

Operating Manual

Manomat / Automat 2000

SSO, SFA



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EC Declaration of Conformity

We Seewer AG, Heimiswilstrasse 42, CH-3400 Burgdorf

declare under our sole responsibility, that the product

| | | |
|---------|------------------------------------|-----------------------|
| Model : | Dough sheeters | Manomat/Automat 2000 |
| Typ: | Manomat Automat | SSO67 SSO68, SFA68 |
| | Manomat-Cutomat Automat-Cutomat | SSO67C SSO68C |

to which this declaration relates correspond to the relevant basic safety and health requirements of the Directive 89/392 EEC

For the relevant implementation of the safety and health requirements mentioned in the Directives, the following standards have been respected.

EN292-1, EN292-2, EN294, prEN1674

Name: Spahr
First name: Samuel
Function: El. Ing. HTL

Burgdorf, 28.04.97.




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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.



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 plug before opening!



Danger Warning Sign

Danger Warning



High-voltage Warning Sign

Warning against electrical shock



1.3 Safety Elements

1.3.1 Safety Guard

Handling Instructions

The safety guards fulfill a dual purpose:

1. They protect the operator from inadvertent contact with the rollers.
 2. The machine can be stopped immediately by lifting up the safety guard. Raising the safety guard even just slightly will stop the machine from continuing to operate.
- Lift safety guard
Machine stops.



(In order to restart the machine, see Starting the Machine, Page 040 - 1)

1.4 Safety Instructions and Information which Must be Followed

- Rondo's dough sheeters are built for the food industry exclusively for sheeting, booking, final sheeting and cutting (using the Cutoimat) of dough and marzipan.
- Rondo's flour duster was 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 prescribed safety instructions.
- 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 electricity using the mains plug! No permanent electrical installation may not be made using, for example, terminal screws.
- The machine may only be connected to the mains using the plug once it has been fully assembled.
- 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, shorted-out 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 SeeWER 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 or support. The machine should be fastened on the pallet and transported without the table. 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!



- After closing the safety guard, operation may be started up by pushing the green reset button.



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



- In order to guard against respiratory tract difficulties and flour dust allergies, the machine should be equipped with an automatic flour duster.



- When changing the oil, ensure that no oil is able to reach the area where the dough is located.



- Check the front section of the housing periodically against oil leakage.



- Dispose of old oil in an environmentally safe manner.



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



- Automat: The safety guard must always be closed when the cutting rollers are let down.



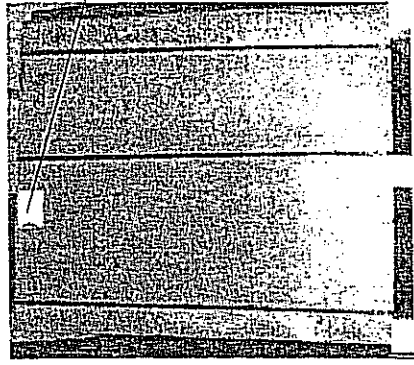
- Automat: The replacement of the cutting rollers must be carried out carefully and professionally.
Cutting rollers located outside the cutting area must be placed in the holding device located underneath the machine table.



- The machine may not be operated without the use of a scraper.

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 documentation is contained on the outside of the packaging)

2.2 Transportation

When being transported, the machine must be fastened onto a pallet. The tables must be dismounted and the safety guards fixed in the upper position.



The machine base and support must be dismounted when the machine is being transported. Lifting on the machine base or support is prohibited. Be careful when using a crane for moving the machine (danger of tipping).

The machine must not be tipped over.

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 General Information, Page 030 - 1

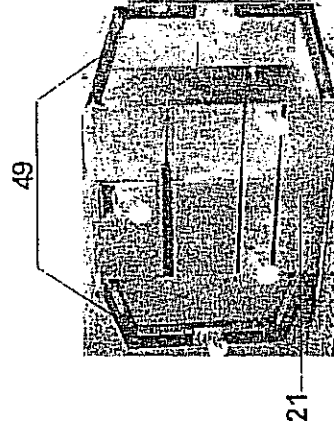
- Unpack table and attachments
- Check all items received against the delivery slip for completeness

2.4 Setting Up the Machine

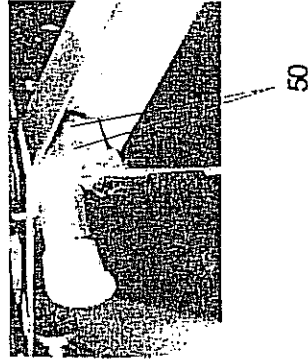


It requires two people to set up the machine

2.4.1 Mounting the Supports on the Machine Base (SFA)

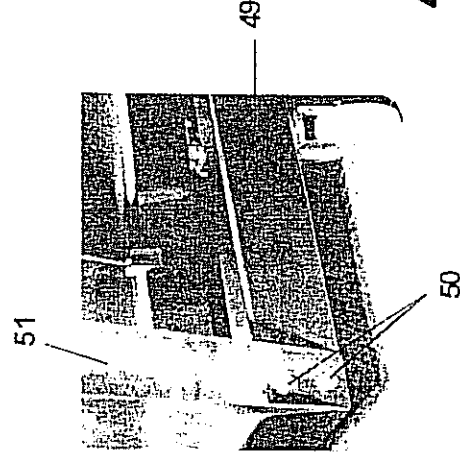


- Mount both supports 49 onto the machine base 21 using four hexagon screws per support



- Tighten the screws 50

Mounting the Braces on the Support

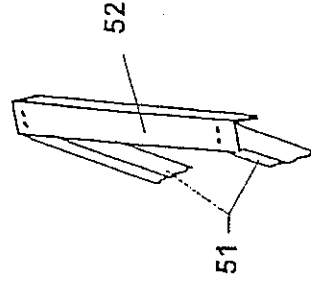


- Mount the braces 51 using two hexagon screws 50 per brace onto the supports 49



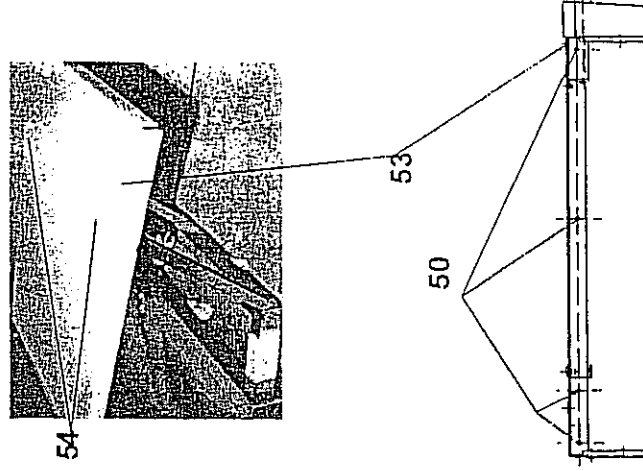
Do not tighten the hexagon screws 50 immediately after mounting the braces 51

Placing the Angle on the Braces



- Lay both angles 52 onto the braces 51

Mounting the Table Plates



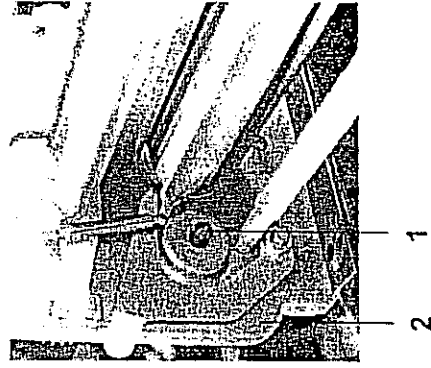
- Lay the table plates 53 on the machine base and on the angle piece
- Mount the plates 53 onto the braces using four countersank screws 8 per plate
- Mount plates 53 to the machine base using four hexagon screws 50 per plate
- Do not yet tighten screws 50 and 54!

