

INSTRUCTION MANUAL
DF 20, DF 25

ENGLISH

Thank you for choosing this Duni sealing machine, which is intended for use with other **DUNIFORM**® products. This machine is designed to provide you with long, trouble-free operation, provided you follow the simple instructions found in this Manual. Please read the entire Manual carefully before using your DF 20/25.

SVENSKA

DANSK

NORSK

SUOMEKSI

ENGLISH

NEDERLANDS

DEUTSCH

FRANÇAIS

ESPAÑOL

Machine details

- A Main switch (ON / OFF)
- B Time switch (FAST / SLOW)
- C Ready lamp (READY)
- D Temperature lamp (TEMP)
- E Temperature adjustment knob (°C)

The letters and numbers refer to the illustrations on the cover flap.

- | | | | |
|----|-----------------------------|----|----------------------------------|
| 1 | Sealing lid handle | 9 | Motor |
| 2 | Overheat switch | 10 | Electronic card |
| 3 | Sealing lid pressure spring | 11 | Sealing lid lifting spring |
| 4 | Adjustment nut | 12 | Cassette |
| 5 | Film cutter | 13 | Film cutting edge |
| 6 | Back cover | 14 | Film holder |
| 7 | Pressing system | 15 | Sealing plate |
| 8 | Transmission belt | 16 | Sealing lid |
| 17 | Roll steering ring | 20 | Temperature adjustment knob (°C) |
| 18 | Roll holder | 21 | Speed adjustment |
| 19 | Lid stopper | 22 | Main switch |

Daily Operation Guide

See illustrations on cover flap

- 1 Put the filled tray in the cassette.
- 2 Pull the film over the tray.
- 3 Pull down the sealing lid, using the handle.
- 4 Hold the lid steady until the motor starts.
- 5 Let go of the handle when the motor starts.
- 6 When the tray is sealed, the lid opens automatically and you can remove the tray.

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1. Installation & use

1.1 General introduction

DUNIFORM® DF 20 and DF 25 are electrically heated, semi-automatic tray-sealing machines designed exclusively for sealing **DUNIFORM®** trays with film.

The machines are easy to use and feature automatic film cutting. The sealing temperature and time can be adjusted for easy film removal or a fixed seal.

The machines are made of rust-proof material, specially adapted for food-handling environments, and requiring only ordinary single-phase, 230 volt current.

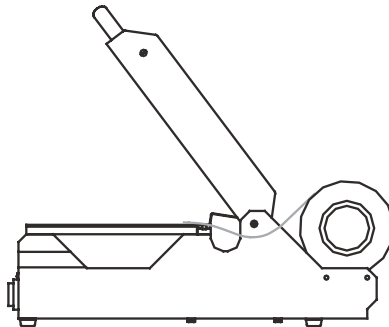
1.2 Installing the machine

Place the DF 20/25 at a suitable working level, e.g. on a steady table or bench, or on a trolley with lockable wheels. It should also be placed in an open area with good lighting.

Connect the machine to a grounded/earthed 230 volt (50-60 Hz) wall outlet.

1.3 Installing film

Place the roll of film on the roll holder (18) between the two white adjustable steering rings (17) at the back of the machine. Unwind the roll of film manually from the top so that it comes under the film holder (14). Note that it is the inside of the film that is sealed to the tray. Venting, see section 7.



1.4 Heating up

Make sure the machine is plugged in, then turn it ON with the main switch (A). The lamp in the main switch, as well as the temperature lamp (D), will now light up. See that the temperature is set between 100°C and 180°C.

As soon as the machine has heated up (for DF 20 about 15 min, for DF 25 about 20 minutes) to the set value (see section 1.5 below), the ready lamp (C) lights up and the temperature lamp (D) starts blinking rapidly. You can now start sealing the desired number of trays.

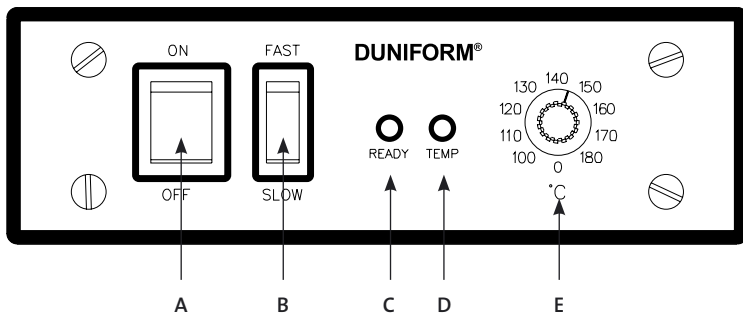
1.5 Time & temperature settings

The normal sealing times and temperatures depend on the type of food. Based on extensive sealing tests, we recommend the following:

Type of material	Sealing temperature
APET	100-110 °C
CPET/PP	150-175 °C

You can adjust the sealing temperature between 100 and 180°C by turning the temperature adjustment knob.

