

Operating manual

Spiral-Separating-Machine for Dried Fruit

FAM 11



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We, BRUNNER AG, the manufacturer of this machine reserve the right to make unannounced changes concerning technical progress.

Congratulations

We would like to congratulate you cordially for the purchase of the Spiral Separating-Machine FAM 11. The durable and high performance machine will achieve good services in various applications for you. The high grade steel manufacture makes it particularly durable. It can be cleaned easily after each application. We are convinced that the FAM 11 will carry out long years good services for you proving to be a well chosen investment.

Safety references



Even though many „safety options“ were inserted constructing the Spiral-Separating-Machine FAM 11, it is still essential to consider absolute certain safety precautions during operation. Read these precautions attentively.

- While setting up and attaching:

Only set up machine on even terrain! Both wheels must always be locked and examined for safely blocking. Attach the machine as close as possible at a plug socket. Do not let the cable lay around over a walkway thus creating stumbling traps.

- While preparing:

Always switch off the machine before you open the cover to the operating area. Take care of completely turning in the bayonet joint while fixing the changing parts on the axle drive shaft.

- While supplying blocks of dried fruit:

Never are foreign objects to be inserted into the supply openings. Never never ever grab into the supply opening/interior separating zone! - Neither to distribute fruit nor fish out foreign objects. In this case, switch off the machine and open the cover to the operating area.

- While cleaning:

Dismantle only so far as intended for the operator. The cover under the white hygienic feed plate/insert may not be opened by the operator.

- In case of disturbances:

Emergency-stop This should be the first reaction to possible disturbances of any kind: switch off the machine! In case of unpleasant exhalation, the power plug must be pulled out immediately.

Fig. 1



The emergency-stop-switch is either identical with the normal stop-switch or it is the separate red button It is easily reachable underneath the work top. The on-/off-switch is closed to the emergency-stop-switch

Scope of supply

The scope of supply contains a white hygienic feed plate/insert for unpacking the blocked material in front of the supply opening, a main cable including plug CE-16 and the following parts:



Fig. 2 + 3 = Standard Spiral-Separating-Machine with or without working platform but on wheels.

Fig. 4 - 7 Standard-Accessories



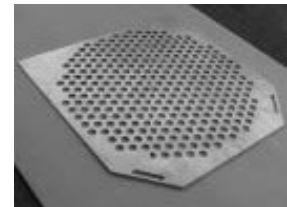
Rough-crush/Pre-break spiral



Upper spiral insert



Stripping device/
Rake with 4 wipers



Perforated plate/
Screen



Fig. 8

plus Fork spanner and pencil key 19 / 6 mm for adjusting Stripping device/rake with wipers.

Compare your inventory with the illustrations to insure complete delivery.

Optional accessories:

For other/special applications there are individual designed inserts like upper spirals, rakes, perforated plates & screens or lower spirals available.

In case of any further accessories for other products please contact us.

Setting up and attaching

The mobile machine should be set up on a suitable, not steep place. Enough room should be available for preparation of dried fruit blocks to supply as well as for a bowl to take away split fruits. Enough space/room must be available to open the cover to the operating area. The machine must be locked. Therefore press the latches completely down with the foot. Connect the cable to the high current power supply (3 x 380-400 V).



Fig. 9
Arrest the machine with the brakes on the two wheels under the platform.

Thus you separate dried fruit

The machine must be prepared on the fruit to be processed. Make sure that the machine is switched off. Open the cover to the operating area while you turn the clutch in the counter clockwise. Swing the cover to the side.



Fig. 10
Open the cover to enter the operating area.

Mount first the rake. Put this on the drive shaft from below. The wipers should lie below. Pay attention to entire screwing of the cams of the bayonet joint. Save the rake on the axle while you tighten the hexagon bolt with the enclosed key.



Fig. 11
The stripping device/rake with four wipers must be mounted on the drive shaft from below.

Afterwards inlay the perforated plate/screen in the frame planned for it. According to the application the side right position of the perforated plate is to be taken into account. The size of the holes of the perforated plate should correspond about to the fruit to be separate.



Fig. 12
The perforated plate/screen must be inserted.

Put the upper spiral insert on the upper end of the drive shaft. Pay attention to entire screwing of the cams of the bayonet joint.

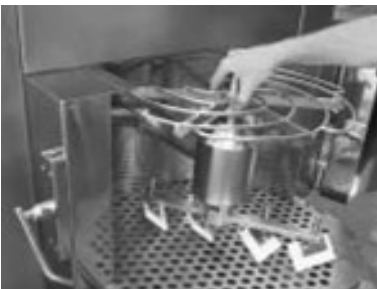


Fig. 13
The upper spiral insert must be mounted on the drive shaft from above

Finally the rough-crush/pre-break spiral is mounted on the drive shaft. Pay attention again to entire screwing of the cams of the bayonet joint. Safe the rough-crush/pre-break spiral on the drive shaft while you tighten the hexagon bolt with the enclosed key. The 4 wipers on the rake are to adjust now relative distance and direction.



