



INSTRUCTION MANUAL
for
Dough dividing and moulding machine (double-row)
K2

Machine-No.:
K2-413



D - 07950 Zeulenroda-Triebes
Zeulenrodaer Straße 48



+49 (0) 3 66 22 / 75 - 0

Fax

+49 (0) 3 66 22 / 75 - 300



post@trima.de



<http://www.trima-baeckereimaschinen.de>



<http://www.trima-bakerymachines.com>

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1. The machine

1.1. Short description

The machine is made for the dividing and rounding of dough for the production of buns and rolls.

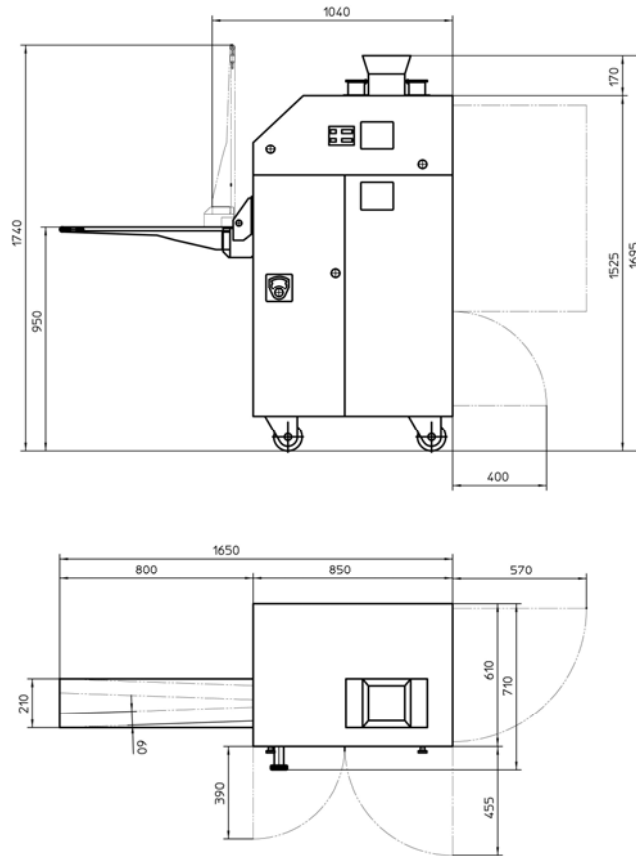
The function of the machine is as follows:

- fill in dough into the hopper
- transport of dough by floured belts to the predivider
- predividing by indexing cutters
- dividing the dough by pushing it into the 2-pocket pistons
- moulding of the dough pieces
- pushing out the moulded pieces on a conveyor-belt
- greasing of the surface of the pistons

Following adjustments can be done:

- weight of the pieces
- moulding space
- moulding speed
- quantity of flour-dusting, 3 steps, 0 = off
- moulding time extension, 3 steps, 0 = off

1.2. Technical Data



| | |
|---------------------|--|
| Weight: | appr. 615 kg |
| Voltage: | 208 V ~ /3N / 60 Hz |
| Fuse: | 16 A |
| Capacity: | appr. 3.600 pieces/hour |
| Weight range: | appr. 45 - 110 gr. divided + rounded appr. 35 - 125 gr. divided and partially rolled) |
| Capacity of hopper: | appr. 15 kg |

1.3. Designated use of the machine

The machine is for dividing and rounding of dough to produce buns and rolls. For operating only one person is required. No other person should be at the machine during operation. No other materials than dough and flour for dusting are allowed to be handled by this machine.

No other use is allowed. The manufacturer does not guarantee or take liability for not authorized use.

Operating the machine within the limits of its designated use also involves observing the instructions set out in the operation manual and complying with the inspection and maintenance directives.

Personnel entrusted with work on the machine must have read the operating instructions and in particular the chapter on safety before beginning work.

Additionally to the operating instructions, observe and instruct the operator in all generally applicable legal and other mandatory regulations concerning accident prevention and environmental protection.

Not authorized modifications on the machine exclude any liability of the manufacturer for all damages, that may be caused by this.

It is not allowed:

- to gear in current machine by hand or by tool
- to modify or destroy covers, safety-elements and safety-switches and to take off or overpaint signs.

2. Safety instructions

2.1. General safety- and working instructions

Warning

This symbol is needed for warnings for any feasible accident or injury of health.

The machine can injure health or cause accident, if it is operated or maintained by not instructed people or if it is used improperly.

The user has to make sure, that only instructed and authorized personnel works on this machine, that is instructed to all general rules and regulations of safety.

Protective gear

The machine is protected by fixed covers or by covers that are equipped with safety-switches. All covers have to be closed, safety-switches are not allowed to be taken out of function or to be destroyed.

Noise-Emission

The noise-emission is less than 70 dB (A).

Emission of flour-dust




Flour is used for separation inside the machine to provide sticking of dough.

The quantity of flour can be regulated or switched-off totally.

Lubrication

Mechanical parts (motors, gears, chains, bearings) are lubricated. Lubrication can injure health and environment. Make sure that dough does not touch lubrication or lubricated parts. For the feltwicks, the pistons and the ram use only oil which is permitted for food-purpose.

General


-  Modifications are not allowed. Nothing is allowed to be done, that might injure safety of the machine.
-  In case of safety-relevant modifications or changes in the behaviour of the machine during operation, the operator has to stop the machine immediately and report the malfunction to the competent person.
-  The safety of the machine can be injured, if
 - modifications are done on the machine
 - others than original spare-parts are used

The manufacturer refuses any liability for damages, that may rise by using not-original parts or by modifications.




2.2. Instructions for the operation

Before you switch on the machine make sure, that the flour-dusters are filled and that there are no bridges of flour inside the flour-box. The oiler with feltwicks must be filled with not resining food oil, the box has to be free from leakage.

Each manipulation on safety-important parts is forbidden.

-  During operation keep hands out of machine and hopper, keep hands out of the conveyer belt.



-  Do not use a stage.
-  The machine stops, if a door is not properly closed.
-  The red main-switch is also to be used as emergency-switch, the machine stops immediately if this switch is switched off.

2.3. Instructions for maintenance and repair



Before repair pull plug.
For cleaning switch off main switch.
For cleaning do not use water or steam.



In cases that power is required be very careful.
If covers are taken off keep hands out of running machine.



For repair take care of legal instruction to prevent accidents.



Works on electrical system and equipment of the machine must be carried out only by a skilled electrician or by instructed persons under the supervision and guidance of the skilled electrician and in accordance with electric engineering rules and regulations.

After repair of the machine replace covers and safety-elements immediately.



For cleaning do not use air-pressure!

This may cause asthma and incitement of the tissue of mucous membrane.
For cleaning use a vacuum cleaner.

2.4. Protection device for BASIC version

In BASIC variant, in the manually openable panel doors or flaps that are required for operation and maintenance, the safety limited switches are replaced by locks. The doors can only be opened with the provided keys. The machine may only be opened at a standstill. The operator of the machine is responsible for the proper use of the key.



3. Transport and installation

3.1. Transport

For transport replace the castors by fixed feet.

The machine can be taken by a fork-lift between the feet.

In the bakery, normally the feet can be replaced by castors again.

3.2. Installation

The room in which the machine operates should be dry and equal temperised. The machine has to be installed that way, that all operating elements and all doors to open are accessible easily.



The switch cupboard is to be hold closed all the time, the key has to be taken by a responsible person.

A wiring diagram is in the switch cupboard.



The machine is secured against automatical restart after line drop. It has to be started again manually.

The machine has to be connected with a plug 16 A.

Mainswitch (2) position "I" the machine is under line.

If one of the doors is not closed, the lamp (3) blinks. If all doors are closed the lamp (3) lights constantly and the light in the machine lights.

In case of wrong phase-sequence the light in the machine does not light and the lamp (3) blinks, although all doors are closed. The machine does not start. Change phase sequence.

Before you start the machine fill the two flour dusters (7) and (8).

Fill the oiler (9) which you will find below the drum. Fill not more than 3/4, use a not resining special oil that is allowed for food. (for ex. Boeson-Schneideöl CD 130).

4. Operating the machine

4.0. Switchboard

If Mainswitch is on:

white control lamp (3) means:

| | |
|---------------|--------------------------------|
| on: | machine is ready for operation |
| blink: | one of the doors is open |
| out: | machine is in operation |

red control lamp/Tip mode (54)means:

| | |
|---------------|--------------------------------------|
| on: | motor overload |
| blink: | clutch of drum is disengaged |
| | or |
| | phase sequence is wrong or disturbed |

4.1. Adjustments

- adjust the weight of the pieces with wheel (11) on picture 2,4. As the **K2** has a volumetric dividing system, the number of the scale can only be a help. Check the weight of the first pieces with the weigher. Corrections of weight are possible during the working operation by turning the lever of the wheel to the left and then back again.

- adjust the moulding space (12) on picture 8,9. It should be app. half of the weight of the pieces in gram. The moulding space can continuously be adjusted during the operation of the machine. If the pieces are not rounded, moulding space is too large.

- adjust the moulding speed with the turning knob (13) on picture 3. The recommended adjustment is app. 6 (higher number = quicker, lower number = slower).

- adjust the duster by button (4) on picture 3; no. 1 means little flouring, no. 2: more flour, no. 3: maximum flour.

Soft dough needs much flour, stiff dough needs less flour, position "0" of the button means no flour.

- The riddle of the flour duster in front side of the machine, that is situated upon the shaft (28) and the brush (50), can be opened or closed by a slide bar. For that purpose the knob (43) can be opened and the flour duster can be taken out of the machine.

- the oiler for the dividing pistons is in operation, when the tank is introduced into the machine. If the tank isn't in the machine, it works without oil. The tank can be refilled by taking it out and opening the yellow cap.

- moulding time (49)

The moulding time of the machine can be adjusted (extended) by knob (49).

| | |
|----------|--|
| 0 | standard moulding time without extention |
| 1 | extention of moulding time 0,5 sec |
| 2 | extention of moulding time 1,0 sec |
| 3 | extention of moulding time 1,5 sec |

- operating modes-selection switch (53)

switch positions:

| | |
|----------|------------------------------------|
| 0 | single operating |
| 1 | Start and Stop about couple signal |
| 2 | synchronous operating |
| 3 | as position 2 |

4.2. How to operate the machine

Watch the dough through the plexi-windows. When the dough finishes, the flour dusters stop 5 steps later in order to avoid an overflouring. If necessary the dusters can be stopped during the working operation by setting button 4 in position "0".



During operation of the machine keep hand out of the machine and out of the hopper. It is not allowed to use a stair or a platform for filling the hopper or the dusters.

In case of interruption or breakdown

In case of breakdown, stop the machine immediately by setting the main switch (2) in position "0". Then drive the machine with handcrank 17 (picture 10,17) by introducing it in opening 18 (picture 17) on the right side of the machine. Observe direction!

The rotation step of the drum is protected by an overload clutch. In case of overoperating by exterior influences, the machine stops automatically, the red control lamp makes: on-off, on-off. After elimination of the disturbing factor, for ex. hard parts in dough transporting areas in the machine, the drum must be turned in the correct position. This is to be done by introducing the handcrank into opening 18 on picture 17. Observe direction!

The possible causes for the safety coupling disengaging are:

1. If foreign bodies have entered into the chamber via the funnel. In this case, take out the piston (fig. 20) and attempt to remove the foreign body.
2. Soiled impression roll (28) or drum duster brush (45). In this case, pull the lock bolt (29), clean the impression roll or dusting brush, then click the safety coupling back into place with the crank handle.

Before you put the dough into the hopper, dust it by hand. Flour should dust down to the cutters.

After kneeding you can repose the dough as you are used to do.

Cut the dough in pieces and put them into the hopper. Do not overfill the hopper! You can fill in appr. 10 kg.

Start the machine working by setting the main switch (2, picture 3) in position "I". Control lamp on the switch board and interior light are on. Then press the green switch (5, picture 3) in position "I".

By pressing the red switch (6) in position "0" the machine finishes its last working step and stops in depart position.

Setting the mainswitch (2) in position "0", stops the machine immediately.

If the machine has an additional foot switch it is stopped either by foot switch or by the switch on the switch board. The contact for the foot switch is located under the conveyer (37, picture 6).