You can set the sealing time to FAST or SLOW with the time switch (B). FAST gives a short sealing time with a seal that is easier to peel off. SLOW gives a longer sealing time with a seal that is harder to peel off.



1.6 Operation

Read this entire Manual before you start running the machine for the first time. Pay special attention to the safety instructions (section 2 below).

Note! The operating procedure described below is illustrated in the convenient “Daily Operation Guide” on the cover flap of this manual.

Turn on the machine and allow it to heat up (see sections 1.4 and 1.5 above). See that the lid stopper (19) is pulled out. You are now ready to start sealing trays, as follows:

- 1 Put the filled tray in the cassette.
- 2 Pull the film over the tray.
- 3 Pull down the sealing lid, using the handle.
- 4 Hold the lid steady until the motor starts.
- 5 Let go of the handle when the motor starts.
- 6 When the tray is sealed, the lid opens automatically and you can remove the tray. It’s that simple!

If the tray leaks along the edges of the sealed tray, try raising the temperature (see section 1.5) by 10°C. If it still leaks, raise the temperature another 10°C at a time (max 180°C) or increase the sealing time. If the film is hard to pull off or breaks when opening, lower the sealing time or the sealing temperature.

When the machine is not in use, close the lid manually, switch off the machine and push in the lid stopper (1). While pressing the knob on the stopper, twist it slightly.

2. Safety

2.1 Operator safety

Study this entire Instruction Manual before starting to use your DF 20/25. Please note that all electrical units, if used incorrectly, can cause fires, electrical shocks and/or personal injury. Always follow these Instructions carefully to minimize the risk of accidents.

No emergency stop device is needed thanks to the safe machine construction.

As the temperature of the heating plate is normally 130-170°C, there is a risk of burn injury under the sealing lid. Always handle with due caution. A warning sign must be placed on the lower edge of the lid.

This machine fulfills stringent Swedish health and safety requirements (AFS 1994:48) as well as the corresponding EC-directives. A safety analysis is available upon request from Duni AB.

In case of malfunction, first check the FAQ and Trouble-shooting guidelines (sections 4 and 5 in this Manual). If the problem persists, contact your local dealer.

2.2 Machine safety

The machine is equipped with an overheating switch (2), which stops the heating in case of an error in the temperature regulator.

The machine works automatically only when the distance between the sealing lid and the cassette is less than 6 mm. This distance should be checked once a month.

Always unplug the machine before cleaning or maintenance!

3. Maintenance

3.1 Cleaning

Clean the machine after use with a wet cloth using ordinary detergent.

Note! Do not flush with water or harsh detergents!

Clean/remove any food remains from sealing plate with a soft sponge or a soft brush and ordinary detergent when the machine is cold.

Clean/wash the cassettes manually with an environment-friendly detergent (pH-value below 7.0).

Note! Do not wash cassettes in a dishwasher, as the surface treatment reacts with dishwasher detergents!

3.2 Changing fuses

The machine has two fuses: one main fuse and one motor fuse. Refer to the technical data (section 3.5) for the correct sizes.

Both fuses are situated behind the front panel, which is mounted with four screws from the front.



3.3 Repairs

The machine is built for minimal maintenance and service. However, in case of malfunction (e.g. of cutting, heating up, pressing.), stop the machine immediately and unplug it. Do not attempt to repair the machine yourself, whether by hand or with tools. It is not safe and you may forfeit your guarantee (see section 6.1 below).

In case of malfunction, first check the FAQ and Trouble-shooting guidelines (sections 4 and 5 in this Manual). If the problem persists, contact your local dealer.

3.4 Spare parts

After long use, you may need to replace the rubber strips on the cassettes. Spare rubber strips are simple to insert. These and other spare parts can be ordered from your local dealer.

