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Automatic Folder

estefold 2200/2100

Application:

Folding of Drawings/Diagrams

Operating Instructions

Precautions

Installation

Operation

Trouble shooting

Switching Plans

Operating Instructions Automatic Folder *estefold 2200 (2100)*

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Precautionary/safety measures

The supplied power cord must only be used in a safety plug socket. Care should be taken to avoid the removal of this protective measure by using extension cables without protective conductors.

Plug socket with protective contact

Any interruptions with the protective conductor (e.g. by loosening the protective conductor at the point of connection) inside or outside the machine can lead to danger, especially by breakdown.

Any intentional interruption with the protective conductor is not permitted.

Removal of cover bands and casings of the machine will release live or rotating parts. For this reason the removal of coverings is not permitted. In case of repair requirements, the responsible ES-TE Service Station should be notified.

In case the machine has to be opened exceptionally, it must be first separated from all live/high voltage sources: **Pull out the mains plug.**

Pull out plug

An expert who is aware of the dangers/risks involved must only carry out repairs or adjustments of an open machine.

Repair by expert

Warning: Do not touch any parts of the open machine since they might be of very high voltage, this could be extremely dangerous, and attention should be paid to this.

Unauthorized or high-handed changing and remodelling, which interfere with the working safety, is not allowed.

Switch off the machine, when operation is no longer possible or considered to be unsafe.

The reasons for this could for example be:

Visible damages or faults of the electrical functions,
occasional occurrence of abnormal operational procedures.

The machine should immediately be insured against unintended usage (pull out the plug, remove the machine, carry with the operating instructions).

Before the machine starts being operated again, inspection by specialists of ES-TE Service Station according to the valid professional code of practice/Standard for machines 89/392 EWG is required.

Professional inspection

How to use Operating Instructions effectively

Keep the operating instructions always close to the machine, so that you can be informed any time about the phases/steps for operation and the safety measures.

For orientation purposes there is a table of contents, marginal notes and an index included in the operating instructions.

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Putting the Machine into Operation

1. Assembly of the Machine

The room to be used should be dry and dust free. The humidity 65% and room temperature of 20° C to 22° C.

The machine must stand horizontally and very stable without any shaky movements.

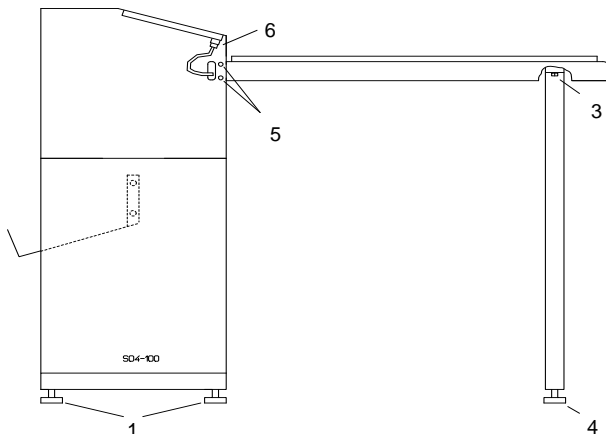
Take into consideration when assembling that emergency outlets are not blocked and that ergonomic work is possible.

Remove all packing materials and adhesives from the delivered folder. For the protection of the machine, a sheet of paper has been inserted. Remove by turning the roller.

Loosen the bolts with which the machine is screwed to the pallet.

First place the longitudinal folder in such a way that it stands fixed, stable and horizontally on the floor. Minor imbalances can be compensated by using the balancing feet **(1)**.

Move the collecting tray upwards from the position of transport and screw tightly with the second fixing bolt **(2)**.



2. Installation of feeding table

Screw the feet below the table plate **(3)**.

Insert the cable from the table into the right machine chamber.

Screw the table to the machine **(5)**.

Plug the cable into the plug device of the p. c. board **(6)**.

Place the table in horizontal position by using the balancing screws **(4)**.

3. Plug in power cord

The power supply box is positioned at the right bottom side of the machine. Please use only the delivered connecting cable or cables of the same safety standard.

The folder is pre-adjusted to 230 Volts/50 cycles.

Make sure that the mains supply voltage is identical with your supply.

Suitable working room

Machine in horizontal position

Screw the feeding table to the machine

Use only approved connecting cables

4. Switch on the machine

The main switch is at the right front side of the machine.
Switch on the button.

The signal lamp "power" above the display glows.

The display shows the software version and the establishing date for a short time.

The machine makes a brief self test and will be ready for operation after confirming by a double peep.

The last used programme will be called up.

In case an error is detected during the self-test phase, a message will be shown in the display, e.g. light barrier 1 interrupted.

Make sure that there is no paper on the machine table or inside the machine.

Remove the paper and confirm by button 

5. Select folding programme

There are 8 folding programmes available.