To tighten screws:

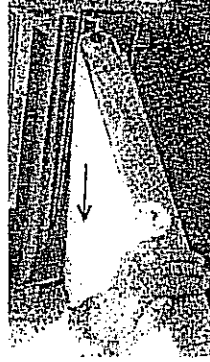
- Align table plate 53
- Tighten the four countersank screws 8 on the braces
- Tighten the rest of the hexagon screws 50 on the machine base
- Tighten the rest of the hexagon screws 50 on the supports

2.4.2 Installation of the Machine Tables

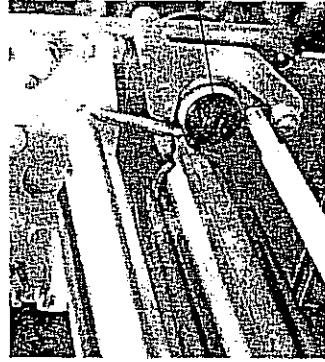
- Remove all protective foil on the stainless steel sections of the machine
- Lift the machine table with the aid of a second person
- Guide the center of the machine table's driving roller onto the spring bolts 2 at the rear of the housing



2. Transporting, Setting up, Connecting, Dismounting and Storing the Machine



- Using heavy pressure, push the table towards the rear

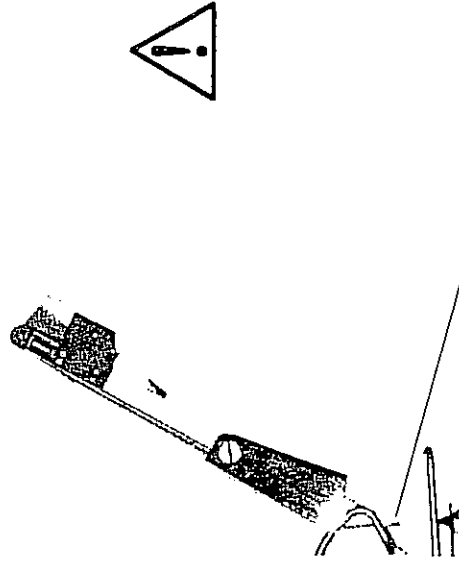


- Center the catch of the machine table's driving roller in the receiver 3 in the front section of the housing

To snap the machine table into place, proceed as follows:

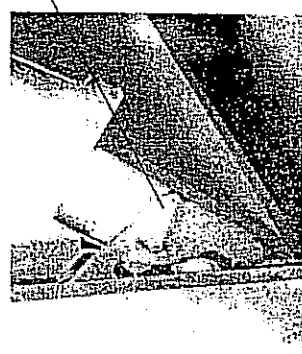


- Tug lightly on the conveyor belt until the catch snaps in place



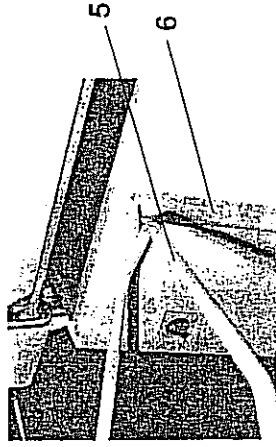
- Lift the table
- To lift the table, slip in or remove the dough catch pan

(Lifting the table with cutting station, see: Lifting the table with cutting station, page 050-6)

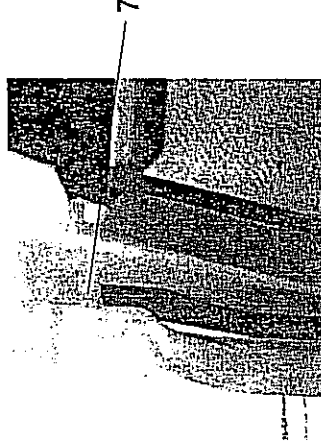


- Attach table hooks 4
The machine table is now secured.

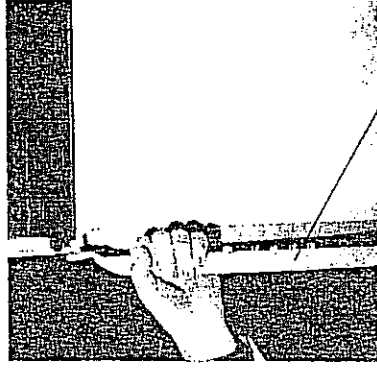
2.4.3 Mounting the Forked Supports



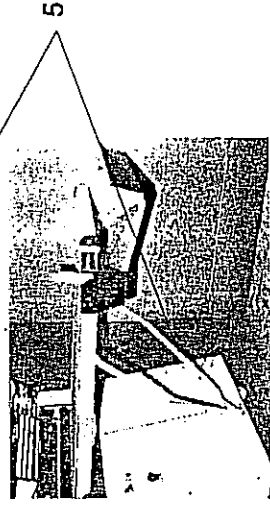
- Push forked support 5 into the support guide 6



- Secure catch plug 7 of the forked support to one side of the table

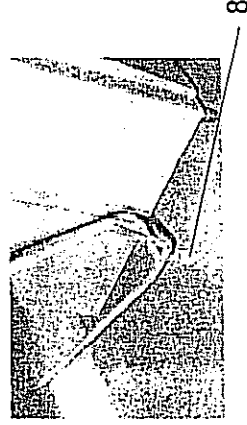


- Bend up the forked supports 5 and secure them to the opposite side of the table



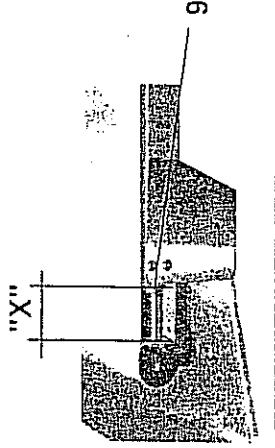
Position of the forked supports 5 when the machine table is hinged down (working position).

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



The foot 8 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.

2.4.4 Tensioning the Conveyor Belts



Tension the conveyor belts only enough that the heaviest pieces of dough (max. 12 kg) can still be moved without slipping of the conveyor.

Proceed as follows:

- Retighten the left and right tension nuts 9 evenly and parallel
- Re-measure Distance "X" on both sides using a millimetre measuring instrument
The distance on both sides must be identical.
- Switch on the machine (See Starting the machine, Page 040 - 1)
- Observe the left and right movement of the conveyor belt

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

- Retighten the side where it runs off with a tension nut
- or
- Loosen tension nut 9 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, retighten again.

Tensioning and adjusting the conveyor belts demands patience!

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

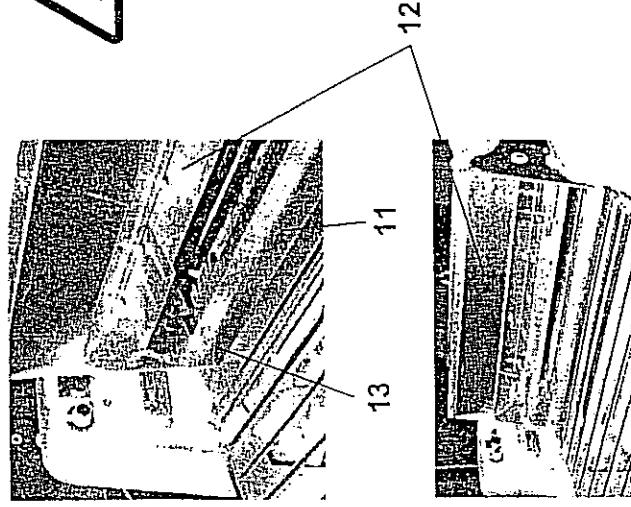


Before putting the machine into operation, the conveyor belts must be lightly rubbed with flour in order to prevent the dough from sticking to the belt.



- Remove the protective foil on the dough catch pan 10
- Push in the dough catch pan 10 on both sides

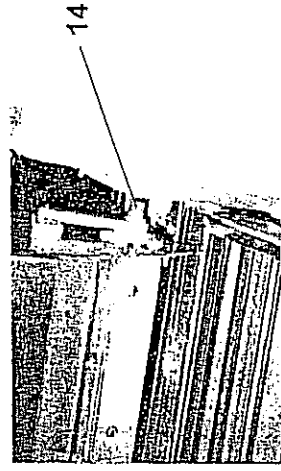
2.4.5 Mounting the Automatic Flour Duster



- Remove the protective foil on cover plate 11
- Position flour duster 12 on the cover plate 11 to which it belongs
- Position flour duster 12 at an angle
- Guide the flour duster 12 into both openings 13 in the cover plate 11

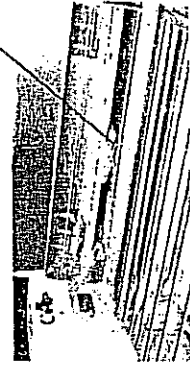
- Reposition the flour duster in a horizontal position

- Push the flour duster in the direction of the slot of the drive

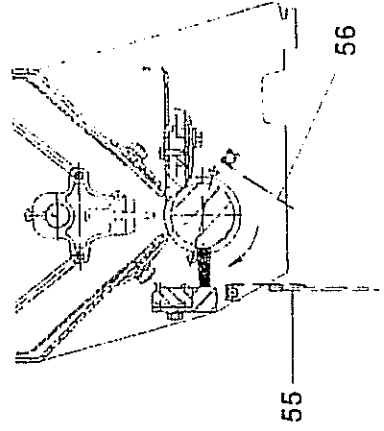


- Guide the catch 14 into the slot

If guiding the catch into the slot is unsuccessful, proceed as follows:



- Turn the delivery roller 15 by hand



- Hang in flour dust protection 55 and guard plate 56 in the right position

2.5 Conditions for Initial Operation of the Machine



Power supply and frequency at the main circuit to which the machine is connected must be in accordance with specifications contained on a plaque affixed to the machine. (This plaque is found on the cable lead-through on the machine base).

