Operating manual

Rondostar 4000

SFS6605	SFS6607H
SFS6605C	SFS6607DD
SFS6607	SFI6607
SFS6607C	SFI6607H

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Technical specifications subject to change without notice

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EC Declaration of conformity for machinery

(Machinery Directive 2006/42/EC, Annex II., sub. A)

Manufacturer: RONDO Burgdorf AG
Address: Heimiswilstrasse 42, 3400 Burgdorf, Switzerland

Name and address of the person authorised to compile the technical file:
RONDO Burgdorf AG, Heimiswilstrasse 42, 3400 Burgdorf, Switzerland

Herewith we declare that the dough processing machine:

Dough sheeters	Rondostar 4000
Rondostar 4000	SFS6605 SFS6607 SFS6607H SFI6607 SFI6607H
Rondostar–Compound 4000	SFS6607DD
Rondostar-Cutomat 4000	SFS6605C SFS6607C

- is in conformity with the relevant provisions of the Machinery Directive (2006/42/EC)
- is in conformity with the provisions of the following other EC-Directives:
  - Directive EMC 2004/108/EC.

And furthermore, we declare that

- the following (parts/clauses of) European harmonised standards have been used:
  - EN 1674: Food processing machines – Safety and Hygiene requirements
  - 1935/2004: Materials, intended to come into contact with food
  - EU 10/2011: Plastic materials and articles intended to come into contact with food
  - EN 60204-1: Safety of machinery – Electrical equipment – Part 1
  - EN 12100-1: Safety of machinery – General principles – Part 1

Burgdorf, 13.02.2015

W. Mathis

Werner Mathis
Manager R&D

Hint for operating manual: The numbers of the illustrations (Ex. —— 1) are numbered chapterwise.

1 Safety information

1.1 Explanation of symbols

All the sections in this operating manual containing safety instructions which absolutely must be observed are marked with this symbol and with a number.

All the sections in this operating manual containing information which absolutely must be observed are marked with this symbol.

1.2 Explanation of warning signs

Sign indicating prohibited activity

Reaching under the safety guard is prohibited!

Instruction and information signs

Make sure to disconnect the mains plug before opening!

Danger warning sign

Danger Warning

High-voltage warning sign

Warning against electrical shock
Disconnect mains plug before opening.

1.3 Safety elements

1.3.1 Safety guard

Operation

The safety guards fulfil a dual purpose:

1. They protect the operator from inadvertent contact with the rollers and the cutting rollers.
2. By lifting up the safety guard the machine stops immediately. Raising the safety guard even just slightly will stop the machine from continuing to operate. By closing the safety guard the machine mustn't start by oneself.

1.4 Safety instructions and information which must be followed

Before putting the machine into operation the operating manual must be read!

RONDO's dough sheeters are built for the food industry exclusively for sheeting, booking, final sheeting and cutting (Cutomat) of dough.

RONDO's flour duster is made exclusively for continuous dusting of dough sheets with flour.

Any other use of these units is not in accordance with the purpose for which they are built. Therefore, the manufacturer will not be liable for any accidents or damage resulting from unauthorized use; the risk in any such instance will be borne solely by the user.

Authorized use also means that the user must follow all instructions prescribed by the manufacturer in respect of operation, maintenance and service.

Any work on the electrical components of the machine, in particular the correct professional mounting of the mains plug, may only be carried out by qualified personnel who are familiar with the relevant safety instructions.

Defective cables and main plugs must be immediately replaced by qualified personnel.

Protective covers over the electrical controls and the mechanical moving parts may only be removed by professionally qualified personnel and must be remounted before the machine is put back into operation.

Any unauthorized changes made to the machine, and in particular, to the safety devices on the machine will automatically exclude any liability on the part of the manufacturer for accidents or damage sustained as a result of such changes.

The machine may only be connected to the mains using the mains plug! No permanent electrical installation may be made using, for example, terminal screws. The mains plug serves as a mains isolation device. It has to be clearly visible at all times and freely accessible.

The machine may only be connected to the mains once it has been fully assembled.
In particular, operation with removed machine tables is prohibited.

Before beginning any repair, service or cleaning work on the machine, the electricity supply to the machine must be disconnected (pull out mains plug).

Safety devices on the machine may not be adjusted, by-passed or expanded.

Operation of the machine when any of the safety devices is out of order is prohibited.

Defective safety devices must be immediately replaced with new original parts from RONDO.

Machine parts located in the areas in which the dough is being processed, and whose surface coating becomes worn (e.g. chromium-plate worn off), must be replaced.

When transporting the machine, it may not be lifted on the machine base. The machine should be fastened on a pallet without table for transport. Fasten the safety guard in the upper position.

Reaching under the closed safety guard is prohibited!

Never reach in the delivery roller of a moving flour duster with either hands or any other object!

Do not deposit any loose objects such as knives, tools or articles of clothing, etc. in the area where the dough is processed.

In order to guard against respiratory tract difficulties and flour dust allergies, we recommend to equip the machine with an automatic flour duster. Limit the use of flour to a minimum.

The use of compressed air for cleaning the machine is not permissible.

The use of a dust extraction system in the bakehouse is recommended.

Check periodically to ensure that there are no loose screws in the area where the dough is processed.

The machine may not be operated without its scrapers fitted in place.

The automatic reeler is a device starting automatically by the electrical control.

Attention when handling it!

Do not reach into the stationary or running device!

Cutting rollers must only be lowered with safety guards closed.

Cutomat: Due to the risk of injury at the sharp edges the replacement of the cutting rollers must be carried out carefully and professionally. To prevent injury, always wear suitable protective gloves. Cutting rollers located outside the cutting area must be placed in the holding device located underneath the machine table.

Any disposal of the installation must be carried out in accordance with environmentally-accepted practices. The operators are fully responsible for ensuring that such practices are followed.

The machine must never be cleaned using spray water, high-pressure cleaner, steam-cleaning machine or any similar cleaning methods.

This machine is not designed to be used in explosive ambient.

Defective parts must be replaced with new original parts by RONDO.

Prior to the first starting-up, the complete machine must be thoroughly cleaned.

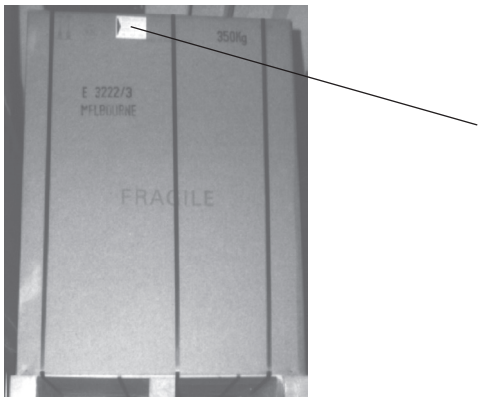
All still existing protective foils on the machine must be removed.

Non-ionising radiation is not intentionally produced but only given off for technical reasons by electric equipment (e.g by electric motors). In addition the machine has no strong permanent magnets. By keeping a safe distance (the distance from the source field to the implant) of 30 cm, interference with active implants (e.g. pacemakers, defibrillators) can be excluded with a high degree of probability.

RONDO will not accept liability when any of the above safety instructions / notes have not been complied with!

2 Transporting, setting up, connecting, dismounting and storing the machine

2.1 Machine delivery



The machine is delivered in its original packaging.

- Report any claims for damage caused as a result of transportation directly to the freight handlers
  (see the packaging: the delivery documentations are contained on the outside of the packaging)

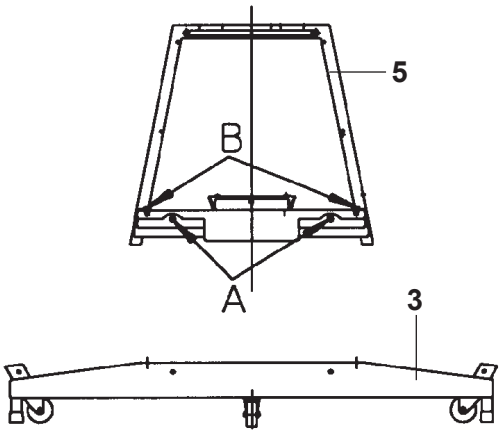
2.2 Transportation

When transporting the machine must be packed in the original packaging or in accordance with the instructions of the manufacturer to guarantee stability.

The machine must be fastened on a pallet. The tables must be dismounted and the safety guards fixed in the upper position.

The machine must not be tipped over.
(For machine weight, see 9.1 Technical data Rondostar 4000)

2.3 Unpacking the machine



The machine must be set up on a level, even floor surface.

For further information regarding the ambient conditions required for the machine, see 3.1 General information

- Unpack table and attachments
- Check all items received against the delivery slip for completness

Dismount the supports from the machine base (model SFI)

If machine doesn't pass through small passages (doors), the support (3) has to be dismounted from the machine base (5) as follows:

- Dismount two screws (A) on each side (front and rear) and one screw (B) (left and right) on the machine base
- Lift off the machine base from the support (2 persons required)

Caution when lifting by crane (danger of tipping)

Remount it in reverse order.

2.4 Setting up the machine

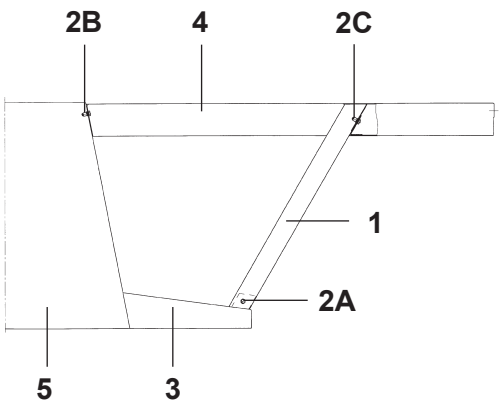
Two people are required to set up the machine.

2.4.1 Mounting the table supports to the support (model SFI)

- Mount the table supports (1) using a hexagon screw (2A) (each support) to the support (3)

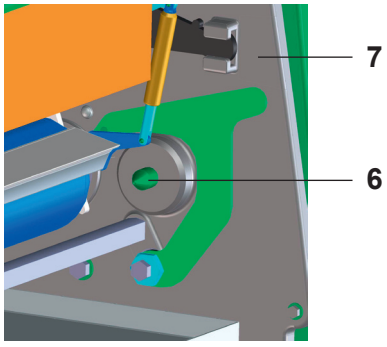
Do not yet tighten the hexagon screws (2A), after mounting the table supports.

2.4.2 Mounting the lower tables (model SFI)



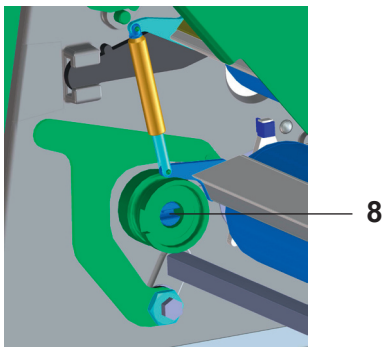
- Lay the lower tables (4) on the machine base (5) and the table supports
- Mount the lower tables to the machine base using three hexagon screws (2B) (each lower table)
- Mount the lower tables to the table supports using two screws (2C) (each lower table)
- Do not yet tighten screws (2A/B/C)!
- Adjust the lower table
- Tighten all the screws of the mentioned connections:
  - Machine base - Lower tables
  - Lower tables - Table supports
  - Table supports - Support

2.4.3 Installing the machine tables



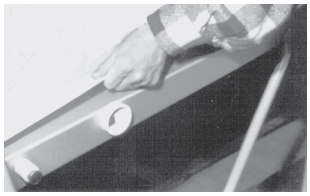
- Remove all protective foil on the stainless steel sections of the machine
- Lift the machine table with the aid of a second person
- Guide the centre of the machine table's driving roller to the spring bolt (6) at the rear of the housing (7)

- Push the table towards the rear, use pressure

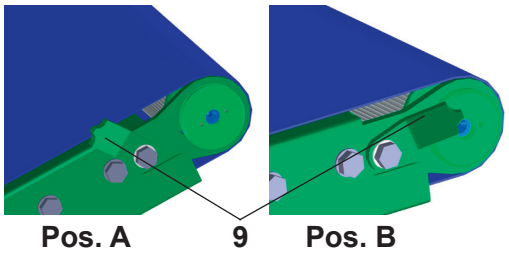


- Centre the catch of the machine table's driving roller in the receiver (8) in the front section of the housing

In order to snap the machine table into place, proceed as follows:



- Tug lightly on the conveyor belt until the catch snaps into place

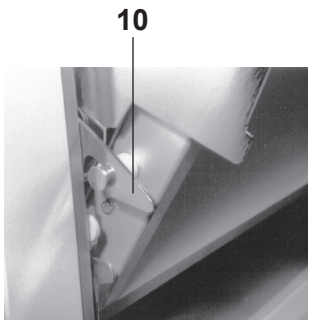


- Hinge down the table bolt (9) (it is used to prevent the unintentional unhinge of the table)

A: Position by mounting/dismounting
B: Position by operation

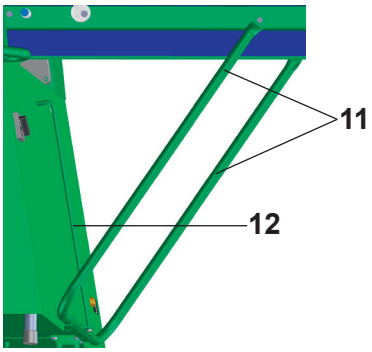
- Lift the table up

- When lifting up the table, either push in or remove the dough catch pan

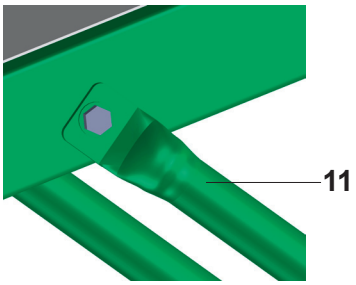


- Attach table hook (10)
  The machine table is now secured.

2.4.4 Mounting the forked supports



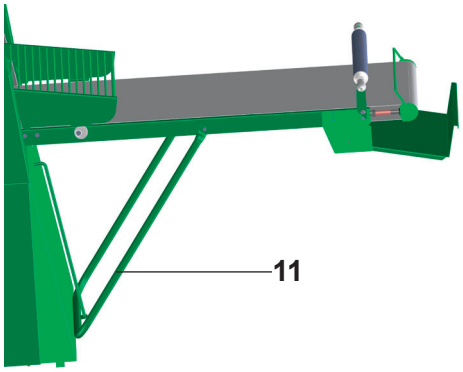
- Push forked support (11) into the support guide (12)



- Fix the forked support (11) by the hexagon bolt

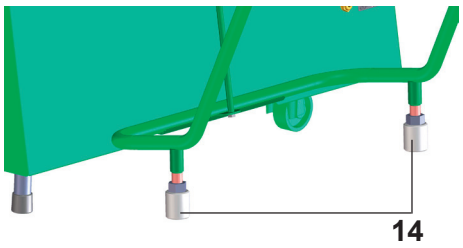
- Fit the second washer on both sides on the inside, afterwards screw down the lock nut (13b)

Attention: The conveyor belt has to be placed below the lock nut.



Position of the forked support (11) when the machine table is hinged down.

What to watch out for when mounting the forked supports on machines equipped with the "Cutomat" cutting device:



The feet (14) of the forked support must be set in such a manner that the table stands level. This is the only way to ensure optimal functioning of the safety guard.

2.4.5 Mounting the pneumatic springs (model SFI)

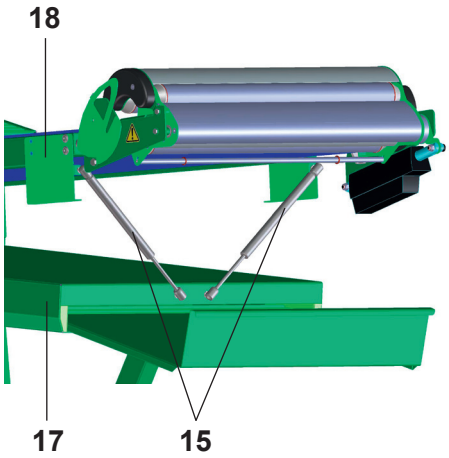
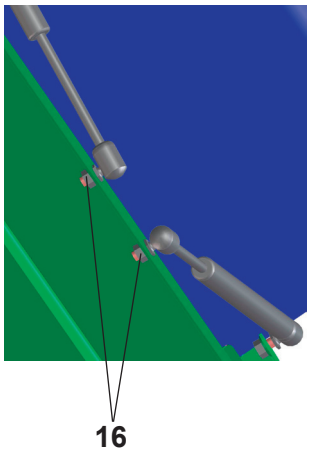


Table with automatic reeler:

- Mount pneumatic springs 0200N

Table without automatic reeler:

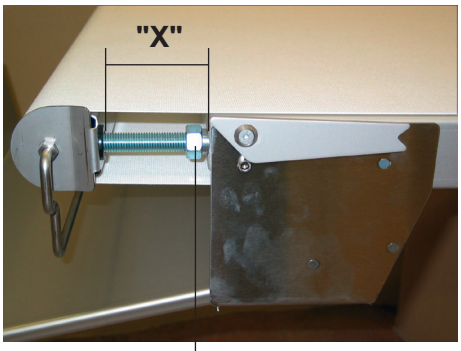
- Mount pneumatic springs 0100N



- Mount pneumatic springs (15) onto the lower table (17) and support plates (18) using ribbed lock washers and hexagon nuts (16)

2.4.6 Tightening the conveyor belts

2.4.6.1 The machine tables without fast tension release device for conveyor belt



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Tighten the conveyor belt so that the heaviest dough piece, with maximum 15 kg, is driven without slipping. Overtightening is to be avoided.

Proceed as follows:

- Retighten the left and right tension nut (19) evenly and parallel
- Remeasure Distance "X" on both sides using a millimetre measuring instrument
- The distance "X" must be exactly equal on both sides
- Switch on the machine (see 5.3 Switch on the machine, initial screen)
- Observe running movement of the conveyor belt in both directions

If the belt runs off towards one side, proceed as follows:

- Loosen the tension nut on the opposite side

or

- Retighten tension nut on the side where it runs off
- Monitor the belt and, if necessary, correct it until it runs exactly in the middle of the table

If necessary, repeat this procedure several times. Routinely monitor the belt during the initial hours that the machine is operational and, if necessary, correct it again.

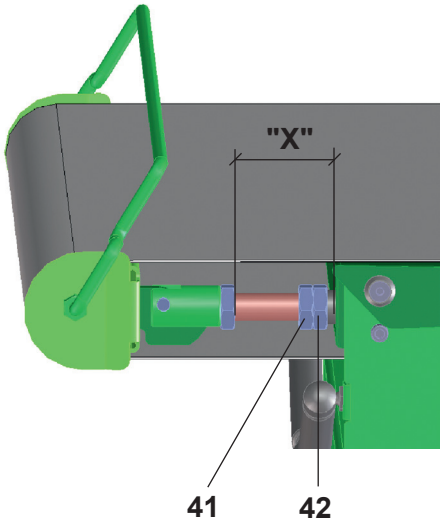
Tighten and adjust the conveyor belts with patience!

Prior to carrying out each further correction, allow the machine to run for at least 30 seconds.

Before putting the machine into operation, the conveyor belts must be lightly rubbed with flour in order to prevent the dough from sticking to the belt.

Attention:
A gap can develop between the synthetic conveyor belt and the idle roller if the belt is worn on the edge or is damaged. If this is the case, the belt must be replaced.
Reason: Risk of injuries to fingers in the area of the idle roller.

2.4.6.2 The machine tables with fast tension release device for conveyor belt (option)



Tighten the conveyor belts only enough that the heaviest pieces of dough (maximum 15 kg) are still transported along without the conveyor belt dragging.

