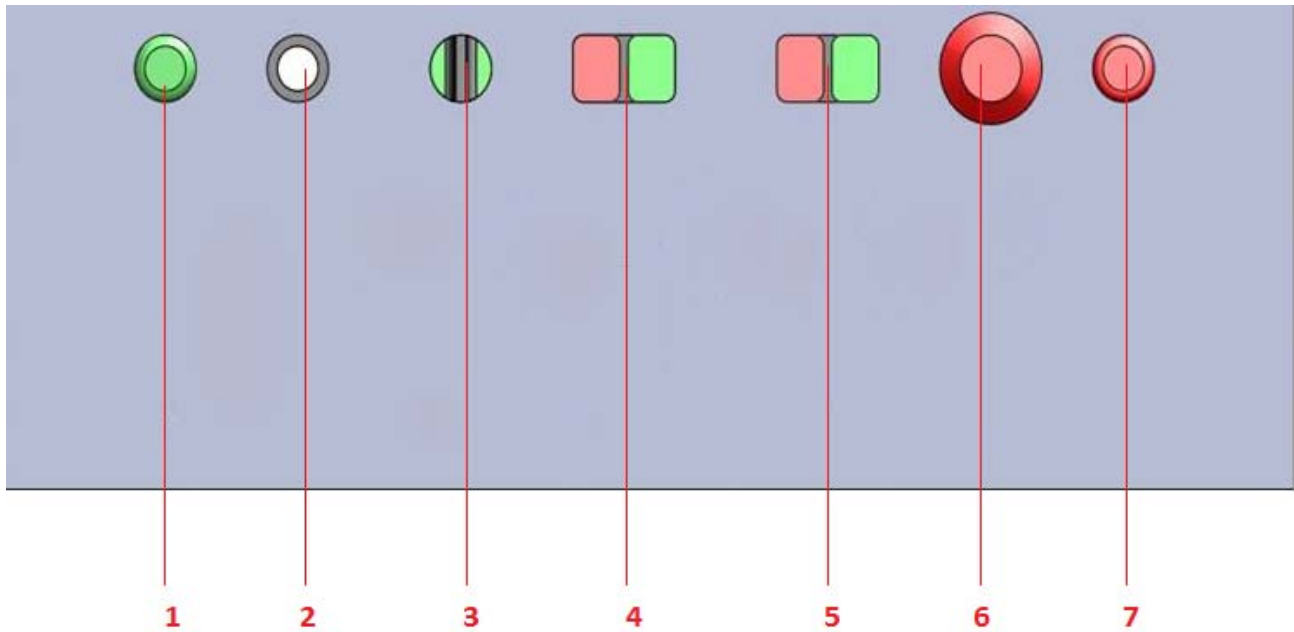
	PMBS 1500
A (mm)	1700
B (mm)	2420
C (mm)	630
D (mm)	1150
E (mm)	-
F (mm)	825

1.9 Materials' characteristics



1. The case represents the welded design made of carbonaceous steel, painted with a powder enamel
2. Reception table, combs, protective cover,
3. packing little table, plates of an edge pusher of the feeder and the forward panel of a box for the collecting of crumbs, are made of stainless steel
4. Cutting is carried out by groups of knives that mounted in two frames. Knives are located in the vertical plane and make back and forth motions.
5. Knives are made of stainless steel
6. The tape is made of material, harmless for health
7. 5All electric details are of the European standard
8. The barrel for oil drain is made of material, harmless for health
9. A framework for a knife it is made of steel.

1.10. Operating Panel



1. Energy
2. Handle of rate regulation
3. Switch of packages' blower
4. Regulation of bread height
5. "Start-stop" button
6. "Emergency stop" button
7. Damages

2. OPERATION OF THE EQUIPMENT


2.1. Transportation



The equipment can move in any direction because of the available wheels. The equipment is delivered to customers in a wooden box (look at the Picture).