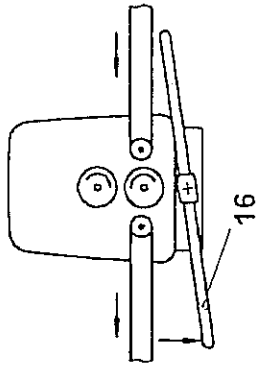
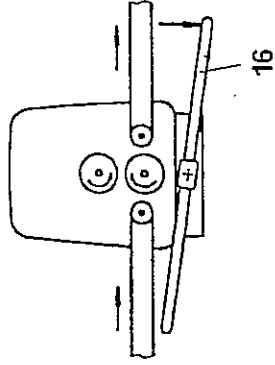
Direct connection without a plug is prohibited! Ensure that the connection is made professionally and in accordance with local regulations. (An electrical schematic is delivered with every machine. It is to be found next to the electrical control in the machine base).



- Connect the machine plug to the power supply system.



2.6 Moving Direction Test



(See Starting the machine, page 040-1)

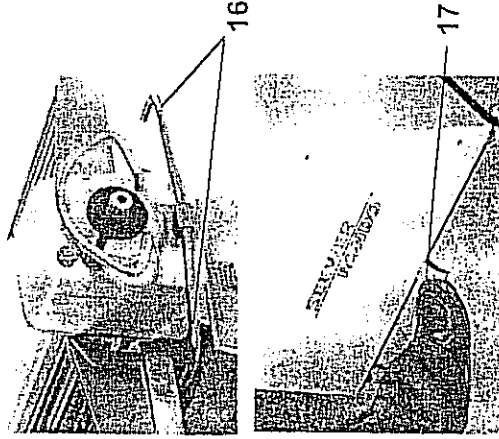
- Push the main operating lever 16 downwards to the right

The conveyor belts must move to the right.

- Push the main operating lever 16 downwards to the left

The conveyor belts must move to the left.

2.7 Moving the Machine



If the conveyor belts move in the wrong direction:

- Exchange two phases in the power plug
- On the operator's side of the machine, lift up using main operating lever 16
Front transport caster will snap down.

Once the machine's permanent location is selected:

- Hold the main operating lever 16 tightly using both hands
- Gently lift up the machine
- Using one foot, push the pedal 17 for the front transport caster
- Gently ease the machine back down to the ground. when so doing, do not let it "fall" back down

3 General Data about the Machines

3.1 General Information

3.1.1 The Machine's Applications



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

Booking

Booking in fat. 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.

3.1.2 Purpose of the Flour Duster



This is used to ensure that the dough sheets are continuously dusted with flour.

Recommended flour type: no. 550 (Use only clean flour!)

3.1.3 Noise Values

Emission values at place of operation:
"70 dB(A)" according to DIN 45635

3.1.4 Temperatures

The ambient temperatures permissible for the machine:

+ 5° to + 40°C

Permissible temperatures for storage of the machine:

- 25° to + 55°, for brief periods up to + 70°C

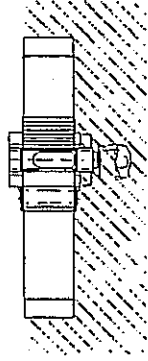
3.1.5 Ambient Humidity

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

3.1.6 Machine weight

Total weight = 225 - 345 kg, according model
(See Technical data, pages 090-1 /090-2)

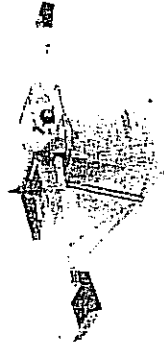
3.1.7 Operating Personnel Work Area



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

3.2 Machine Models

3.2.1 Manomat



The rollers on the Manomat must be manually closed

3.2.2 Automat



On the Automat, the rollers are closed semi-automatically.

3.2.3 Cutomat



Dough sheeter of the Manomat or Automat models with additional cutting device to cut dough pieces or marzipan.

3.3 Prerequisites

In order to guarantee a perfect functioning of the machine, the following prerequisites must be met:

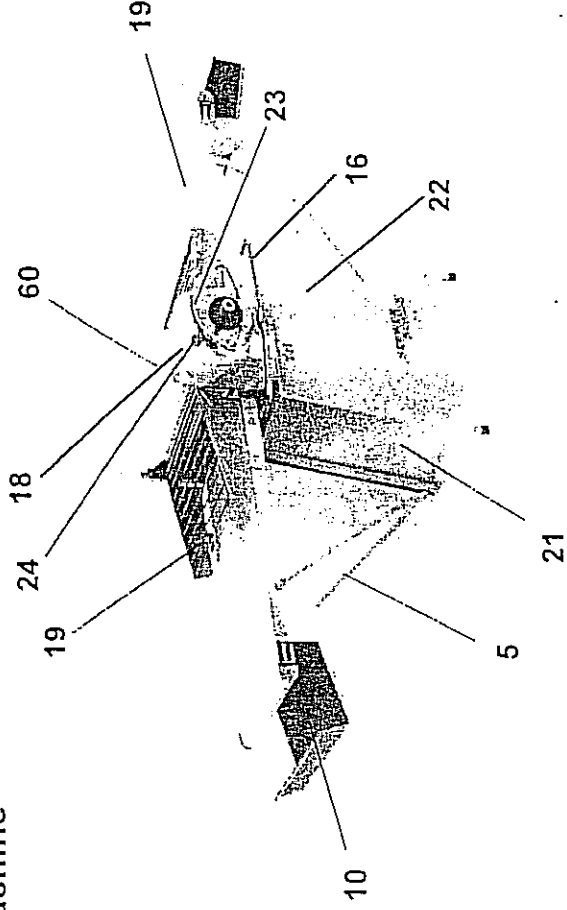
Dough piece weight cannot exceed 12 kg.

- Dough pieces must be well-floured.
This will prevent the dough from sticking to the rollers and scraper.

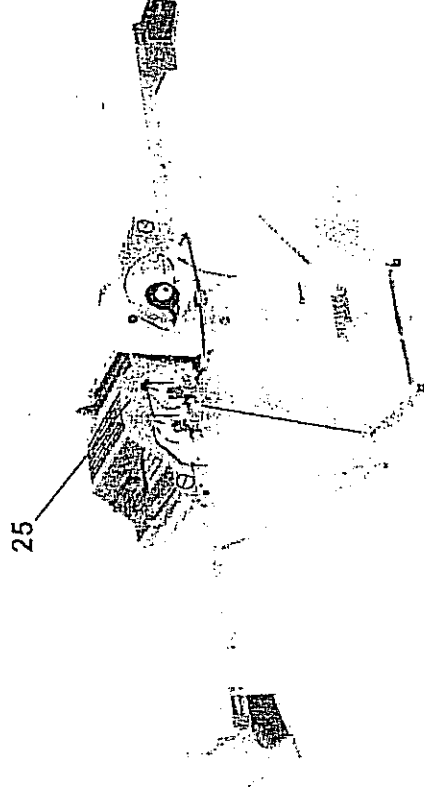
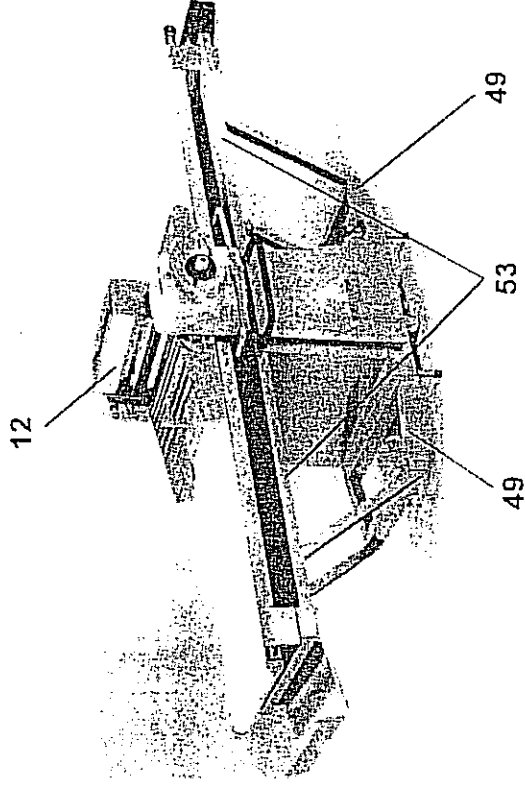


In order to avoid heavy flour dust build-up, it is preferable to equip machine with an automatic flour duster.

3.4 Full View of the Machine



- 5 Forked Support
- 10 Dough Catch Pan
- 12 Flour Duster
- 16 Main Operating Lever
- 18 Roller Head
- 19 Safety Guard
- 20 Machine Table
- 21 Machine Base
- 22 Main Switch
- 23 Handle for Roller Adjustment
- 24 Reset Button
- 49 Support
- 53 Table sheet
- 60 Flour container



25 "Cutomat" Cutting Device

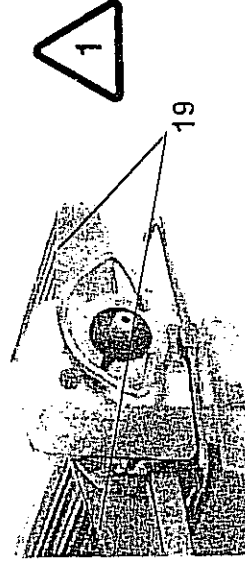
3.5 Operating Elements

3.5.1 Safety Guard

The safety guards 19 protect the operator from inadvertently coming into contact with the rollers and the cutting rollers.