Proceed as follows:

- The fast tension release device for conveyor belt must be in the tensioned position.
- Unscrew the check nut (41).
- Retighten the left and right tension nuts (42) evenly and parallel.
- Remeasure Distance “X” on both sides using a millimetre measuring instrument.
  The distance “X” must be identical on both sides.
- Fasten the check nut (41).
- Switch on the machine (see 5.3 Switch on the machine, initial screen).
- Observe running movement of the conveyor belt in both directions.

If the belt runs off towards one side, proceed as follows:

- Retighten tension nut (42) on the side where it runs off

or

- Loosen the tension nut (42) on the opposite side
- Monitor the belt and, if necessary, correct it until it runs exactly in the middle of the table

If necessary, repeat this procedure several times. Routinely monitor the belt during the initial hours that the machine is operational and, if necessary, correct it again.

Tightening and adjusting the conveyor belts demands patience!

Prior to carrying out each further correction, allow the machine to run for at least 30 seconds.

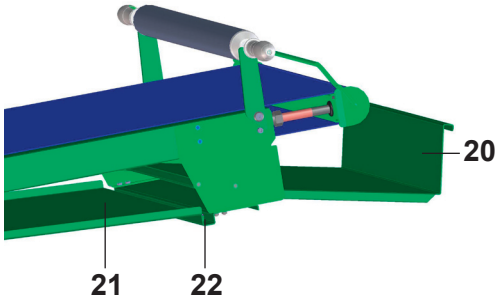
Before putting the machine into operation, the conveyor belts must be lightly rubbed with flour in order to prevent the dough from sticking to the belt.

Attention:

A gap can develop between the synthetic conveyor belt and the idle roller if the belt is worn on the edge or is damaged. If this is the case, the belt must be replaced.

Reason: Risk of injuries to fingers in the area of the idle roller.

2.4.7 Mounting the dough catch pan

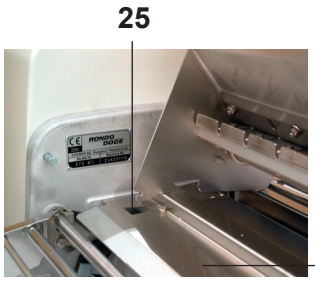


- Remove the protective foil on the dough catch pan (20)
- Push in the dough catch pan on both sides

Option:

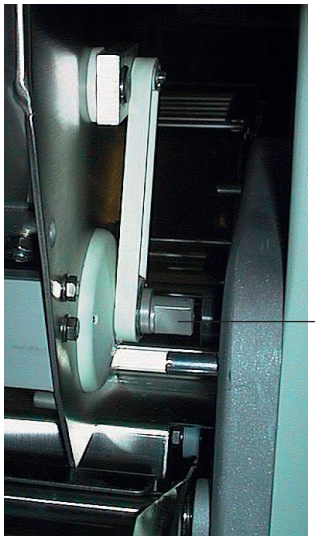
- Attach the flour catch pan (21) to the holder (22)

2.4.8 Mounting the automatic flour duster

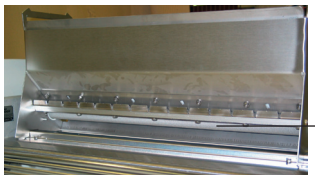


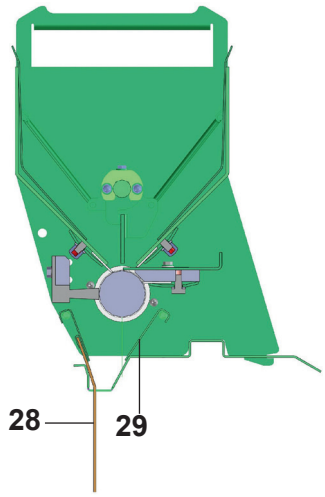
- Remove the protective foil on cover plate (23)
- Position flour duster (24) on the cover plate to which it belongs
- Guide the flour duster into both openings (25) in the cover plate

- Push the flour duster backwards



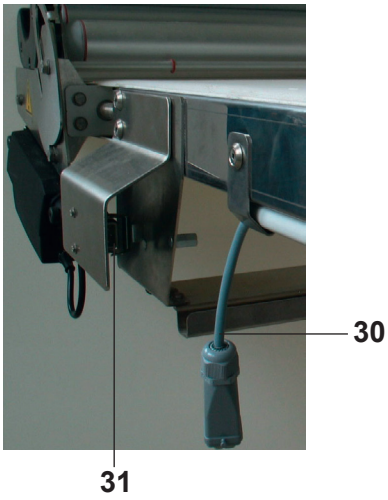
- Turn the delivery roller (27) till the catch (26) can be guided into the receiver and the flour duster locks into place on the swelling bracket of the cover plate.





- Insert the flour dust protection (28) and guard plate (29) into the proper position

2.4.9 Electrical connection of the automatic dough reeler (by models SFS 6607H / SFI 6607H)



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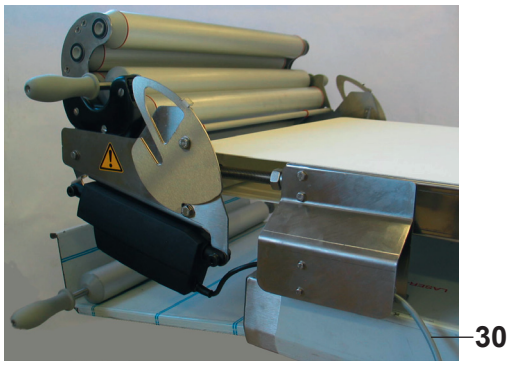
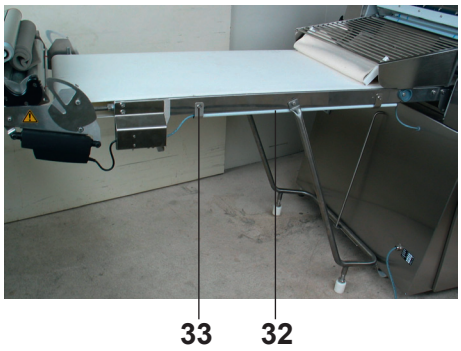
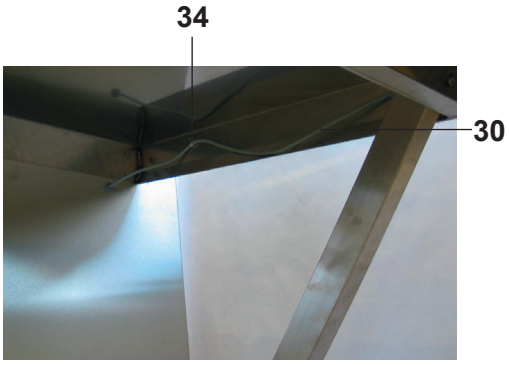
- Connect the connector cable (30) for the reeler to the Linak-Motor plug (31)



- Connector cable (30) connected to the Linak motor

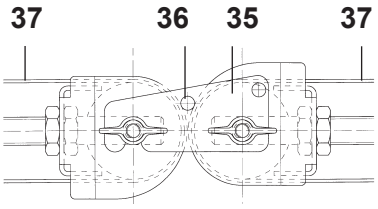


- Fix connector cable (30) with plastic pipe (32) and screws (33) on the machine table (model SFS)



- Fix connector cable (30) to the table sheet using cable clamps (34) (model SFI)

2.4.10 Compound operation with a transfer table PTT150 / PTT250

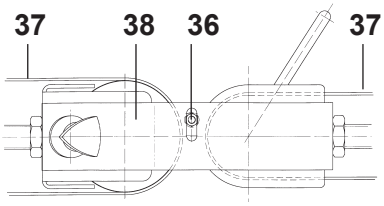


The Rondostar and the transfer table have to be connected together with the butt plates (35).

The space between the protection bar (36) and the conveyor belts (37) must not be more than 3 mm.

It is prohibited to use the compound operation without a correct mounted protection bar.

2.4.11 Compound operation with a make-up line / donut line



The Rondostar and the make-up line have to be connected together with the bow (38).

The space between the protection bar and the conveyor belts must not be more than 3 mm.

It is prohibited to use the compound operation without a correct mounted protection bar.

2.5 Requirements for putting the machine into operation

Power supply and frequency at the mains circuit to which the machine is connected must be in accordance with specifications contained on the sign "Electrical connected loads" (This sign is found on the cable lead-through on the machine base).

Direct connection to the mains without a plug is prohibited!

Any work on the electrical components of the machine, in particular the correct professional mounting of the mains plug, may only be carried out by qualified personnel who are familiar with the relevant safety instructions.

(An electrical schematic is delivered with every machine. It is to be found next to the electrical control in the machine base).

- Connect the machine plug to the mains
- For starting the machine, the tables must be correctly mounted (see 2.4.3 Installing the machine tables)

2.5.1 Ground fault interrupter is actuated when inverter is started

Leakage current flows through the inverter.
The inverter performs internal switching. Therefore, a leakage current flows through the inverter. This leakage current may actuate the ground fault interrupter, shutting the power off.

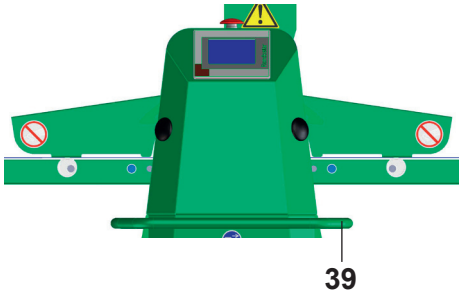
Use a ground fault interrupter with a high leakage-current detection value (sensitivity amperage of 200 mA or more, operating time of 0,1 s or more) or one with high-frequency countermeasures for inverter use.

Reducing the carrier frequency value in n46 is also effective. In addition, remember that a leakage current increases in proportion to the cable length. Normally, approximately 5 mA of leakage current is generated for each meter of cable.

2.6 Moving direction test

After the power has been turned on (see 4.1 Preparing for operational readiness), the machine automatically checks the running direction when first starting up (moving direction of roller adjustment drive).

2.7 Moving the machine



- On the operator's side of the machine, lift the safety rail (39)
  Front transport castor will snap down.

  The machine can now be moved on the castors without problems.

Once the machine's permanent location is reached:

- Hold the safety rail tightly using both hands,
  gently lift up the machine
- Using one foot, push the pedal (40) at the front transport castor
- Gently ease the machine back down to the ground, when so doing, do not let it "fall" back down

3 General data about the machine

3.1 General information

3.1.1 Authorized use of the machine

The machine is suitable for sheeting, booking, final sheeting and cutting of dough and marzipan sheets for the food industry.

However, it is not suitable for the processing of other products (e.g. modelling clay or other types of mouldable masses which are not dough products).

This product is exclusively intended for use at work.

Persons handling the product must be instructed accordingly and at least 16 years of age.

Booking

Through folding in fat, butter, margarine, through sheeting to a thickness of approx. 6-11 mm and subsequent folding of the dough, there is a resulting formation of layers of fat and dough. A repetition of this process yields many thin layers.

Final Sheeting

This entails sheeting the dough to the final thickness required for further processing.

Cutting

Cutting of the sheeted dough band by means of cutting rollers.

3.1.2 Authorized use of the flour duster

This is used to ensure that the dough sheets are automatically dusted with flour when necessary.

Recommended Flour type: No. 550 (Use only flour which is clean)

3.1.3 Noise values

The emission value at place of operation is less than “70 dB(A)”.

The accuracy class of the acoustic emission measurement corresponds to class 2 (± 2.5 dB) according to:
DIN EN ISO 11201 / DIN EN ISO 11202 /
DIN EN ISO 11203 / DIN EN ISO 11204

3.1.4 Temperatures

The ambient temperatures permissible for the machine:
+5 ºC to +40 ºC

Permissible temperatures for storage of the machine:
-25 ºC to +55 ºC, for brief periods up to +70 ºC

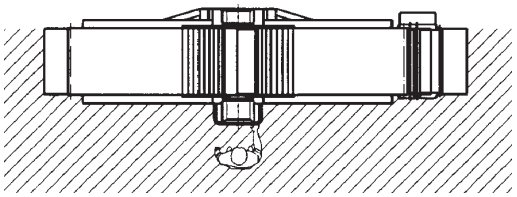
3.1.5 Ambient humidity

The admissible ambient humidity for the machine lies in the area of 30% - 95%, relative humidity, uncondensed, resp. max. 60% for the dusting flour in the automatic flour duster.

3.1.6 Machine weight

Total weight = approx. 290 - 420 kg, depending on model
(Compare with 9.1 Technical data Rondostar 4000)

3.1.7 Operating personnel work area



The hatched area shows the work area designated for the operating personnel.

3.2 Prerequisites

In order that dough can be sheeted by the machine, the following pre-requisites must be met:

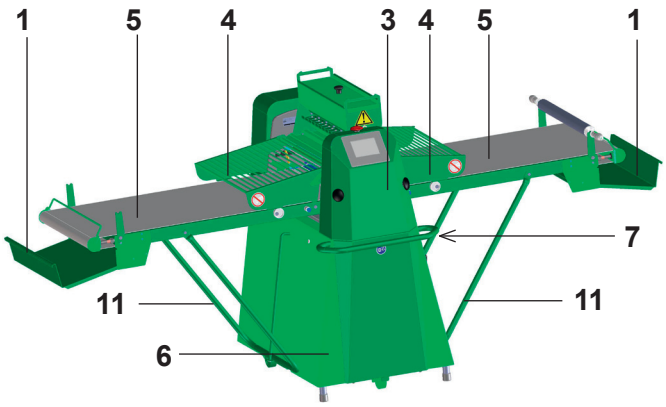
- Dough piece must not exceed 15 kg

- Flour the dough pieces
  This will prevent the dough from sticking to the rollers and scrapers.

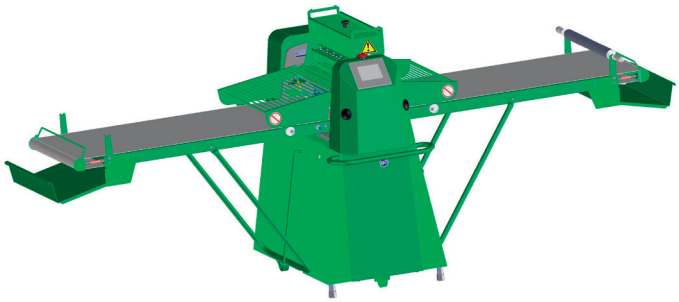
In order to avoid flour dust build-up, it is recommended to equip the machine with an automatic flour duster.

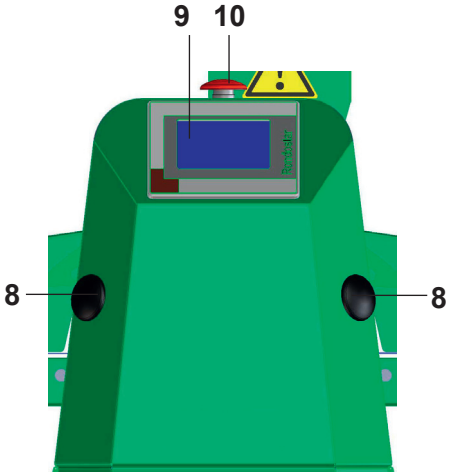
3.3 Full view of the machine

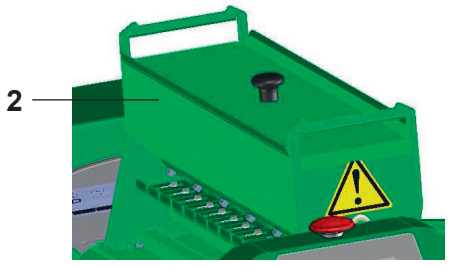
SFS6605



SFS6607

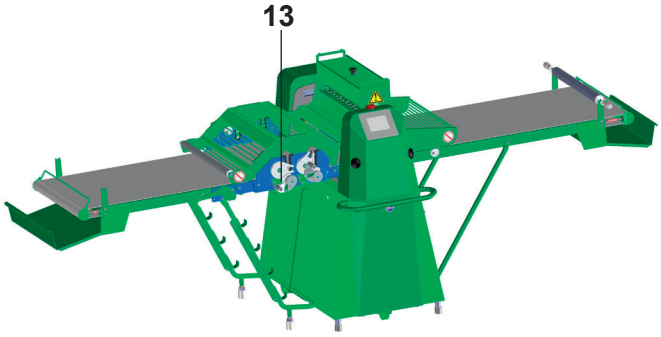




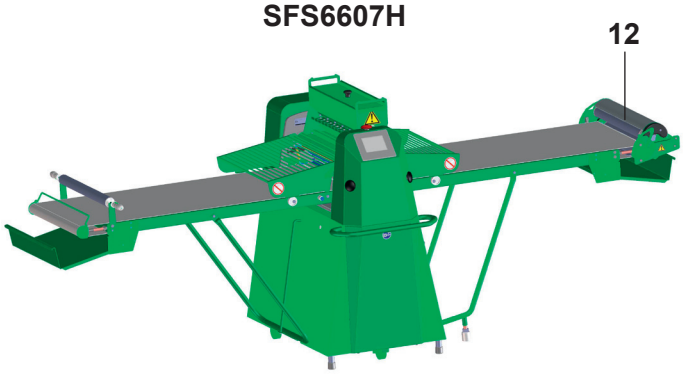


1	Dough Catch Pan
2	Flour Duster
3	Roller Head
4	Safety Guard
5	Machine Table
6	Machine Base
7	Main Switch
8	Black Push Button for Starting
9	Display
10	Red Push Button for Stopping
11	Forked Support
12	Automatical Dough Reeler (Option)
13	Cutting Station (Option)

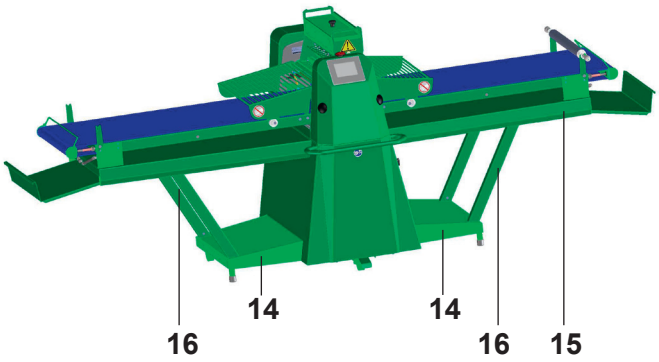
SFS6605C / SFS6607C



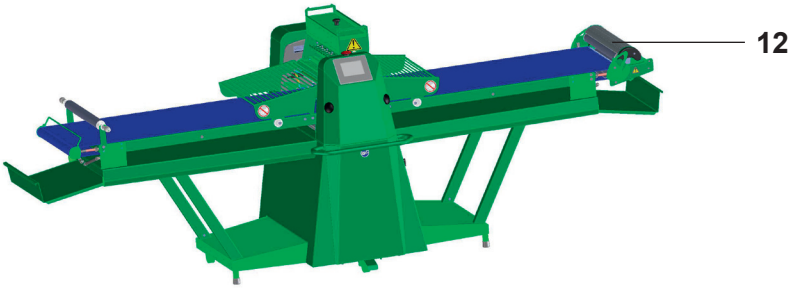
SFS6607H



SFI6607



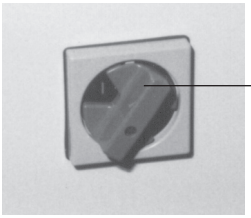
SFI6607H



12	Automatical Dough Reeler (Option)
14	Support
15	Lower table
16	Forked supports

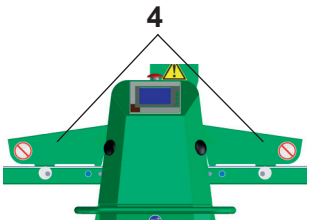
3.4 Operating elements

3.4.1 Main switch



The main switch (7) interrupts the supply of electrical current.