- ✓ Check whether there are damages on the equipment received during transportation. If damages are available, don't accept production.
- ✓ Transportation of a bread slicer can be made any kind of vehicles according to the rules existing for this type of the vehicle.
- ✓ At transportation on open decks of watercrafts, the bread slicer and its components in packing have to be covered with continuous waterproof material.

- ✓ Fastening of packages in the vehicle by a binding for a rigid framework of packing, with fixing in an extension not less than in three directions on a floor or for boards.
- ✓ After delivery of a bread slicer to the destination check safety of its packing and transport marking
- ✓ The bread slicer is delivered in partially sorted way.
- ✓ Packing of a bread slicer ensures its safety, at storage and during its transportation within 6 months from the date of release when keeping rules of transportation and storage conditions
- ✓ Pay attention to that on the case of the car there were no visible serious damages.

 Porlanmaz is not responsible for damages occurred during transportation

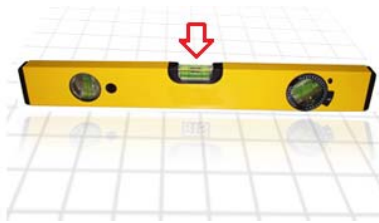
2.2. Environment conditions

The environment where the equipment will be working must be provided at least with below-mentioned conditions:

- ✓ Temperature must be in the range of -35 C0 / + 50 C0.
- ✓ The equipment must be protected from rain, mud and moisture.
- ✓ The equipment must be protected from direct hit of sunshine.
- ✓ The equipment must be protected from damage by metal objects.
- ✓ An operating mode – two-shift (16 ... 18 h).
- ✓ Operational documentation on a bread slicer is stored together with car.

2.3. Bread slicer device

- ✓ Fix the equipment on level floor



The equipment is designed in such a way that minimizes risk for people around and is easy in work and maintenance.

The bread slicer has an esthetic appearance and is easily transported.

The parts of a bread slicer which are in contact to a product are made of stainless steel.

The car is equipped with a blower table for opening of package.

- ✓ **Main design units and details of a bread slicer:**

1. The multiknife double cutting structure, in the form of frames, with the knives fixed on them.
2. The belt conveyor with a driving table, with the adjustable lateral referring laths (feeding knot).
3. The adjustable mechanism of a clip in the form of the belt conveyor.
4. The dismantled table plate (receiving node).
5. The equipment for packing of products in a foil.
6. A drawer for crumbs;
7. The case of the equipment protects the mechanism of the drive of knives, an electric box, the fan for opening of a packing package and other elements.
8. Operating panel.
9. Wheels with interlocking.

For packing of the cut bread turn the switch and place a package on a blower table.

The external part of a wire is covered with a spiral hose for safety. Please, don't interfere and don't allow unskilled workers to interfere with work of electric parts of the car.

For packing of the cut bread turn the switch and place a package on a blower table.

✓ **Work principle.**

The cutting knot of a bread slicer consists of two frames in which the flat knives ground from the conveyor are established.

The knife frames are established movably on legs and move in the plane of the perpendicular plane of a plate of a table of reception. When one frame moves up, another moves down.

The grain products established on a conveyor tape nestle the top cooptation conveyor and move to moving frames with knives.

The bread slicer is convenient in use as it has adjustment handles; the cut bread isn't crushed and broken.

✓ **Electrical equipment.**

The equipment is equipped with the electric panel with start and stop buttons. The start button starts all mechanisms of a bread slicer.

The equipment is equipped with rate control for that cutting of bread goes in rate necessary for you.

The equipment is worked out for cutting of all types of bread. Height is regulated according to bread size.

If during operating time of the equipment there is an emergency case, then immediately press an alarm button for equipment stopping, to start it again press an alarm button once again.

Before start of the equipment, after connection of the equipment to the suitable socket, be convinced that the grounding of the equipment which is behind the machine is connected to the grounding cable.

✓ **Maintenance and regulation elements.**

Operating panel is placed on the bread slicer's corpus,

✓ **Machine greasing.**

The bread slicer is completed with the greasing system of knives for a possibility of cutting of rye bread.

Conveyor chains demand periodic greasing.