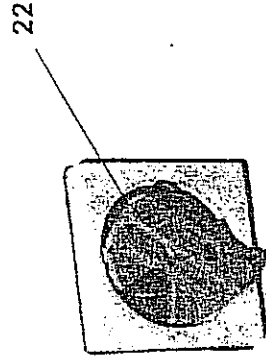
When lifting the safety guard 19 during the sheeting procedure, the machine stops immediately.

Cutomat: To make up the tiny cut pieces of dough, the machine can be stopped by raising the safety guard.



3.5.2 Main Switch

The main switch 22 interrupts the supply of electrical current.



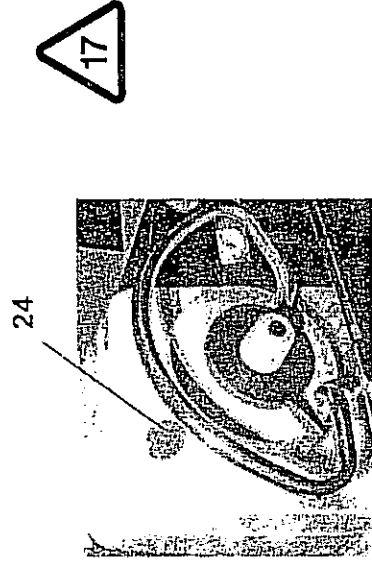
3.5.3 Reset Button

When the safety guards are closed the machine must not start.

- To start the machine, press reset button 24

The reset button must always be pushed if:

- the machine was shut off by lifting the safety guard.
- the machine was shut off by way of the main switch.
- the machine shut off due to a power failure (interruption of electricity supply).



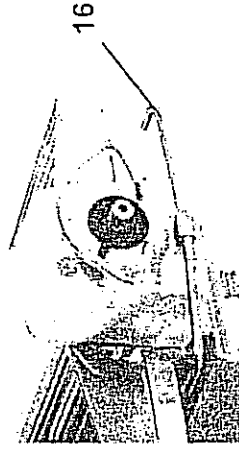
3.5.4 Main Operating Lever

The main operating lever 16 is used to start (and stop when not sheeting dough) the machine and to select the running direction, as well as to switch the synchro speed on and off.

Procedure:

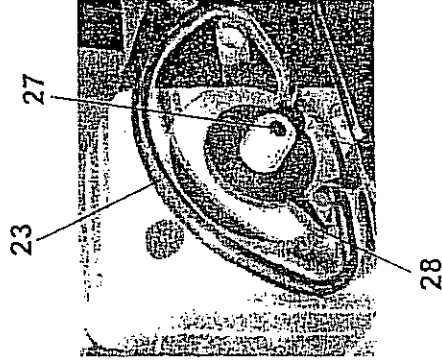
(See also Operation, Page 050 - 1)

- Push main operating lever 16 down to the left
The conveyor belts move to the left.
- Push main operating lever 16 down to the right
The conveyor belts move to the right.
- Bring the main operating lever 16 into the horizontal position
The conveyor belts stop.



3.5.5 Roller Gap Adjusting Mechanism

- Using the roller gap adjusting mechanism, open the gap between the rollers to the maximum (45 mm).

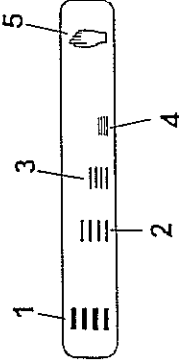


Proceed as follows:

- Set the dough thickness control stop as follows:
 - Loosen the clamping handle 27 by turning it in a counterclockwise direction.
 - Set the Control Stop 28 to desired value on the control head scale (eg. final thickness 4.5).
 - Then retighten the clamping handle 27 by turning it in a clockwise direction.
- Select desired roller gap using the handle 23

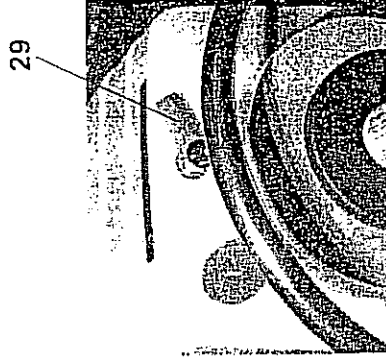
3.5.6 Program Selection Lever (Automat)

For sheeting on the Automat model, there are four roller reduction programs available to select from:



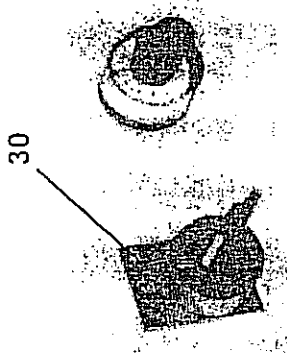
- 1 Coarse
- 2 Semi-coarse
- 3 Semi-fine
- 4 Fine
- 5 Manual

In the "Manual" position, the semi-automatic operation feature is turned off. Roller reduction may be carried out manually, just like on the Manomat.



- Set the program selection lever 29 to the desired program in accordance with the type of dough.

3.5.7 Selector Switch (Cutomat)



Position I and II

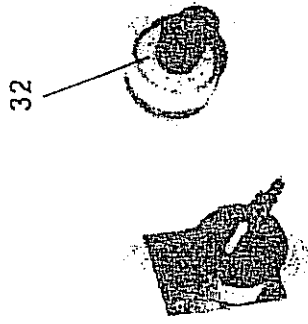
Procedure to follow for Sheeting:

- Turn the selector switch 30 to position I.

Procedure to follow for cutting:

- Turn the selector switch 30 to position II.

3.5.8 Potentiometer (Cutomat)

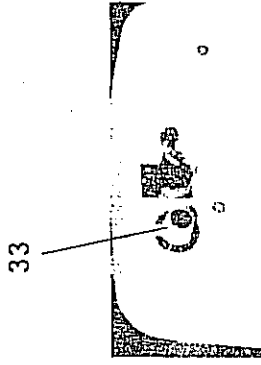


The potentiometer 32 is used to for continuous control of the conveyor belts speed (1.5 - 6.5 m²/min.).

Position 0 = min. speed

Position 10 = max. speed

3.5.9 Potentiometer (Flour duster)



The amount of flour delivered can be set for continuous control by way of the potentiometer 33

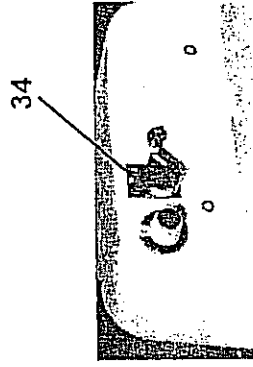
To have a greater amount of flour delivered:

- Turn the potentiometer 33 to the right
Position 10 = max. delivery amount of flour

To have less flour delivered:

- Turn the potentiometer 33 to the left
Position 0 = min. delivery amount of flour

3.5.10 Selector Switch (Flour duster)



Positions I, II and 0

- Turn switch 34 to position "I"
Flour duster is only operational in the flour moving direction to the left.
- Turn switch 34 to position "II"
Flour duster is operational in both moving directions.
- Turn switch 34 to position "0"
Flour duster is switched off.

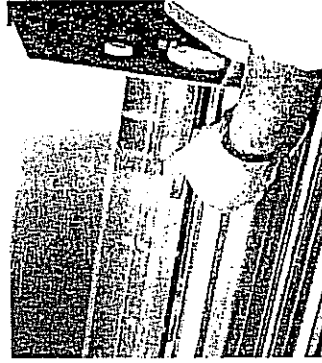
3.5.11 Dosing Slides (Flour duster)



The desired dusting width can be adjusted on each side by way of three slides 35. Slide width 4.5 mm; minimum dusting width 360 mm, maximum dusting width 630 mm.