4.3. Manual for machine with touch panel

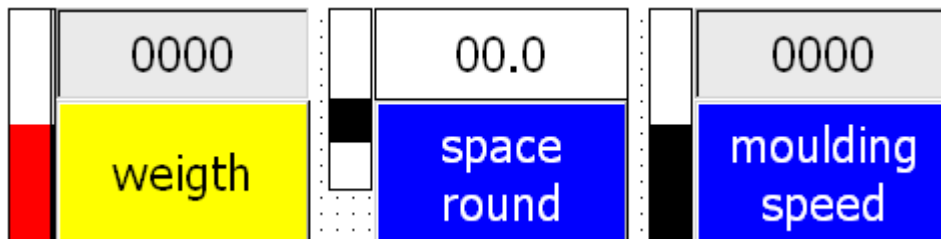
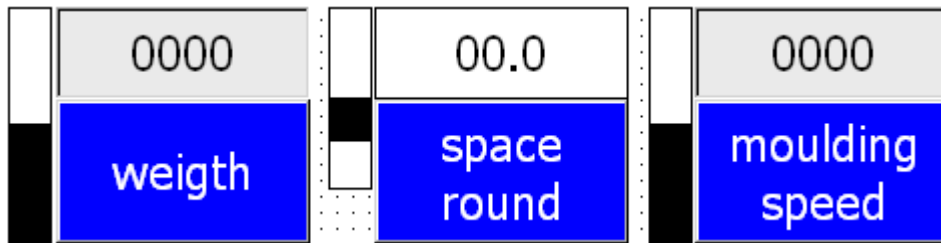
The F-keys



F1 Machine On
 F2 Machine Off
 F3 – Reduce value
 F4 + Increase value

These keys always have this function

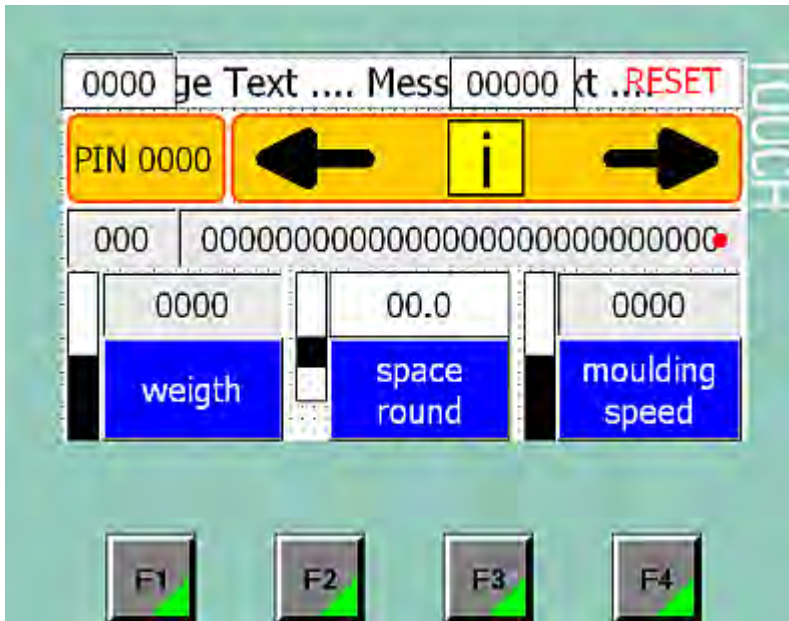
description: changing of values



The active function will be shown with the yellow and the red colour.
 The value can now be changed with the buttons F3 and F4.
 By touching of the grey input-/output fields the value can also be typed in directly.

Orange start screen

Description of the controls



You can use the **arrow keys** to switch between the three screens for operation

F1 On

F2 Off

F3 Reduce value

F4 Increase value

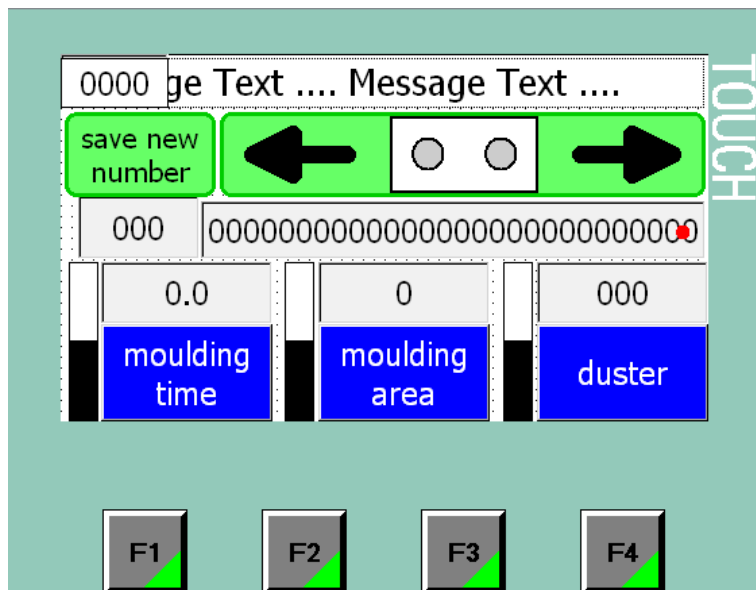


i - Settings screen

| | |
|----------------------------|---|
| Top message line | If no special message is active, the counter function is shown. In the left-hand input field you can set the counter setpoint value by using the set master PIN. The maximum value is 9999. Use the RESET key on the extreme right to reset the actual value of the counter to 0 whilst the machine is at a standstill . The actual value is displayed to the left of the RESET key |
| PIN 0000 | Save recipes |
| 000 Centre left | Direct input of a recipe number from 1...50 |
| 000000000000 | Display and input the recipe name (maximum of 28 characters) Changes are saved immediately - only possible with PIN. |
| Screen centre right | Red dot - invisible button, when pressed the input field to the left of the recipe number turns yellow. This is the sign that you can scroll through the recipes in a loop using F3 or F4. |
| weight | Direct input in the numerical field. Press the Weight key to show the dot. This is the sign that you can change the weight with the keys F3 or F4 . |
| space round | Press the key to show the dot. You can make fine adjustments to the dough rounding with the keys F3 or F4. The round is automatically adjusted to the weight. The bar graph next to the key should be set to around 0. |
| moulding speed | Adjust the speed to the dough and the weight. Setting range 20...60rpm |
| PIN | For release of the input fields you must put in the user assigned PIN. Please pay attention also to picture S1 SERVICE head machine. |

Operation of the green screen

Description of the controls



You can use the **arrow keys** to switch between the three screens for operation

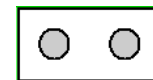
F1 On

F2 Off

F3 Reduce value

F4 Increase value

Change between:



small piston



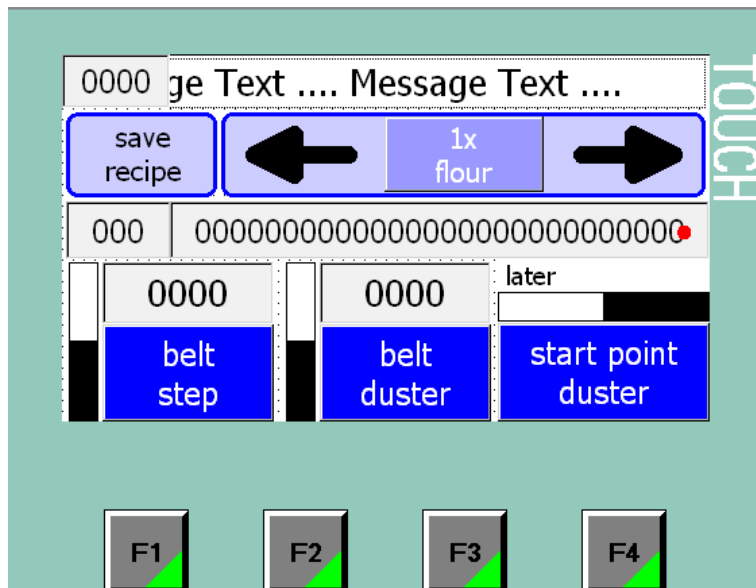
big piston

| | |
|--|---|
| Top message line | If no special message is active, the counter function is shown. |
| PIN 0000 | You can enter a new recipe number and then use the key to save the recipe as a copy. |
| 000 Centre left 00000000000 | Direct input of a recipe number from 1...50 |
| Screen centre right | Red dot - invisible button, when pressed the input field to the left of the recipe number turns yellow. This is the sign that you can scroll through the recipes in a loop using F3 or F4. |
| moulding time | Set desired rounding time in steps of 0.1s. Range of values 0...0.5 to 2.0 Value 0 means no extension of rounding time. Time in seconds |
| moulding area | You can set the round when extending the rounding time. Value range from 1 – 5. Small value for low weight. Large value for high weight. The setting also depends on the dough |
| duster | Set the flour strength. In case of large changes, make an entry in the input field above. If there is no longer any dough in the funnel, the duster switches off automatically. The dusters are activated automatically when there is fresh dough. |

Attention! If you select another recipe number here on the screen, the recipe is not activated until you have exited the screen. This is necessary because you can create a copy of the current recipe with a new number on screen C.

Operation of the blue screen

Description of the controls



You can use the **arrow keys** to switch between the three screens for operation

F1 On

F2 Off

F3 Reduce value

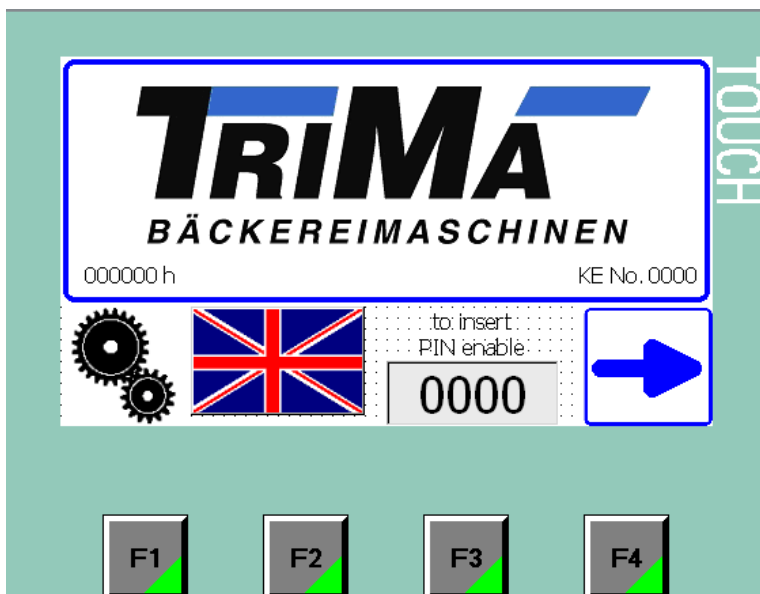
F4 Increase value

| | |
|----------------------------|---|
| Top message line | If no special message is active, the counter function is shown. |
| save recipe | Save recipes |
| to C, to B | Select further operating screens |
| 1x flour | Activate dusting at the end of the belt step |
| 000 Centre left | Direct input of a recipe number from 1...50 |
| 000000000000 | Display and input the recipe name (maximum of 28 characters) Changes are saved immediately - only possible with PIN. |
| Screen centre right | Red dot - invisible button, when pressed the input field to the left of the recipe number turns yellow. This is the sign that you can scroll through the recipes in a loop using F3 or F4. |
| belt step | Set the step size for the spreading belt. |
| belt duster | Set the flour strength. |
| start point duster | This setting can be used to dust the piece of dough or the depositing belt. Enter a value of 1 to apply flour with start-up of the depositing belt. If the value is increased, it is applied later. The maximum value is limited by the belt step. If the maximum value is applied, dusting is performed at the end of the belt step. |



Screen

Description of the controls



Select language



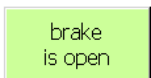
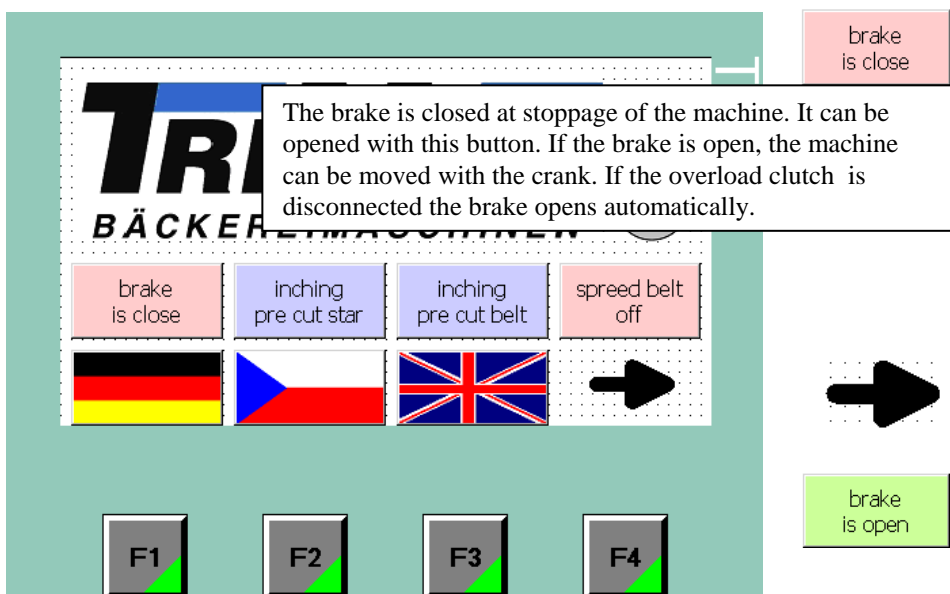
Select Service screen



home

Screen Select language

Description of the controls



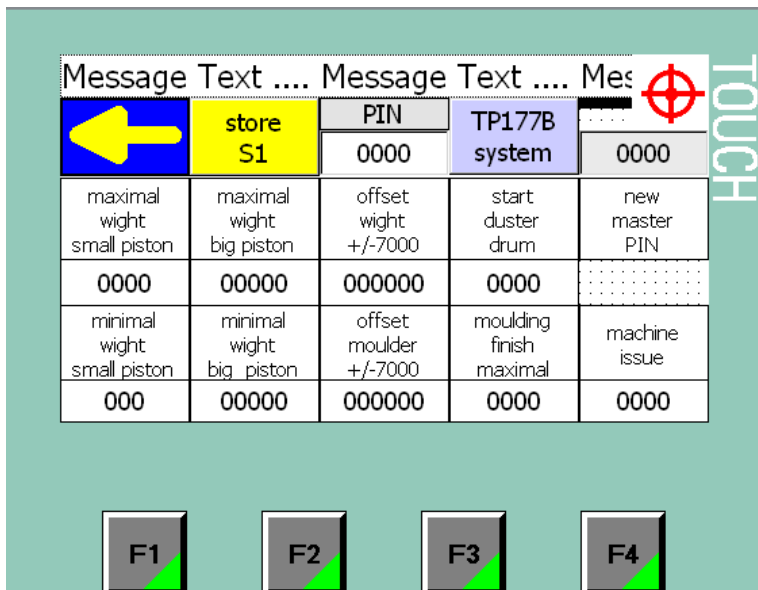
With this button the
brake can be closed.