3.4.2 Safety guards



The safety guards (4) protect the operator from inadvertently coming into contact with the rollers and the cutting rollers.

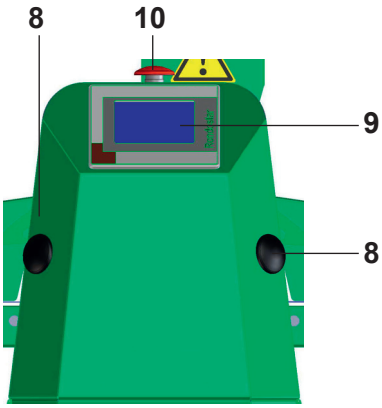
If the safety guard is lifted during the sheeting process, the machine will stop.

3.4.3 Push buttons

The black push buttons (8) (located on the side of the housing) serve to start the machine.

The red push button (10) serves to stop the machine.

3.4.4 Display



The display (9) is used to operate and program the machine.

(See 5.2 Operating elements / Display)

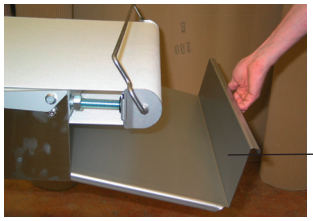
3.4.5 Flour duster: dosing slides

The desired dusting width can be adjusted using the slides (17). The maximum dusting width is 630 mm.

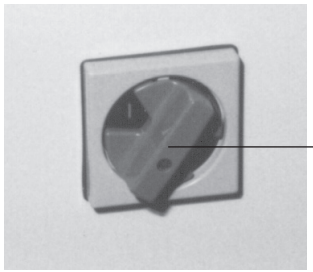
By using this adjustment to regulate the actual dusting width necessary, dusting flour consumption can be significantly reduced.

4 Starting the machine

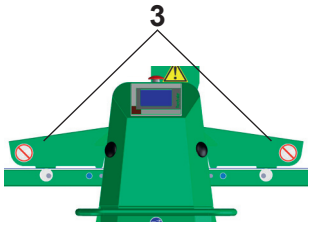
4.1 Preparing for operational readiness



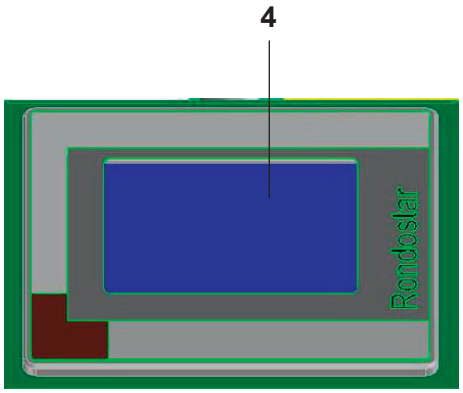
- Pull out the dough catch pans (1) on both sides



- Turn the main switch (2) on the machine to "ON"



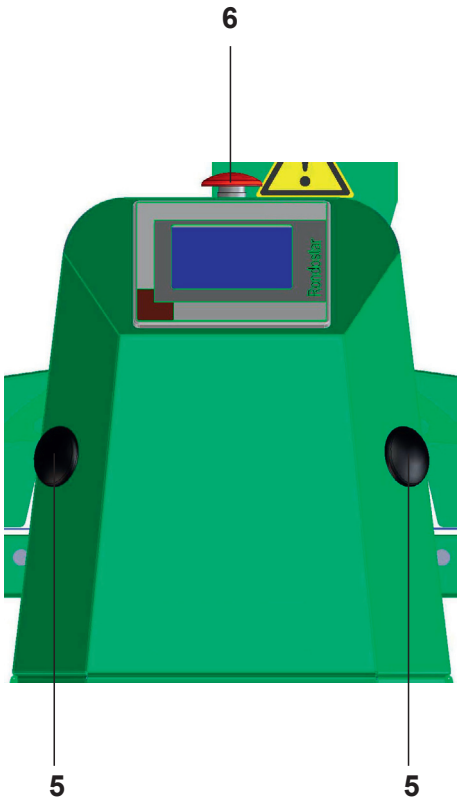
- Bring down both safety guards (3)



On display (4):

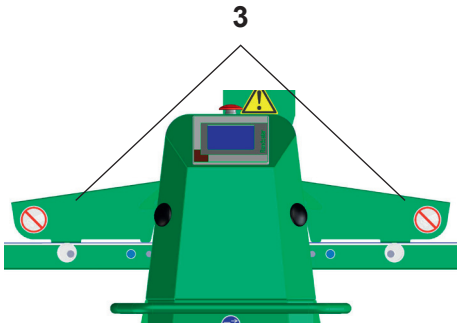
- Select working mode sheeting
- Select desired program and boot

4.2 Starting/Stopping the machine



Starting

- Press the black push button (5) on the side on which the dough has been placed (see also 5.2 Operating elements / Display)



Stopping

- Press the red push button (6)

or

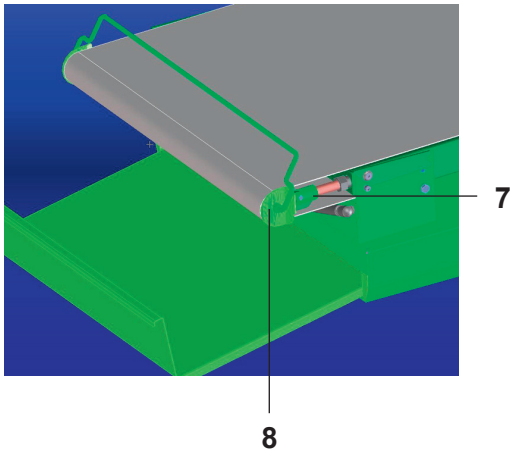
- Lift the safety guard (3)

4.3 Conveyor belt

4.3.1 Fast tension release device for conveyor belt (option)

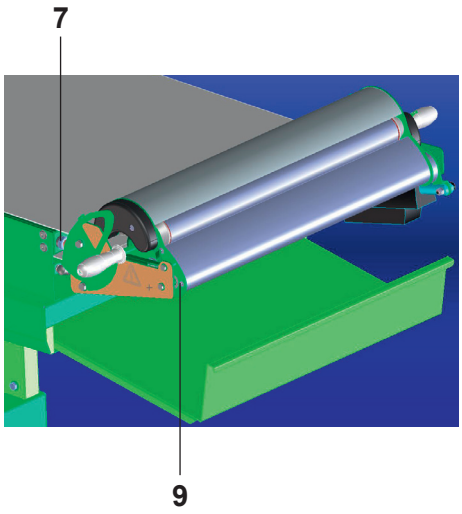
The fast tension release device for conveyor belt (7) serves to release the tension of the conveyor belt for cleaning the machine. It can be found at the machine table ends.

To release the tension of the conveyor belt, proceed as follows:



- Grab the fast tension release device for conveyor belt (7) on the idle roller (8) or on the stanchion of the automatic dough reeler (9) with both hands, lift it and fold it down to the limit stop.
- Proceed in the reverse sequence in order to reset the fast tension release device for conveyor belt (7).

For putting the machine into operation the conveyor belt must be tensioned!



5 Operation

5.1 General operation description for RONDOSTAR 4000

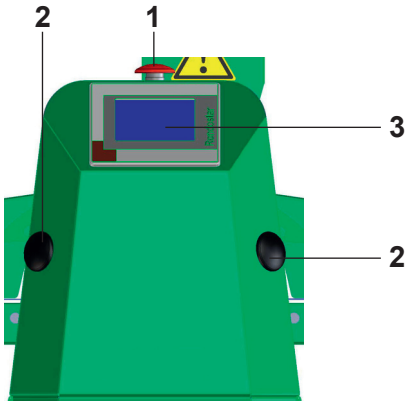
The dough sheeter RONDOSTAR 4000 is computer controlled, equipped with a color-touchdisplay and suitable for sheeting and booking doughs.

The data which are important to the operator are indicated continuously on the display during dough sheeting.
Thanks to this modern display technology, all operation and programming is carried out by following pictorial information, and so can easily be understood by anyone, irrespective of language.

Totally 100 normal or multi- programs can be memorized.

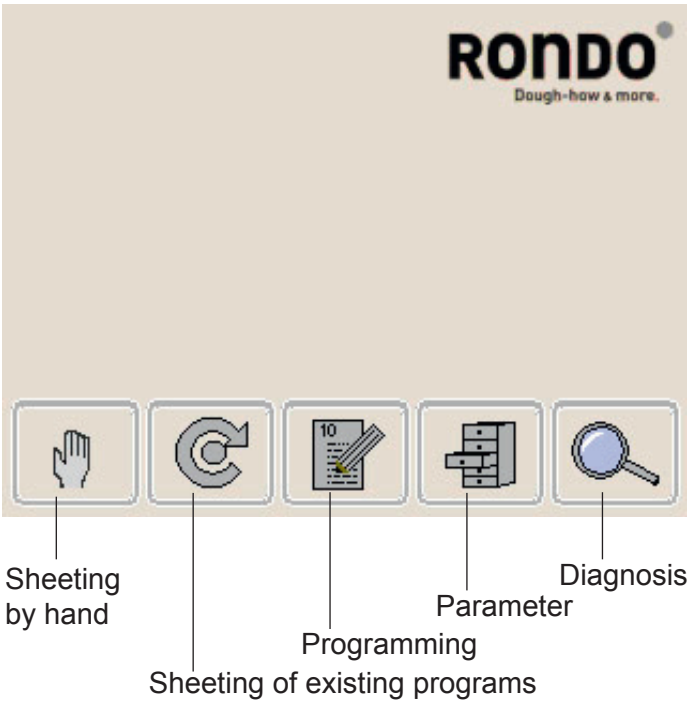
- Normal program with 1 loop
- Multi- program with 2 - 5 loops

5.2 Operating elements / Display



- Red push button (1) for stopping the machine
- Black push buttons (2) to start up the machine
- Display (3)
- Function keys (Touch surface on the display)

5.3 Switch on the machine, initial screen



Before starting the machine, make sure that:

- It is ready for operation as described in chapter 4.1 Preparing for operational readiness
- Make sure that no loose objects, such as knives, dough scrapers, reelers or others are on the machine tables.
- When leaving the factory, 4 typical programs are memorized for immediate use. (programs 1-4).

They can be copied and changed in a very easy way.

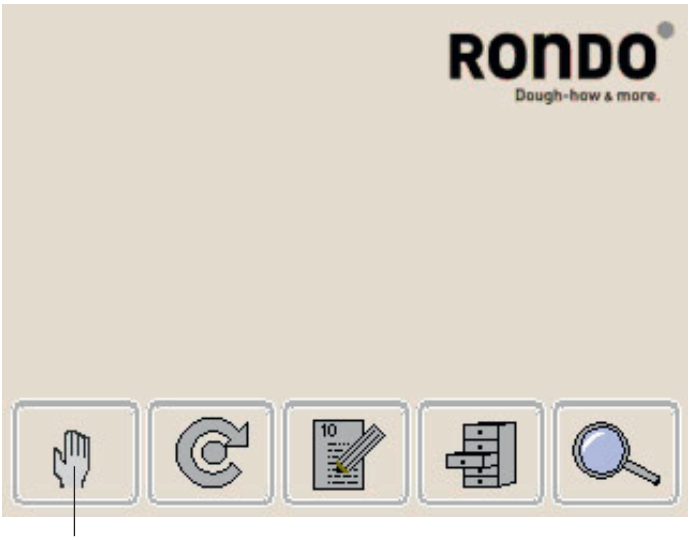
The same programs are deposited again under 97 – 100 with write protection.

- After switching on at the main switch, the processor starts up automatically, and after about 15 s the initial screen is shown (on left).

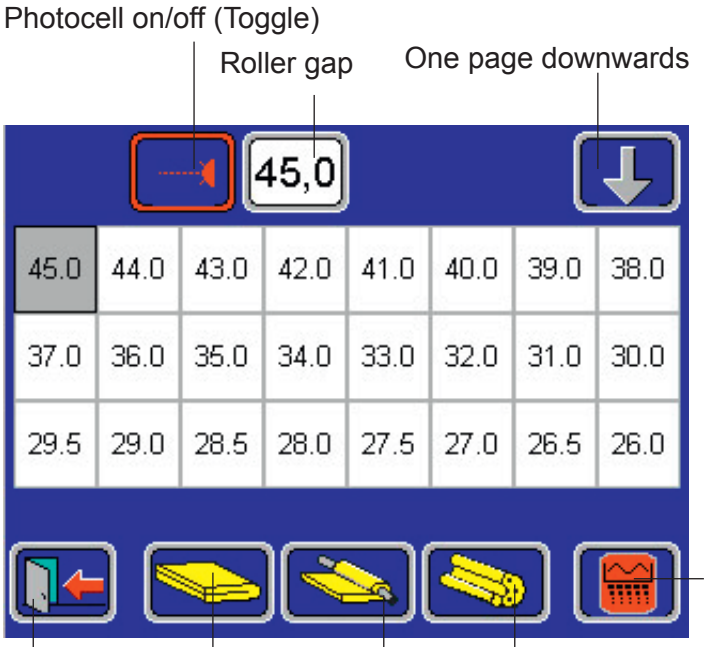
5.4 Sheeting by hand

5.4.1 Selecting working mode "Sheeting by hand"

Initial screen



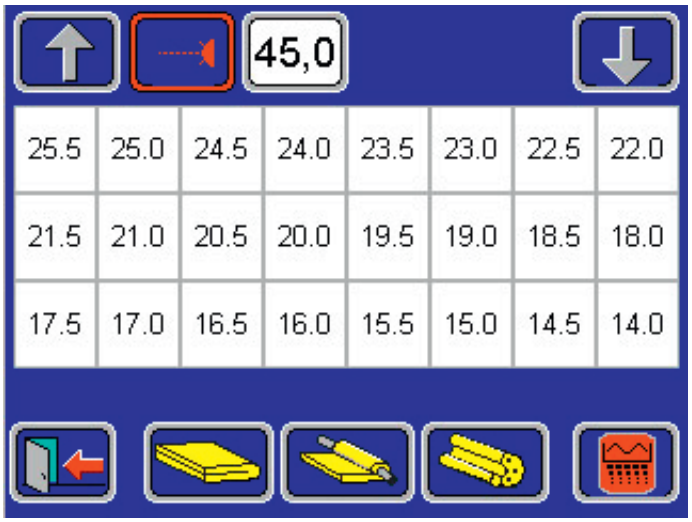
- Select function key on initial screen



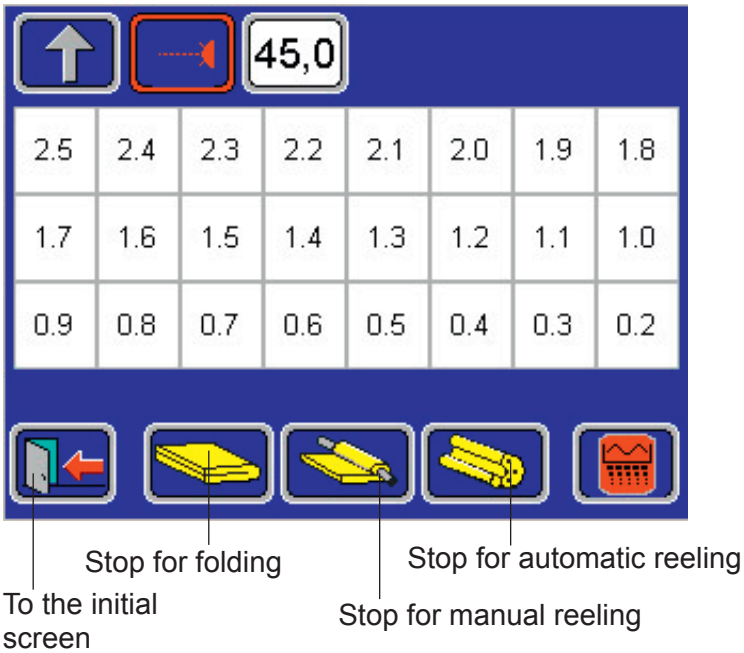
The sheeting screen with following selection keys appears

* = depends on the parametrization of the machine

5.4.2 Sheeting with photocell

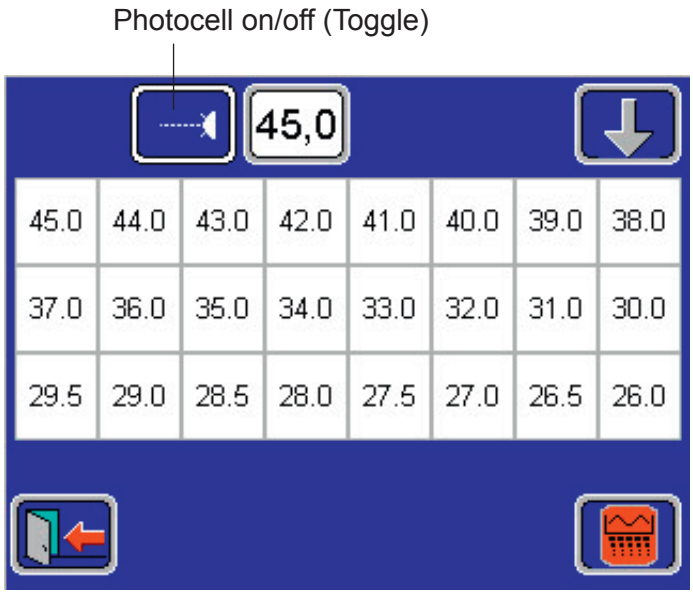


- Put on the dough piece
- Select the roller gap in table
- Press the black push button on that side on which the dough piece is placed.
  Once the dough band has exited the rollers, the belt stops
- Select new roller gap from the table and press any black push button.



- Select stop for folding, stop for manual reeling and stop for automatic reeling before the last sheeting process (automatic reeling only possible if the roller gap is smaller than 9 mm)
- The flour duster can be switched on as desired on any pass (only 1 pass active)
- If a new roller gap has been selected during the sheeting process, the machine starts automatically (without pressing a black push button)
- For stopping the machine press the red push button.

5.4.3 Sheeting without photocell



As described by chapter 5.4.2 Sheeting with photocell, however:

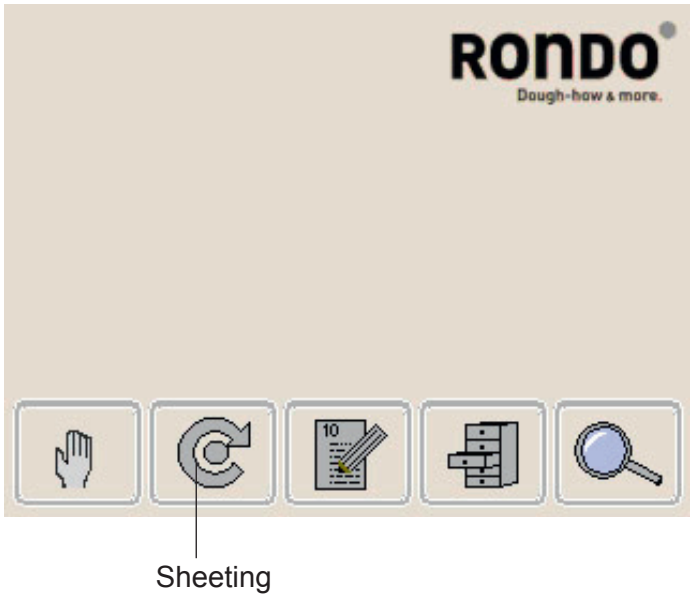
The photocell with "Photocell on/off" to deactivate

- The belt must be stopped by the red push button, after the dough band has exited the rollers.
- For starting the machine, the black push button must be pressed on that side on which the dough piece is placed.