✓ **Safety of work.**

To avoid possible problems, please, read attentively this instruction before using of the equipment.

⚠ Don't open electric elements of the equipment and/or don't tamper with electric wires barehanded if the equipment is connected to a network. At malfunction in work, first, disconnect the equipment from a network and call the service of technical support.

⚠ Don't make any connections to a chain during connection to a network.

⚠ Non-compliance with these cautions can lead to occurring of injuries of the user and even to emergence of serious damages.

⚠ Never leave a cover open, the cover is established for prevention of possible penetration into electric parts of the equipment of not qualified people.

⚠ Disconnect the equipment from a network during its cleaning.

⚠ Pay attention to any hit of water to electron parts of the equipment.

⚠ After periodic greasing of conveyor chains of a unilateral bread slicer, never use the equipment, without having removed oil from other parts of the equipment where it could get.

⚠ Don't allow children to touch the equipment when it works and even when it is disconnected.

✓ **Possible malfunctions and threats.**

1. Possible mechanical threats are:

on feed unit – a possibility of grasping and retraction by the conveyor;

on receiving unit – a possible attrition;

on drawer – the cut is possible;

the main danger is constituted by mobile knives.

2. Electric shock is among the possible electrical threats.

3. Among the threats which are the result of neglecting hygienic actions change of properties of products, ingressing of foreign objects into production.

4. Among threats resulting from neglecting of the ergonomic principles possible injuries from blows are.

✓ **Safety means.**

Unintentional or intended contact of the operator with elements and parts of a bread slicer which can be dangerous in connection with their movement, form is the main reason of possible injuries.

For excluding them design decisions are applied.

✓ **Safety principles.**

1. The workers serving a bread slicer have to examine threats that can arise at service of the equipment.
2. The workers serving a bread slicer have to study its service and apply indications of this instruction.
3. It is necessary to charge elimination of mechanical and electric malfunctions only to representatives, the qualified persons.
4. To perform all works on elimination of malfunctions at the switched-off strain.
5. Use of the not-working equipment is forbidden.
6. All independent processing of the equipment are forbidden.

✓ **Possible malfunctions**

1. Malfunctions may occur while operation of the equipment.

If the equipment is badly balanced, there can be vibrations during its work.

Bread cannot be cut one by one.

If the equipment works at low current, then the engine can worse work.

✓ **Elimination of malfunctions**

Before starting equipment operation, the equipment has to be well balanced and castors with back legs have to be correctly established on the earth.

As the equipment is designed for a mass production, it works on the basis of the fact that one loaf of bread pushes another one.

Don't use the equipment at low current for making engine serve for longer period.

✓ **Establishment and regulation**

1. Feeding unit.

In order that all received cuts are perpendicular to a longitudinal axis of a loaf it is necessary to pay attention to symmetry and parallelism of side laths of the conveyor and to optimum rate of movement of a tape.

2. Before starting work check functions of switching on and switching off, function of the referring elements.

✓ **Preparation to work.**

1. At opening of packing

The unilateral bread slicer passed all necessary tests and control before shipment from plant.

When opening packing check the following:

Check the equipment for existence of the damages which arose during transportation.

Pay attention to serious visual damages.

Pay attention whether the drive type approaches a power supply network phase.

In case any parts of the equipment are lost or damaged, immediately address to the Porlanmaz company.

2. Placement

At installation of the machine on the floor, it is necessary to balance it well. Wheels and back legs have to be completely balanced with the earth.

For achievement of the largest productivity of the equipment, provide dimensions of working area in the most suitable way.

3. Electrical connection

Pay attention to that the type of the motor corresponded to an electric network at your enterprise. Connection to a power line has to be carried out by a five-core cable

Give the required voltage (0,37 - 0,75-0,09 kW 380 V) Norma of quality of electric energy in accordance with AUSS 13109-97.