The other buttons are for test run in service.



Operation of screen S1

Head machine service



With this function the touch panel can be adjusted to the height of the operator.



The new adjustment must be transferred before end of waiting time.

new master PIN

At delivery the PIN is adjusted at 1111, therewith all inputs are approved. If input fields should be blocked, another 4-digit number must put in 'new master PIN'.



home

Service

The right-hand button contains a key switch.

The switch has to be in the left-hand **Betrieb** position for normal operation.

Emergency stop modules X8 and X9

4.4 Switch over to the other weight range

- stop the machine by pushing the STOP-button
- lift up the moulder, remove any leftovers of dough out of the measuring pistons and retract the moulder
- pull out the dividing piston and clean it from any leftovers of dough, retract the dividing piston
- please operate the changeover switch to the desired weight range
- release the transition by pushing the button "ON"
- after final of transition put the machine into operation by pushing the button "ON"

Alternatively the machine can be made completely empty before you start with transition. In this case it's not applicable to remove the leftovers of dough from the measuring pistons and dividing piston.

Information to basic settings on the machine

At the recipes 1, 2 and 3 the big pistons (Ø 75) are chosen.
 Recipe no. 1 is the smallest possible weight (approx. 75 g)
 Recipe no. 2 is the medium-sized weight (approx. 119 g)
 Recipe no. 3 is the largest weight (approx. 167 g)

At the recipes 4, 5 and 6 the small pistons (Ø 60) are chosen.
 Recipe no. 1 is the smallest possible weight (approx. 28 g)
 Recipe no. 2 is the medium-sized weight (approx. 72 g)
 Recipe no. 3 is the largest weight (approx. 95 g)

After starting the machine you see at first recipe no. 2 on the screen.
 The weights relate to our test dough and can differ, also the other settings, as moulding speed and moulding height.

5. Cleaning and maintenance of the machine



Before working on the machine switch off main switch.



For cleaning do not use water or steam.



Do not scrap with sharp tools.

- Ram and chamber

Set machine in start position by pressing the red switch in position "0" and open the back door. Take out the housing (19) by dislocking the star knobs, take out ram (20) in above direction. Clean all parts, also the base plate with guide plates using a plastic scraper. Then grease all metal parts with the oil which is used for the oiler pistons. Replace ram and housing.

- Cutters of predivider

The cutters (22) are to clean by a long strong brush which is introduced through the hopper. The cutters can be turned by a switch on-switch off operation of the red (6) and green switch (5). The predivider can be cleaned by opening the cleaning flap (39).

After opening the screw you can open cleaning flap back (46).

If necessary clean from old dough and flour. It is very important, that the room between the halfbowl and the flouring step plate (40) is clear.

- Drum and moulder

Open moulder covering (23) and turn moulding unit (24) in front. By driving the machine with handcrank, it's possible to control and clean the pistons. (27, picture 16). All metal parts of the drum should be greased once a month. The moulding plate (25) should be cleaned with a strong brush.

- Press roller, cleaning brush with waste box and oiler for dividing pistons

These parts can be reached by opening the left door. The press roller (28) comes out by talking away the indexing bolt (29). When resetting the press roller, pay attention that the index hooks in by turning the roller. The press roller is to clean with a scraper by using flour. After cleaning, the press roller must be dusted again. The cleaning brush (30) comes out after loosening the butterfly nuts. When resetting it, pay attention that the indexes hook in. The waste box (31) can be taken out easily. The tank of oiler for dividing pistons should always be filled with special oil (Boeson-Schneideöl CD 130). Feltwicks (10) should be clean.

- Transfer roller

If necessary, the transfer roller should be cleaned. For that the machine can be driven by handcrank.

- Dusters

Both dusters can be taken from the machine. Open the back door and take out the electrical plug of the dusters (42). For each duster, two star knobs (43) must be opened. Clean the bolter with a strong brush. When you reset the dusters don't change them, the front duster has two bolters.

The sieves can be cleaned by a brush. Do not change the 2 dusters! The front duster has two sieves!

- Whole machine

It is recommended to clean the machine once a week by a vacuum cleaner.

The feltwicks should be changed all 3 - 4 years or after claim. Take off the cover plate of the oiler and change the feltwicks. Do not forget to fit the small springs below the feltwicks.

The moulding plate can be changed by opening the moulding unit and loosening the screws. It is necessary if the grooves are worn out.

For a good function of the machine it is recommended to oil all bores of the pistons of the drum with a not-risening food-oil (same as used in the oiler 9). Oil all 4 positions!

For this purpose shift drum by crankhandle or run machine step by step with closed doors or covers, so that you can reach all 4 rows of pistons around the drum.

This work should be done daily or in larger bakeries after each shift.

In some countries the special oil Boeson-Schneideöl CD 130 is available as a spray, it makes the work easier, to use spray-oil.

6. Other adjustments operations

6.1. Adjustments of pressing power

Regulations of pressing power for the ram is possible by the clamping nut (33) on the big pressure spring (34) which is behind the left door. The pressing power is adjusted on a standard factor, only for extremely strong doughs the spring can be extended up to a maximum pressing power of 50 mm.

6.2. Initiator for dough feeding

The lever arm (35) for dough feeding which contacts an initiator (36) is behind the back door over the electrical switch box. This lever regulates the quantity of dough which comes from the predivider into the ram. The lever is adjusted on a standard factor which is given by congruence of the two scale marks on the lever (35).

If there is always too much dough in the ram chamber the lever position must be corrected as follows:

Loosen the hexagon nut. Pull the lever which touches with each working step against the initiator a little bit back in direction - and fix it again. The change on the lever end should not be longer than 2 mm. Then a control of the dough in the ram chamber is necessary for a longer period.

If there is always too less dough in the ram chamber the lever must be corrected in direction + as described above.

7. Picture list

| No. | description | picture |
|------------|---------------------------------------|----------------|
| 1 | connection cable with plug | 17 |
| 2 | main switch | 3 |
| 3 | control lamp | 3 |
| 4 | regulation of flour | 3 |
| 5 | machine "Start" | 3 |
| 6 | machine "Stop" | 3 |
| 7 | flour duster front | 2 |
| 8 | flour duster back | 2 |
| 9 | oiler for dividing pistons | 8 |
| 10 | feltwicks | 8 |
| 11 | weight adjust | 2, 4 |
| 12 | moulding space adjust | 8, 9 |
| 13 | moulding speed adjust | 3 |
| 14 | impulse journal for moulding movement | 14 |
| 15 | teflon hopper | 2 |
| 16 | conveyor | 1, 16 |
| 17 | handcrank | 10, 17 |
| 18 | opening by handcrank | 17 |
| 19 | housing | 10 |
| 20 | ram | 10, 11 |
| 21 | base plate with lateral guide | 10 |
| 22 | cutters of predivider | 12 |
| 23 | moulder covering | 14 |
| 24 | moulding unit (cross sledge) | 14 |
| 25 | moulding plate | 14 |
| 26 | drum | 15, 16 |
| 27 | piston | 16 |
| 28 | press roller | 7, 15 |
| No. | description | picture |

| | | |
|----|--|----|
| 29 | indexing bolt | 7 |
| 30 | cleaning brush | 7 |
| 31 | box for waste | 8 |
| 32 | transfer roller | 16 |
| 33 | clamping nut for altering the pressing pressure | 8 |
| 34 | pressure spring | 8 |
| 35 | lever arm for dough introduction | 13 |
| 36 | initiator | 13 |
| 37 | plug for foot switch | 6 |
| 38 | ram lever | 10 |
| 39 | cleaning flap front | 15 |
| 40 | flouring step plate | 12 |
| 41 | light barrier for dough stock | 12 |
| 42 | plug for electrical connections of flour duster | 10 |
| 43 | star knobs for flour duster fixation | 2 |
| 44 | drum shaft | 7 |
| 45 | flour round brush for drum | 7 |
| 46 | cleaning flap back | 10 |
| 47 | plug connection | 6 |
| 49 | moulding time extention | 3 |
| 50 | brush for flour | 15 |
| 51 | flour duster for predivider | 5 |
| 52 | flange for flour round brush | 5 |
| 53 | operating modes-selection switch | 3 |
| 54 | control lamp | 3 |
| 55 | plug for addition flour | 6 |