Please note:
Preselection stop for folding / manual reeling, automatic reeling not possible!

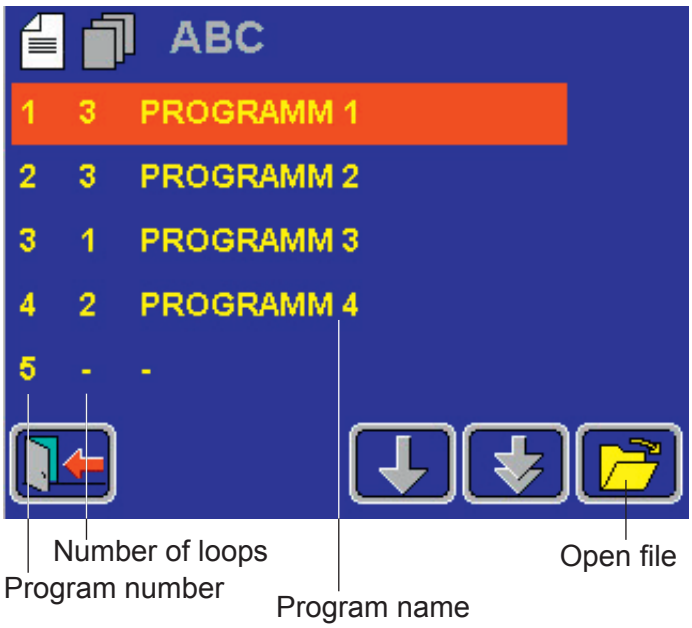
5.5 Sheeting with existing programs

5.5.1 Select working mode "Sheeting"



- Select function key function key
  The list of programs appears.

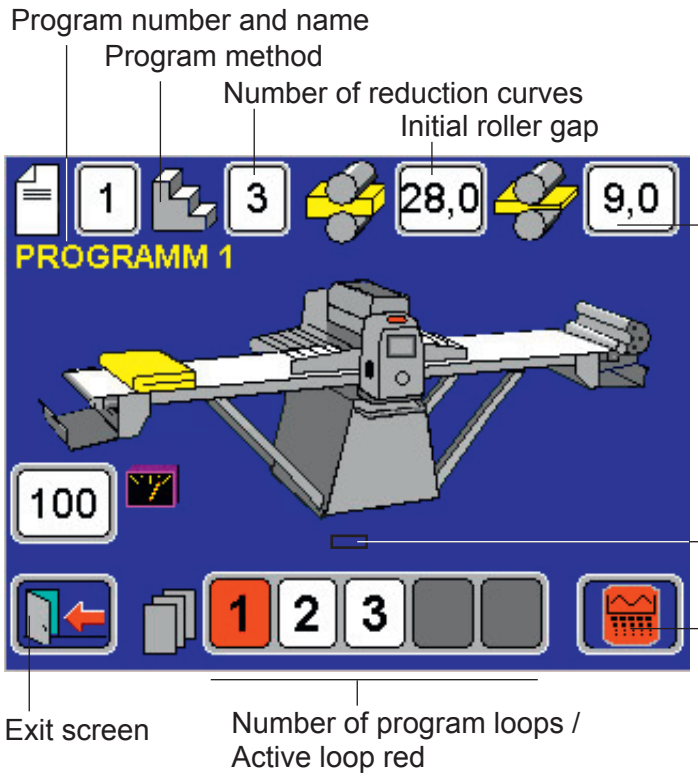
5.5.2 Select and open program



- Mark the desired program with the arrow key and click on the symbol "open file / program" afterwards.
  After this the sheeting screen appears.

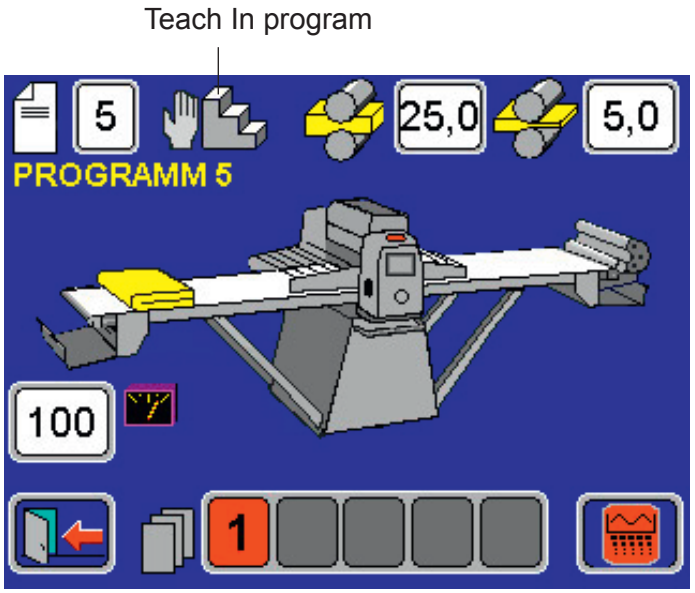
5.5.3 Open program directly

- By selecting on any program, the sheeting screen appears.



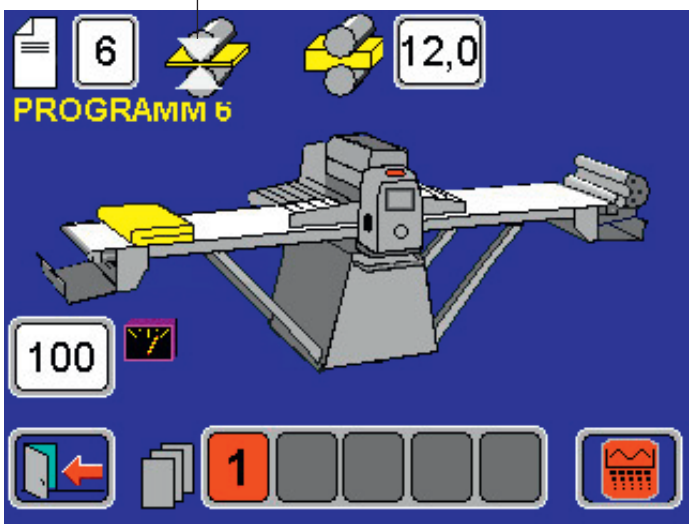
Sheeting program with standard reduction curve

5.5.4 Program method



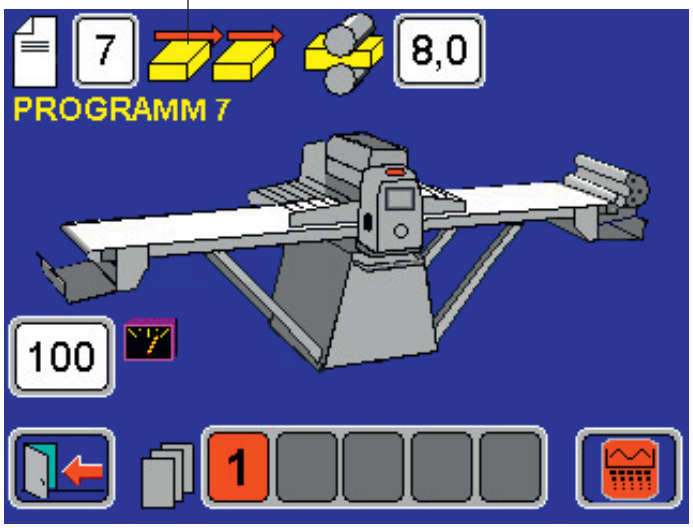
Sheeting program with manual entering of the reduction curves (Teach In)

Calibrating program



Calibrating program

Continuous reduction without photocell



Continuous reduction without photocell

5.5.5 Sheeting dough

- Put on the dough piece
- Press the black push button on that side on which the dough piece is placed.
- For stopping the machine press the red push button

Finish for folding

- After the last sheeting process the dough band lays on the outfeed table ready to be folded

Finish for manual reeling

- After the last sheeting process the dough bands stops on the outfeed band
- Lay dough band on manual reeler
- Start manual reeling with any starting key
- Dough band gets coiled around the reeler

Finish for automatic reeling

- Before the last sheeting process the automatic reeler closes
- After the last sheeting process the dough band gets automatically coiled
- The automatic reeler opens and the reeler with the coiled dough can be extracted

Cutomat (Cutting)

- After the last sheeting process the dough band stops
- Sink the cutting station
- Start cutting with any starting key
  The roller gap opens, so that the band does not come in touch with roller.
  The band runs with the full speed until the dough band reaches the rollers, after with the cutting speed.
- After the dough end has left the outfeed band, press stop key and return to program start by pressing the ESC key.

Transfer

5.5.6 Working mode "Compound operation with a transfer table"

Using the Rondostar and a transfer table PTT, the fully sheeted dough band can be automatically transferred to a make-up line.

Function:

If there is no dough band on the transfer table, the fully sheeted dough band is automatically transferred onto the transfer table. With the Rondostar, the next dough band can be sheeted in preparation.

If the transfer table is still occupied by a dough band, the Rondostar stops in the position "Place manual reeler".

When the transfer table is free, the dough band is automatically transfered.

5.5.7 Working mode "Compound operation with a make-up line / donut line"

Using the Rondostar type SFS6607DD, the dough band can be transfered directly from the sheeting machine to a make-up line.

Function:

The fully sheeted dough band stops automatically at the end of the table.

If the release is given by the make-up line, the dough band is transfered to the line at the "Transfer speed". When the preset transfer time has expired, the Rondostar stops automatically and is ready for dough sheeting.

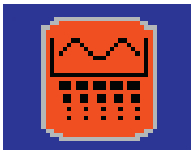
Depending on the transfer type the dough band gets transfered with the sheeting speed or with an external set value, after the polling signal has been detected.

With the parameter 17 "Factor transfer speed" the transfer speed of the make-up line can be adjusted.

5.5.8 Compound operation

Precise description to the compound operation is included in the service manual. (See service manual, chapter 5.4)

5.5.9 Switching flour duster on/off



- Select the key "Flour duster" by running table drive, for switch on the flour duster. If the flour duster is switched on, it will be indicated (red-coloured) on the display.
- Select key "Flour duster", for switch off the switched on flour duster

5.5.10 Pre-sheeting to width

If the roller gap for the dough width is reached, the machine is switched off automatically. The display of the roller gap is blinking.

If the dough length is too long or too short, the roller gap can be changed by selecting the Roller Gap key on the numeric keypad before starting the machine.

The new value will be automatically memorized.

5.5.11 Daily corrections

Dough consistency, dough temperature etc. can vary from day to day, so that when sheeting slight changes to the program may have to be made.

The daily corrections made remain memorized until the sheeting program is broken off.

Following daily corrections can be made:

- Initial roller gap
- Final roller gap
- Reduction curve
- Speed

5.5.12 Selecting other program

- By selecting the "Program number" (left-side at the top of the screen), the screen with the list of programs will be opened.
- Opening of program according 5.5.2 Select and open program or 5.5.3 Open program directly

5.5.13 Displaying and changing programs in table form

Programs can also be displayed in table form.

This has the advantage that all settings, including the sheeting steps are combined on one display.

This display mode is directly accessible during sheeting.

Daily corrections and other settings can be changed in this display.

Displaying program in table form

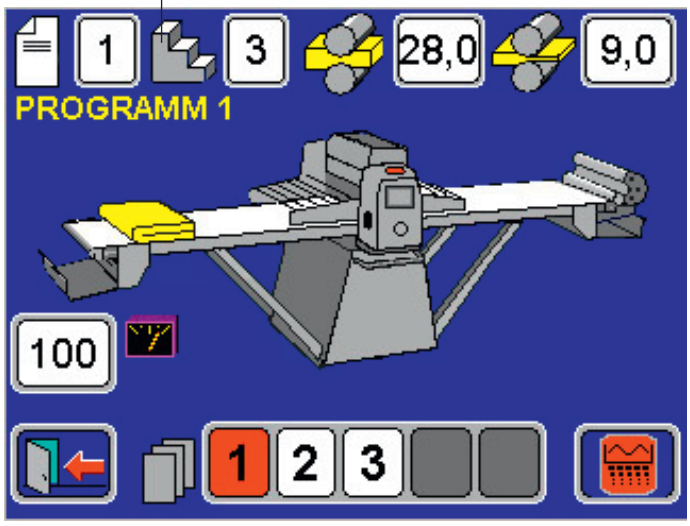
In sheeting screen:

- Select on the symbol reduction curve
  Keypad appears
- Enter code 17
  The program now appears in table form.

Attention:

If a program has been changed in table form, there are no daily corrections possible belated!

Symbol reduction curve



Changing programs

- With multi- programs, highlight the program loop in which changes are to be made (by selecting on it)

Changing sheeting steps

- Mark the sheeting step in which changes are to be made with the arrow key, select on the symbol "Keypad" or select on the sheeting step directly.
  Keypad appears
- Enter new value and select the enter key.
  The reduction curve symbol appears with arrows, showing that the original reduction curve has been changed.

Attention:

If automatic reeler is selected, the final roller gap can not be entered bigger than 9 mm.

Changing flour duster on/off

- Mark the sheeting step in which the flour duster is to be switched on or off (by selecting on it)
- Switch the flour duster on or off by selecting the flour duster symbol.
- or select directly on the ON-OFF field in the accordant sheeting step (Toggle ON-OFF)

Changing speed

- Select symbol speed
  The keypad appears
- Enter new value and select the "Enter" key

Changing finish for folding / manual reeling /automatic reeling

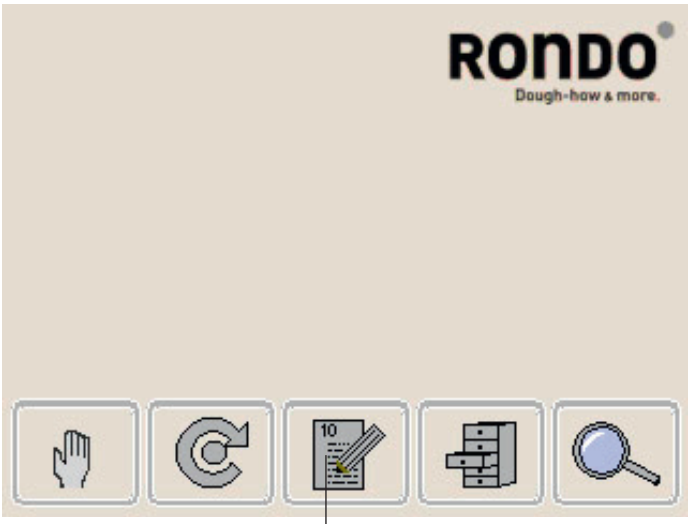
- Select corresponding symbols by repeated select (Symbol alternates)

Attention:

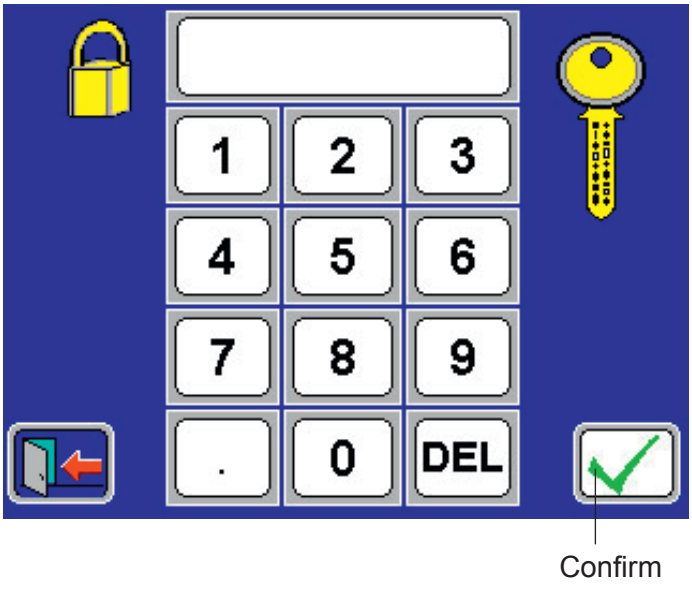
The automatic reeler can not be selected any more by final roller gap bigger than 9 mm.

5.6 Programming

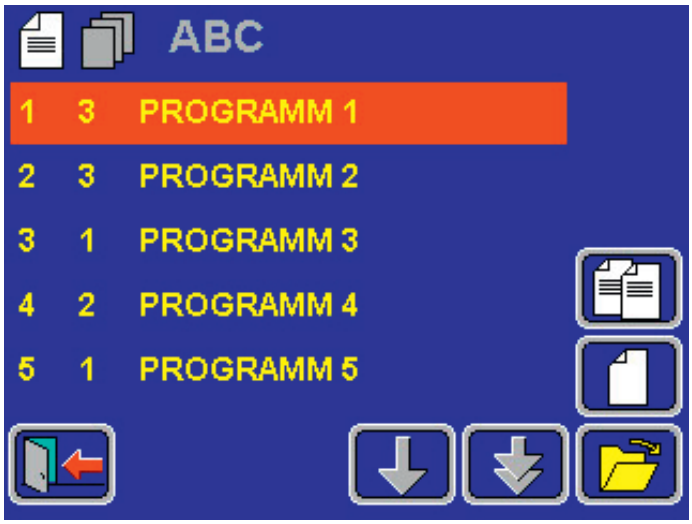
5.6.1 Selecting the programming mode



Select the function key "Programming" in the initial screen



- With the numerical keypad enter the code 17 and confirm by selecting the key "Confirm"



The list with the existing programs will be indicated on display

5.6.2 Creating a new program

- Mark a vacant position in the list
- Select the "New Program" key
  The machine screen appears and the program parameters are requested.
  (see chapter 5.6.5 Entering program parameters)

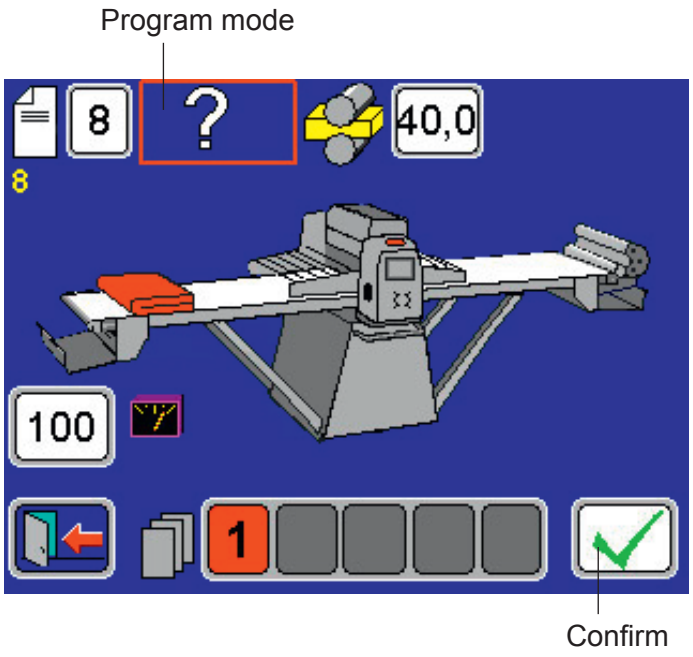
5.6.3 Replacing an existing program

- Mark an existing program
- Select the key "Open file"
  The machine screen appears and the program parameters are requested.
  (see chapter 5.6.5 Entering program parameters)

5.6.4 Copying an existing program

- Mark the program to be copied
- Select the "Copy" key
- Mark the location (destination) to which the program is to be copied.
- Select the Copy key
  The alphanumeric keypad appears for the entry of the program name.
- Enter the program name and confirm with the "Confirm" key.