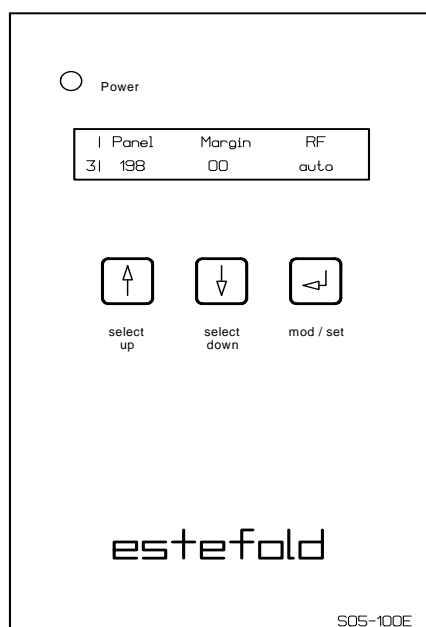
On the left side of the display the selected programme number will appear.



Below "**Panel**" the width of the package is shown.

Below "**Mar.**" the width of the margin edge is shown.

Below "**CF**" it is shown whether the automatic cross fold is switched on.

In mode "auto" all inserted packages of a width of less than 215 mm will be folded in the height of 297 mm.



With the keys  and  you can select a folding programme of your own choice.

*Switch on
the machine*

*Indication and
operation elements*

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6. What can be folded?

Longitudinal folding: All drawings with length up to 4 m and width up to max. 930 mm. The paperweight should be not less than 60 g/m² and not more than 110 g/m² (favoured 80 g/m²).

Cross folding: Maximum paper length of 1200 mm.

Film or materials with glossy shiny surfaces are not suitable.

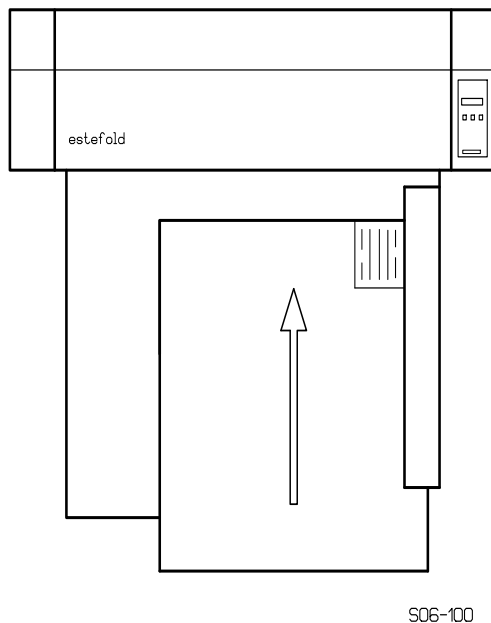
Some kinds of paper offered on the market are of variable qualities. This could cause crumples or substantial folding tolerances. These low-grade papers should be replaced with those of better quality.

7. Introduce drawing to folder

The drawing should always be inserted with the heading (legend) towards the front.

Lay the drawing compactly on the right side of the table and introduce it into the machine. The drawing will be drawn in and folded according to the selected programme.

The package will be ejected at the back of the machine.



8. Introduce for cross folding (max. A0)

Introduce the longitudinally folded package again with the heading towards the front. Before that, smoothen and flatten the package to avoid creasing.

Lay the drawing compactly on the right side of the table and introduce it into the machine. During the inserting process make sure that the drawing cannot come out of the right position. We recommend supporting the paper slightly with the hand.

The cross folding 297 mm is only active, when CF is in auto position (see "Select folding programme").

Important:

A permanent high quality cross fold can hardly be achieved by the roller folding method. Due to the multiplayer folding package and the different distribution of the layers, losses in quality can be caused. Ask for our literature about cross-folder.