Fig. 14
The rough-crush/pre-break spiral is mounted and saved with the hexagon bolt.

The distance between wipers and perforated plate/screen should correspond about the size of the fruit. The rotation direction which is to taken into account with the adjusting of the wipers shows you the spiral insert. The pencil bolts may be released and tightened again with the enclosed pencil key.



Fig. 15

The wipers must be adjusted relative distance to the perforated plate/screen and push direction.

→ Please find a drawing for the correct positioning of the wipers!

Close the cover to the work area. Please note, that for reasons of safety the motor can only be started with reliably closed cover.



Fig. 16

The cover to the working area must be closed.

Thus the machine is ready for the production.

Put a suitable container under the working area or use a band conveyor system to collect the separated fruit. Switch on the machine and feed one by one compressed/sticky block of dried fruit into the supply opening.

We recommend to unpack the compressed/sticky blocks in front of the supply opening on the white hygienic feed plate/insert. With this solution you feed the machine fluently and you create some important seconds that the blocks are separate in good condition and you avoid the overload of the machine.

Cleaning the machine

Switch off the machine first and pull out the power plug.

The machine is s «Hose water protected» that means, in case you have a high pressure cleaner, you may clean the machine with it without difficulties. You need not even to dismantle the parts in the working area at all costs.

Otherwise you wash the machine in customary kind and go forward while dismantling as follows:

- Open the working area and swing the cover to the side. (Fig. 10)
- Turn the Rough-crush/pre-break spiral in counter clockwise out of the bayonet joint and pull it off from the drive shaft. Unscrew also the upper spiral insert from the bayonet joint and pull it off upwards.
- Lift the perforated plate/screen of the guidance frame and pull it out.
- With small distance turn the Stripping device/Rake with wippers by hand so far, until it stands crosswise to the driving direction of the machine.
(If necessary the wipers on the Stripping device/Rake must to be adjusted higher so that the Perforated plate/Screen can be taken out. Release then the hexagon bolt on the rake.)
- Turn it out in the counter clockwise from the bayonet joint and pull it off downwards from the drive shaft.

Now the working environment and the dismantled individual parts can be cleaned easily. The white hygienic feed plate/insert in front of the supply opening can be taken out for comfortable cleaning.



Fig. 17

The white feed plate/insert can be taken out for cleaning.

In case you have the Spiral-Separating-Machine with Working platform the cleaned individual parts can be stored in the drawer during longer production break.



Fig. 18

Working platform with a drawer for storing the accessories.

Mounting the individual parts after cleaning and preparation of the machine for other fruit blocks is described in chapter «Thus you separate dried fruit» on page 5 - 7.

Remedy for disturbances

The machine in fact is built highly durable, so that disturbances should hardly arise.

In case of any disturbance please follow the following instructions:

- Output: To big lumps after separating – to much pieces sticks together!

The distance between the wipers to the perforated plate/screen is too high. Please adjust the wipers closer to the plate/screen.

Pay attention that the outer wipers pushes the fruits to the centre - drawing for the correct adjustment of the wipers you will find on page 10.

- Output too small - fruit squeezed or cut!

The distance between the wipers to the perforated plate/screen is too small. Please adjust the wipers so that there is more distance between wipers and plate/screen.

Pay attention that the perforated plate/screen is inserted with the smoothed hole edges upwards.

- Blockage/Break down - nothing comes out!

The machine is equipped with a **sliding/safety clutch** especially when there are extreme hard blocks or hard material and too much power would occur to the drive and motor. In such a case the machine stops itself and protects the drive and motor.

Please check the machine – open especially the cover of the working area/interior separating zone and empty it entirely. Check the zone and accessories regarding any unexpected damages and make sure that all individual accessories/parts are inserted properly. After complete approval and no visible damages please check the emergency-switch and use the on/off-switch to restart the machine.