When adjusting this, proceed as follows:

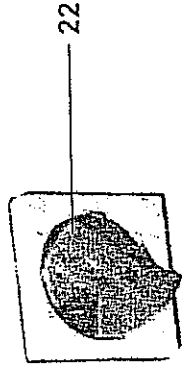
- Insert or pull-out the slide 35



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

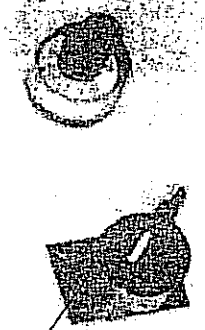
4 Starting the Machine

4.1 Preparing for Operational Readiness



- Turn the main switch 22 on the machine to "ON"

30



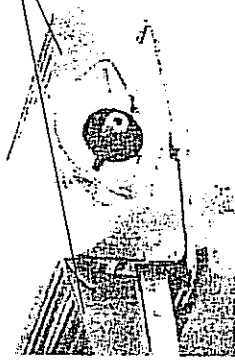
For sheeting on machines equipped with the "CUTOMAT" cutting device:

- Turn selector switch 30 to position "I"



- Pull out the dough catch pan 10 on both sides

19



- Fold both safety guards 19 downwards

4.2 Starting / Stopping the machine

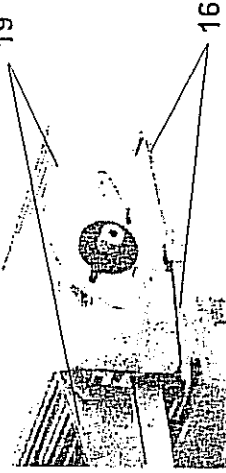
24



Start the machine as follows:

- Push reset button 24
- Push main operating lever 16

19



Stop the machine as follows:

- Lift safety guard 19

or

Only when no dough is between the rollers:

- Main operating lever 16 in position neutral (See also drawing, page 050-2)

5 Operation

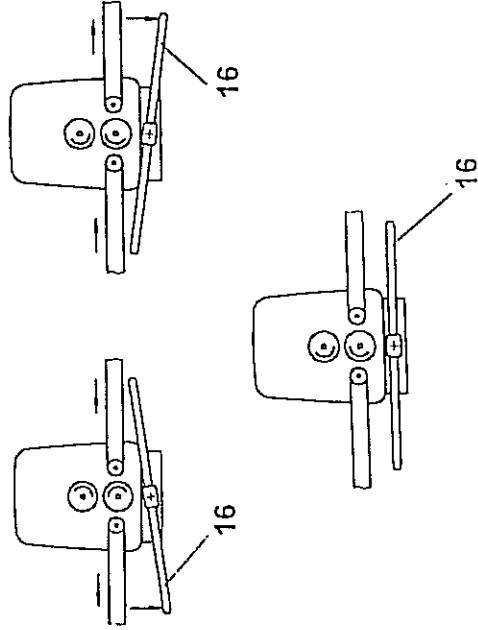
5.1 Operating instructions



Do not reach in under the safety guard!

5.1.1. Sheeting

- Set dough thickness control stop (See Operational Elements, Roller Gap Adjusting Mechanism, Page 030 - 5).
- Lay the dough pieces on the left or right machine table (Do not throw the dough pieces on the table)
- Set the appropriate roller reduction program (only on the Automat model! See Operational Elements, Program Selection Lever, Page 030 - 5)
- Press reset button



- Push main operating lever 16 to the side desired (Position 1 must positively be engaged)

Once the dough piece has passed the rollers (rollers free):

- Put the main operating lever 16 in the neutral position
The machine will stop

or

- Lift safety guard
The machine will stop
- Before starting another sheeting operation, the reset button must be pressed

- On the Manomat, adjust the roller gap manually depending on the sort of dough being processed (See Operational Elements, Roller Gap Adjusting Mechanism, Page 030 - 5)

On the Automat, the roller gap is adjusted semi-automatically according to the program which is set, by pushing down the main operating lever.

- Once again, reposition the main operating lever 16 into Position 1
- Repeat this procedure until the final thickness has been attained



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

5.1.2 Synchro Speed

Manomat

The Manomat model is equipped with a synchro speed. This means that there are two infeed conveyor belt speeds.

Pos. 1 means: normal infeed conveyor belt speed. (See Switch Stages, Page 050 - 12).

Pos. 2 means: decreased infeed conveyor belt speed, or synchro speed. (See Switch Stages, Page 050 - 12).

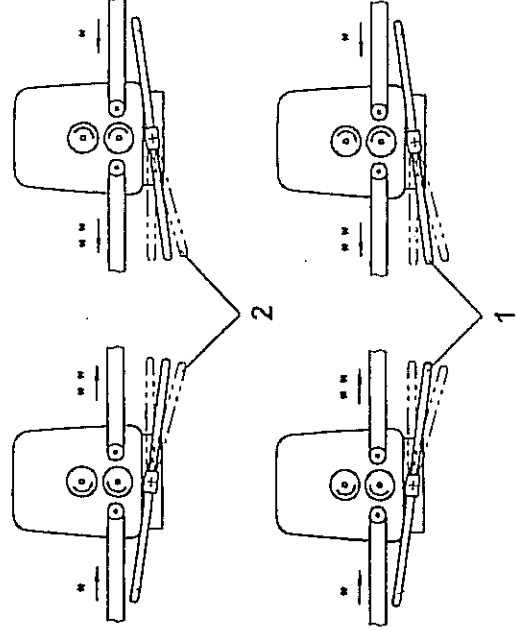
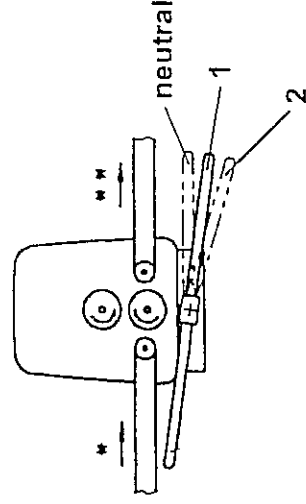
Provided that the dough is relatively thick:

- Operate in Pos. 1
 - Monitor the dough as it is being fed into the rollers
- At a thickness of lower than approx. 8 mm, the sheets of dough have a tendency to pile up or even ripple. If this occurs, proceed as follows:

- Immediately shift the main operating lever to Pos. 2
The infeed conveyor belt speed will be reduced and the pile-up eliminated

As soon as the dough sheet is flattened:

- Shift the main operating lever back to Pos. 1
- Monitor the dough sheet on every pass on the infeed side
- If necessary, shift the main operating lever back to Pos. 2



* Infeed = slow
** Outfeed = fast



Do not shift to stage 2 too soon, otherwise the dough sheet will be too tightly stretched.

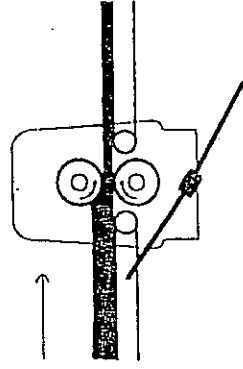
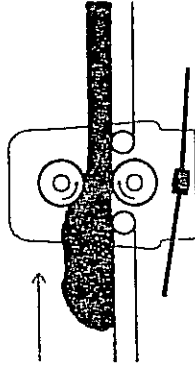
Automat

In addition to the synchro speed described in the section on the Manomat models, the Automat model also comes equipped with "ABS", or in other words "automatic conveyor belt synchronization".

ABS means that the lever can be pushed down to maximum right from the beginning. The synchro speed switches on in successive stages in accordance with the particular roller gap.

In the case of a wider roller gap, the synchro speed is set either not at all or only slightly.

When the roller gap is reduced, the synchro speed is switched to successively more.



The full reduction, i.e. the full Pos. 2 is reached starting at 6 mm. Proceed as follows:

- Set roller reduction program in accordance with the type of dough being processed (See Operational Elements, Program Selector Lever, Page 030 - 5)
- Always push the lever downwards to maximum

The speed always remains optimal. This prevents both pile-ups and stretching of the dough sheets.



Never switch on the same side twice in a row, as this will cause the rollers to be set twice. This will in turn cause too much pressure on the dough sheet and cause it to tear.



Only smooth switching, i.e. with no jerkiness, and a positive engaging into Pos. 1 or 2 (resp. ABS) will ensure proper roller reduction.

5.2 Particularities when Sheetting Dough using the Automat

5.2.1 Booking

As a rule, the "semi-coarse" program is used for booking puff pastry or croissant dough.

Example:

- Set the dough thickness limit stop to 8 mm
- Set the program selector lever to "semi-coarse"
- Set the initial roller gap to correspond to the thickness of the block of dough
The program selected will determine the number of passages
- Fold the sheeted piece of dough for continued processing

5.2.2 Final Sheetting

As a rule, the following programs are used for final sheetting:

- Puff pastry = semi-coarse/semi-fine/fine
- Croissant dough = semi-coarse/semi-fine/fine
- Sugar dough = coarse

5.2.3 Idle Passage

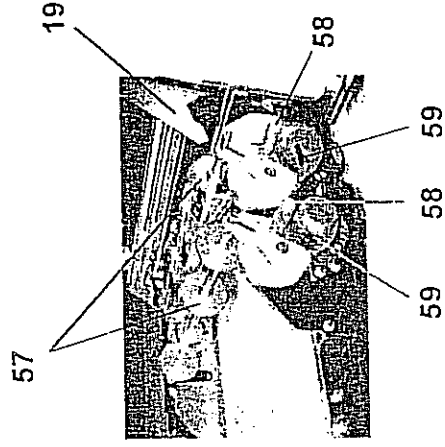
If a passage of dough pieces is desired without automatic roller reduction, proceed as follows:

- Push the main operating lever gently between "Neutral" and switch Pos. 1

5.3 Cutomat Model with Cutting Device

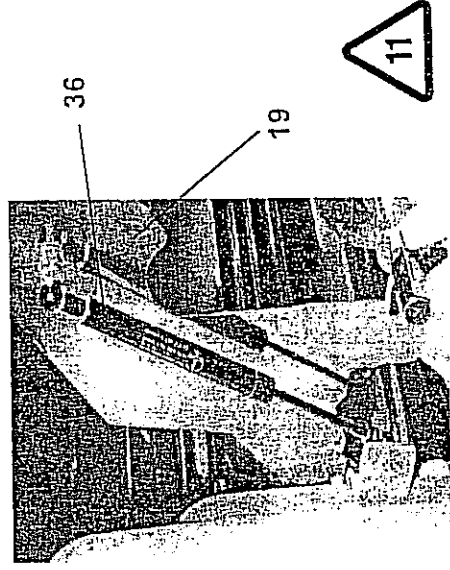
The "CUTOMAT" is equipped with a cutting device. This device is available on the "CUTOMAT. type "Manomat and Automat 2000".