5.6.5 Entering program parameters



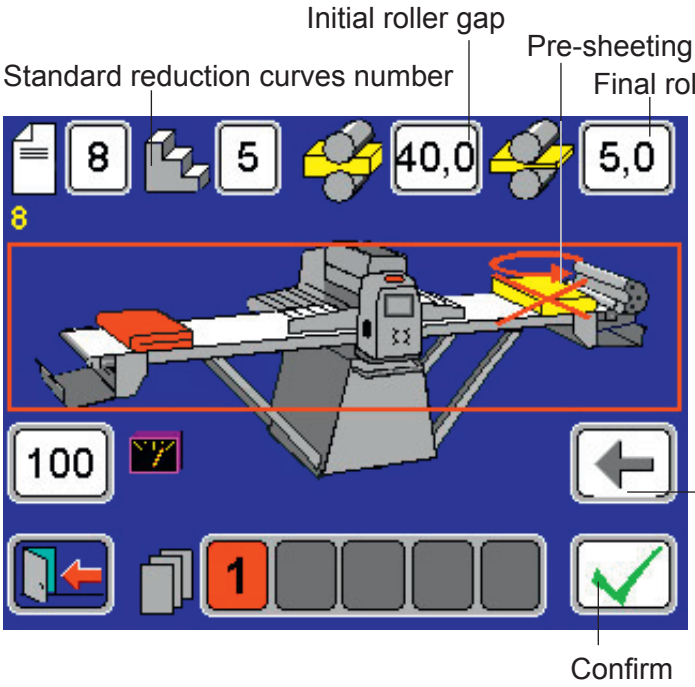
When one of the program creation options is selected, the machine screen appears, requesting the first program parameter (flashing)

With "Confirm" to the next step

Select corresponding symbols by repeated selects (Symbol alternates)

- Sheeting program with Standard reduction curve
  see chapter 5.6.6 Sheeting program with standard reduction curve
- Sheeting program with manual entering of the reduction curve
  see chapter 5.6.7 Sheeting program with manual entering of the reduction curve (Teach-in)
- Calibrating program
  see chapter 5.6.9 Calibrating program
- Continuous program without photocell
  see chapter 5.6.10 Continuous program without photocell

5.6.6 Sheeting program with standard reduction curve



- Select symbol "Reduction curve" and confirm by selecting "Confirm" to the next step

Machine screen appears

Remark:
By false entries you can return to the previous steps by selecting the symbol "Step back by false entries".

Switch on- / off request "Pre- sheeting to width" can be requested by selecting the symbols:

- "Pre- sheeting to width OFF"

respective

- "Pre- sheeting to width ON"
- With "Confirm" to the next step

Request reduction curve number

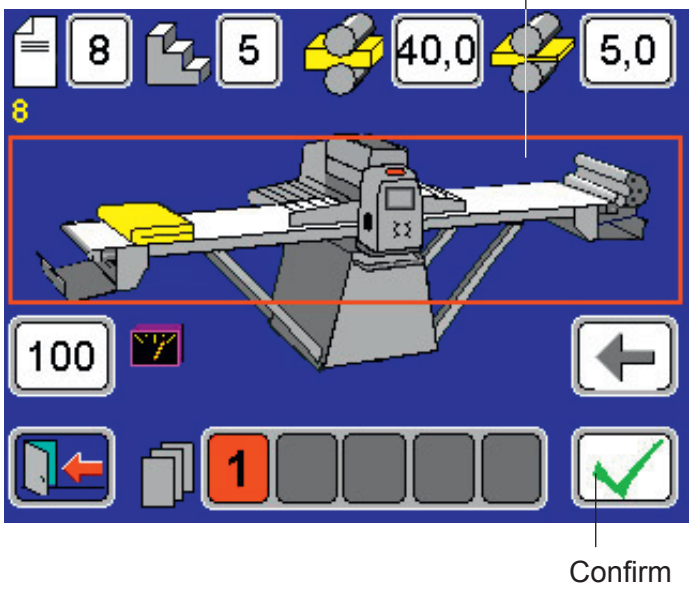
- Select the flashing reduction curves number
- Enter the reduction curve number using the numeric keypad and confirm using the "Confirm" key:
  1-9 for standard reduction curves
  21-23 for shortcrust pastry reduction curves
- Confirm the selected reduction curve using the "Confirm" key

Request initial roller gap

- Select on the flashing "Initial roller gap" symbol
- Enter the initial roller gap using the numeric keypad and confirm using the "Confirm" key.
- Confirm the selected initial roller gap using the "Confirm" key

Request final roller gap

- Select on the flashing "Final roller gap" symbol
- Enter the final roller gap using the numeric keypad and confirm using the "Confirm" key.
- Confirm the selected final roller gap using the "Confirm" key

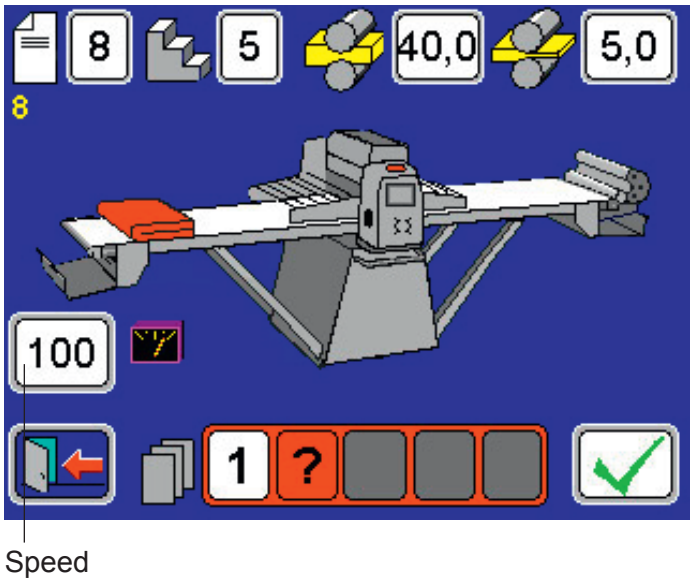


Request finish sheeting

- By repeated selection of the marked fields the followins final functions can be choosen:

- Finish for folding
- Finish for manual reeling
- Automatic reeling (only by final roller gap smaller or equal 9 mm)
  If frequence inverter conveyer belt speed final passage
- Cutting (only by Cutomat)
  Enquiry conveyer belt speed cutting passage
- Transfer (only with option Transfer)

With "Confirm" to the next step



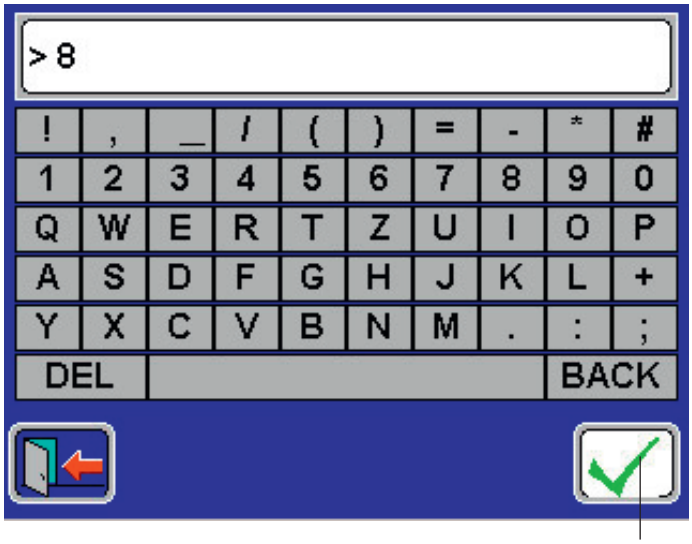
Request belt speed

This enquiry applies only to machines with variable speed (frequency transformer)

Symbol speed is flashing

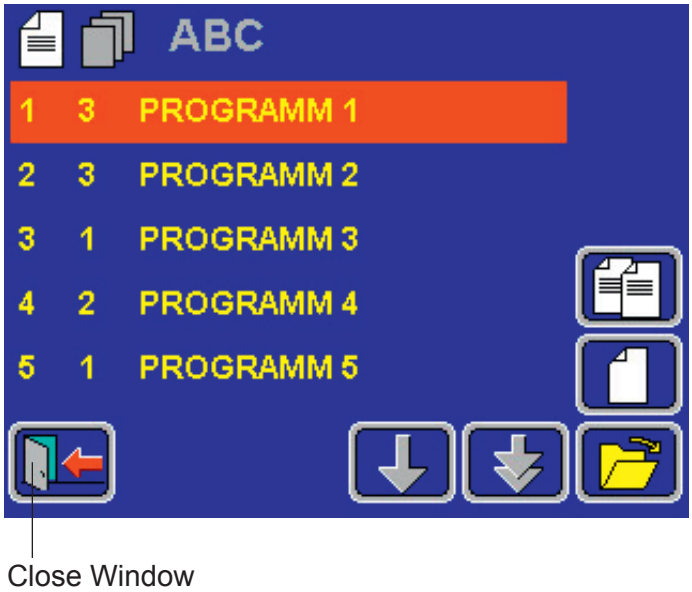
- Selecting
- With the numerical keypad enter the speed and confirm by selecting the key "Confirm"

With "Confirm" to the next step



Alphanumeric keypad for entry of the baking program name

With "Confirm" end the programming.



- List of the programs

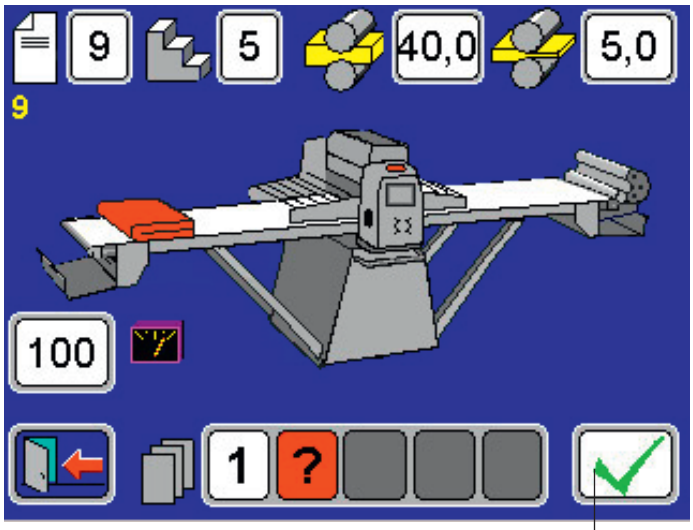
This completes the programming of a normal program with standard reduction curve.

The "Close Window" function key can be used to return to the initial screen.

5.6.6.1 Multi- program (2 – 5 loops)

The program parameters for the first loop of a multi-program are programmed in the same way as for a normal program. In order to add another loop, the loop must be concluded with "Stop to fold".

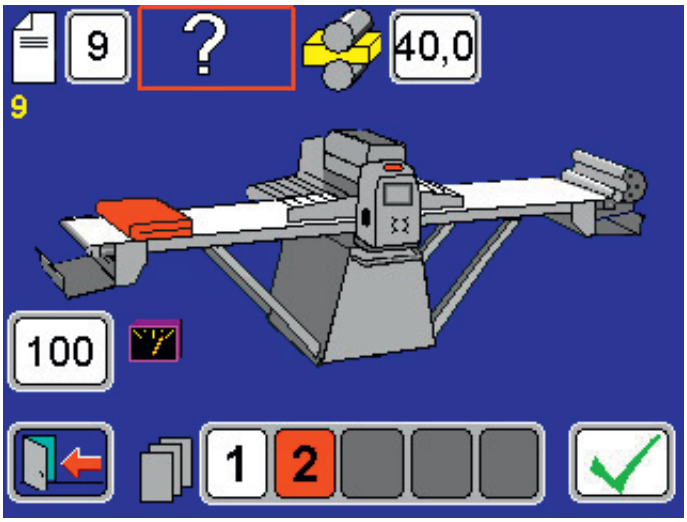
After entering the speed (by machines with variable speed) there is possibility to add a further program-loop.



- If no other loop should be programmed, confirm by selecting key "Confirm" to the next step. Finish the program see in 5.6.6 Sheeting program with standard reduction curve

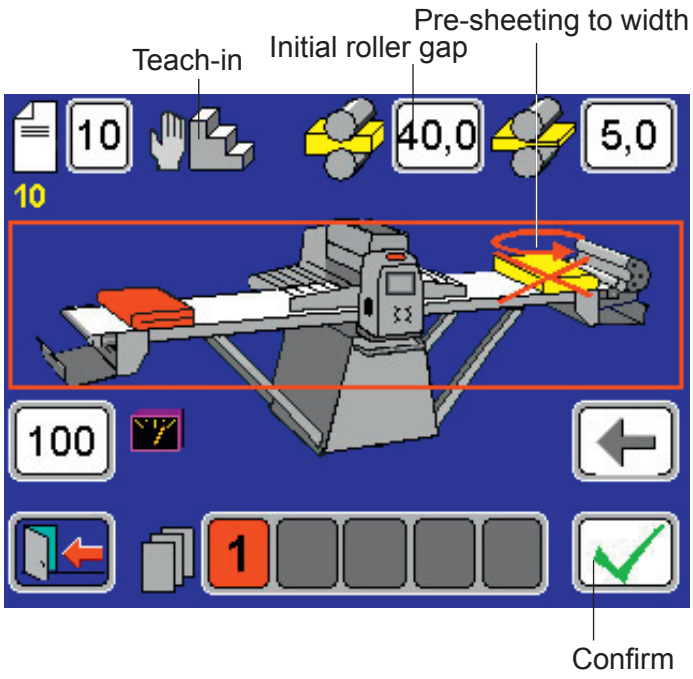
Select an other loop as follows:

- Select on flashing ? + appears
- With "Confirm" to the next step



The second and all the other loops will be programmed according the 1. loop
(see chapter 5.6.5 Entering program parameters)

5.6.7 Sheeting program with manual entering of the reduction curve (Teach-in)



Carry out chapters 5.6.1 Selecting the programming mode till 5.6.7 Sheeting program with manual entering of the reduction curve (Teach-in), select symbol "Teach-in"

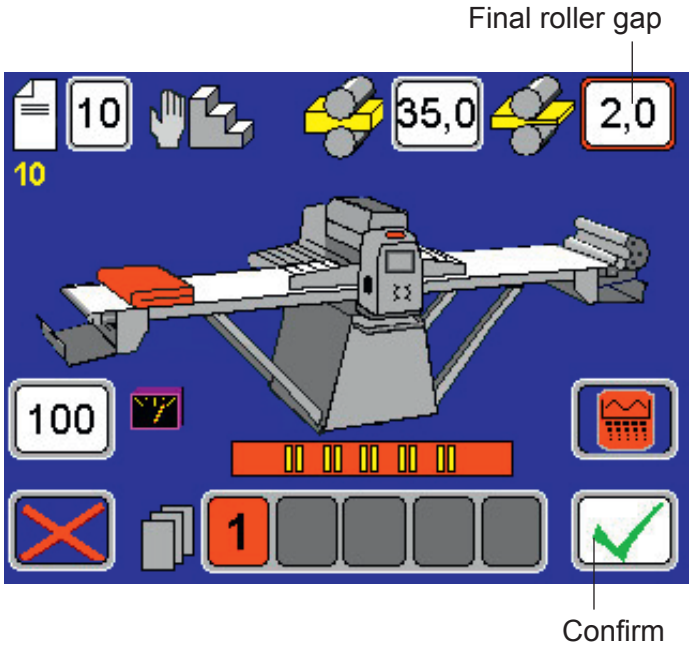
- With "Confirm" to the next step

Machine screen appears

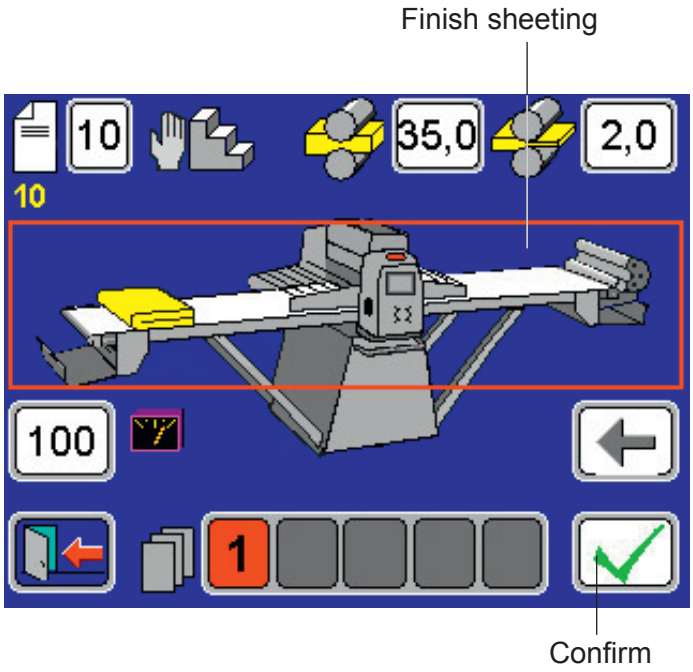
Pre- sheeting to width will be requested with flashing Symbol

- Switch ON/OFF pre- sheeting to width by selecting the symbol
- With "Confirm" to the next step

- Select on the flashing "Initial roller gap" symbol
- Enter the initial roller gap using the numeric keypad and confirm using the "Confirm" key.



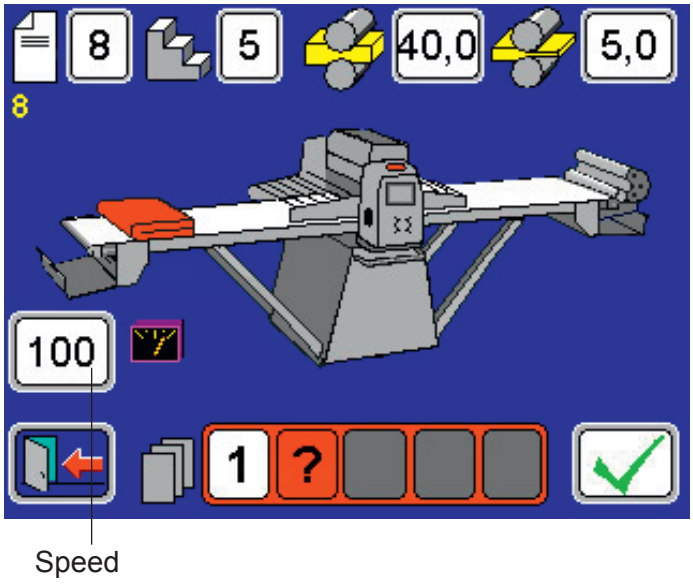
- Put on the dough
- Press the black push button on that side on which the dough piece is placed.
  Dough will be sheeted with the programmed roller gap and stops
- Select on the flashing "Final roller gap" symbol
- Enter the final roller gap using the numeric keypad and confirm using the "Confirm" key
- Press one of the black push buttons
  Dough will be sheeted with the programmed roller gap and stops
- Repeat the sheeting process until the desired final thickness is reached
- When the final roller gap is reached, select "Confirm" to get to the next step



Request finish sheeting

- By repeated selection of the marked fields the followins final functions can be choosen:
- Finish for folding
- Finish for manual reeling
- Automatic reeling (only by final roller gap smaller or equal 9 mm)
  If frequence inverter conveyer belt speed final passage
- Cutting (only by Cutomat)
  Enquiry conveyer belt speed cutting passage
- Transfer (only with option Transfer)

With "Confirm" to the next step



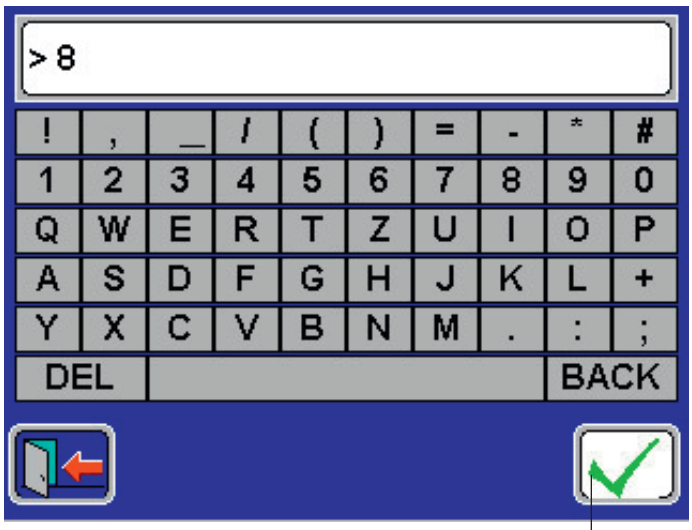
Request belt speed

This enquiry applies only to machines with variable speed (frequency transformer)

Symbol speed is flashing

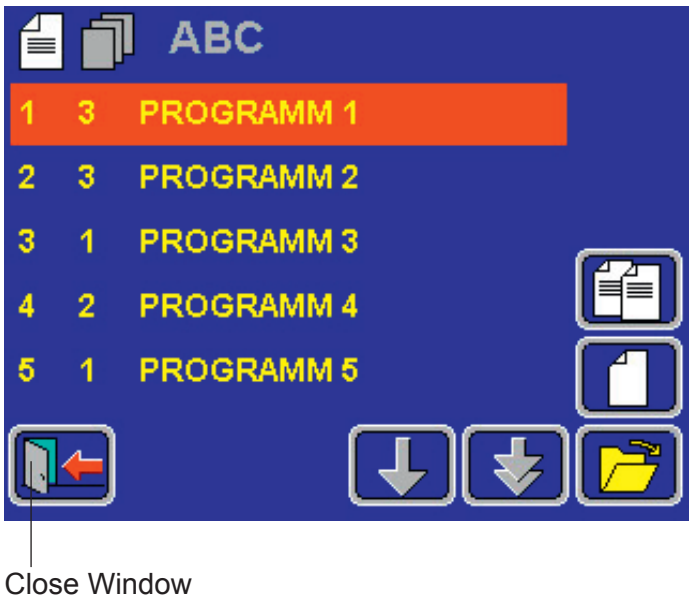
- Selecting
- With the numerical keypad enter the speed and confirm by pressing the key "Confirm".