Porlanmaz doesn't bear responsibility in case of the wrong electric connection and a disadvantage or a high voltage

Before the first including it is necessary to tighten screws and nuts of clamps of electric contacts of wires of the electric motor and other electroelements

Before initial including it is necessary to check visually isolation of all electric bonds and conducting

Carry out an inspection only at the disconnected delivery cable

⚠ ATTENTION! *As this equipment is a mobile electrical installation, according to section 1.7.110 RDE "Rules of the device of electrical installations", its grounding is carried out through an additional core of delivery cable.*

The unilateral bread slicer is equipped with the fan for opening of a packing package.

The external part of a wire is covered with a spiral hose for safety. Please, don't interfere and don't allow unskilled workers to interfere with work of electric parts of the car.

Before start of the equipment, after connection of the equipment to the suitable socket, be convinced that the grounding of the equipment which is behind the machine is connected to the grounding cable.

✓ **Start-up**

1. Before starting equipment pay attention at the following:

Before starting the machine, make visual survey. In case of detection of the lacking, damaged or broken elements, please, at once address to the Porlanmaz company or to the dealer of the company.

The equipment can be started only after installation of the parts all lost, damaged or broken.

Before start of the machine, it is necessary to connect to the socket and to check grounding.

2. Before starting work it is necessary to clean the equipment.

3. Work assay.

To establish trial rate of work and to carry out test. To watch results of operation of the conveyor and if necessary, to rectify rate and installation of a loaf on the conveyor.

✓ **Care of equipment .**

1. Cleaning

The main hygienic requirement is systematic careful cleaning of elements and parts which have contact to bread: tapes of the conveyor, side guides of laths, the block of knives, surfaces of a plate of a table, drawer for crumbs surfaces.

Cleaning is carried out every time after work, and also after a break in work within 3 days.

Before work it is necessary to clean the equipment. The box in which crumbs accumulate needs to be cleaned at the end of the working day.

 **Cleaning is carried out in dry way (for example, with vacuum-cleaner).**

 **The use of water is forbidden.**



2. Equipment greasing

To make greasing of the equipment regularly, once every week, by small doses in order to avoid leakage.

In order to create access to points of greasing it is necessary:


for greasing of the lower sleeves - to unscrew a table plate;


for greasing of the lower sleeves behind – to unscrew the protection cover of the lower tenial conveyor;

for greasing of the top bilateral sleeves – to unscrew a steel top cover of the equipment.

