

# OPERATING MANUAL

**ADE**

Machines for Meat Processing



## Meat mincer with cooling and patty maker attachment – FL82-Cool

(FL-Cool-210504-Rev004-UM-en)



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## Safety information



This symbol means: "Consult operating instructions". Read the instructions for use carefully before use and follow all instructions provided therein. Keep the instructions for use for future reference.



**ADE shall not assume any responsibility for personal injury and material damage resulting from non-compliance with this operating manual and its safety instructions!**

### **General safety instructions**

- Read this operation and maintenance manual carefully before operating the meat mincer.
- Carefully read the labels with the safety information attached to the device and follow the instructions.
- Only properly trained persons may use the meat mincer.
- The user training must include all information regarding the hazards associated with the use of the device and the precautions to be observed.
- The user must be properly informed about the protection and safety devices. Furthermore, the user must be trained to carry out regular inspections of these protection and safety devices.
- The user must NEVER leave the meat mincer unattended during operation.
- This meat mincer must be operated only by one user.
- The device offers both optimal safety and utmost performance.
- The manufacturer assumes NO liability for damage caused by unauthorised modifications to the device.
- Do not use the meat mincer under the influence of alcohol, drugs or medicines.



**The optimal safety is in your hands, because the use of any electrical devices is dangerous!**

**Dismantling the protective equipment is not allowed!**

**In case of damage to the protective equipment, the machine must be immediately put out of operation and must be handed over to your customer service for renewal or replacement delivery.**

### **Personal safety**

- The user must read and understand this manual before operating the meat mincer. Your eyes are the best safety device: first look and then move and act!
- Experience has shown that some items worn by the user can cause accidents: remove rings, watches, wristbands and bracelets before using the device; button or tie up sleeves securely around the wrist; remove the tie, which can hang down and get caught in the device; pin up or bind your hair with a cap, rubber bands, hairpins, etc.



**Follow all internationally accepted and recommended safety and accident prevention measures!**

## **Safety of the device**

- Thoughtfully inspect the device before operation and carry out regular inspections of the protection and safety devices.
- ALWAYS close the protective covers properly before turning on the device.
- NEVER process large pieces of meat, i.e. those exceeding the device capacity.
- DO NOT process pieces of meat with bones.
- Do not press in the meat with your hands during processing.
- The protective covers must be attached when the meat mincer is turned off.
- ALWAYS unplug the power cord from the mains outlet before assembling or disassembling any device parts.
- ALWAYS disconnect the device from the power supply before performing any maintenance work on it.
- Use the meat mincer ONLY with properly fitted and fully functional protective covers. Do not use the device if these conditions are not met.
- NEVER try to remove pieces of meat from the running meat mincer.
- The power cord must be replaced immediately once it is damaged, even slightly. It must be free of cracks, damages, bulges, etc.
- NEVER pull on the power cord to unplug it from the mains outlet.
- If you hear any abnormal noises, immediately turn off the meat mincer.

Safe operation is no longer guaranteed:

- If the mains plug or the mains cable is visibly damaged.
- If the mains plug is no longer working.
- After prolonged storage in humid areas.
- If the thread of the worm housing and/or the drive pins of the worm show damage.
- If the keypad/on-off switch shows damage.
- If perforated discs thinner than 5 mm are used.

In these cases, contact your dealer or your service partner for your own safety.

## **Work area safety**

- The work area where the meat mincer is used must be sufficiently lit and large enough to allow all operations to be carried out smoothly and without risk to the user.
- The installation site must be FREE of any water, processing residues or other residual products. The work surface must be kept in perfect condition, with any possible slipping, catching or entanglement hazards being eliminated. The installation site must be kept free of any other loose materials.
- ONLY the operator responsible for the meat processing must be present in the meat mincer work area.

### **Safety during maintenance**

- The meat mincer must be turned off before cleaning, maintenance, assembly or disassembly of the device parts: Unplug the power cord from the mains outlet!
- The general cleaning of the meat mincer is an important safety factor.
- Once any faults or damages to the device or protective covers have been discovered, they must be reported to the person responsible for the meat mincer and the device must be turned off.

### **Residual risks**



**A meat mincer presents a residual risk of injury despite sensible accident protection devices. Therefore, special caution is required in this type of work!**

- Never bend over the machine with loose clothing (such as ties) or loose long hair.
- Never reach into the filling opening with your fingers or any unsuitable objects (such as forks, knives, etc.)!
- Do not tamper with the electrical installation or the safety devices! Always have electrical defects repaired by a specialist.
- Always disconnect the mains plug prior to an intervention!
- Wear safety gloves during maintenance work if possible!