8. Annexes

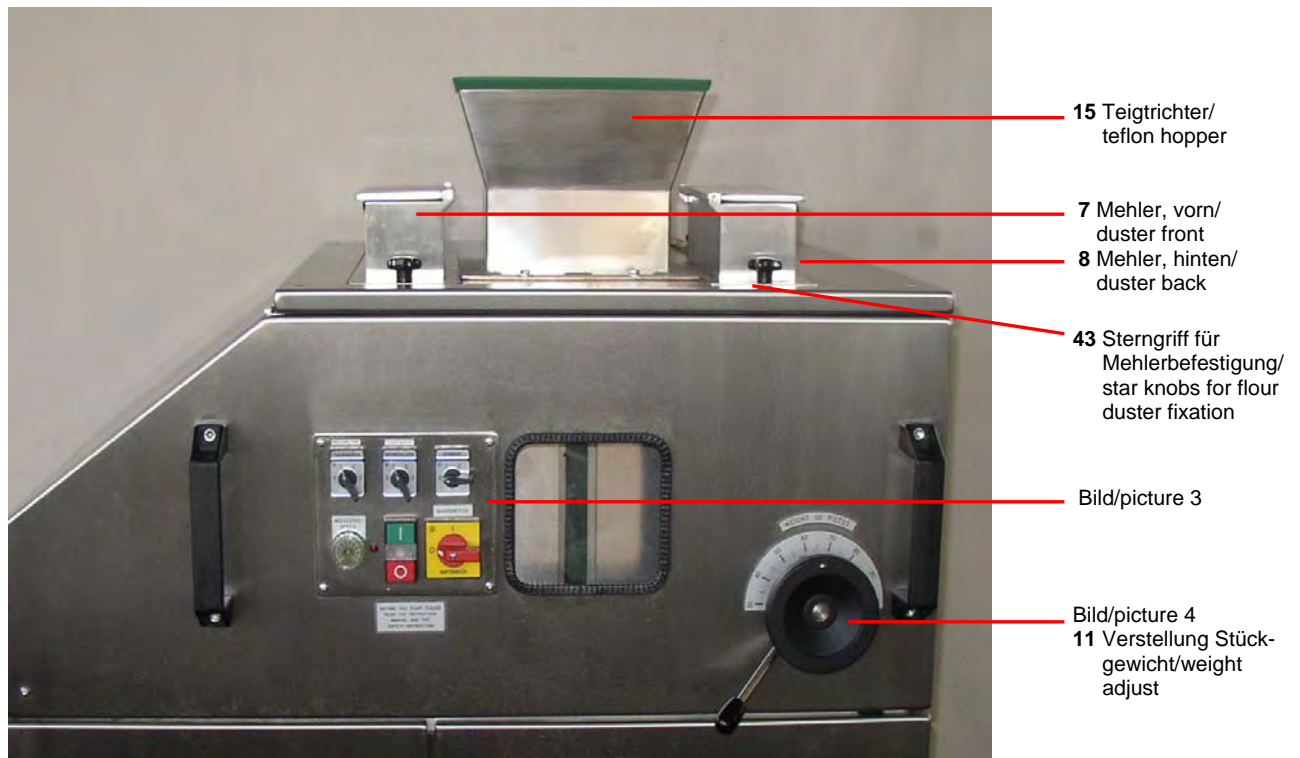
- EC Conformity Declaration

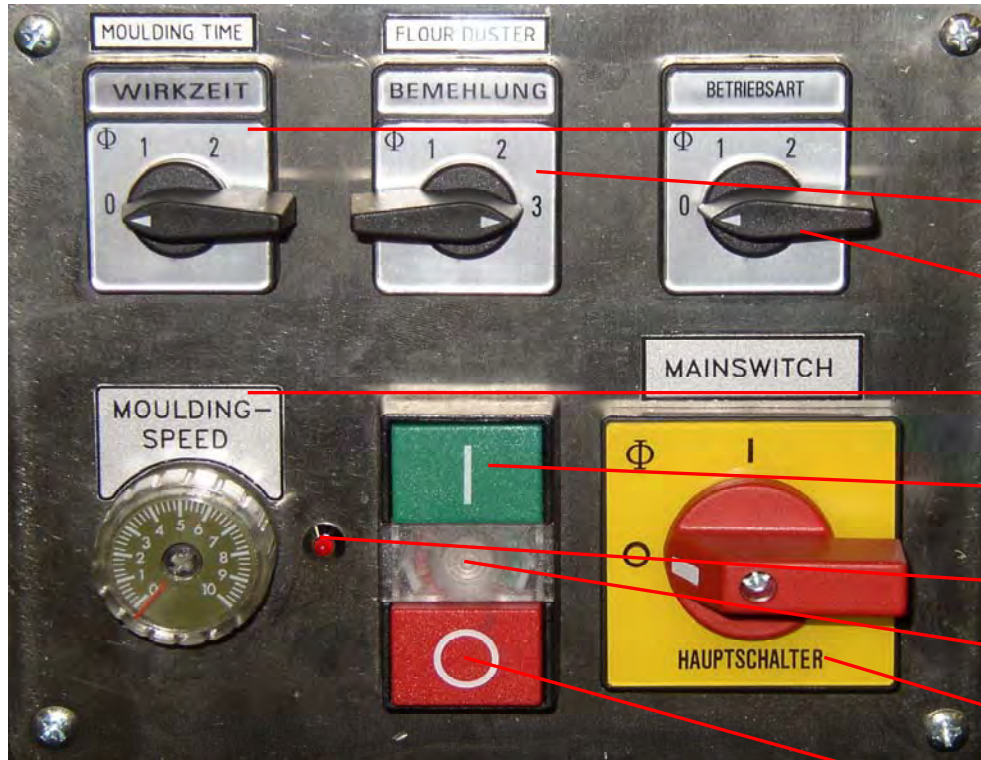
- Circuit diagram (located in the electrical equipment box; the key for the box hangs over the box on the right)



Bild/picture 1

Bild/picture 2





- 49 Wirkzeitverlängerung/
moulding time extention
- 4 Bemehlungsstärke/
regulation of flour
- 53 Betriebsartenwahlschalter/
operating modes-selection
switch
- 13 Verstellung Wirkge-
schwindigkeit/
moulding speed adjust
- 5 Maschine „Ein“/
machine „Start“
- 54 Meldeleuchte/
control lamp
- 3 Meldeleuchte/
control lamp
- 2 Hauptschalter/
main switch
- 6 Maschine „Aus“/
machine „Stop“

Bild/picture 3

Bild/picture 4



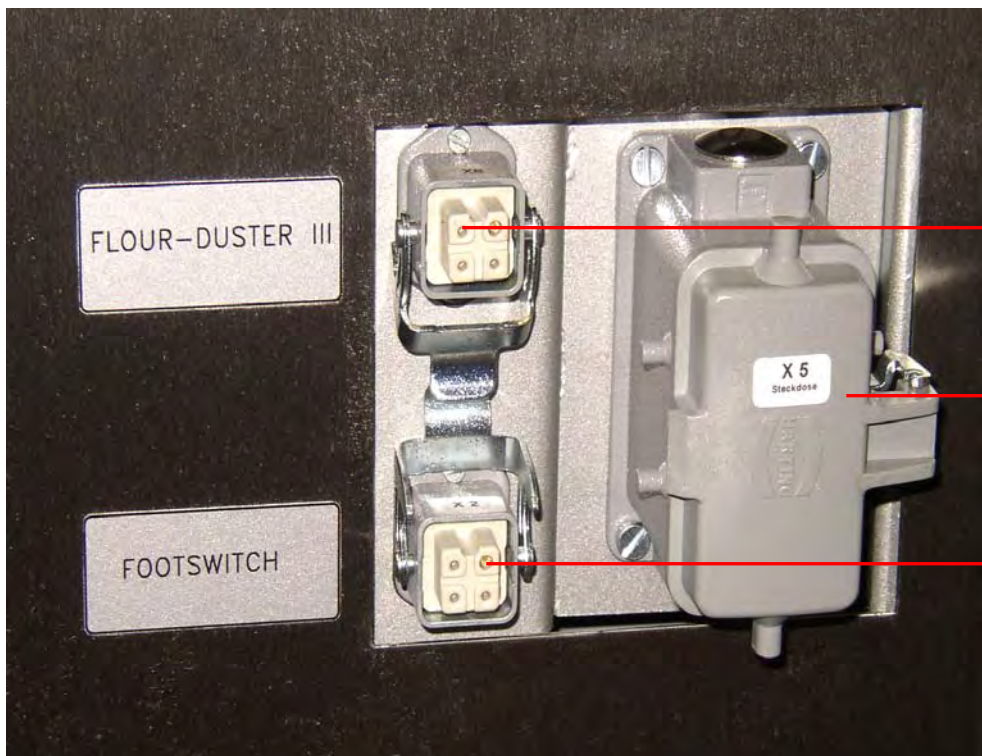
- 11 Verstellung Stückgewicht/
weight adjust



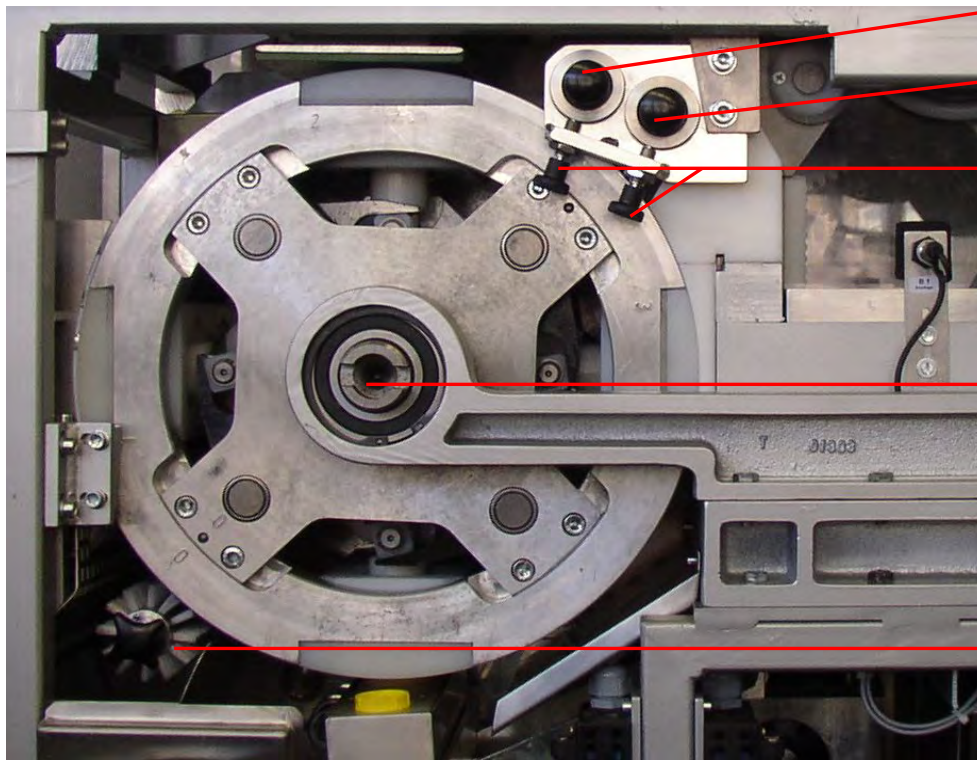
- 51 Mehler, vorn/
flour duster for pre-
divider
- 52 Lagerflansch für
Mehlerbürste/
flange for flour round
brush

Bild/picture 5

Bild/picture 6



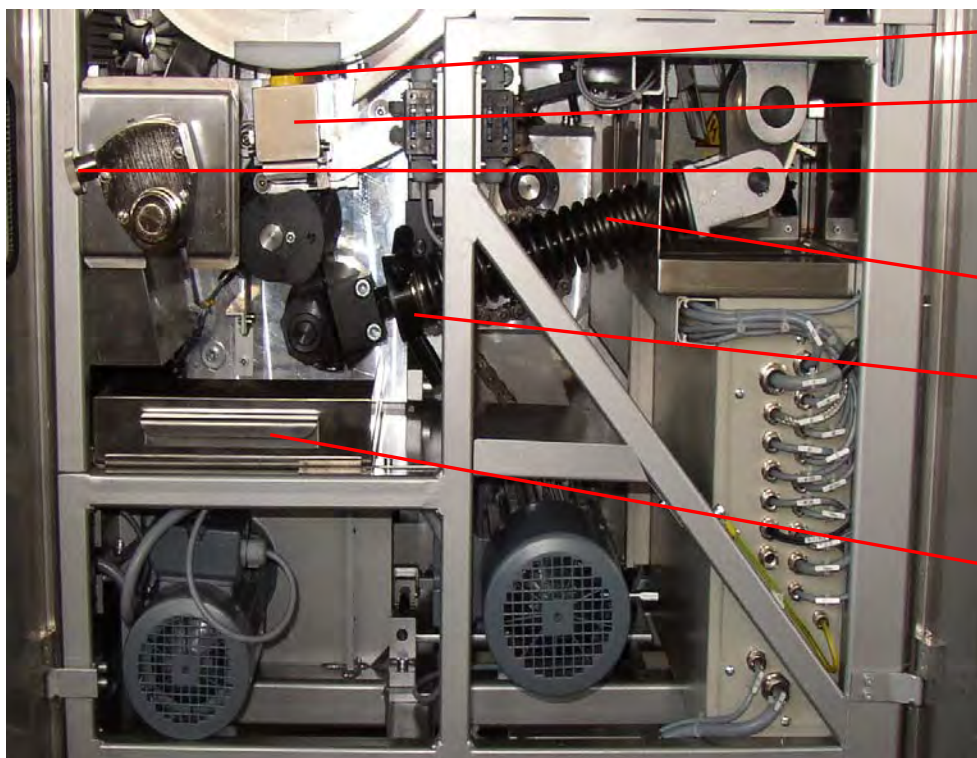
- 55 Steckdose für
Zusatzbereihlung/
plug for addition flour
- 47 Gerätesteckdose/
plug connection
- 37 Steckdose für Fuß-
schalter/ plug for
foot switch



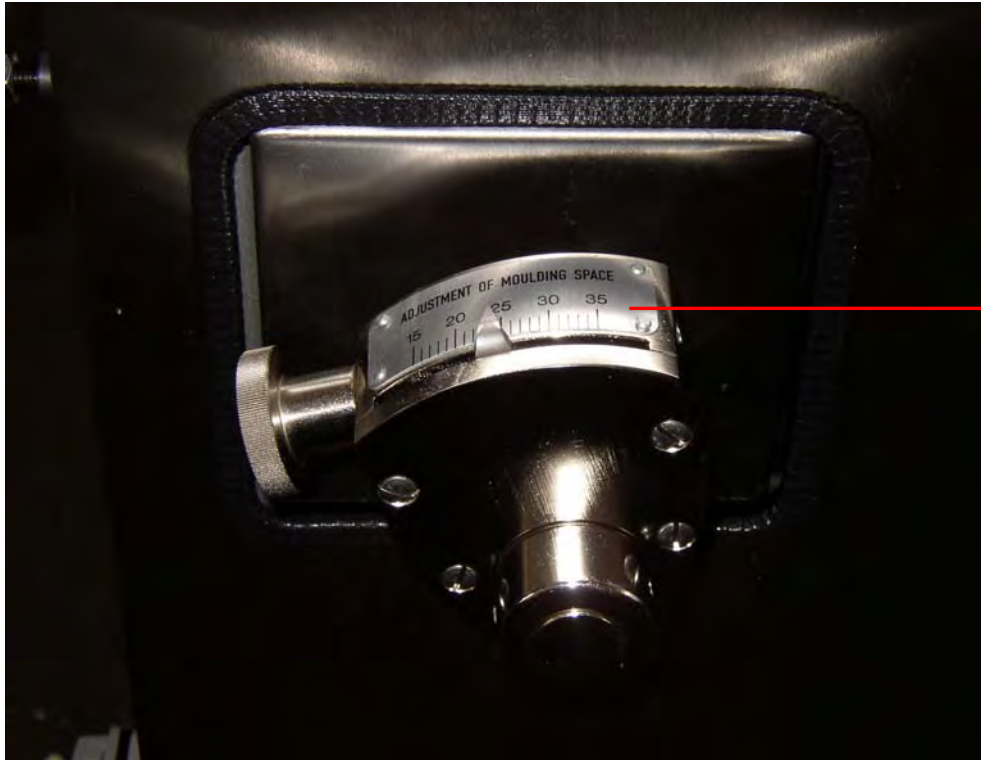
- 28 Eindrückwalze/
press roller
- 45 Trommelmehlerbürste/
flour round brush for
drum
- 29 Rastbolzen/
indexing bolt
- 44 Trommelwelle/
drum shaft
- 30 Reinigungsbürste/
cleaning brush