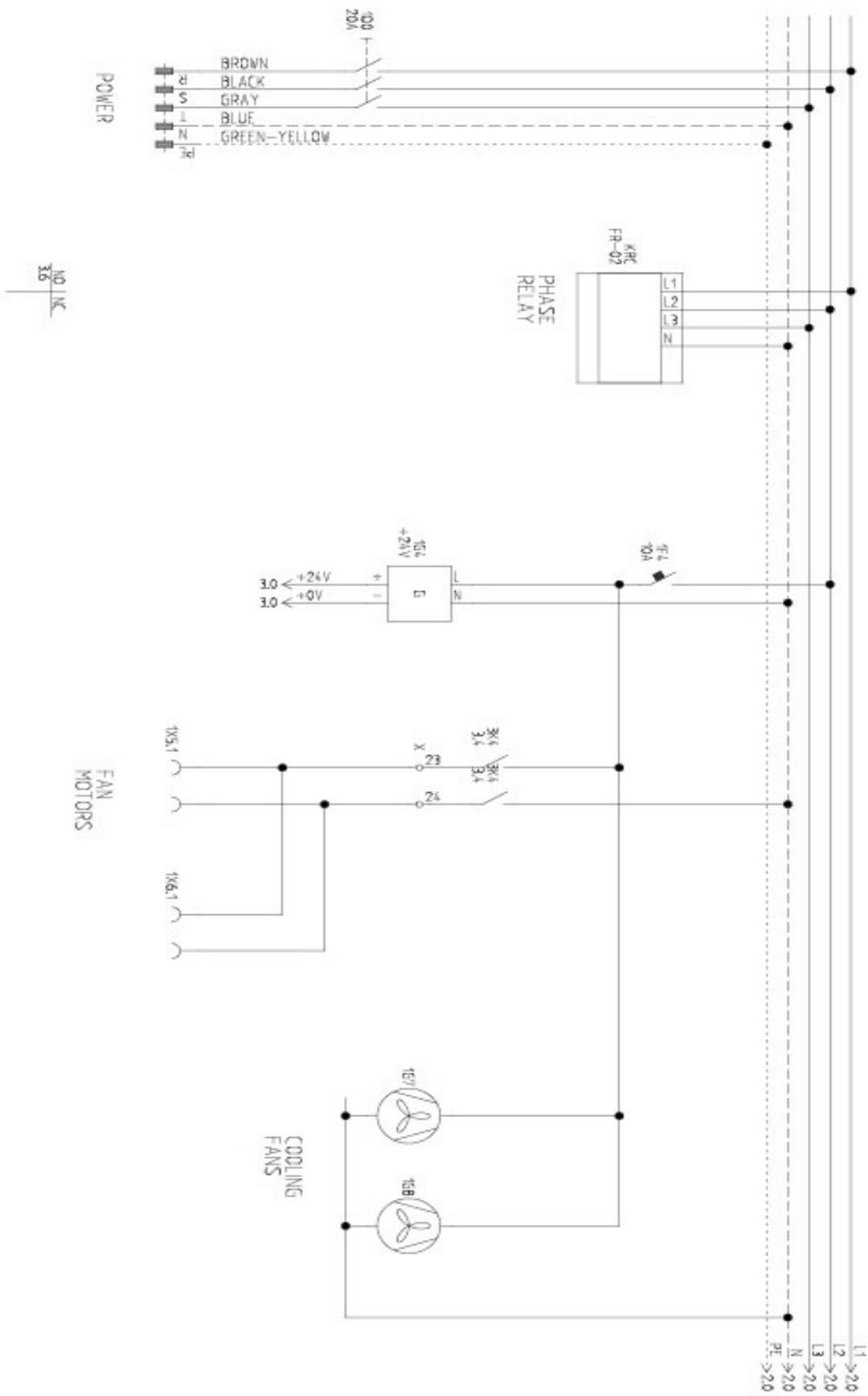
3. Sharpening and change of knives.