With "Confirm" to the next step



Alphanumeric keypad for entry of the baking program name

With "Confirm" end the programming.



- List of the programs

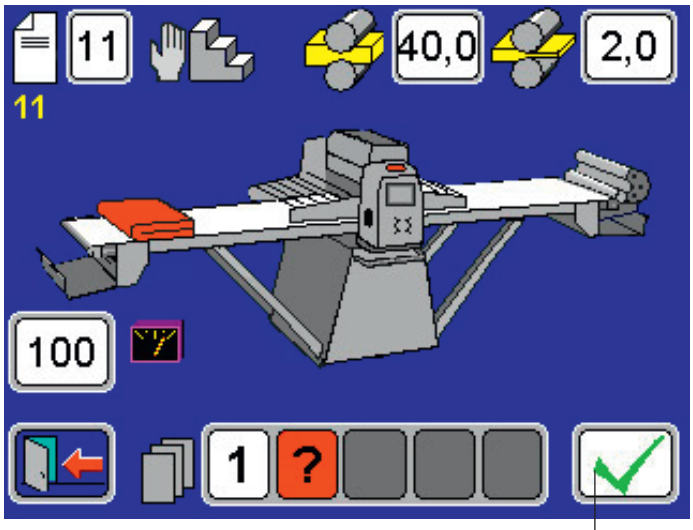
This completes the programming of a normal program with standard reduction curve.

The "Close Window" function key can be used to return to the initial screen.

5.6.7.1 Multi- program (2 – 5 loops)

The program parameters for the first loop of a multi-program are programmed in the same way as for a normal program.
In order to add another loop, the loop must be concluded with "Stop to fold".

After entering the speed (by machines with variable speed) there is possibility to add a further program-loop.

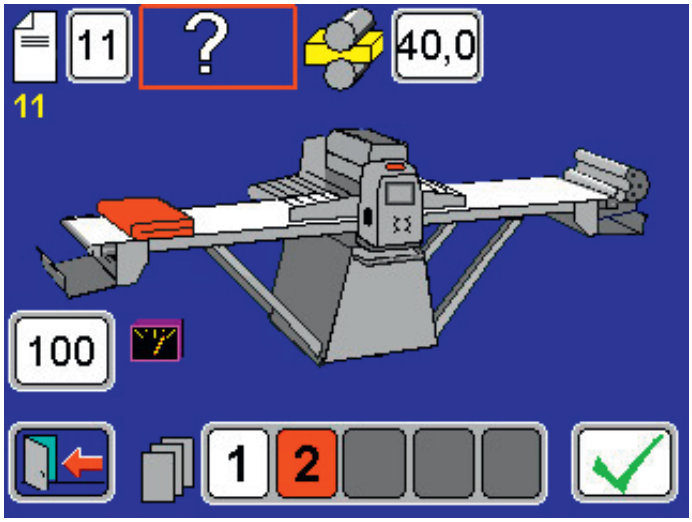


Confirm

If no other loop should be programmed, confirm by selecting key "Confirm" to the next step.
Finish the program see in
5.6.6 Sheeting program with standard reduction curve

Select an other loop as follows:

- Select on flashing ?
  + appears
- With "Confirm" to the next step



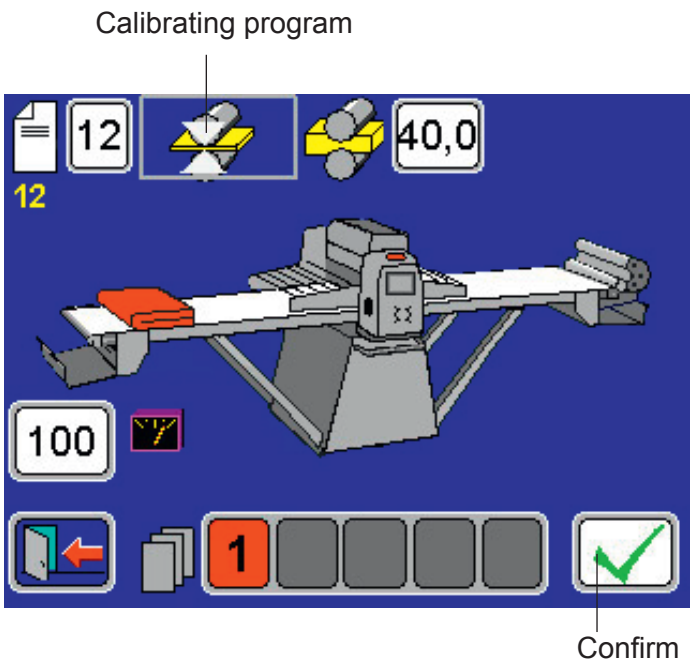
The second and all the other loops will be programmed according the 1. loop

5.6.8 Shortcrust pastry program

Details see 5.6.6 Sheeting program with standard reduction curve.

- One of the shortcrust pastry reduction curves 21-23 must be selected during programming.
- The machine stops the sheeting process before the last reduction run.
- This last step is begun with the Start button.

5.6.9 Calibrating program



- Carry out chapters 5.6.1 Selecting the programming mode till 5.6.7 Sheeting program with manual entering of the reduction curve (Teach-in), select symbol "Calibration"
- With "Confirm" to the next step

Roller gap is flashing

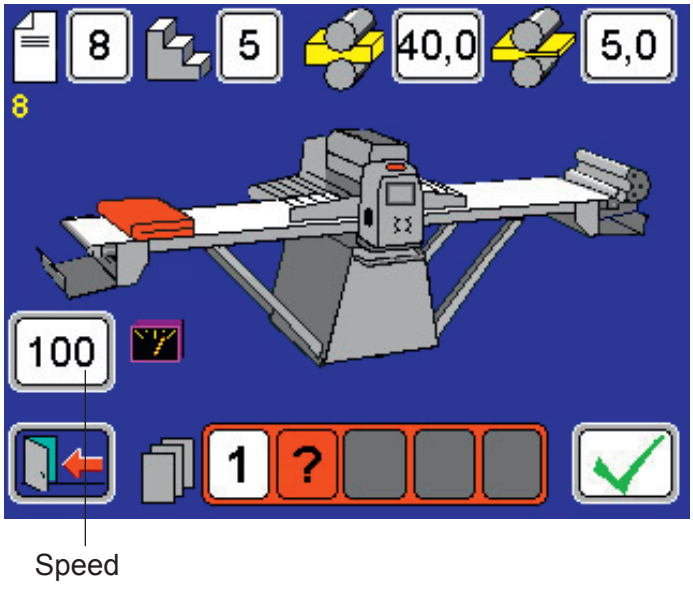
- Select
- With the numerical keypad enter the roller gap and confirm by selecting the key "Confirm".

Request finish sheeting

By repeated selection of the marked fields the following final functions can be chosen:

- Finish for folding
- Finish for manual reeling
- Automatic reeling (only by final roller gap smaller or equal 9 mm)
  If frequence inverter conveyer belt speed final passage
- Cutting (only by Cutomat)
  Enquiry conveyer belt speed cutting passage
- Transfer (only with option Transfer)

With "Confirm" to the next step



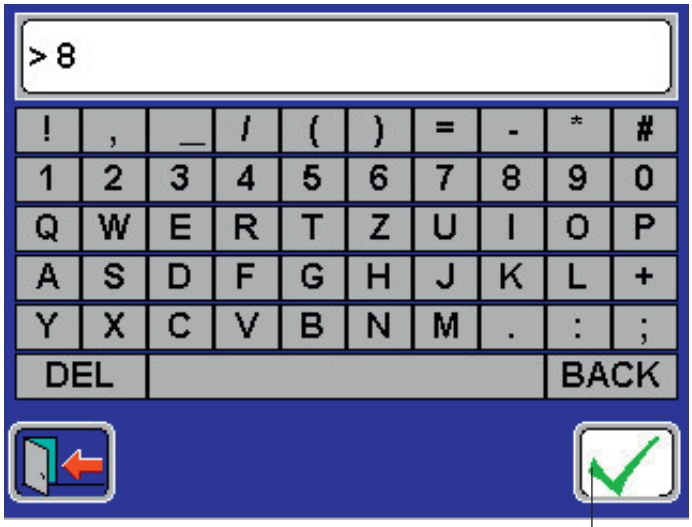
Request belt speed

This enquiry applies only to machines with variable speed (frequency transformer)

Symbol speed is flashing

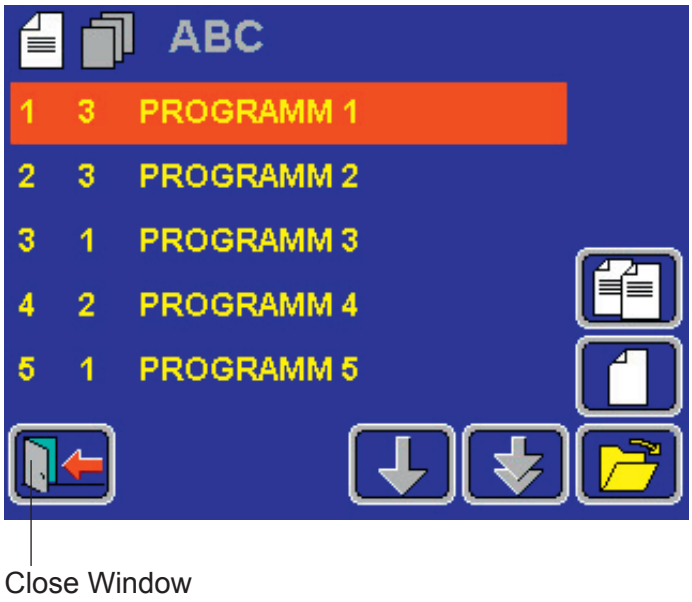
- Selecting
- With the numerical keypad enter the speed and confirm by selecting the key "Confirm".

With "Confirm" to the next step



Alphanumeric keypad for entry of the baking program name

With "Confirm" end the programming.

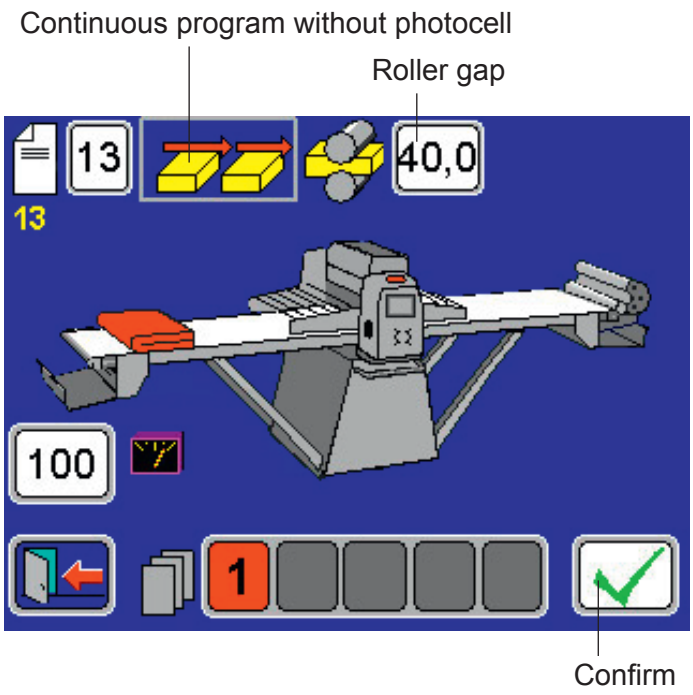


- List of the programs

This completes the programming of a normal program with standard reduction curve.

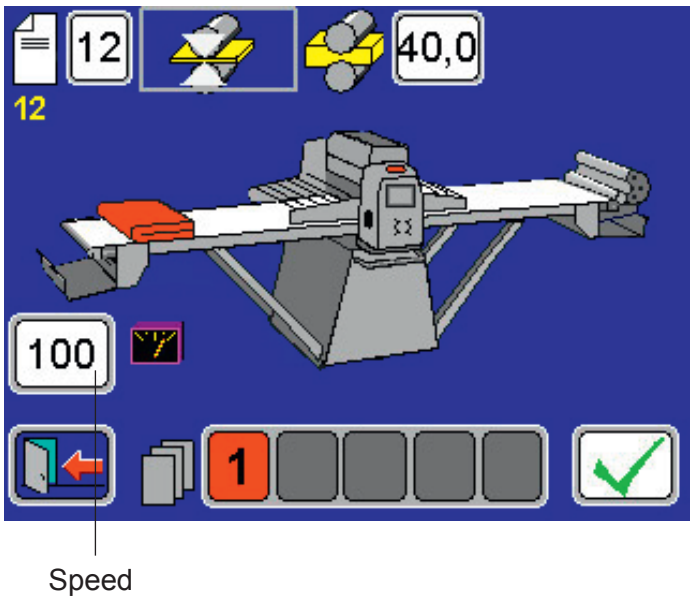
The "Close Window" function key can be used to return to the initial screen.

5.6.10 Continuous program without photocell



- Carry out chapters 5.6.1 Selecting the programming mode till 5.6.7 Sheeting program with manual entering of the reduction curve (Teach-in), select symbol "Continuous sheeting without photocell"

- With "Confirm" to the next step



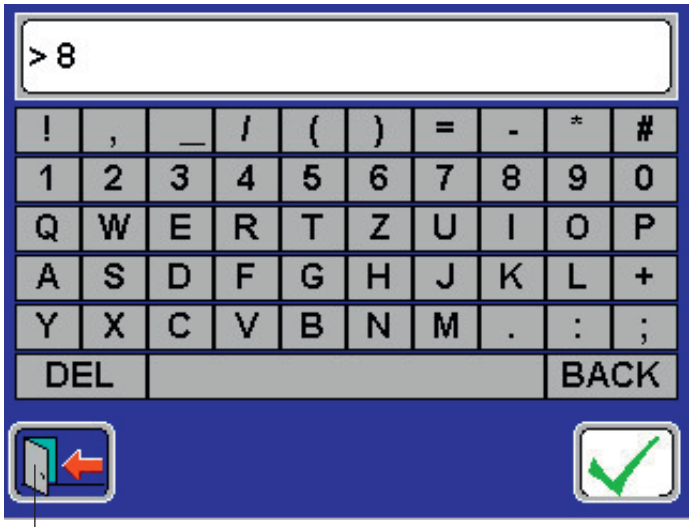
Request belt speed

This enquiry applies only to machines with variable speed (frequency transformer)

Symbol speed is flashing

- Selecting
- With the numerical keypad enter the speed and confirm by selecting the key "Confirm".

With "Confirm" to the next step



Alphanumeric keypad for entry of the baking program name

With "Confirm" end the programming.

5.7 Special functions

5.7.1 Adjusting parameters

Following adjustments of the machine can be changed:

Parameter 1 Language

1 = german

2 = english

3 = french

4 = spanish

5 = russian

Parameter 2 Side folding

0 = Side not defined (no empty passage)

1 = Folding on left table

2 = Folding on right table

Parameter 3 Side manual reeling

0 = Side not defined

1 = Manual reeling on left table

2 = Manual reeling on right table

Parameter 4 Dough position for folding

Time 0 - 5000 ms

Increase value: Dough stops later

Reduce value: Dough stops earlier

Parameter 5 Dough position for putting manual reeling

Time 0 - 5000 ms

Increase value: Dough stops later

Reduce value: Dough stops earlier

Parameter 6 Running time manual reeling

Time 0 - 5000 ms

Increase value: Reeling time is longer

Reduce value: Reeling time is reduced

Parameter 7 Running time auto reeling

Time 0 - 5000 ms

Increase value: Reeling time is longer

Reduce value: Reeling time is reduced

Parameter 8 Dough position pre-sheeting to width

Time 0 - 5000 ms

Increase value: dough stops later

Reduce value: dough stops earlier

For changing parameters proceed as follows:

- Select the symbol "Diagnosis" (magnifying glass) in the initial screen
- With numerical keyboard enter code 17 and confirm by selecting key "Confirm"

  The parameter list appears
- Mark the desired parameter
- Select symbol "Keypad"
- With numerical keyboard enter the value and confirm by selecting key "Confirm"
- If entering is finished, return to the initial screen by selecting key "ESC".

5.8 Flour duster

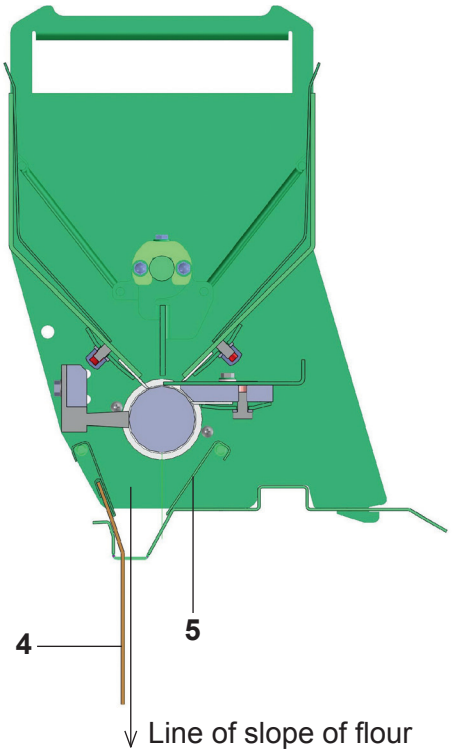
General informations

(Switch flour duster on/off, see 5.5.9 Switching flour duster on/off)

The programmable automatic flour duster provides a regular dusting of flour onto the dough band, without distributing the dusting flour into the atmosphere.