Bild/picture 7

Bild/picture 8



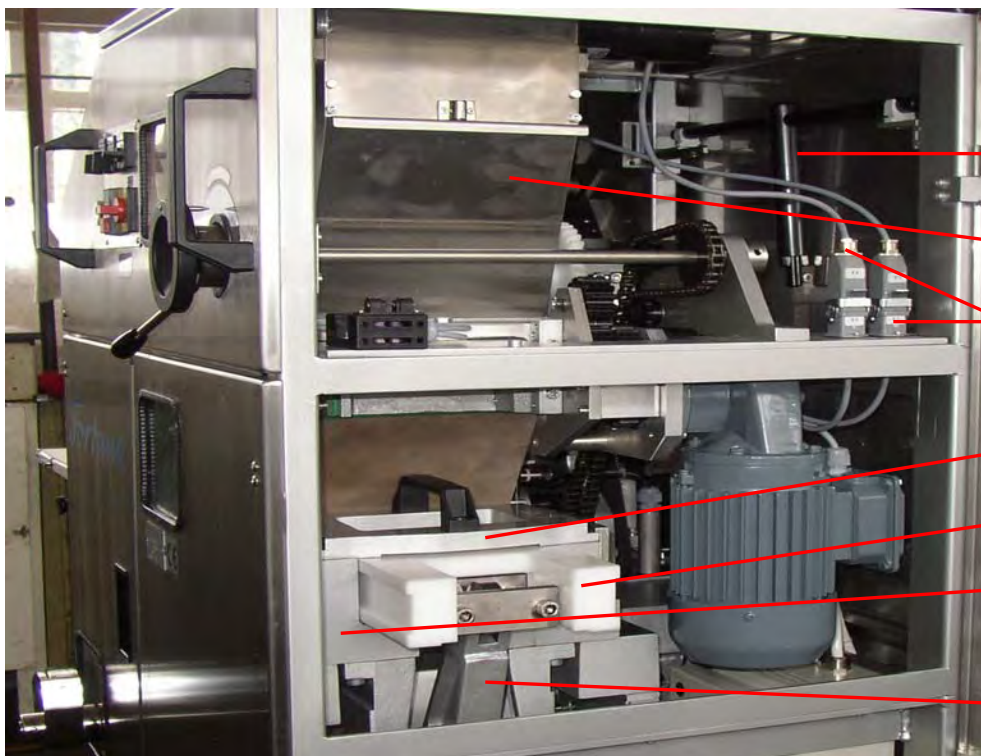
- 10 Filzdochte/
feltwicks
- 9 Messkolbenbeölung/
oiler for dividing pistons
- 12 Verstellung Wirkraum-
höhe/moulding space
adjust
- 34 Druckfeder/pressure
spring
- 33 Knebelmutter zum
Verstellen des Press-
Drucks/clamping nut for
altering the pressing
pressure
- 31 Abfallkasten/
box for waste