3.5 Technical data	DF 20	DF 25
Height of machine, lid open/closed, mm	Approx. 520/230	610 /350
Length of machine, mm	590	760
Width of machine/incl. lid stopper, mm	220/265	313/355
Height to cassette, mm	160	220
Weight (machine)	Approx. 20 kg	Approx. 43 kg
Weight (cassette)	Approx. 0.5 kg	Approx. 2.5 kg
Electricity	1-phase, 230 V~, 750 W, 10 A, 50-60 Hz	1-phase, 230 V~, 1000 W, 10 A, 50-60 Hz
Connecting plug	1-phase grounded/earthed	1-phase grounded/earthed
Length of cord	2.5 m	2.5 m
Main fuse	4.0 A slow	6.3 A slow
Motor fuse	3.15 A slow	3.15 A slow
Press power	Approx. 1200 N	Approx. 1200 N
Capacity	Up to 10 cycles/min	Up to 10 cycles/min
Heat-up time	Approx. 15 min	Approx. 20 min

4. FAQ

Q: Can I change cassettes?

A: Yes. Changing cassettes is easy. Just lift out the old one put in a new one. Be careful not to burn yourself on the heating plate. There are many different cassettes available.

Q: Can I use the same cassette for different shapes of trays?

A: Usually not. It is only possible if the cassette has one cavity/compartment and the outer dimensions of the different trays are exactly the same. If the tray has more than one compartment, the different compartments will not be sealed.

Q: Where do I order new cassettes?

A: Contact your local dealer for advice on cassettes.

Q: I have a DF 25 machine but want to seal trays that are only available with DF 20 cassettes. Is this possible?

A: Yes, you can order a cassette adapter for your DF 25 machine and the DF 20 cassette.

Q: Can I get customized trays?

A: Yes, but you have to commit to purchasing certain volumes over a certain time period. These volumes are rather high.

Q: Does Duni have machines with higher capacity?

A: Yes. Duni has machines with a capacity of sealing up to 40 trays/min.

Q: Can I use the same sealing film for different trays?

A: The trays and sealing film are specially matched for best performance. A sealing film for trays made of PP (polypropylene) will only work with PP trays and not with CPET (crystalline polyethylene terephthalate) trays. However, there are universal sealing films available that seal both PP and CPET.

5. Trouble-shooting

Problem:

The machine does not seal or the sealing is poor.

Cause: The cassette (#12) is upside-down with the rubber strip facing down.

Solution: Turn over the cassette.

Cause: The rubber strip on the cassette is missing.

Solution: Put in new rubber strips.

Cause: There is a gap in the rubber strip.

Solution: Remove the rubber strip and put it back again without stretching it. If it is still a gap replace the rubber strip.

Cause: The sealing-film roll is incorrectly placed.

Solution: Turn over the sealing-film roll so that the inside of the film lies towards the tray when you seal.

Cause: The sealing-film roll is not intended for the material in the tray.

Solution: Change the sealing-film roll.

Cause: The temperature is too low.

Solution: Turn up the temperature by 10 °C and wait until the sealing plate heats up. Seal again and repeat the procedure if needed.

Cause: The sealing time is too short.

Solution: Push the "Time Switch" (B) to slow.

Problem:

The machine does not start or the main switch (#22) does not light up.

Cause: It is not connected to the power outlet and/or not turned on.

Solution: Connect the machine to the power outlet and turn it on.

Cause: The fuse for the power outlet is broken.

Solution: Check the fuse.

Cause: The fuse inside the machine is broken.

Solution: Check the fuse in the machine.

Problem:

The sealing lid (#16) is stuck.

Cause: The lid stopper (#19) is activated .

Solution: Pull out the lid stopper and lock it in out position

Problem:

The motor does not start.

Cause: The “Time Switch” button (# 21) is in a middle position.

Solution: Push it either to “Fast” or “Slow”

Cause: The motor activation needs to be adjusted.

Solution: Remove the cassette and pull the sealing lid down to see if the motor starts. Contact Service.

Problem:

The sealing-film is not cut off.

Cause: The rubber strip by the knife (#13) is missing or damaged.

Solution: Put in new rubber strips.

Cause: The knife is dirty, dull or damaged.

Solution: Clean the knife, or call Service for replacement.

6. Legal info

6.1 Restrictions

No changes or modifications of any machine parts are permitted without the manufacturer's approval. Unauthorized changes invalidate Duni's EU declaration and the machine may not be used.

If any instruction or warnings sign becomes damaged or unreadable, it must be replaced immediately, before the machine is used again.

The machine may only be used together with the parts supplied by Duni together with the machine or subsequently, or as instructed by Duni.