Please observe the regulations for the use of the unit and of the flour dust protection appliances supplied with it.

Description of functioning



From the flour container, the flour runs onto a rotating distributing roller, from which it is stripped off by a brush and distributed onto the dough band.

Various loosening aids are installed inside the hopper, to avoid an unwanted compression of the flour.

One flour dust protection (4) and one protection plate (5) are hinged-up underneath the container.

The flour duster must not be used without the flour dust protection appliances!

For the best delivery use wheat flour, type Nr. 550.

Adjusting the dusting width

The dusting width is adjusted by opening, respectively closing the slides to the required width.

5.9 Automatic reeler unit

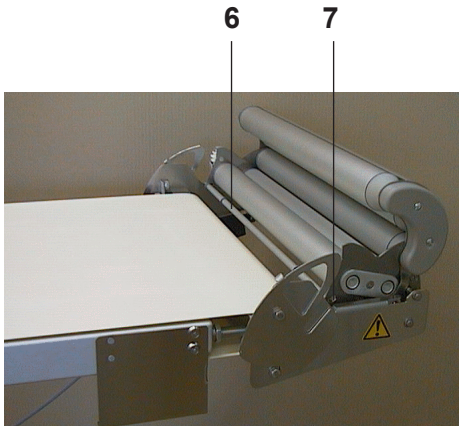
Function of the automatic reeler unit

The automatic reeler is a device starting automatically by the electrical control.

Attention when handling it!

Do not reach into the stationary or running device!

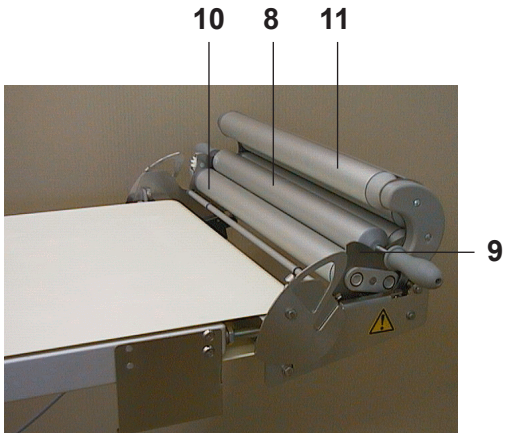
Initial position of the automatic reeler unit (open)



Dough retention bar (6)

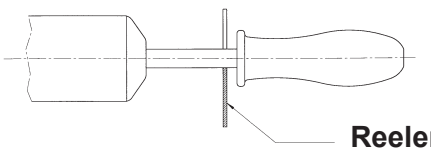
If, when sheeting large dough blocks, the dough band does not slide through the opening between the machine table and the reeling device, but pushes against the dough retention bar (6), this bar can be removed

- Loosen and take off the plastic screw (7)

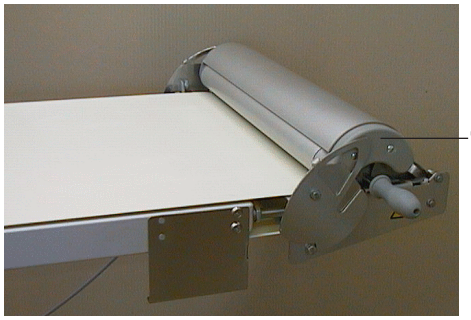


Reeler support (9)

- Insert reeler (8) correct in reeler support (9)

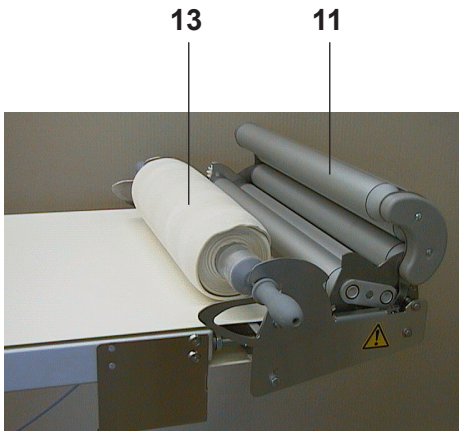


Reeler support sheet



Working position of the automatic reeler unit (closed)

Before the last dough passage in a program with activated reeler, the reeler unit (12) will be closed automatically. Whole device fold downwards, reeler is supported by lower rollers (10) and upper rollers (11).

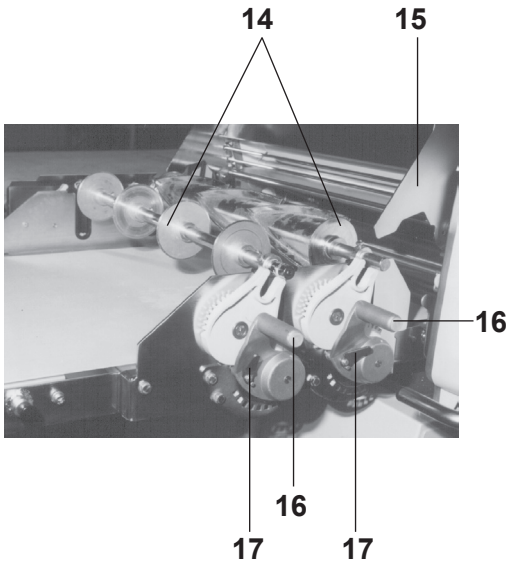


Doughband will be reeled, therefore the upper rollers (11) swing upwards.

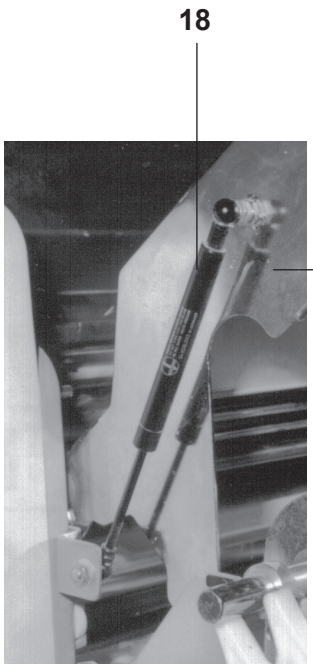
On the end of the reeling operation the device will swing back into initial position.

The finished reeled doughband (13) remains on the machine table.

5.10 Cutting device



14	Cutting rollers
15	Safety guard
16	Tension lever
17	Locking lever



Safety guard

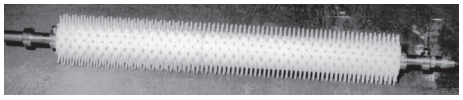
A safety guard (15) is covering the cutting device.

11

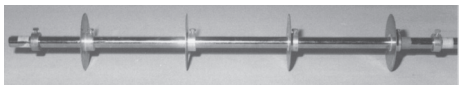
A defective pneumatic spring (18) on the safety guard (15) must always be replaced immediately!

Reason: In order to avoid danger of injury should the safety guard fall down!

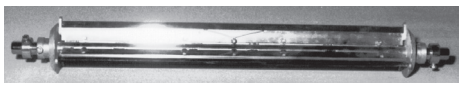
Types of cutting rollers



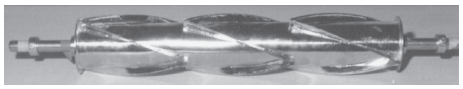
Docking Roller



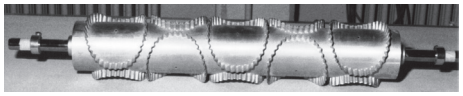
Length Cutter



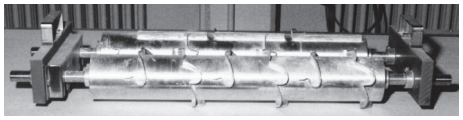
Cross Cutter



Zig-zag Cutter

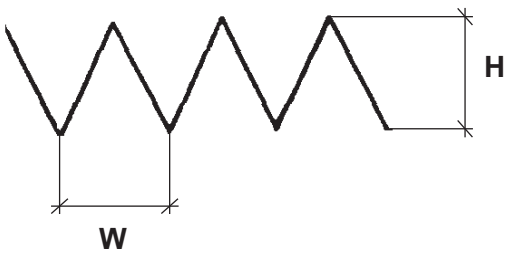


Form Cutting Roller



Tandem Cutter

Standard dimensions for zig-zag cutters in stainless steel version for triangles.



W	H	Number of rows
120	105	5
140	180	3
180	140	4
180	100	5

Lifting the table with cutting device

A defective stopping lever (19) must always be replaced immediately!

Reason: In order to avoid danger of injury should the table fall down!

- Lift the table by hand up till the stopping lever (19) blocks up

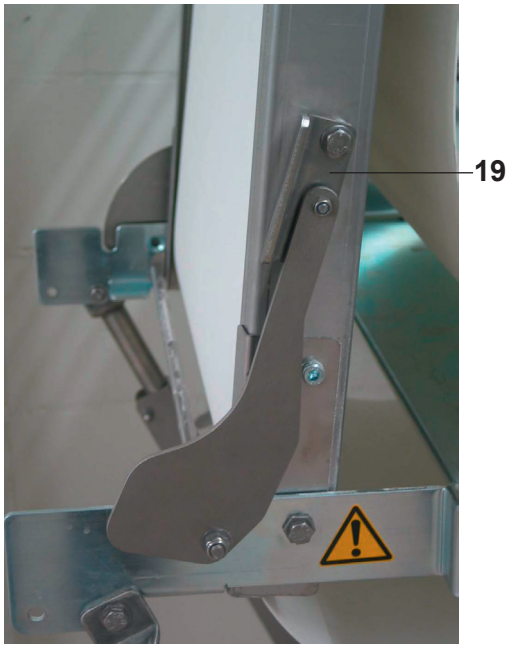


Table in set-up-position

Letting down the table with cutting station

- Hold the table

- Push up the stopping lever (19) and let down the table at the same time

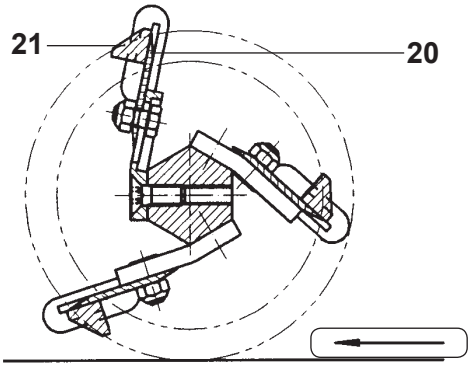
Inserting the cutting rollers

Danger of injury on the sharp cutting edges of the cutting rollers!

The cutting rollers must be inserted in the following sequence:

a) For Squares / Rectangles

First Length cutter, than Cross cutter



In order to ensure uninterrupted operation of the cross cutter, the cutter must be positioned in the cutting direction in such a way that the dough sheet is first cut by the cutting knife (20) and then afterwards ejected by the ejector (21).

b) For triangles:

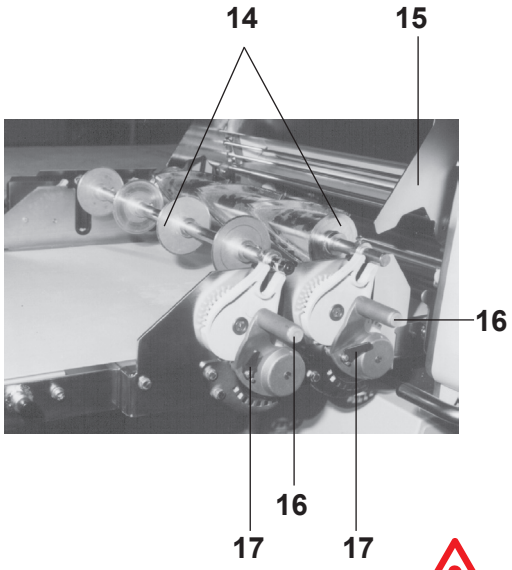
First Zig-zag Cutter, than Length Cutter

Cutting rollers not in use must be stored in the location provided for this purpose.

Reason: In order to avoid damage to the cutting knives.

In order to avoid injury to operators.

Letting down the cutting rollers

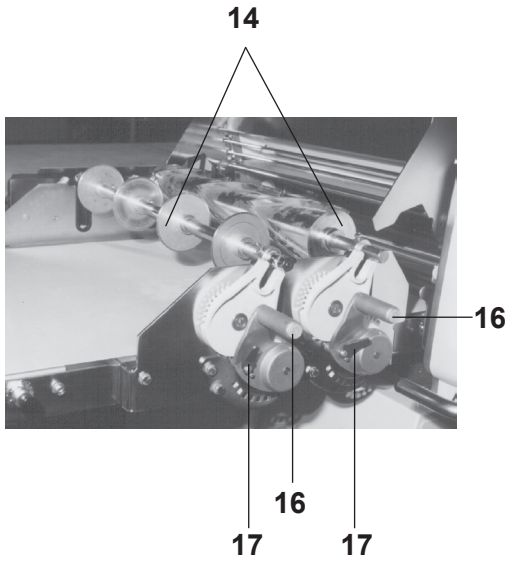


- Close the safety guard (15)
- Lift up the tension lever (16) lightly and turn the locking lever (17) anti-clockwise up to the limit stop
- Let down the tension lever (16) at stages up till the Cutting Roller (14) is on the conveyor belt

The deeper the tension lever (16) is let down, the more the cutting pressure is applied.

When using Length Cutters remark the following:

As soon as the Length Cutter touches the conveyor belt, let down the gripping lever max. two stages, otherwise the conveyor belt can be cut.



Lifting up the Cutting Rollers

- Push the tension lever (16) lightly down
- Turn the looking lever (17) clockwise up to the limit stop
- Discharge tension lever (16) and lift it up to the limit stop

6 Cleaning

6.1 Cleaning

Before cleaning the machine, pull out the mains plug.

The machine must never be cleaned using spray water, high-pressure cleaner, steam-cleaning machine or any similar cleaning methods.

6.1.1 General information

Cleaning the photoelectric barrier

(See also 8.1 List of possible errors)

The photoelectric barrier (1) built into the machine is automatically cleaned by a mecanical cleaning device (2).

If the conveyor belts are moving in only one direction (i.e. not reversing), whilst the flour duster is also in operation, an undesireable flour build-up will be produced (scraper/conveyor belt), which in turn can cause problems for the functioning of the photoelectric barrier.

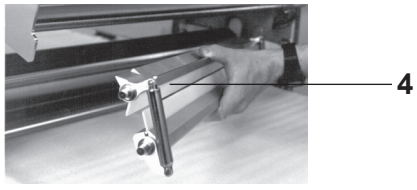
- From time to time, remove any flour build-up by hand

Never clean the photoelectric barrier while the machine is in operation!

Changing the rubber ductor

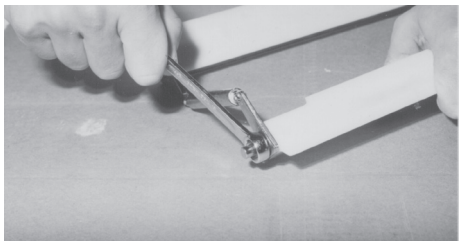
- Pull off the old ductor, mount the new ductor, the wiper blade rubber must be positioned against the photoelectric barrier

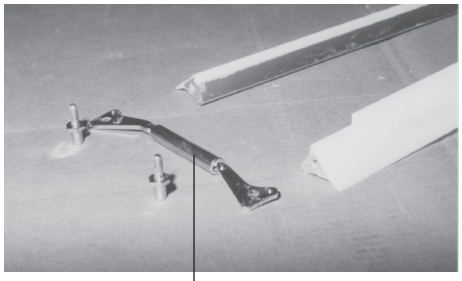
Removing the Scraper Unit



- **Close the rollers in the working mode "Manual" to approx. 2 mm**
- Lift safety guard into the upper position
- Using thumb, push the front and rear scraper lever (3) downwards
- Lift the scraper unit (4) out of the scraper mounting
- Pull out the scraper unit (4)
- Clean the scraper unit (See 6.1.2 Care)

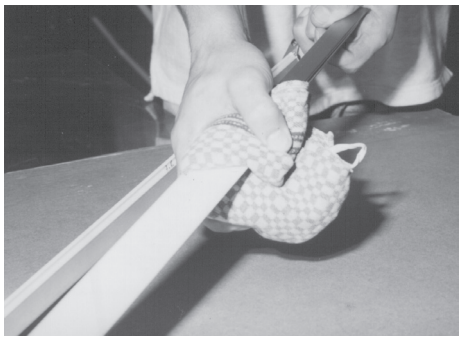
Exchange of scraper blades





5

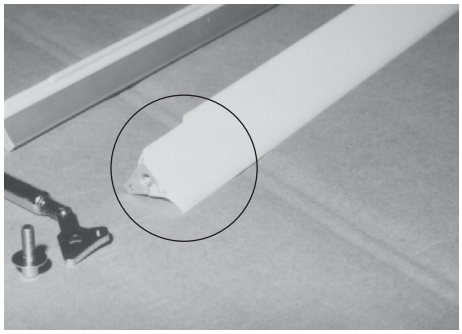
- Dismantle with a key SW 13 the spring clamp (5) either on the left or the right hand side and carefully slide the scraper blade off



Attention

For protection of the fingers, use a cloth. The edges of the blades are sharp and there is danger of cutting oneself.

- Assemble the new scraper blades in reverse order



Attention

The scraper blade with the milled counter at the sides, must be assembled on the lower, colourless anodised scraper blade holder

- Assemble the spring clamp in reverse order

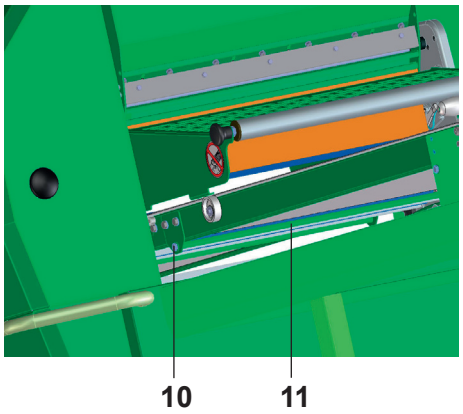
Mounting the scraper unit

- To remount the scraper unit, carry out the dismounting instructions in reverse order

Removing of the machine table and conveyor belts

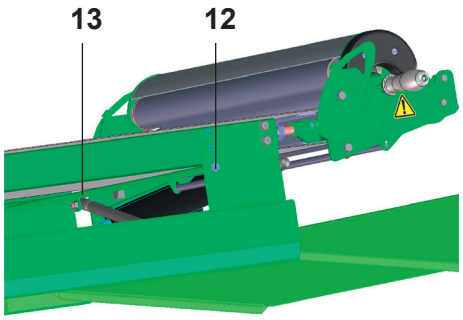
The machine tables without fast tension release device for conveyor belt

- Dismount the machine table (see 2.4.3 Installing the machine tables)
- Loosen both tension nuts on the idling side of the table (see 2.4.6 Tightening the conveyor belts)
- Loosen conveyor belt
- Place table sideways
- Remove conveyor belt
- Clean conveyor belt (see 6.1.2 Care)



The machine tables with fast tension release device for conveyor belt (option)

- Unhinge the machine table (see 2.4.3 Installing the machine tables).
- Loosen the fast tension release device for conveyor belt.
- Loosen screws (10) of the stanchion (11) and screws (12) of the stanchion (13).
- Loosen conveyor belt.
- Place table sideways.
- Remove conveyor belt.
- Clean conveyor belt (see 6.1.2 Care)



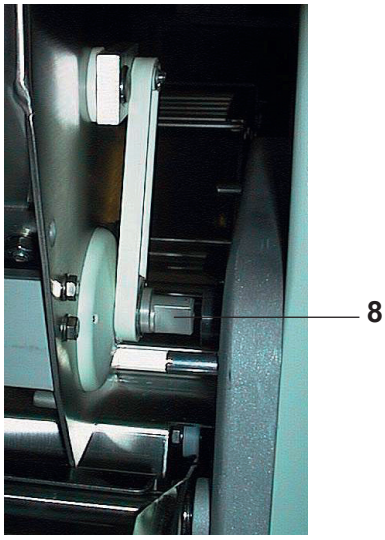
Assembly of the machine tables and conveyor belts

- To reassemble the machine tables and conveyor belts, follow the removing instructions in reverse order (see 2.4.3 Installing the machine tables / 2.4.6 Tightening the conveyor belts).