5.3.1 Cutting station



- 57 Cutting rollers
- 19 Safety guard
- 58 Tension lever
- 59 Locking lever

Safety guard



A safety guard is covering the cutting station.

A defective pneumatic spring 36 on the safety guard 19 must always be replaced immediately!
Reason: In order to avoid danger of injury should the safety guard fall down!

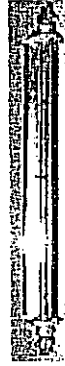
5.3.2 Types of Cutting Rollers



Docking Roller



Length Cutter



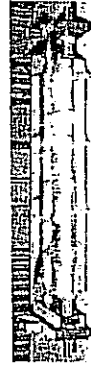
Cross Cutter



Zig-zag Cutter



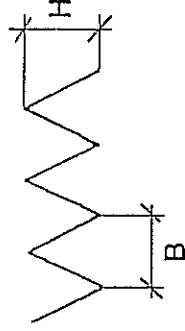
Form Cutting Roller



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 |



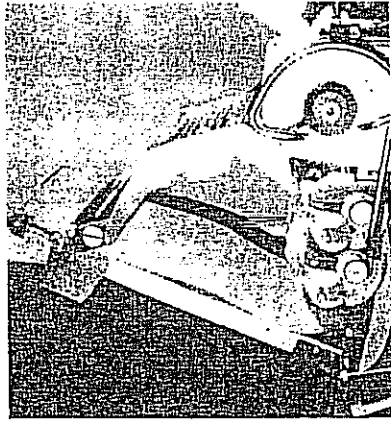
* Also available in plastic

Lifting the table with cutting station



61

- Lift the table by hand up till the stopping lever 61 blocks up



61

Table in set-up-position.

Letting down the table with cutting station

- Hold the table
- Push up the stopping lever 61 and let down the table at the same time

5.3.3 Inserting the Cutting Rollers

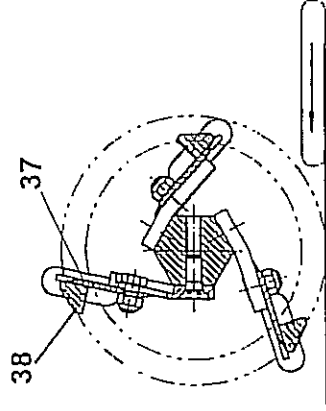


Danger of injury on the sharp cutting edges of the cutting rollers!

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 37 and then afterwards ejected by the ejector 38.

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.

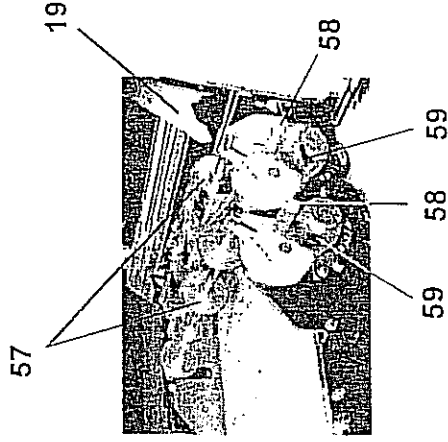
- In order to avoid injury to operators.





5.3.4 Letting down the Cutting Rollers

- Close the safety guard 19
- Lift up the tension lever 58 lightly and turn the locking lever 59 anti-clockwise up to the limit stop
- Let down the tension lever 58 at stages up till the Cutting Roller 57 is on the conveyor belt



The deeper the tension lever 58 is let down, the more the cutting pressure is applied.

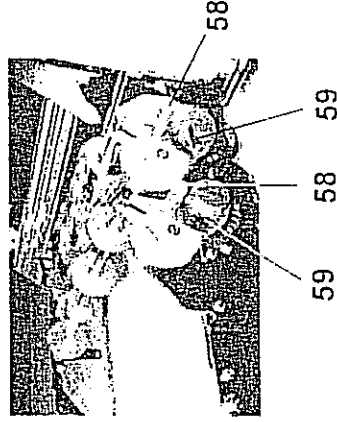
When using Length Cutters remark the following:

As soon as the Length Cutter touches the conveyor belt, let down the gripping lever 58 max. two stages, otherwise the conveyor belt can be cut.



5.3.5 Lifting up the Cutting Rollers

- Push the tension lever 58 lightly down
- Turn the locking lever 59 clockwise up to the limit stop
- Discharge tension lever 58 and lift it up to the limit stop



5.3.6 Cutting

The width of the dough sheet must correspond to the length of the cutting roller to be used plus approx. 1 - 2 cm on either side.

The sheeting rollers must be fully opened. This will prevent the dough from piling up.

Running Direction

Both conveyor belts move at the same speed. (Position the main operating lever in neutral).

Switching on the Machine

- Put the selector switch on position II (See Operational Elements, "Cutomat" Model/ Selector Switch, Page 030 - 6.)
- Main operating lever remains in neutral position (horizontal)
- Press reset button
Machine moves in the direction from the sheeting rollers to the location where the cutting takes place.
- Set the conveyor belt speed using the potentiometer (1.5 - 6.5 m/min.) (See Operational Elements, Machine Model "Cutomat"/Potentiometer. Page 030 - 6)

Switching Off the Machine

- Lift up the safety guard

Switching the machine on again

- Fold the safety guard down again
- Leave the main operating lever in neutral position
- Press reset button

5.4 Flour Duster



5.4.1 Description of functioning

A delivery roller picks up the flour which is then scraped off by a brush. Moving side plates and the perforated plate in the flour container prevents the flour from bridging.

The low height at which dusting takes place and the installed flour dust curtain prevent the egress of flour dust into the atmosphere.

5.4.2 Using the Flour Duster

- Fill the flour duster with flour (See Recommended Flour, Page 030 - 1)
- Turn the selector switch to the desired position (See Operational Elements, Selector Switch, Page 030 - 7)
- Set the desired dusting width (See Operational Elements, Side Limit Slide, Page 030 - 7)
- Set dusting amount (See Operational Elements, Potentiometer, Page 030 - 6)



Before beginning each new production run:

- Loosen the flour in the flour duster with a vibrating whisk

If the dusting appears irregular, proceed as follows:

- Empty flour
- Clean flour duster (See Cleaning Flour Duster, Page 060 - 2)
- Fill with fresh flour. (See Recommended Flour, Page 030 - 1)

5.5 Sources of Mistakes in the Sheeting Process

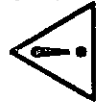
Fault finding

| | Cause / Defect | Remedy / to remove |
|--|--|--|
| 1. Dough piece sticks, tears underneath bar. | Dough too moist, rubs against scraper bar. | Better dusting, mount scraper properly (See Mounting the scraper unit, page 060-1) |
| 2. Dough piece piles up (ripples). | Manomat Reduction steps too big. Main operation lever too late switched to stage 2. | Select smaller reduction steps. Switch earlier to stage 2. |
| 3. Dough sheet tapers. | Automat Roller reduction programme too coarse. | Select smaller roller reduction programme. |
| | Manomat Reduction steps too small. Main operation lever too early switched to stage 2. | Select coarser reduction steps. Later switch to stage 2. |
| | Automat Roller reduction programme too small. | Select coarser roller reduction programme |
| Switch stages | Switch stage 1 Speed of infeed belt is approx. 30 % slower than outfeed belt. | Machine runs from the right to the left or vice - versa. The dough pieces can be reversed up to approx. 6-8 mm on stage 1. Afterwards watch the dough sheet well. If necessary use stage 2, until the dough sheet no longer ripples or tapers. |
| | Switch stage 2 Speed of infeed belt is approx. 50 % slower than outfeed belt. | Machine runs from the right to the left or vice - versa. Use stage 2 only from approx. 6-8 mm down to endthickness, depending on the dough type. If the dough sheet is too much stretched switch for a short time to stage 1. Watch the dough sheet continually during the infeed. |

6 Cleaning



6.1 Cleaning

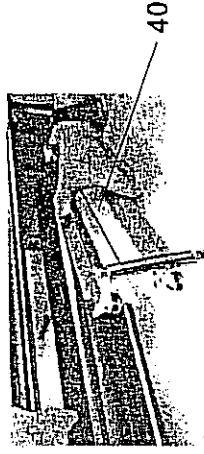
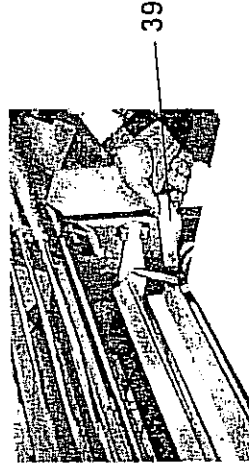


The machine must never be cleaned using spray water, high-pressure cleaners or a steam-cleaning machine.