## Intended use

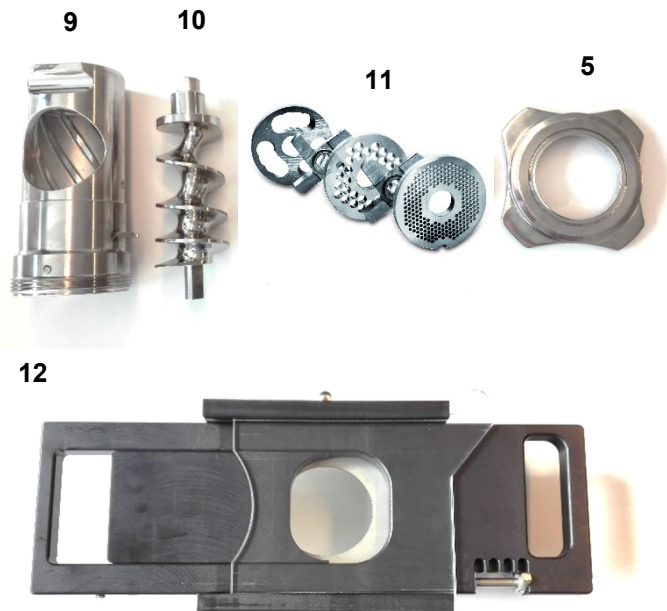
Your ADE meat mincer with cooling is a quality product that is manufactured for use in industrial kitchens and preparations such as canteens and commercial kitchens.

It is a meat mincer for processing unfrozen meat products without bone. Other goods such as fruits, vegetables, bread, nuts etc. may not be processed.

The machine may only be used in its original condition and with original parts.

## Installing and setting up the meat mincer

### Inspecting the contents of the box



<b>No.</b>	<b>Meaning</b>
1	Meat mincer of FL-Cool series in stainless steel housing
2	Lock screw for worm housing
3	Programme selector: For normal mincing or patty making
4	Integrated control unit
5	Blocking ring (hand wheel)
6	Integrated filling bowl
7	Pusher
8	Worm housing
9	Worm
10	5-piece Unger cutting set incl. precutter incl. cross blade (2x) incl. two perforated discs (Hole diameter 3 and 8 mm) distance rings
11	Patty maker attachment Operating manual with declaration of conformity

### **Installing the meat mincer**

The meat mincer is delivered in a stable packaging box that is strong enough for transport.

Take the meat mincer out of the packaging. Due to its weight, this should be done by two adult persons.

Place the machine on a working surface that provides sufficient strength and stability to ensure adequate safety, taking into account the machine's own weight.

Depending on the size of the operator, the machine should not be too high to allow comfortable and effortless operation!



**Wait at least four hours after switching on the device so that the cooling liquid in the cooling system can be fully distributed.**



## Inserting the cutting set

Before inserting the cutting set, first insert the worm housing and lock it with the lock screw (1). Pay attention to correctly placing when inserting the worm housing (2).



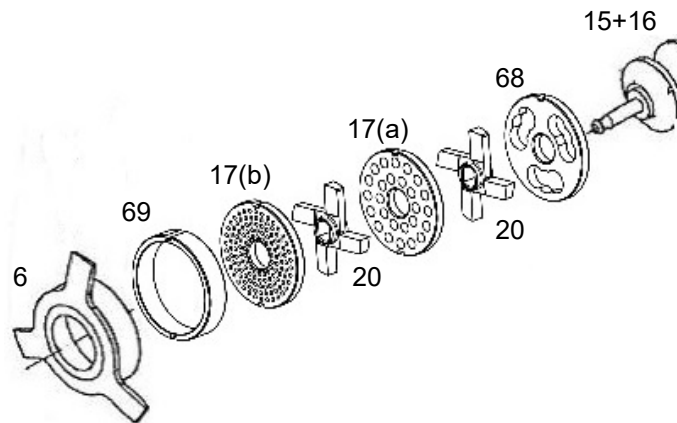
The worm shaft (15+16) is introduced so that the shaft is first introduced with the drive shaft in the worm housing. It is pushed backwards and the worm shaft is rotated until it engages with its drive shaft at the rear end in the uniform slot of the drive.

Now, the precutter (68) is pushed onto the stub shaft and rotated so that the rectangular recess slides on the disc edge over the same shaped ridge of the worm housing.

It follows the first cross blade (20). It is important to ensure that the knife blades are aligned counter-clockwise.