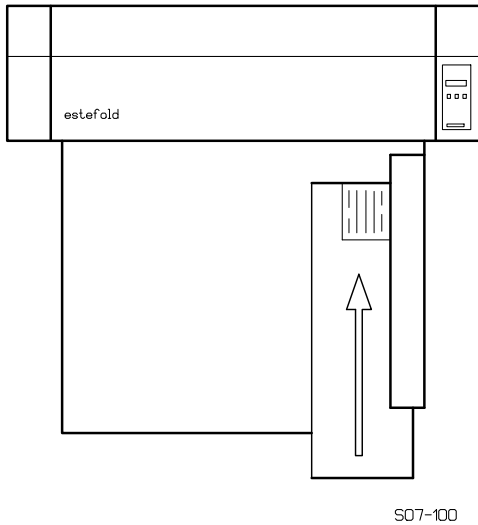
Longitudinal Folding

Cross Folding

*Heading facing
in front*

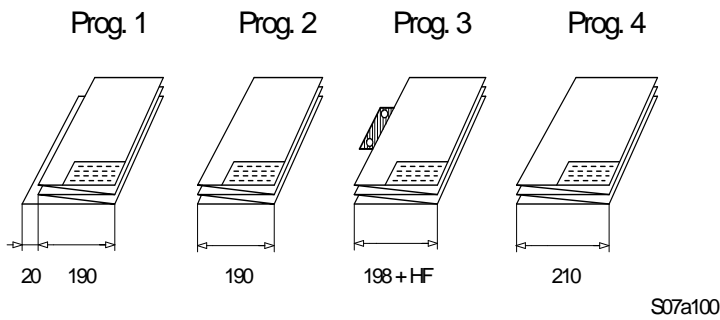
*Introduction for
longitudinal fold*

Heading facing in front



Introduction for cross-fold

9. Folding programmes



Standard folding-programmes

The folding programmes 1 – 4 are already provided as standards. Usually these programmes should cover your requirements.

10. Amend folding programmes

In case you should need another package width, you can amend the programmes 5 – 8.

Example:

Program 5 should process packages of 185 mm with a margin of 25 mm.

- Select folding programme 5 with button \uparrow or \downarrow .
- Press button \leftarrow until the indicator below **Panel** blinks.
- With buttons \uparrow or \downarrow select 185 mm.
- The cursor moves forward, the indicator below **Marg.** blinks.
- With buttons \uparrow or \downarrow select 25 mm.
- Press button \leftarrow
- The cursor moves forward, the indicator below **CF** blinks.
- Press button \leftarrow

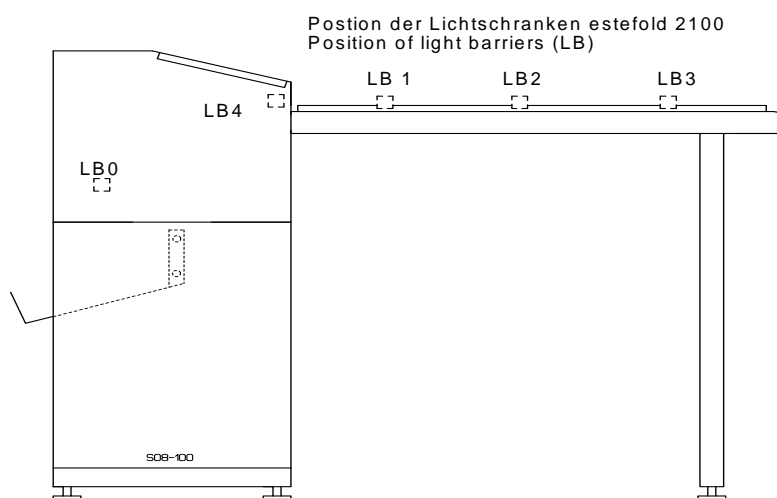
Please notice that the adjustable width of the package must be at least 180 mm up to at most 210 mm. The range of adjustment of the margin is 0 – 30 mm. A package of 165/35 is therefore not adjustable.

Individual folding programmes

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11. When you are in trouble...

<i>Fault</i>	<i>Possible cause</i>	<i>Possible remedy</i>
Automat does not switch on when switching I/O.	Safety switch above the covering is not on. Mains fuses defect. Micro fuses defective.	Close covering. Renew the fuses. Renew the fuses.
After switching on or during operation the message "top is open" appears in the display.	The upper covering is open or not closed properly. The safety switch is not positioned correctly.	Close the covering. Adjust the safety switch.
After switching on or during operation the message "light barrier # cut" appears in the display.	Paper rests near the relevant light barrier (see diagram below). Thick layer of dust on the light barrier or prism. Prism underneath the light barrier is not positioned correctly or has fallen off.	Remove paper rests. Clean the prism under the light barrier with a soft brush or cloth. Adjust the prism or renew it.
The margin does not correspond with the chosen folding programme.	Incorrect adjustments of light barriers or mechanical transfer problems.	Change the value for the margin in programmes 5-8 until the correct length is reached. Contact customer services
Strong formation of creases at the folding package	Belts of the fold roller have been run out of the guide. Inadequate paper quality	Align belts. Use better quality.
Substantial variation within the fold	Chain of folding motor has been loosened. Chain of folding motor is too tight. There are losses in steps. Brake strap at entry roller is dirty or defective.	Tighten chain. Loosen chain. Clean or exchange brake strap.



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Technical data

Paper length	420 - 4000 mm	Power supply	115/230V, 50/60Hz, 6/3A
Paper width	275 – 930 mm	Weight	145 kg
Paper weight	60 – 110 g/m ²	Dimensions:	
Package width	180 – 210 mm	Width	1350 mm
Filling edge	adjustable from 0 – 30 mm	Height	1010 mm
Folding programmes	8 longitudinal / 2 cross	Depth	1315 mm
Fold	according to DIN 824	Table height	860 mm