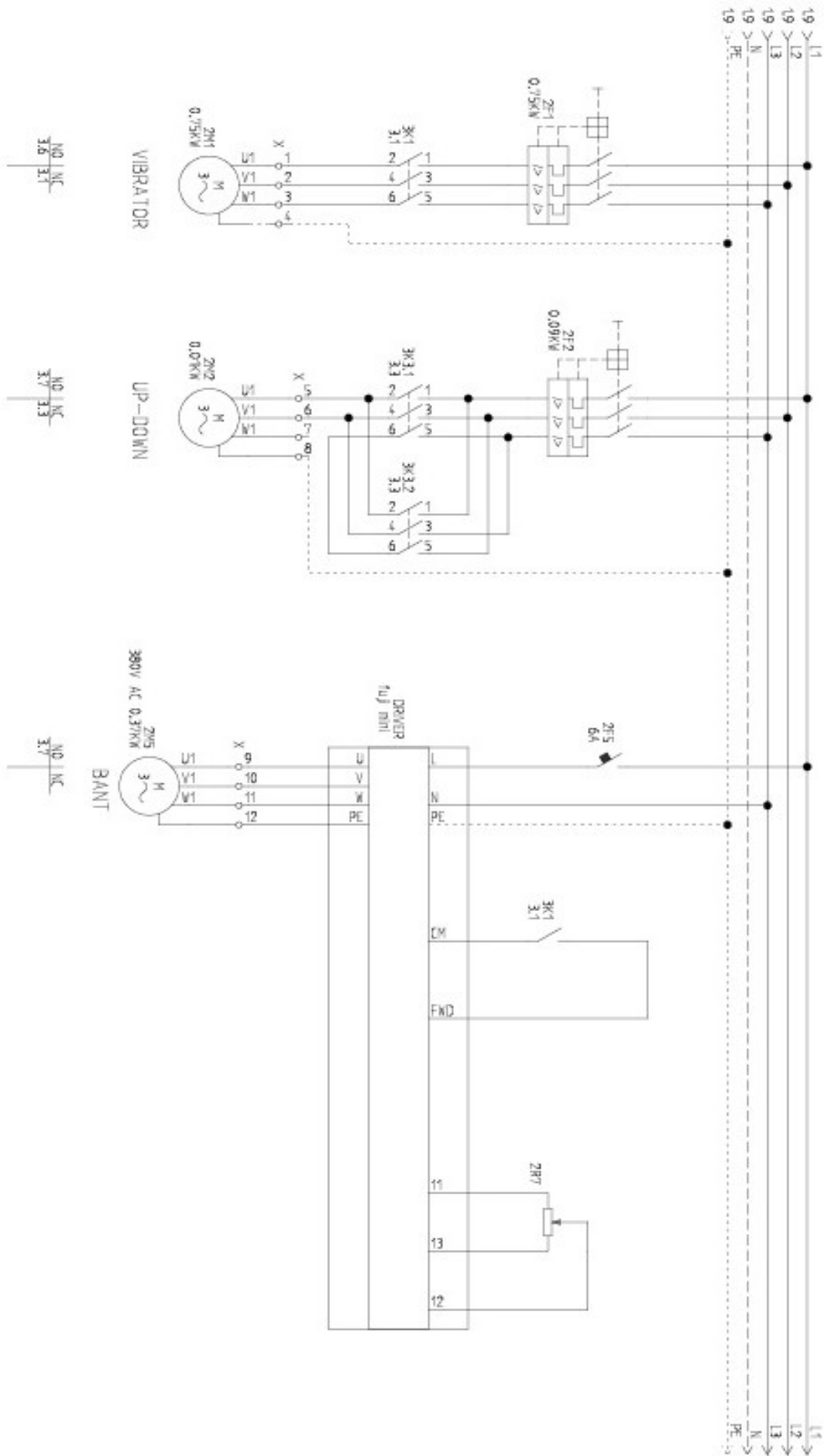
1. Knives need sharpening after cutting from 25 to 30 thousand loaves of bread
2. When sharpening knives decrease of width of knife panel from 13 to 11 mm is allowed. After receiving such development the knife should be replaced.