Then, place the perforated disc (17a) on the stub shaft.

This is followed by the second cross knife (20). Make sure that it is in the correct position again (cutting edges point in the direction of rotation).

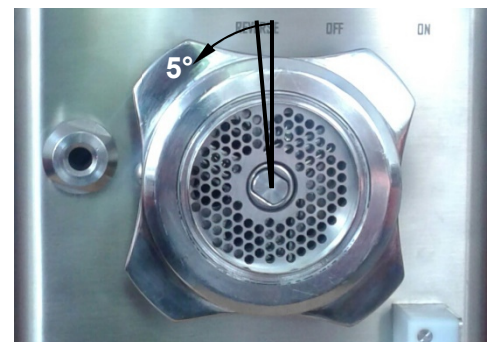


Then the second perforated disc (17b) is added.

Then, place the spacer ring (69) in this way, that the nose of the spacer ring engages the notch of the perforated disc (17b) provided for this purpose.

The hand wheel (6) forms the end, which is first slightly tightened and then released by **approx. 5°**. The latter is particularly important because the worm shaft must have some clearance in the

longitudinal direction for proper functioning of the mincer.



NOTE for use of distance rings:

For use of 5-piece UNGER cutting set narrow distance ring and for use of 3-piece cutting set wide distance ring has to be mounted.



## Changing the cutting set

A versatile use is ensured by the possibility of changing individual perforated discs - depending on the desired cutting effect. In any case, the hand wheel must be set up as the last part.



**It must be ensured that the cutting set is assembled according to the order specified in the manufacturer's instructions.**

**For the perforated disk, which is the last perforated disk to be inserted into the worm housing, only perforated disks with a hole diameter of less than 8 mm may be used for safety reasons!**

**The perforated discs must not be ground thinner than 5 mm!**

## START-UP

The machine is delivered as standard with red CEE plug (16 A).

Check the voltage indicated on the nameplate with the local power supply.

Then insert the plug into a suitable three-phase socket and the machine is ready for operation.

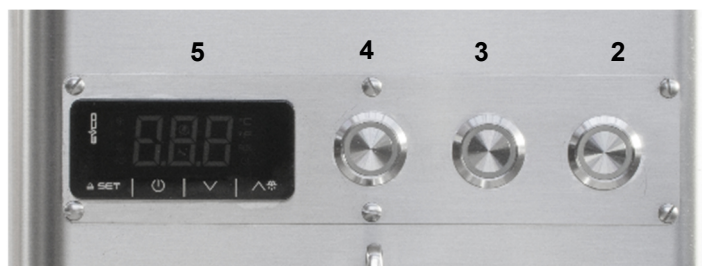





**In three-phase machines, a reverse run may occur due to the different layout of the local power grids. 2 of the 3 power phases in the plug must then be swapped by a specialist!**

**The worm must turn counter-clockwise when switched on!**

**The plug may only be replaced by a qualified person!**

## Operating the meat mincer



No.	Description	Meaning
1	Programme selection	Switch for turning on the device
		Switch on the device
		Switch off the device
		Patty maker operation
2	ON	Power switch (green light edge) - to turn on the mincer unit
3	OFF	Breaker (red light edge) - to turn off the mincer unit
4	REVERSE	Reverse mode switch (white light edge) - to turn on the reverse rotation of the mincer unit
5	Thermostat	Display of the cooling temperature

The reverse mode switch should only be activated when required, e.g. when a small bone has entered the worm together with the meat and has become entangled.

Make sure that the cutting set and worm are properly positioned in the worm housing. Check the seat of the hand wheel again. To ensure safe operation of the cutting set, first tighten the hand wheel slightly and then loosen it by **approx. 5°** counter-clockwise.

### **Switching on**

For the standard operation of the meat mincer, turn the programme selector to the left to the “I” position.

Now start the operation of the worm by pressing the “ON” button (green light edge lights up). The worm now starts to turn counter-clockwise.

### **Switching off**

To stop the worm, press the “OFF” button (red light edge).

To turn off the device, turn the programme selector to the “O” position.

### **In operation**

Turn on both the machine and the thermostat (see the following section) and wait about 10 minutes for the set cooling temperature to be reached.

Make sure the cutting set is installed correctly and the hand wheel is seated as described in “Setting up the meat mincer”.

Open the filler pan cover and fill in the pieces of meat. If necessary, cut the meat into pieces of suitable size.