12 Verstellung Wirkraum-
höhe/moulding space
adjust

Bild/picture 9

Bild/picture 10



17 Handkurbel/
handcrank

46 Reinigungsklappe,
hinten/cleaning flap,
back

42 Stecker für Mehler/
plug for flour duster

19 Führungsrahmen/
housing

20 Füllkolben/
ram

21 Grundplatte mit Seiten-
führung/base plate with
lateral guide

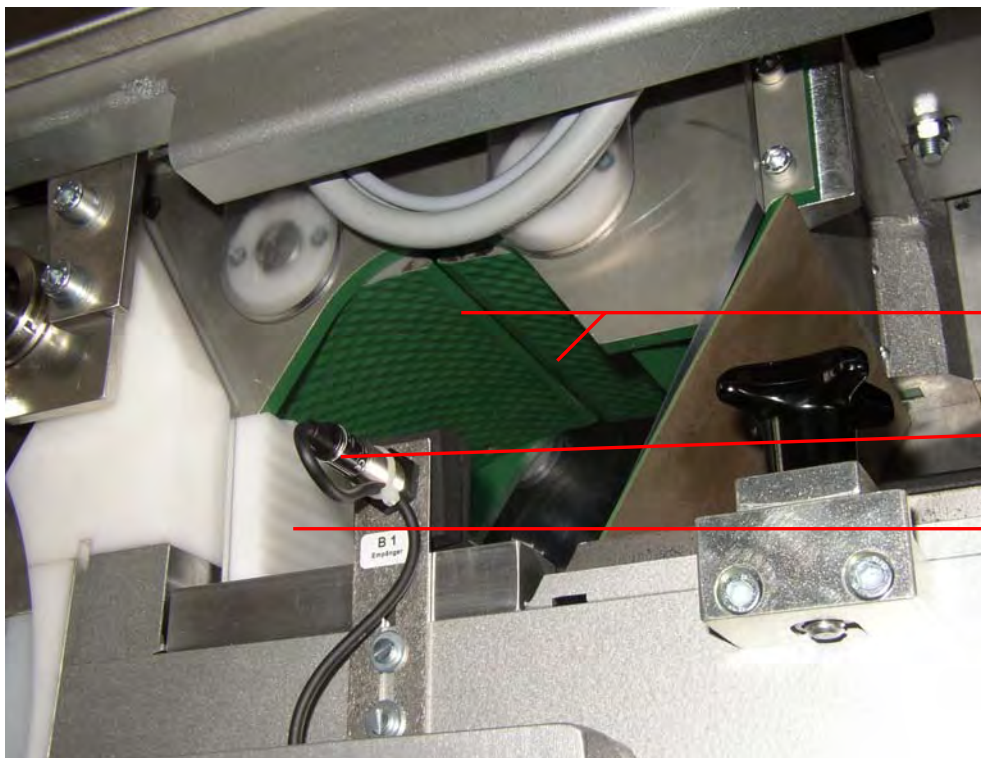
38 Füllkolbenhebel/
ram lever



20 Füllkolben/ram

Bild/picture 11

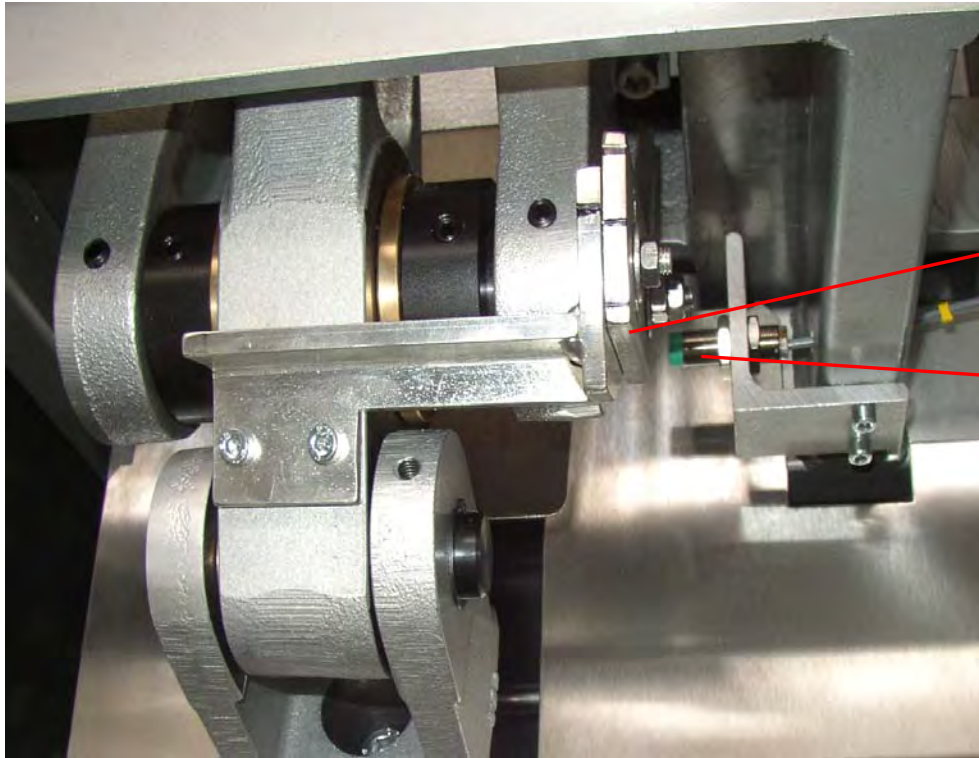
Bild/picture 12



22 Sternräder des Vorteilers/
cutters of predivider

41 Lichtschranke für Teig-
vorrat//light barrier for
dough stock

40 vordere Teigraumbe-
grenzung/flouring step
plate

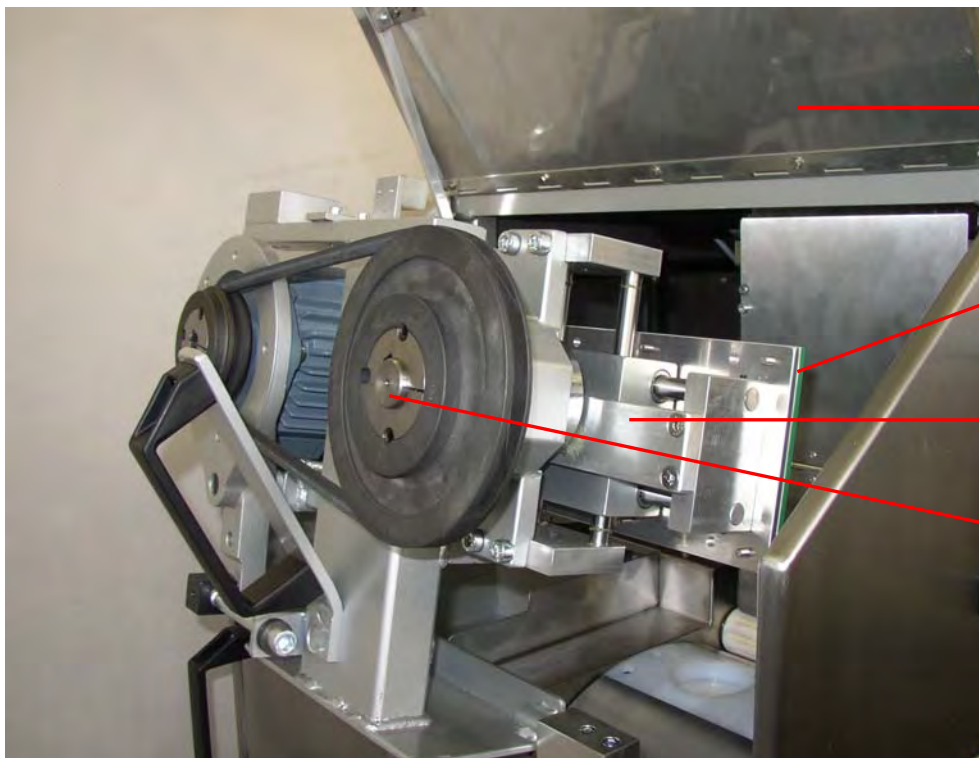


35 Hebelarm Teigzuführung/
lever arm for dough
introduction

36 Initiator/initiator

Bild/picture 13

Bild/picture 14

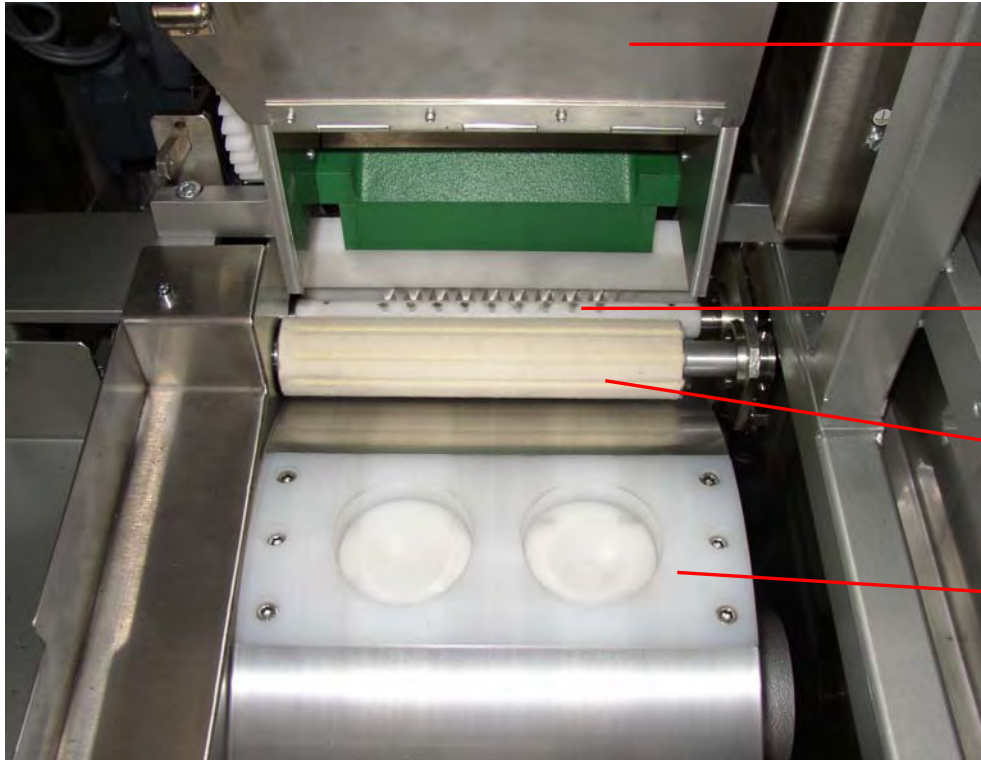


23 Wirkerverkleidung/
moulder covering

25 Wirkplatte/moulding
plate

24 Wirkeinrichtung (Kreuz-
schlitten/moulding unit
(cross sledge)

14 Wirkerzenter/
impulse journal for
moulding movement



39 Reinigungsklappe, vorn/
cleaning flap front

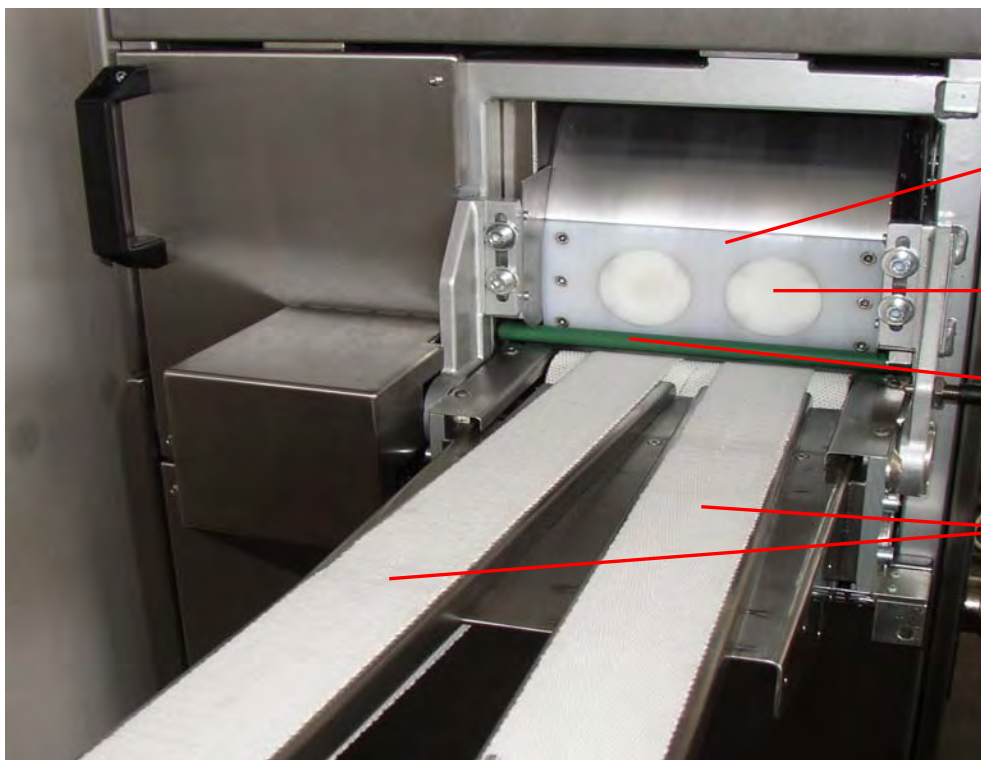
50 Bemehlungsbürste für
Trommelbemehlung/
brush for flour

28 Eindrückwalze/
press roller

26 Trommel (Wirkstellung)/
drum (moulding position)

Bild/picture 15

Bild/picture 16

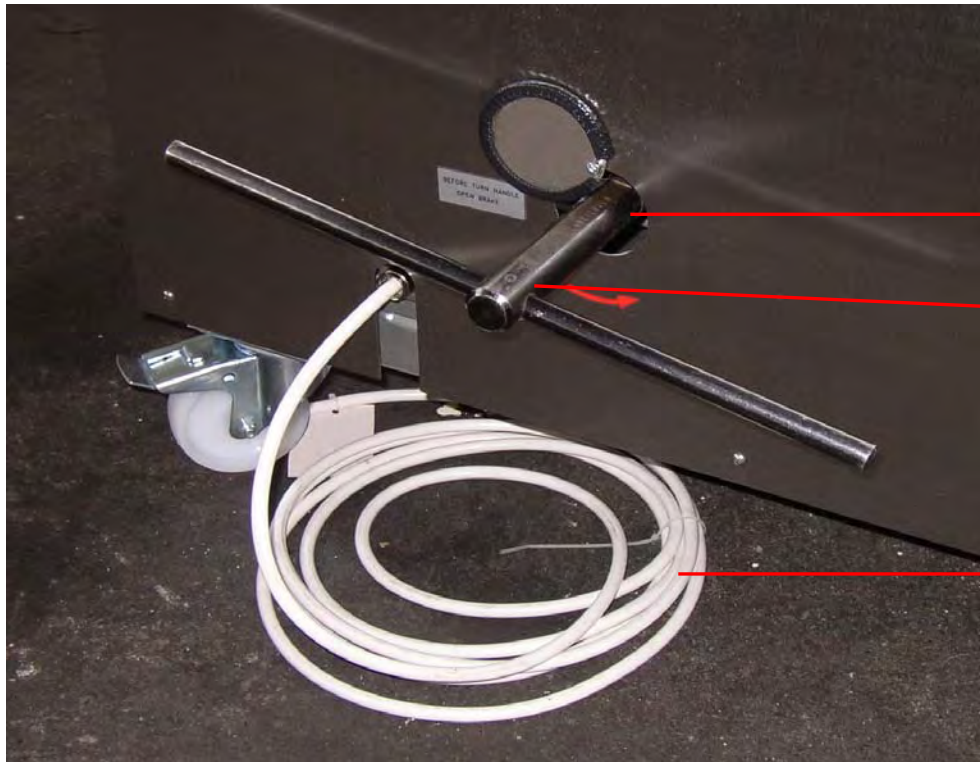


26 Trommel (Auswurf-
stellung)/drum
(out throw position)

27 Messkolben/
piston

32 Übergabewelle/
transfer roller

16 Ablege-bzw. Spreizband/
conveyor



18 Öffnung für Handkurbel/
opening by handcrank

17 Handkurbel/ handcrank

1 Anschlusskabel mit
Stecker/connection
cable with plug

Bild/picture 17



Über die Skala der Gewichtseinstellung wählt der Kunde das Gewicht des gewünschten Teigstückes.

Bei der Wirkraumhöhenverstellung kann auf der Skala die Höhe der Wirkraumkurve zwischen 15 und 35 mm verändert werden. Durch die veränderbare Höhe der Wirkraumkurve wird das Verhältnis zwischen Volumen und Gewicht des gewünschten Teigstückes zueinander verändert.

Teige unterscheiden sich in ihrem Volumen. Durch die getrennte Regelung von Gewicht und Volumen lassen sich die verschiedensten Teige über die Maschine immer gewichtsgenau produzieren.

The required weight of the dough pieces is simply and exactly adjustable with the hand wheel.

On the scale of the rounding height adjustment you can adjustable stepless the the high of the rounding curve between 15 and 35 mm. Because of the changeable height of rounding curve, the relationship between volume and weight of the desired dough pieces is changed each other.

Doughs differ in their volume. Because of the separate regulation of weight and volume, the various doughs always produce weight exactly.



Wirkraumhöhenverstellung
Rounding height adjustment



Gewichtseinstellung
Weight adjustment



Während des Teigeinzuges in die Maschine wird der Teig über die beiden Mehler ein wenig bemehlt, um ein Verkleben des Teiges zu vermeiden.

Die Kolben der Maschine werden über Dochte mit Öl benetzt, um ein Verkleben des Teiges zu vermeiden.

Zusätzlich sind alle Teile, die mit dem Teig in Berührung kommen (zum Beispiel Trichter, Einzugsrollen) mit Teflon beschichtet, um ein Verkleben des Teiges zu vermeiden.

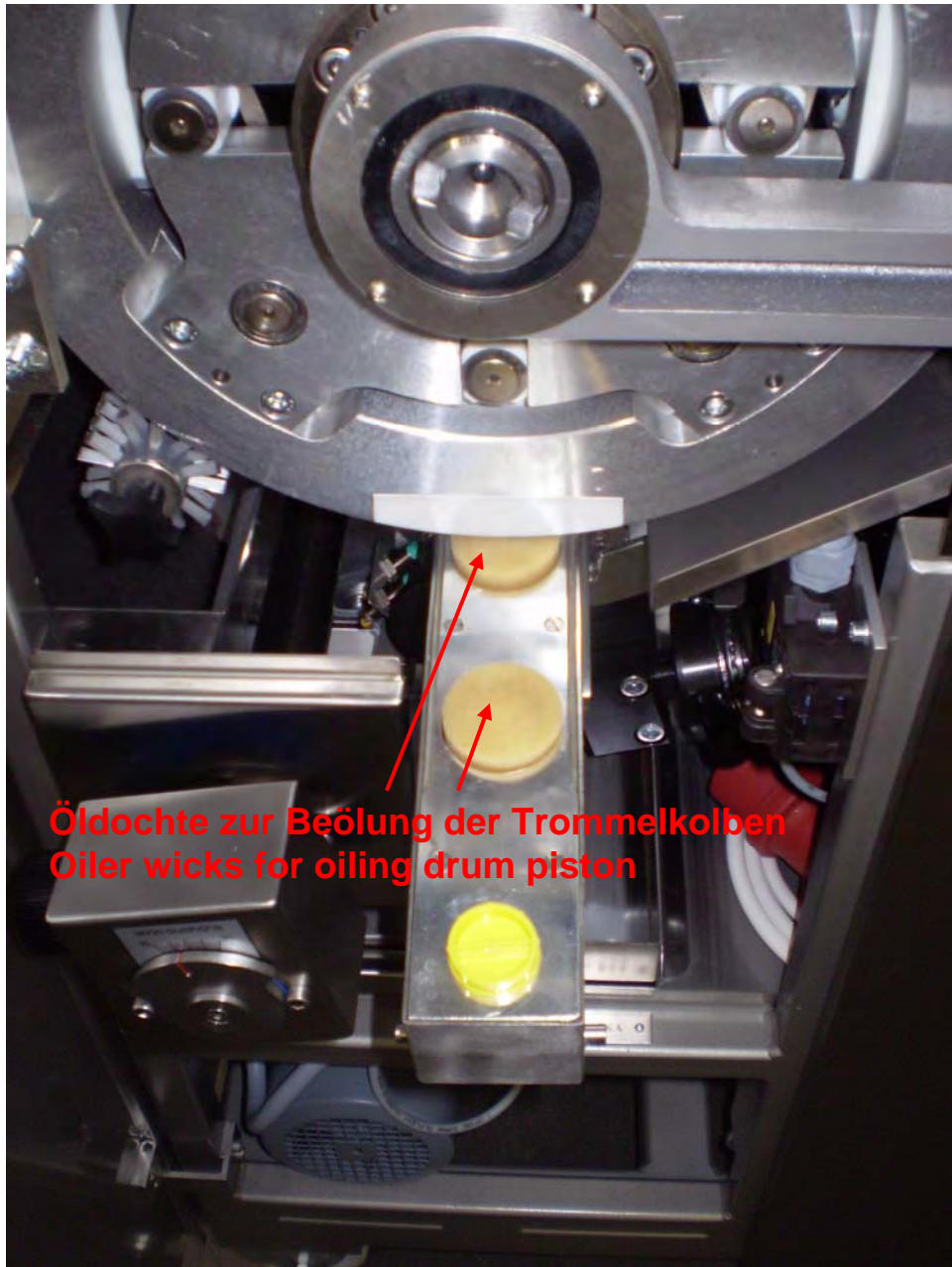
Grundsätzlich kann gesagt werden, dass der Teig nicht in der Maschine verklebt und kein zusätzlicher Reinigungsaufwand notwendig ist bei Teigwechseln.

During the filling of the dough into the machine, the dough is little covering with flour on the two flour duster, to avoided a sticking of the dough.

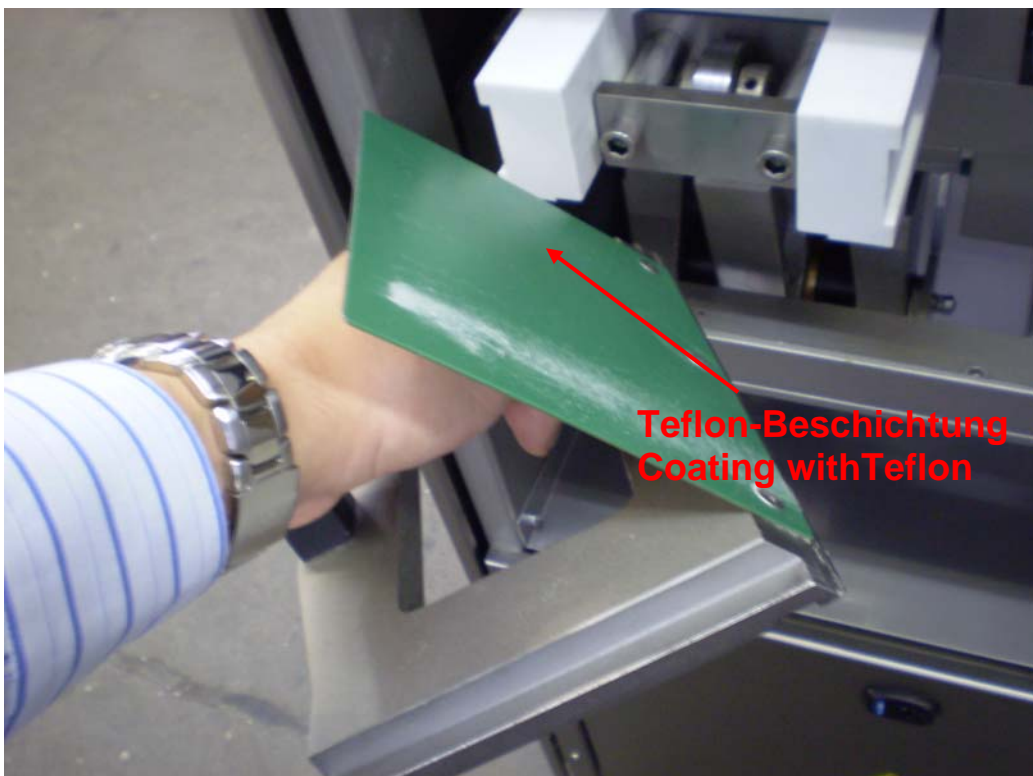
The pistons of the machine are wetted with oil wicks, to avoided a sticking of the dough.