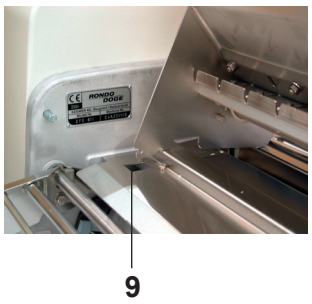
Cleaning the flour duster

Dismount the flour duster as follows:

- Gently lift the flour duster (6) on the right side at the front



- Pull the flour duster over the cam (7) until the catch (8) has been guided out of the receiver



- Guide the flour duster out of the openings (9) and remove

Then clean flour duster as follows:

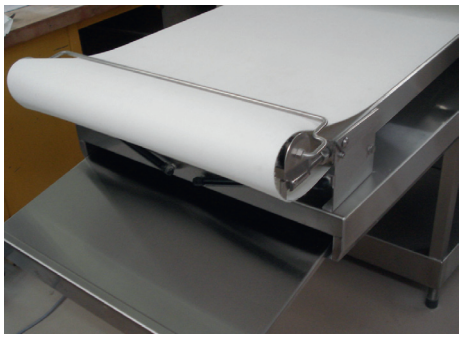
- Empty the flour duster by completely dumping out its contents
- Beat out any remaining flour in the flour duster
- Brush clean the delivery roller using a dry brush

There should be no flour between the flour container and the movable side plates.

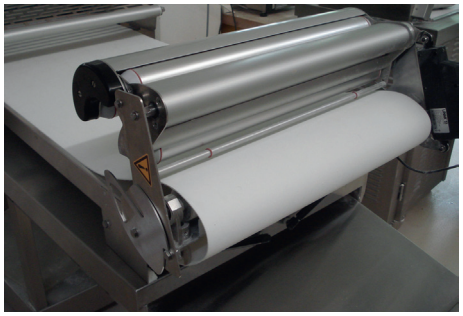
Do not use any solvents!

- Remount the flour duster
  (see 2.4.8 Mounting the automatic flour duster)

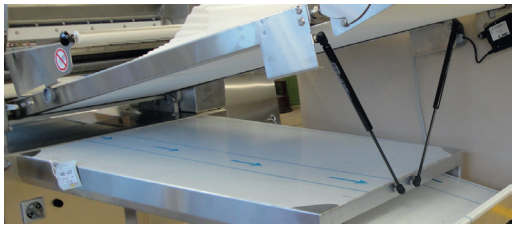
Clean the machine tables



- Loosen the fast tension release device for conveyor belt (option) and clean the table sheet with a damp cloth.



Cleaning the lower tables (SFI)



- Lift the machine table.
- Clean the lower table.

6.1.2 Care

Part	See	daily see legend	weekly see legend
Roller head and Machine base	3.3 Full view of the machine		A
Scraper, rollers	6.1.1 General information	A	
Synthetic conveyor belt	6.1.1 General information	B	C
Dough catch pans	2.4.7 Mounting the dough catch pan 3.3 Full view of the machine	B	
Flour catch pan	2.4.7 Mounting the dough catch pan	B	
Driving roller	2.4.3 Installing the machine tables		D
Idle roller	2.4.6 Tightening the conveyor belts		D
Flour duster	6.1.1 General information	B	
Automatic dough reeler	5.9 Automatic reeler unit	A	
Machine tables	6.1.1 General information	B	

Alcohol, solvents and cleaning agents which exceed a ph-value of 8 must not be used for cleaning purposes! Only those cleaning agents approved for use in the food industry may be used.

Legend

A Damp clean using cloth and soapy water.

B Dry clean using a brush.

C Wet clean using a brush.

D Remove excess dough using a brush and plastic scraper.

7 Maintenance

7.1 General information for maintenance of the machine

For a competent maintenance of the machine, a service contract is recommended. Your dealer will be happy to inform you about the various possibilities.

Any defects or damage on the machine must be repaired by an authorized customer service representative.

7.2 Maintenance list

Part	Activity	daily working time 4 - 8 h	daily working time more than 8 h
Conveyor belts	check, if necessary: replace check the belt run	W	W
Brush (Flour duster)	check if necessary: adjust or replace	M	M
Scraper blade (Dough sheeter)	check if necessary: replace	2J	J
Automatic Reeler	check O-rings if necessary: replace	J	1/2J
Spindle in the front housing of the roller adjustment	grease by the after-sales service	J	1/2J

Legend

W	weekly
M	monthly
1/2 J	semi-annually
J	annually
2 J	every 2 years

7.3 Replacement parts list

The use of replacement parts not delivered by RONDO can lead to premature wear or to destruction of machine parts.

Item-no.	Description	Dimensions	Application
122954T01	Scraper complete		all types
122954T02	Scraper complete (blue)		all types
122775T03	Scraper blade		all types
122955	Scraper blade		all types
133577T03	Scraper blade (blue)		all types
135597T01	Scraper blade		all types
105467	Synthetic conveyor belt (67)	3280 x 640 mm	SFS6607, SFS6607C, SFS6607H, SFI6607, SFI6607H, SFS6607DD
121344	Synthetic conveyor belt	3570 x640 mm	SFS6605C, SFS6607C
121344T02	Synthetic conveyor belt (65)	2680 x 640 mm	SFS6605, SFS6605C
135341	Synthetic conveyor belt (blue)	3280 x 640 mm	SFI6607, SFI6607H
136947	Synthetic conveyor belt (blue)	3570 x 640 mm	SFS6605C, SFS6607C
136949	Synthetic conveyor belt (blue)	2680 x 640 mm	SFS6605, SFS6605C
52881	Fuse 5,0 AT	5,0 AT slow Ø 5 x 20mm	all types
50466	O-rings	47,3 x 2,62 mm	Automatic dough reeler
50048	Pneumatic spring	100 N	SFI6607, SFI6607H
50485	Pneumatic spring	200 N	SFI6607H
126084	Rubber ductor		all types
126088	Wiper		all types

8 Trouble shooting

8.1 List of possible errors

Symptom	Cause / Defect	Remedy / Repair
1. No indication on display.	Mains plug not plugged in.	Plug in mains plug
	Mains switch not switched on.	Switch on mains switch.
	Power Supply existing?	To check by an electrician: • Check Power Supply (all 3 phases).
	Mains plug defective?	• Check connections in plug.
	Power Supply wrong?	• Supply must be according the information on the sign "Electrical connected loads" of the machine.
	Fuse F3 on control board not o.k.?	• Plug out the mains plug and check the fuses (in support, by electrical cabinet).
2. Indication o.k., machine can not be started.	Safety guard closed? (see Indication on display)	Close safety guard.
	Machine in programme mode?	Press key "ESC" and start the machine.
	Support of safety guard misadjusted?	Adjust the excenter. Limit switch must not be adjusted.
3. Error messages on display.	Control has detected an error.	See chapter 8.2 Error messages, shown on display.

Symptom	Cause / Defect	Remedy / Repair
4. Machine runs intermittently, stops, rattles.	• Support - Excenter (for safety guard) is misplaced.	Adjust the excenter.
	• Loose wires (Intermittent contact).	Adjust wires correctly by an electrician.
5. Main drive motor runs, rollers and conveyor belts stand still.	• Ribbed belt defective.	Remove rear cover of machine base and roller head, if necessary replace ribbed belt.
6. Conveyor belts slide, motor and rollers run.	• Belt tension too weak.	Tighten the conveyor belts (see 2.4.6 Tightening the conveyor belts).
	• Driving roller dirty.	Clean driving roller (see 6.1.2 Care).
7. Infeed conveyor belt stands still or pulls in lean/not, rollers run o.k.	• Electromagnetic clutch is inoperative.	Replace clutch.
	• Toothed wheel of table drive defective.	Replace defective part.
	• Conveyor belt tension too weak.	Tight conveyor belt (see 2.4.6 Tightening the conveyor belts).
8. Discharge conveyor belt stands still or jerks.	Conveyor belt tension too weak.	Tighten conveyor belt (see 2.4.6 Tightening the conveyor belts).
9. Conveyor belt runs over to one side, tears at the edges.	• Irregular conveyor belt tension.	Tighten conveyor belt (see 2.4.6 Tightening the conveyor belts)
	• Driving roller dirty.	Clean driving roller (see 6.1.2 Care).
10. Dough piles up in front of the rollers or passes under the roller between scraper and infeed conveyor.	• Scraper mounted incorrectly.	Mount scraper correctly (see 6.1 Cleaning).
	• Scraper blades are worn out.	If necessary replace scraper blades or the complete scraper.

Symptom	Cause / Defect	Remedy / Repair
11. Flour duster does not operate.	The flour duster only operates, if dough is between the rollers.	
	• Flour duster not locked in correctly.	Lock in correctly (flats of flour duster shaft must fit into slot for catch).
	• Connection motor shaft - catch deficient.	Check connection.
	• Flour duster motor stands still.	Call after-sales service.
12. Light barrier does not operate.	Light barrier eye dirty, the light barrier eyes are not cleaned any longer because of:	Check cleaning device. If necessary replace faulty parts. Call after-sales service. (When opening the safety guards for cleaning the light barrier the programm flow is not disturbed)
	• Ductor defect or lost.	Replace the ductor.
	• Light barrier defectously.	Control the light barrier. (see 8.3 Checking the inputs)
	• Wiper worn-out	Replace the wiper.
13. All other errors/failures.		Inform nearest "RONDO" after-sales service giving as much information as possible.

Attention:

Always open the safety guard in order to clean the photocells. Never reach under the closed safety guards with hands or any other object.

Opening the safety guard and cleaning the photoelectric barrier does not interfere with the operation of a dough-sheeting program.

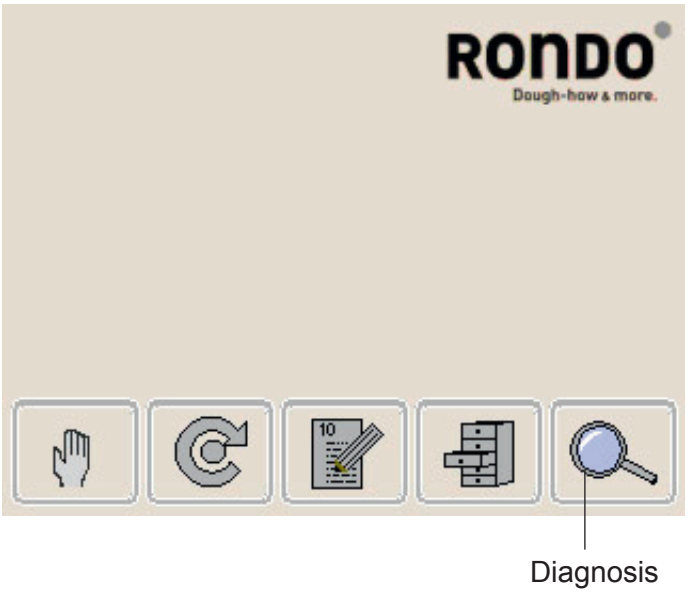
8.2 Error messages, shown on display

The fault messages can be cleared as follows:

- Press the function key "ESC" "Back to the initial screen"

Indication	Error	Remedy / Rectification
Error 0	Time out error	The machine was started without dough and switches off automatically after two minutes (photocell is awaiting dough)
Error 2	Roller gap not calibrated	Set roller gap to 4 mm and calibrate roller gap
Error 3	Freq. inverter error	Examine error message on frequency inverter. To reset, switch off mains switch for 30 seconds
Error 4	Freq. inverter fails to resp.	Check parameter 46. This parameter must be set to 1 on machines equipped with a frequency inverter. Check that CAN-bus cable is correctly inserted
Error 9010	Roller adjustment limit of travel outside the factory parameter tolerance.	Roller adjustment motor brake or absolute value sender functioning incorrectly
Error 9011	Error, maximum travel way exceeded.	Roller adjustment motor brake or absolute value sender functioning incorrectly
Error 9012	Time out transmitter: Incremental values cease to change with moving roller adjustment.	Roller adjustment mechanism jamming Roller adjustment motor only turns slowly (only 2 phases)
Error 9013	No valid value found for roller adjustment.	Roller adjustment motor brake or absolute value sender functioning incorrectly
Error 9014	Target value not valid.	Roller adjustment motor brake or absolute value sender functioning incorrectly
Error 9015	Time out: roller adjustment target height not reached	Roller adjustment mechanism jamming Roller adjustment motor only turns slowly (only 2 phases)
Error 9020	Absol. val. trans. rol. height height data not plausible check electrical wiring	Check rotary encoder
Error 9021	Roller adjustment turning direction wrong check supply voltage and absol. val. trans.	Check mains supply and rotary encoder
Error 9030	Voltage drop at K1 too slow. Safety is not guaranteed.	Confirm error by entering Password Level 3. Check input 2 and 7. If the error comes again replace basic module.

8.3 Checking the inputs



- Click the function key "Diagnosis" in the inital screen

Keyboard appears

- Enter code 17

Screen "Diagnosis" appears with following status informations:

- Version software
- Working hours
- Position absolute-value sender
- Roller gap
- Rotary field direction
- Set value frequency converter (mA)

At the lower side of picture the status of **all inputs 0 to 15** is displayed. The status 1 is highlighted in red.

9 Technical data

9.1 Technical data Rondostar 4000

Technical Data	SFS 6605	SFS 6605C
Machine base	fork supports	fork supports
Automatical Dough Reeler	without	without
Automatical Flour duster	with	with
Cutting station	without	with
Width of conveyor belt	640 mm	640 mm
Usable width	600 mm	600 mm
Table length overall	2720 mm	3170 mm
Roller length	660 mm	660 mm
Clearance of safety guard	90 mm	90 mm
Roller gap	0,2 - 45 mm	0,2 - 45 mm
Roller adjustment, motor operated, according to program	Yes	Yes
Speed of discharge conveyor	85 cm/s	85 cm/s
Rated power	2,0 kVA / 1,2 kW	2,0 kVA / 1,2 kW
Supply voltage	3 x 200 - 460 V, 50/60 Hz	3 x 200 - 460 V, 50/60 Hz
Req. floor-space in working position, catch pans extended	1255 x 3100 mm	1255 x 3540 mm
Req. floor-space in resting position	1255 x 1780 mm	1255 x 1875 mm
Total Machine weight with flour duster	285 kg	320 kg

Technical specifications subject to change without notice

Technical Data	SFS 6607	SFS 6607C
Machine base	fork supports	fork supports
Automatical Dough Reeler	without	without
Automatical Flour duster	with	with
Cutting station	without	with
Width of conveyor belt	640 mm	640 mm
Usable width	600 mm	600 mm
Table length overall	3320 mm	3470 mm
Roller length	660 mm	660 mm
Clearance of safety guard	90 mm	90 mm
Roller gap	0,2 - 45 mm	0,2 - 45 mm
Roller adjustment, motor operated, according to program	Yes	Yes
Speed of discharge conveyor	85 cm/s	85 cm/s
Rated power	2,0 kVA / 1,2 kW	2,0 kVA / 1,2 kW
Supply voltage	3 x 200 - 460 V, 50/60 Hz	3 x 200 - 460 V, 50/60 Hz
Req. floor-space in working position, catch pans extended	1255 x 3700 mm	1255 x 3900 mm
Req. floor-space in resting position	1255 x 2150 mm	1255 x 2040 mm
Total Machine weight with flour duster	295 kg	330 kg

Technical specifications subject to change without notice

Technical Data	SFS 6607H	SFS 6607DD
Machine base	fork supports	fork supports
Automatical Dough Reeler	with	without
Automatical Flour duster	with	with
Cutting station	without	without
Width of conveyor belt	640 mm	640 mm
Usable width	600 mm	600 mm
Table length overall	3505 mm	3320 mm
Roller length	660 mm	660 mm
Clearance of safety guard	90 mm	90 mm
Roller gap	0,2 - 45 mm	0,2 - 45 mm
Roller adjustment, motor operated, according to program	Yes	Yes
Speed of discharge conveyor	85 cm/s	85 cm/s
Rated power	2,0 kVA / 1,2 kW	2,0 kVA / 1,2 kW
Supply voltage	3 x 200 - 460 V, 50/60 Hz	3 x 200 - 460 V, 50/60 Hz
Req. floor-space in working position, catch pans extended	1255 x 3700 mm	1255 x 3700 mm
Req. floor-space in resting position	1255 x 2930 mm	1255 x 2040 mm
Total Machine weight with flour duster	310 kg	295 kg

Technical specifications subject to change without notice

Technical Data	SFI 6607	SFI 6607H
Machine base	fork supports	fork supports
Automatical Dough Reeler	without	with
Automatical Flour duster	with	with
Cutting station	without	without
Width of conveyor belt	640 mm	640 mm
Usable width	600 mm	600 mm
Table length overall	3320 mm	3505 mm
Roller length	660 mm	660 mm
Clearance of safety guard	90 mm	90 mm
Roller gap	0,2 - 45 mm	0,2 - 45 mm
Roller adjustment, motor operated, according to program	Yes	Yes
Speed of discharge conveyor	85 cm/s	85 cm/s
Rated power	2,0 kVA / 1,2 kW	2,0 kVA / 1,2 kW
Supply voltage	3 x 200 - 460 V, 50/60 Hz	3 x 200 - 460 V, 50/60 Hz
Req. floor-space in working position, catch pans extended	1255 x 3820 mm	1255 x 3820 mm
Req. floor-space in resting position	1255 x 3300 mm	1255 x 3500 mm
Total Machine weight with flour duster	370 kg	385 kg

Technical specifications subject to change without notice

9.2 Additional information

All sheeters from RONDO have the following quality features:

- The conveyor belts made of plastic material:
  All plastic coated conveyor belts used on our machines are approved for coming into contact with food stuff and correspond with the requirements of the FDA (Food and Drug Administration, USA).
- The conveyor belts made of cotton:
  The fabric consists of 100 % cotton and has a non-toxic finish.
- The rollers are hard-chrome plated. This coating is approved for coming into contact with food stuff.
- The scraper blades are made of POM-C plastic material. This material is approved for coming into contact with food stuff and corresponds with the requirements of the "Bundesgesundheitsamt BGA", Germany.
- The dough catch pans are made of stainless steel (chromium nickel steel, DIN Mat. no. 1.4301, 1.4016).
  This material is approved for coming into contact with food stuff.
- The rollers of the manual and the automatic dough reeler that are touching the dough are made of aluminium, anodised colourless and are approved for coming into contact with food stuff.
- The knives of the cutting rollers that are touching the dough (Cutomat-types) are made of stainless steel (chromium nickel steel, DIN Mat. no. 1.4301). This material is approved for coming into contact with food stuff.
- Flour duster with Inox container:
  The container is made of stainless steel (chromium nickel steel, DIN Mat. no. 1.4301, 1.4016), the delivery roller is made of aluminium, anodised colourless, the bristles of the brush are made of plastic material (PA). These materials are approved for coming into contact with food stuff.
- Flour duster with plastic container:
  The container is made of plastic material (PS-TSG), the delivery roller is made of aluminium, anodised colourless, the bristles of the brush are made of plastic material (PA). These materials are approved for coming into contact with food stuff.
- Flour container:
  The flour container is made of plastic material (ABS). This material is approved for coming into contact with food stuff.