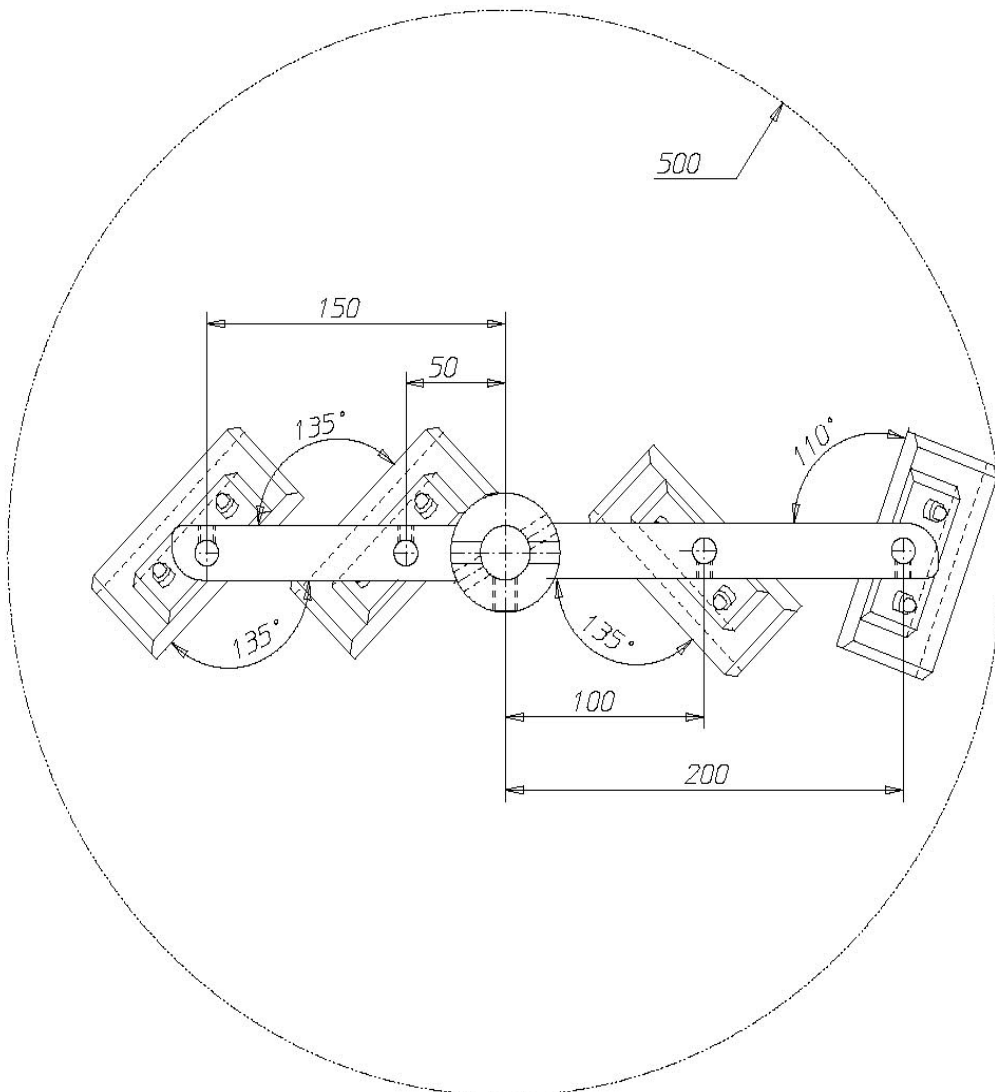
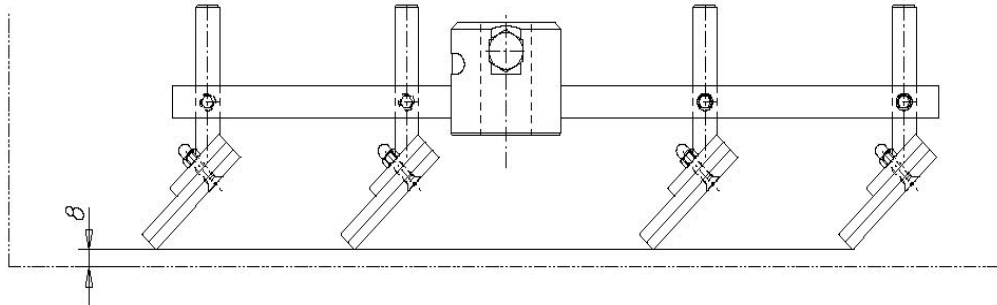


Fig. 19

You must switch off the machine in case of disturbances always first, before you undertake further steps.

If these instructions should not help or disturbances arise, which are not specified here – please dial Phone No. +41 44 814 17 44

Adjusting the wipers of the Stripping device/Rakes



Werkseinstellung
Rackelbalken für FAM

Masstab 1:3	Gez.	15/05/02	P. D.
	Gep.		
	Ges.		

Technical data

Machine weight	360 kg
Motor performance	2.2 kW
Voltage	3 x 380 - 400 V - 50 Hz
Protection class	IP 65 "hose water"
Output per hour	up to 3'000 kg dep. on insert/product

On the enclosed drawings you will find the main dimensions of the 2 standard machines.

CE - conformity explanation

**EWG-Konformitätserklärung
EEC declaration of conformity
CEE Déclaration de conformité**

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**erklärt in alleiniger Verantwortung, dass das Produkt,
declares on its own responsibility that the product,
déclare sous sa responsabilité exclusive, que le produit,**

Bezeichnung	Description	Designation:	Spiral-Auflockerungs-Maschine für Trockenfrüchte / Spiral-Separating-Machine for dried fruit
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Typ, Modell	Type, model	Type, modèle:	FAM 11
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**gemäss der EWG-Maschinenrichtlinie
in accordance with the EEC machine directive
est conforme au terme de la directive machine CEE** **98/37, 2006/95/EC**

EN 292-1 / -2, EN 1088, EN 60204, EN 60335

BRUNNER AG



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