In addition, all parts which come in touch with dough, are coated with Teflon (for example hopper, feed rollers) to avoided a sticking of dough.

Basically can be said that the dough is not sticky in the machine and no additional cleaning is necessary for change the dough.



**Öldochte zur Beölung der Trommelkolben
Oil wicks for oiling drum piston**



**Teflon-Beschichtung
Coating with Teflon**

Cleaning / Maintenance Plan K2



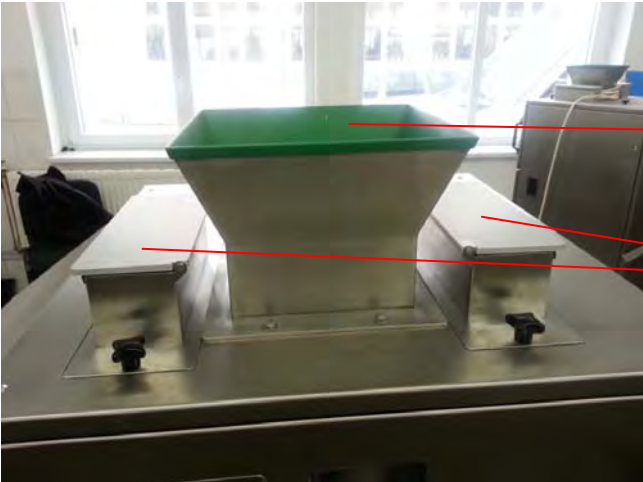
| | daily | weekly |
|--|-------|--------|
| Hopper Remove dough residues and clean with a soft cloth or plastic scraper. | X | |
| Duster Check quantity of flour and top up if necessary. | X | |
| Clean duster box 1) Pull the plug from both duster. 2) Unscrew star knobs and remove duster upwards. 3) Empty and beat out the duster, then suck out with vacuum cleaner. 4) Check if sieves are clogged, if so - clean. 5) Reassemble duster, connect plug and tight star knobs. | | X |
| Predivider 1) Open rear door. 2) Remove cleaning flap and clean it. 3) Remove flour and dough residues. | X | |
| Filling piston/ram, filling chamber, moulder/rounder 1) Remove filling piston and remove dough residues. 2) Clean all parts and the base plate and side guides. Lightly oil all metal parts. 3) Clean windows right and left with cloth. 4) Fold out moulding unit and clean molding plate with cloth. Remove dough residues from piston. 5) Reassemble all parts and make 3 steps with machine. | X | |
| Press roller, flour round brush for drum Remove the parts and remove dough residues (if there) - slightly floured and reassemble. Ensure a tight fit. | X | |
| Cleaning brush Open and unscrew the star knob, then remove cleaning brush and remove dough residues. Install after cleaning and tighten. Clean depending on the strength of the dough. | X | |
| Measuring piston oiling / felt wicks 1) Pull out oil unit remove dough residues with a plastic scraper. Check oil level and top up if necessary. 2) Oil wicks with a brush roughen. Check the function of the wicks (with pressure on wicks). 3) Check more often for soft doughs if dough residues are on the wicks - clean if necessary (see 1). 4) Empty waste box. | X | |
| Drum Wipe the metal surfaces of the drum with an oily cloth - thereby the drum runs smoother. | | X |
| Transfer roller Clean with soft cloth. | X | |
| Spreading belts Remove flour and dough residues. | X | |
| Crumb box Unhook and empty, then put back in again. Possibly several times per day. | X | |
| General machine Open all doors and suck the machine with suitable vacuum cleaner. | | X |

Detailed information on this in the operating manual.

Cleaning plan K2

All green parts are coated with Teflon and have to be cleaned only with a soft cloth.

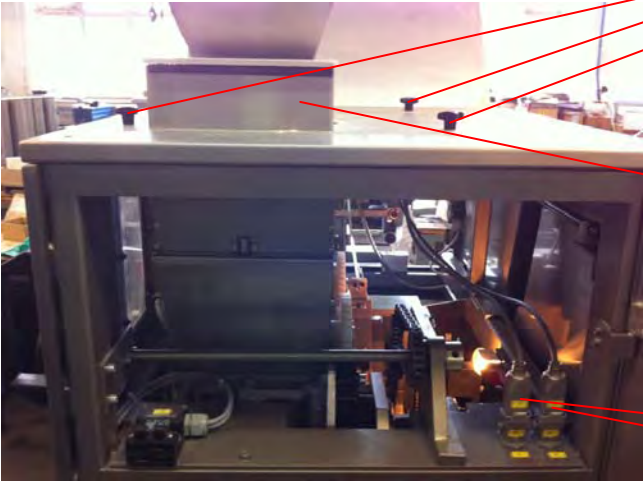
Please clean the machine with water only from the outside.



Hopper
Clean with soft cloth.

Flour duster for pre-divider and drum.

Star screws (4 pcs) to loosen the flour duster.



Flour duster
1x per month remove the flour duster. Star screws loosen and remove the plugs inside machine.
Every 6 month clean the flour duster completely (see last page).

Before remove flour duster – remove the plugs.



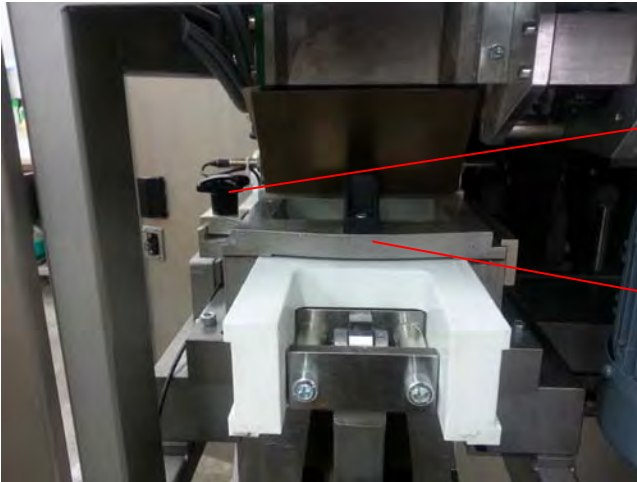
Weekly - open the cover right on the operating side and remove it. Then suck out with vacuum cleaner.



Scrape the dough transport belt if necessary with a plastic scraper.



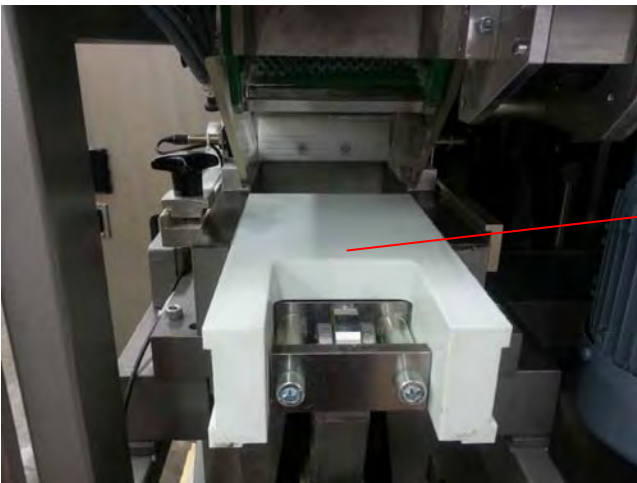
Weekly - open the cover on the operating side left by folding. Then suck out with vacuum cleaner.



Open star screw to take out the guide frame.

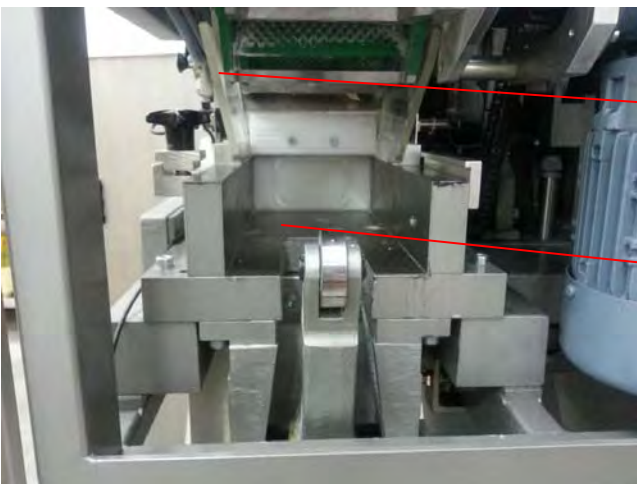
Daily - guide frame

Remove and clean with a soft cloth and possibly plastic scraper.



Daily - press piston

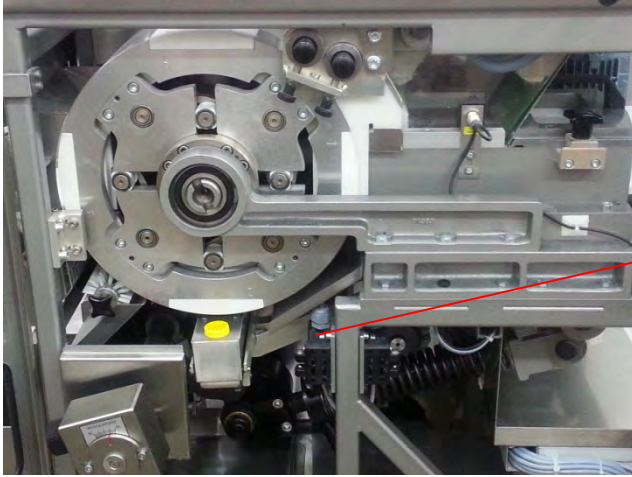
Take out the press piston and clean with soft cloth.



Clean side windows with soft cloth

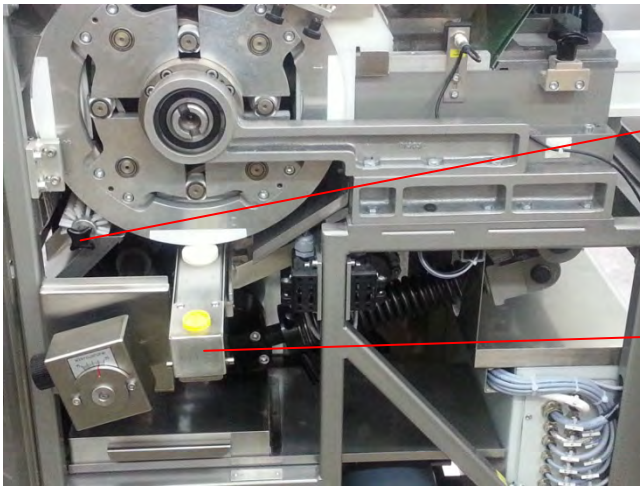
Daily - filling chamber

Clean the filling chamber with a soft cloth and rub with oil.



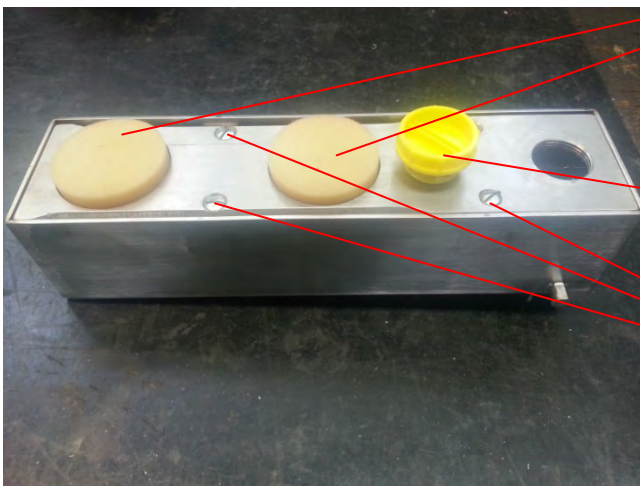
Daily – measuring piston oiling

Press down the latch underneath the tank and pull out the tank forward.



Open the star screw and pull out the drum cleaning brush.

Pull out the oil tank forward.