This product is made of materials that can be recycled and reused. Please treat it in accordance with your local environmental regulations concerning disposal of electrical and electronic products.



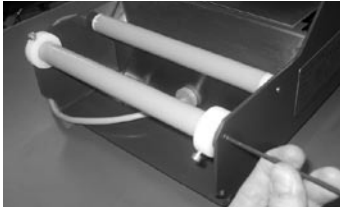
6.2 Declaration of conformity

Duni AB declares that the sealing machines listed below are in conformity with the provisions of the respective directives.

Sealing machine	DF 20 / DF 25
Directive	AFS 1994:48
	89/392/EEC
	93/44/EEC
	EN 60 335-1:88
	EN 60 335-2-45:90
	73/23/EEC
	89/336/EEC
	EN 55 014-1, -2
	EN 61000-3-2, -3-3

The original Declaration is shown together with the electrical drawings at the end of this manual.

7. Extra accessories



7.1 Installation of spike roll

The spike roll perforates the film to release steam.

- 1: Remove the two rolls at the back of the machine.
- 2: Remove the screws that are fixed (or enclosed) on the spike roll packet. For the DF 20, there are four M6 screws and two nuts. For the DF 25, there are four M8 screws.
- 3: Place the spike roll packet with the spike roll inwards, and screw it in place using the old screw holes for the rolls.
- 4: Install the back roll with the white roll steering rings, in the rear holes of the spike roll packet.

Note! The two remaining washers are no longer necessary, but if you want to reduce the axial movement of the roll with the roll steering rings, put in one of the washers.

Note! The needles in the spike roll are very sharp and must be handled with great caution.

7.2 Installation of film roll with spike roll

- 1: Lift out the slotted roll
- 2: Unroll enough film to cover the spike roll.
- 3: Place the slotted roll where it belongs.
- 4: Put the roll of film in place.

If you don't want to perforate the film, do not place the film under the slotted roll.

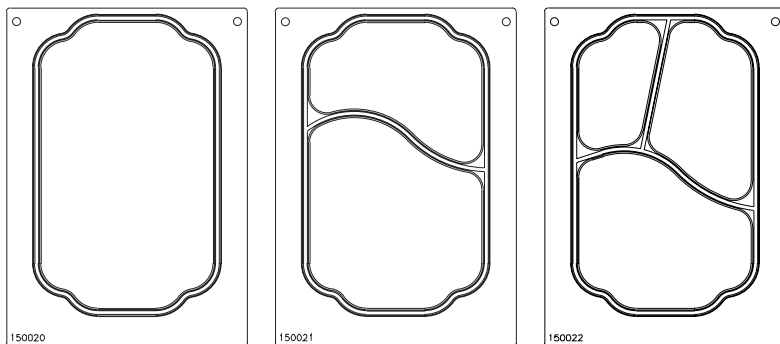


Spike roll

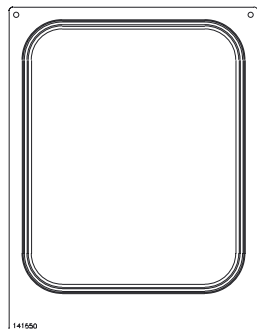
7.3 Cassettes & adapters

Duni offers a comprehensive range of cassettes for the DF 20/25 (only a few of them are shown here). DF 20 cassettes can also be used in the DF 25 machine using an adapter. For further details, contact your local dealer.

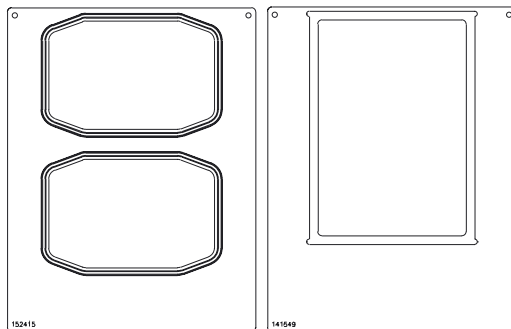
Cassettes for DF 20



Cassettes for DF 25



Adapter for DF 20



8. More from Duni

Duni also provides premium products that combine attractive design with great functionality to offer convenience and ambience enhancement for enjoyable meal moments.

These include a wide selection of products suitable for any eating or drinking occasion including napkins, candles and table coverings as well as plastic items, such as glasses, cups, cutlery and plates. For further information, we invite you to visit our homepage or contact your local Duni representative.

www.duni.com