6.1.1 General Information

Dismounting the Scraper Unit

- Close rollers fully
- Snap the safety guard into the upper position
- Using thumb, push the front and rear scraper lever 39 downwards
- Lift the scraper unit 40 out of the scraper mounting
- Pull out the scraper unit 40
- Clean the scraper unit (See Care. Page 060 - 4)



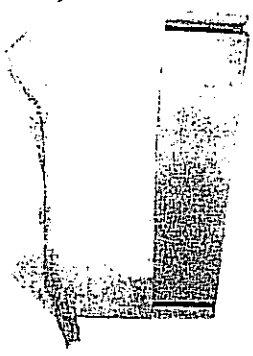
Mounting the Scraper Unit

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

Disassembly of the Machine Table and Conveyor Belts

- Unhinge the machine table (See Assembly of the Machine Tables. Page 020 - 2)
- Loosen both tension nuts on the idling side of the machine (See Tensing the Conveyor Belts. Page 020 - 4)

- Loosen conveyor belt
- Place table sideways
- Remove conveyor belt
- Clean conveyor belt (See Care, Page 060 - 4)



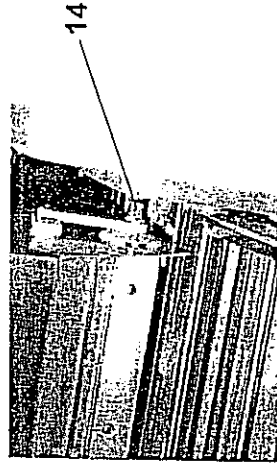
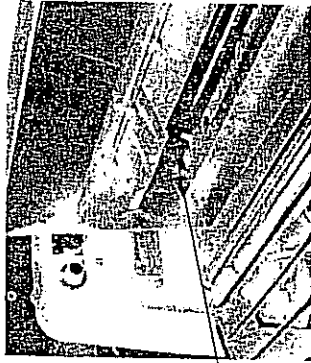
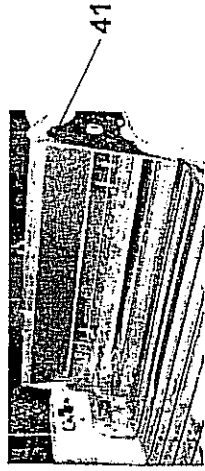
Assembly of the Machine Tables and Conveyor Belts

- To reassemble the machine tables and conveyor belts, follow the disassembly instructions in reverse order

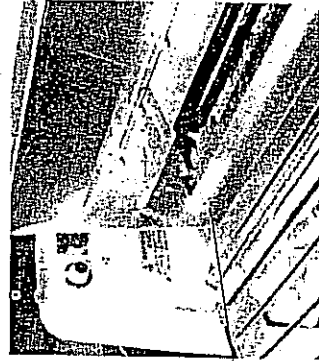
Cleaning the Flour Duster

Dismount the flour duster as follows:

- Gently lift the flour duster on side 41 opposite to that on which it is driven
- Pull the flour duster over the cam 42



until the catch 14 has been guided out of the receiver



- Place the flour duster at an angle
- Guide the flour duster out of the openings 13 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
- Remove the leftover dough using a plastic scraper



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

- Remount the flour duster
(See Mounting the Flour Duster, Page 020 - 5.)

6.1.2 Care

| Part | See | daily see legend | weekly see legend |
|------------------------------|--------------|------------------|-------------------|
| Roller head and Machine base | Page 030 - 3 | | A |
| Scraper | Page 060 - 1 | A | |
| Cotton conveyor belt | Page 060 - 1 | B | (E) |
| Synthetic conveyor belt | Page 060 - 1 | C | |
| Felt conveyor belt | Page 060 - 1 | B, F | |
| Dough catch pan | Page 020 - 6 | A | |
| Driving roller | Page 020 - 3 | | D |
| Idle roller | Page 020 - 6 | | D |
| Cutting roller | Page 050 - 6 | A | |
| Flour container | Page 030 - 3 | B | |
| Flour duster | Page 060 - 2 | B + D | |



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

Legend

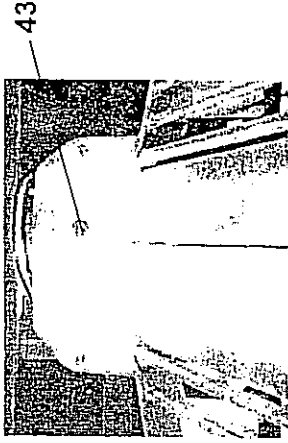
- A Damp clean using cloth and soapy water.
- B Dry clean using a brush.
- C Wet clean using a brush.
- D Remove excess dough using a brush and plastic scraper.
- E Wash the cotton conveyor belt as follows:
 - Maximum washing temperature 40° C
 - Hang the washed belt over a rod and weight it at the bottom with approx. 10 kg.
- F Chemically dry-clean the felt conveyor belt, never wash.

7 Maintenance

7.1 General Information for Maintenance of the Machine



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

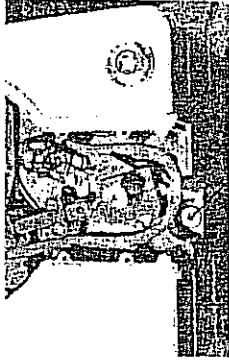


7.1.1 Oil Change



- Unscrew the plastic screw 43 in the oil filler neck

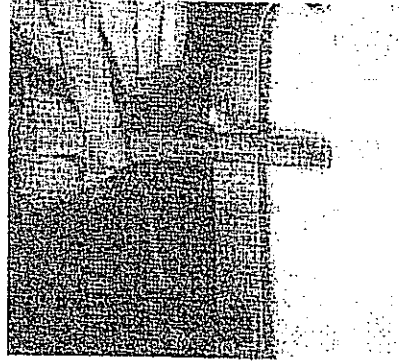
- Get the oil collector ready



- Unscrew the oil drainage screw 44



- Drain the oil
- Screw the oil drainage screw back in again



- Fill with clean new oil (approx. 1,5 l)

- Shut the oil filler neck using the plastic screw

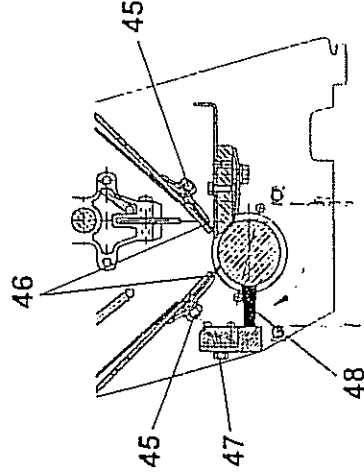
Acceptable Oil

- SHELL Tellus C10, Mobilfluid 62
- CHEVRON Torque fluid
- TOTAL Scandis 15
- DEXRON II Autom. Transmission fluid

7.2 General Information for Maintenance on the Flour Duster

The drive motor is overload protected (motor temperature). It is automatically released for operation once the motor has cooled down.

The safety fuse protects the electronics against short-outs and overload.



7.2.1 Adjusting Scraper Knife

- Loose hexagon nuts 45 (7 nuts per side)
- Adjust scraper knives 46
- Retighten hexagon nuts 45

7.2.2 Adjusting Brush

- Loosen both hexagon nuts 47 on both sides
- Readjust brush 48
- Retighten hexagon nuts 47

7.3 Maintenance List

| What / Part | Activity | daily working time less than 4 h | daily working time 4 - 8 h | daily working time more than 8 h |
|-----------------------------------|---|----------------------------------|----------------------------|----------------------------------|
| Conveyor belts | check if necessary: replace | M | W | W |
| Scraper blade (Flour duster) | check if necessary: adjust or replace | 1/2 J | M | M |
| Brush (Flour duster) | check if necessary: adjust or replace | 1/2 J | M | M |
| Oil change | check | 3 J | 2 J | J |
| Scraper blade (Dough sheeter) | check if necessary: replace | 3 J | 2 J | J |
| Roller gap adjusting mechanism | general function control | 3 J | 2 J | J |

Legend

- W weekly
- M monthly
- 1/2 J semi-annually
- J annually
- 2 J every 2 years
- 3 J every 3 years

7.4 Replacement Parts List



Use of conveyor belts not delivered by Rondo can lead to premature wear and destruction on machine parts (coupling, drive rollers).