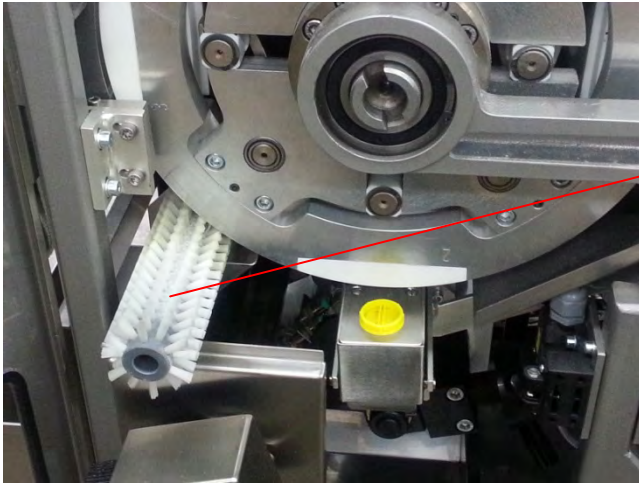


Felt pads/oil wicks

Daily cleaning using a plastic scraper or a file brush.

Open the screw plug and fill the tank if necessary.

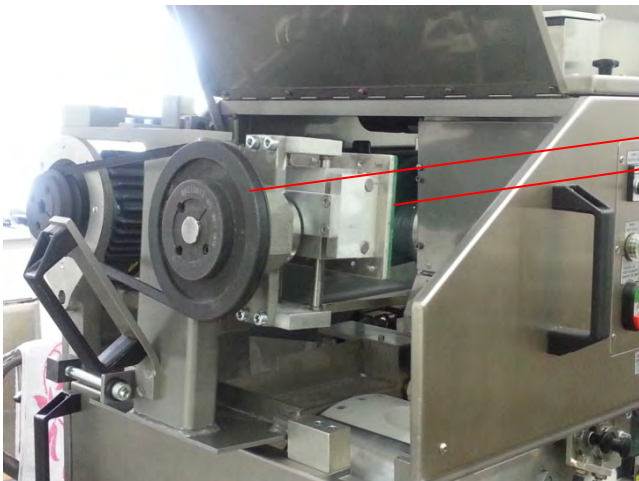
Every 6 month open all 4 screws and clean the tank completely.



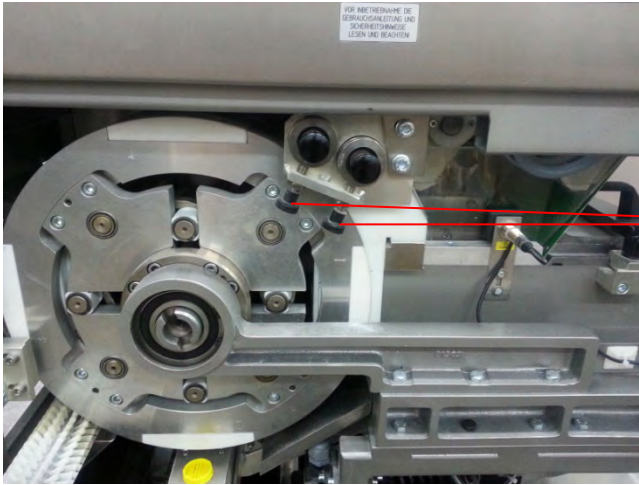
Drum cleaning brush



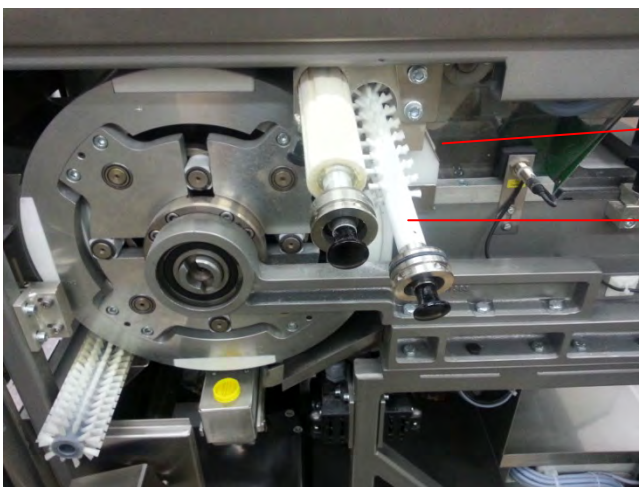
Open the cover



**By lifting the moulding unit the
moulding plate can be cleaned
with a soft cloth.**



By pulling the pins the press roller and the brush roller can be removed.



Press roller

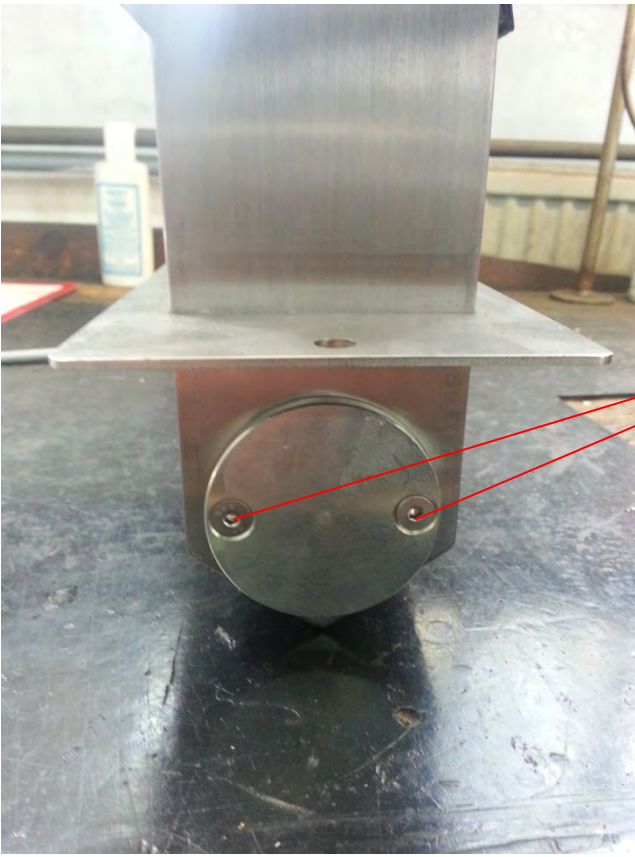
Brush roller



By pulling the pin the spreading belt can be folded up.

Daily or as needed

Rest flour tank -
by lifting it can be emptied.



To remove the brush remove the 2 screws.



Make sure that the holes are open.



Duster brush – seen from above

PRODUCT DATA SHEET

Last Changed on:11.11.2011
Replaces Version from:23.01.2011



EAN code: 4017040699589

**Boe cutting oil CD
130 10L**

MATERIAL CODE:

10085010

PRODUCT DESCRIPTION

Anhydrous cutting oil and lubricant for all bakery machines

MATERIAL GROUPING

| | | | |
|-----------------------------|---------------|----------------------------|------|
| Local material code: | 4017040699589 | Global Company Code | 0001 |
| | 2657 | CC03 | |
| | 571107 | 0480 | |
| | 321051 | 0485 | |
| | 7124017 | 0490 | |

USER INSTRUCTION

Application
Not specified

SENSORIAL INFORMATION

| | | | |
|-----------------------|--|----------------|-----------------------------|
| Taste: | Pleasant, Fatty, Not rancid | Odour: | Pleasant, Fatty, Not rancid |
| Visual aspect: | Clear | Colour: | Light yellow |
| Structure: | Liquid, Oil | | |
| Remarks: | External impression: liquid, clear up to slight opaque oil | | |

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Boe cutting oil CD
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INGREDIENTS DECLARATION

Vegetable oil; Emulsifier: Lecithins (E 322).

May contain traces of soy

PRODUCT DATA SHEET

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NUTRITIONAL INFORMATION

PER 100 GRAMS PRODUCT

| | |
|--|-----------|
| Energy value (kJ): | 3,699 kJ |
| Energy value (kcal): | 900 kca |
| Total protein: | 0,0 g |
| Total carbohydrates: | 0,0 g |
| of which sugars (mono- and disaccharides): | 0,0 g |
| Total fat: | 100,0 g |
| of which safa: | 14,1 g |
| Total dietary fibres: | 0,0 g |
| Sodium: | 0,2200 mg |

ALLERGENS INFORMATION

| ALLERGEN | PRESENT | | |
|----------|-----------------|--------------------|------------|
| | In raw material | On production line | In factory |

Legal allergens (according to appendix IIIa of directive 2000/13/EC)

| | | | |
|--|----|-----|--|
| Cereals containing gluten and products thereof | No | No | |
| Crustaceans and products thereof | No | No | |
| Eggs and products thereof | No | No | |
| Fish and products thereof | No | No | |
| Peanuts and products thereof | No | No | |
| Soybeans and products thereof | No | Yes | |
| Milk and products thereof (including lactose) | No | No | |
| Nuts and products thereof | No | No | |
| Celery and products thereof | No | No | |
| Mustard and products thereof | No | No | |
| Sesame and products thereof | No | No | |
| Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 ml/l | No | No | |
| Molluscs and products thereof | No | No | |
| Lupine and products thereof | No | No | |

Allergens according LEDA (former ALBA)

| | | | |
|-------------|----|-----|--|
| Gluten | No | No | |
| Wheat | No | No | |
| Rye | No | No | |
| Barley | No | No | |
| Oat | No | No | |
| Spelt | No | No | |
| Kamut | No | No | |
| Crustaceans | No | No | |
| Egg | No | No | |
| Fish | No | No | |
| Peanuts | No | No | |
| Soy | No | Yes | |
| Cow's milk | No | No | |
| Nuts | No | No | |
| Almonds | No | No | |
| Hazelnut | No | No | |
| Walnut | No | No | |

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| | | | |
|--|----|----|--|
| Cashew | No | No | |
| Pecan nuts | No | No | |
| Brazil nuts | No | No | |
| Pistachio nuts | No | No | |
| Macadamia/Queensland nuts | No | No | |
| Celery | No | No | |
| Mustard | No | No | |
| Sesame | No | No | |
| Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 ml/l | No | No | |
| Lupine | No | No | |
| Molluscs | No | No | |
| Lactose | No | No | |
| Cocoa | No | No | |
| Glutamate (E 620 - E 625) | No | No | |
| Chicken meat | No | No | |
| Coriander | No | No | |
| Maize | No | No | |
| Legumes | No | No | |
| Beef | No | No | |
| Pork | No | No | |
| Carrot | No | No | |
| Other allergens | | | |
| Fructose | No | No | |
| Guar gum | No | No | |
| Poppy seed | No | No | |
| Saccharose | No | No | |
| Yeast | No | No | |
| AZO colours (E 102, E 104, E 110, E 122, E 124, E 129) | No | No | |
| Cinnamon | No | No | |
| Vanillin | No | No | |
| Umbelliferae | No | No | |
| Benzoic acid / Parabenes | No | No | |

GMO INFORMATION

This product does not contain ingredients that require labelling according to regulation (EU) 1829/2003 and regulation (EU) 1830/2003.

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**Boe cutting oil CD
130 10L**

MATERIAL CODE:

10085010

DIET & CLAIMS INFORMATION / SUITABLE FOR

Kosher: Yes
Halal: No
Suitable for (lacto ovo) vegetarians: Yes
Suitable for Coeliac diet: Yes
Organic: No

CHEMICAL INFORMATION

| | Target | Interval | Typical value | Method / Remarks |
|------------------------|--------|------------|---------------|---|
| FATS | | | | |
| Tfa: | | < 2 % | | Calculated |
| Peroxide value: | | < 3 meq/kg | | Wheeler method |
| Iodine value: | | 95 - 130 | | Gas chromatography, calculated of Gasgromatogramm |

MICROBIOLOGICAL INFORMATION

| | UOM | M | m | n | c: > m | Method / Remarks |
|---------------------------|-------|----------------|---|---|--------|---------------------------------|
| Total viable count | / g | 1.000 | | | | §64 LFGB L 01.00-5 |
| Enterobacteriaceae | / g | 10 | | | | §64 LFGB L 05.00-5 |
| Moulds: | / g | 100 | | | | §64 LFGB L 01.00-37 |
| Yeasts | / g | 100 | | | | §64 LFGB L 01.00-37 |
| Salmonella | /25 g | Not detectable | | | | §64 LFGB L 00.00-66, mini VIDAS |

SHELF LIFE AND LOGISTICAL INFORMATION

Storage conditions:

Shelf life: 546 Days

Storage temperature: 15 - 25 °C

Remarks:

PACKAGING INFORMATION

| DISTRIBUTION UNIT | | | | | |
|------------------------|-------------------|---------------------|-----|-------------------------|--------|
| Weight net: | 9,2 kg | | | | |
| PALLET | | | | | |
| Pallet type: | Pallet 1200 x 800 | | | | |
| DU's per layer: | 25 PCE | Layers: | 3 | DU's per pallet: | 75 PCE |
| Weight net: | 690 kg | | | | |
| Primary packaging | | | | | |
| Description: | Canister | Material: | Tin | | |
| Coding: | | Expiry date: | Yes | Lot code: | Yes |
| Name: | Yes | | | Material code: | Yes |

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**Boe cutting oil CD
130 10L**

MATERIAL CODE:

10085010

LEGAL INFORMATION

Product declaration: Cutting Oil

All products are conform to the European and National food legislation.

STATEMENT

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