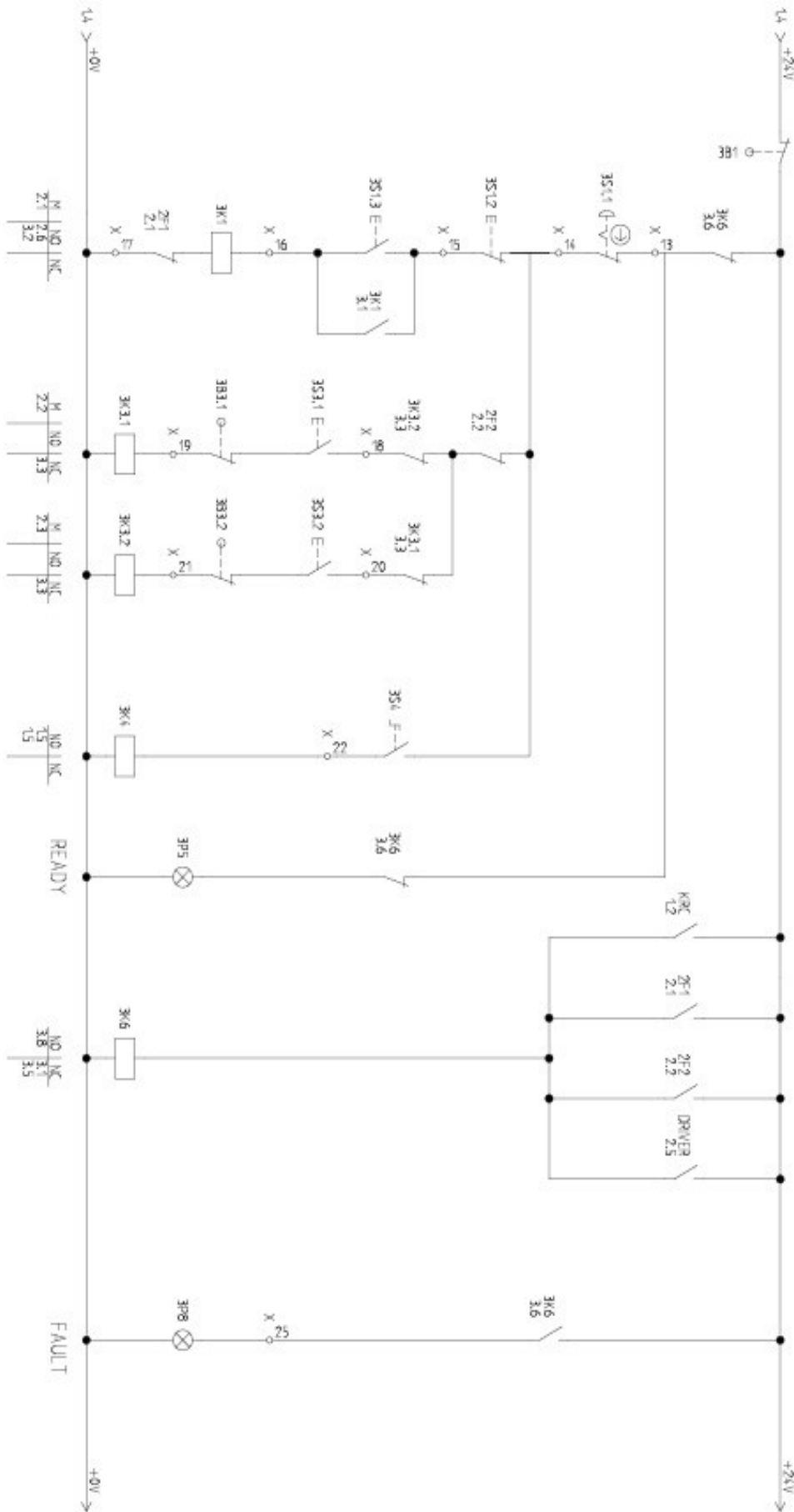
 **Dismantle and installation of knives is the most dangerous in actions of equipment service.**

 **When replacing knives special attention should be paid to precautionary measures because of possible cut.**

3.ELECTRICAL SCHEMES







4. REQUIREMENTS

Only operators older than 18 years who passed a vocational education can use this equipment..



In the course of cleaning it is forbidden to use toxicant acidic solutions. Before the cleaning, the equipment needs to be stopped.



Don't clear / wash electric components with water.



Make sure that the strain in a network corresponds to principal specifications of your equipment. Before connection of the equipment to power supply source, ground it properly.



In case of malfunctions, only the authorized service personnel have to be engaged in their elimination.



During cleaning foreign objects shouldn't get to a loading funnel. Our company doesn't bear responsibility for the damages caused during cleaning at which the equipment worked.



Control oil level in the oil tank. If oil reached a limit or greasing isn't carried out, the equipment can't be used.



The equipment needs regular maintenance and cleaning. Otherwise flour will cork systems of greasing, the equipment will wear out quicker, and, equipment service life will decrease as a result.



The direction of rotation of the engine is specified by equipment by a finger, be convinced that the direction of rotation of the engine corresponds to a finger.



In case of non-compliance with provisions of the present Instruction the producer doesn't bear responsibility for causing damages of the equipment and harm of life and to human health.

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A large rectangular area consisting of multiple horizontal dashed lines, intended for technical drawings or specifications.

PORLANMAZ
bakery machinery

Fevzi Cakmak Mah. Busan Organize Sanayi Bolgesi
Kosgeb Caddesi 10643 Sokak No: 33 – 35
Karatay, Konya / Turkey

Web: www.porlanmaz.com - E-mail: info@porlanmaz.com
Тел.: +90 332 251 03 18 - Факс.: +90 332 251 03 19