| Item no. | Description | Dimensions | Application |
|-----------|------------------------------------|----------------------------|---|
| 122954T01 | Scraper | - | all |
| 105467 | Synthetic conveyor belt PU (67) | 3250 x 640 mm | SSO 677.A, SSO 677.B, SSO 677.C, SSO 677C.C, SSO 687.A, SSO 687.B, SSO 687.C, SFA 687.A, SFA 687.C |
| 120750 | Cotton conveyor belt | 3210 x 635 mm | SSO 677.A, SSO 677.B, SSO 677C.A, SSO 687.A, SSO 687.B, SSO 687C.A, SSO 687C.B, SFA 687.A |
| 120750T02 | Cotton conveyor belt | 2630 x 635 mm | SSO 675.A, SSO 675.B, SSO 675.C, SSO 675C.A, SSO 685.A, SSO 685.B, SSO 685C.A |
| 121342 | Synthetic conveyor belt PVC | 3300 x 640 mm | SSO 677.C, SSO 677C.C, SSO 687.C, SSO 687C.C |
| 121344 | Synthetic conveyor belt PU | 3560 x 640 mm | SSO 675C.A, SSO 675C.C, SSO 677C.A, SSO 677C.C, SSO 685C.A, SSO 687C.A, SSO 687C.B, SSO 687C.C |
| 121344T02 | Synthetic conveyor belt PU | 2650 x 640 mm | SSO 675.A, SSO 675.B, SSO 675.C, SSO 675C.C, SSO 685.A, SSO 685.B, SSO 685.C |
| 121924T02 | Synthetic conveyor belt PVC | 2650 x 640 mm | SSO 675C.C, SSO 685.C |
| 8934 | Fuse 1AT | 1,0 A slow ø 5 x 20 mm | Manomat / Automat |
| 9681 | Fuse 1AF | 1,0 A quick ø 5 x 20 mm | Flour dustier |
| 8935 | Fuse 2AT | 2,0 A slow ø 5 x 20 mm | Cutoomat |

8 Trouble Shooting

| Fault finding | Cause / Defect | Remedy / To remove |
|---|--|--|
| 1. Machine stands still after assembly: | Is the machine plugged in? Main switch switched on? Fuse FI o.k.? | Connect the plug. Switch on main switch. Check fuse FI, if necessary replace. |
| 2. When the main operating lever is pressed down to the right the conveyor belt runs to the left: | Sense of rotation reverse (mains). | Moving direction test (See page 020-6) |
| 3. Machine runs intermittently. stops. rattles: | Safety guard limit switch incorrect? Supporting eccentric on machine table (for safety guard) out of place. Loose wires. | Readjusting by an expert. Adjust supporting eccentric. Secure all cables and wires. |
| 4. Synchronisation of the infeed belt conveyor does not work: | Electrical connection of the machine incorrect. Coupling defect. | Electric (See point 2). Coupling - call in a specialist. |
| 5. Main drive motor runs, rollers and conveyor belts stand still: | V-belt drive (2-steps) faulty. | Call Seewer Rondo After-sales service. Remove rear cover of machine base and roller head, if necessary replace V-belt. |
| 6. Conveyor belts loop up, motor and rollers run: | Belt tension too weak. Drive roller dirty. | Tighten conveyor belt equally. (See Tensioning the conveyor belts, page 020-4) Clean drive roller. (See Care, page 060-4) |
| 7. Rollers can not be reduced to the required dough thickness: | Dough thickness limit stop is set incorrectly. | Alter limit stop to the required position. |
| 8. Machine only runs on one side: | Contactor defect. Limit switch rocker defect. | Call in a specialist (electrician). Replace limit switch. |
| 9. Infeed conveyor belt stands still or pulls bad/not in: Rollers run properly. | Free wheels or friction discs don't work. Conveyor belt tension too weak. | Call Seewer Rondo After-sales service. Repair defect or replace faulty part. Tighten conveyor belt equally (See Tensioning the conveyor belts, page 020-4) |
| 10. Outfeed conveyor belt stands still or jerks: | Free wheel slips on the clutch shaft. Conveyor belt tension too weak. | Call Seewer Rondo After-sales service. Replace clutch shaft. Tighten conveyor belt equally (See Tensioning the conveyor belts, page 020-4) |

| Fault finding | Cause / Defect | Remedy / To remove |
|---|---|---|
| 11. Infeed and outfeed conveyor belts run at the same speed, i.e.no synchronisation on switch stages 1 and 2: | Sense of rotation reverse (mains). Free wheel on the clutch defect (left or right) | Moving direction test (See page 020-6) |
| 12. Dough piles up before the roller or passes under the roller between scraper and infeed conveyor: | Scrapers inserted incorrectly. Scraper blades worn out. | Close the scraper levers properly (See Cleaning. Mounting the scraper unit. page 060-1) Check, and if necessary adjust scraper levers by means of eccentric (center of motion). If necessary replace scraper blades or the complete scraper. |
| 13. Conveyor belt runs over to one side, tearing at the edges: | Incorrect conveyor belt tension. Dirty driving rollers. | Tighten conveyor belt (See Tensing the conveyor belts, page 020-4) Clean driving roller (See Care, page 060-4) |
| 14. Cotton conveyor belts too short after washing: | Washing temperature too high. | Washing temperature max. 40°C. Hang washed conveyor belt over a rod and weigh down below with approx. 10 kg. |
| 15. When reversing (Automat only) no roller reduction is carried out: | Reversing operation too fast and jerky. Lever not positively into Pos. 1/2 pressed | Only a reversing operation without interruption i.e. without jerk guarantees a proper roller reduction. Press down fully into Pos. 1/2 |
| 16. Flour duster doesn't work: | Selector switch on position I or II. Fuse F3 o.k. | Turn on selector switch. Replace if necessary fuse F3. |
| 17. Flour duster doesn't dust any flour: | No flour in flour duster. Flour in flour duster is blocked. Impulse is not coupled. | Fill in flour. Loosen the flour with a hand whysk. Mount flour duster correctly (See Mounting the automatic flour duster. page 020-5) |
| 18. All other faults / falling outs | | Contact the next "SEEWER RONDO" After-sales-service with giving them so much informations as possible. |

9 Technical Data

| Technical data | SSO 675 Manomat | SSO 685 Automat | SSO 687 Automat | SFA 687 Automat |
|--|-------------------------------|--------------------|--------------------|--------------------|
| Machine base | Socle | Socle | Socle | rigid |
| Automatic flour duster | option | option | option | option |
| Width of conveyor belts | 635 mm | 635 mm | 635 mm | 635 mm |
| Table length overall | 2720 mm | 2720 mm | 3320 mm | 3320 mm |
| Option: longer tables | 3320 mm | 3320 mm | - | - |
| Roller length | 660 mm | 660 mm | 660 mm | 660 mm |
| Roller gap | 0,5 - 45 mm | 0,5 - 45 mm | 0,5 - 45 mm | 0,5 - 45 mm |
| Speed of discharge conveyor | 60 cm/sec | 60 cm/sec | 60 cm/sec | 60 cm/sec |
| Rated power | 1,5 kVA | 1,5 kVA | 1,5 kVA | 1,5 kVA |
| Supply voltage | 3 x 200 - 420 V 50 / 60 Hz | idem | idem | idem |
| Req. floor-space in working position, catch trays extended | 1215x3200 mm | 1215x3200 mm | 1215x3800 mm | 1215x3800 mm |
| Req. floor-space in resting position | 1215x1440 mm | 1215x1440 mm | 1215x1760 mm | 1215x3320 mm |
| Machine weight: | | | | |
| - without flour duster | 225 kg | 230 kg | 235 kg | 325 kg |
| - with flour duster | 245 kg | 250 kg | 255 kg | 345 kg |

Technical specifications subject to change without notice

| Technical data | SSO 675C Manomat | SSO 677C Manomat | SSO 685C Automat | SSO 687C Automat |
|---|------------------------------|---------------------------|---------------------------|---------------------------|
| Machine base | Socle | Socle | Socle | Socle |
| Automatic flour duster | - | option | option | option |
| Width of conveyor belts | 635 mm | 635 mm | 635 mm | 635 mm |
| Table length | 3170 mm | 3470 mm | 3170 mm | 3470 mm |
| Roller length | 660 mm | 660 mm | 660 mm | 660 mm |
| Roller gap | 0,5 - 30 mm | 0,5 - 45 mm | 0,5 - 45 mm | 0,5 - 45 mm |
| Speed of discharge conveyor | 60 cm/sec | 60 cm/sec | 60 cm/sec | 60 cm/sec |
| Cutting speed variable | 2,5 - 11 cm/sec | 2,5 - 11 cm/sec | 2,5 - 11 cm/sec | 2,5 - 11 cm/sec |
| Rated power | 1,5 kVA | 1,5 kVA | 1,5 kVA | 1,5 kVA |
| Supply voltage | 3 x 200 - 420 V, 50/60 Hz | idem | idem | idem |
| Req. floor-space in working position, catch pans extended | 1215x3650 mm | 1215x3950 mm | 1215x3650 mm | 1215x3950 mm |
| Req. floor-space in resting position, right hand conveyor hinged-up | 1215x2530 mm | 1215x2690 mm | 1215x2530 mm | 1215x2690 mm |
| Cutting station: Adjustable pressure | spring pressure Option | spring pressure Option | spring pressure Option | spring pressure Option |
| Machine weight: - without flour duster - with flour duster | 250 kg 270 kg | 260 kg 280 kg | 260 kg 280 kg | 265 kg 285 kg |

Technical specifications subject to change without notice