Switch on the meat mincer and push the meat in the feed funnel to reach the worm using the pusher. Feed the meat evenly and by applying little pressure into the funnel. Avoid overstuffing.



**Never operate the meat mincer at idle without meat in order to prevent overheating of the cutting set or worm housing leading to irreparable damage.**

**Never reach into the filling shaft with your hands or insert other objects such as sticks, cooking utensils, etc. into the filling shaft! There is a risk of injury!**


## **Using the cooling system**

The cooling temperature is usually preset during commissioning thanks to the thermostat. The optimum temperature is determined individually and can be determined by the passage of various samples through the cooled worm housing and gradually optimised. The thermostat allows values to be set between -50 °C and +99 °C. The recommended preset value of cooling temperature is +2 °C. When the device is connected to the local power supply, the cooling system is initially off and the thermostat display shows the “OFF” symbol .



### **Thermostat for cooling system**






## Control buttons of the thermostat

Button symbols	Meaning
SET	
	Switch the thermostat on and off
∨	Decrease the cooling temperature
∧	Increase the cooling temperature

## Status displays of the thermostat

Indicator	Meaning	Status
	LED compressor	LED on: Compressor is on. LED flashes: Setting done in the setpoint operation is running or protection of the compressor has been triggered.
°C	LED degrees Celsius	LED on: Unit of measure for temperature is degree Celsius.
°F	LED degrees Fahrenheit	LED on: Unit of measure for temperature is degree Fahrenheit.
	LED On/Standby	LED on: Device switched off/on standby.
LOC	LOCK	Keyboard is blocked.
UnL	UNLOCK	Keyboard is unlocked.
---		The desired function is not available.

## Operating the thermostat

To turn on the cooling system, press and hold the “On/Off” button on the thermostat for 4 seconds. The display will now show the current temperature, which is usually the room or ambient temperature, as well as the star-shaped ice symbol  indicating that the cooling system is on and working. The system will now cool down until the preset temperature is reached and then shut off automatically. As soon as the temperature rises to + 4°C (e.g. due to external influences such as the ambient temperature), the cooling system automatically switches on again. When finished, turn off the cooling system by pressing and holding the “On/Off” button on the thermostat again for 4 seconds. The cooling system is switched off and the star-shaped ice symbol  disappears from the display, while the “OFF” symbol  lights up on the display.



**For a long life of the cooling system as well as to achieve optimal mincing results, it is advisable not to choose the cooling temperature either extremely low or extremely high.**

## **Presetting the cooling value**

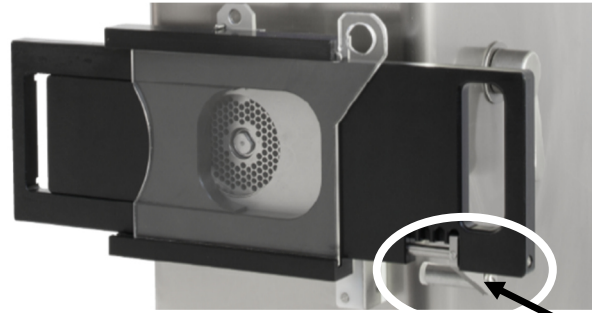
To preset a fixed cooling value, briefly press the “SET” button. The LED ✱ flashes and the current preset cooling temperature is displayed. Press ▲ or ▼ button within 15 seconds to change the cooling value. After you have selected your desired cooling temperature, briefly press the “SET” button again. The LED ✱ stops flashing and the currently reached cooling temperature is displayed.

To exit the temperature setting without saving the modified cooling temperature, briefly press the On/Off button.

## **Patty maker operation**



1: Programme selector



Patty maker attachment

2: Lever for presetting the patty size

The meat mincer with cooling is suitable to produce patties (“hamburgers”) of different sizes and weights in a semi-automatic way using the patty maker attachment.

## **Mounting the patty maker attachment**

Mount the patty maker attachment before the ejection of the worm housing.

To do this, pull out the latch on the top of the patty maker attachment and position the attachment in front of the device so that the guide pin is inserted into the guide holder and the lower holder engages around the hand wheel.

Then release the latch so that the snap mechanism on the upper side also engages around the hand wheel.

Check the patty maker for a firm fit.

## **Operating the patty maker attachment**

For approximated values note 100 g, 130 g, 155 g und 170 g, whereby these weights could differ because of different influences like processed meat, temperature of the meat, quantity in filler neck and worm, part of water or ice etc. Deviations up to 10-15% are possible.

The adjustment is made using the lever on the patty maker attachment (2). When the lever is positioned in the left outer notch, the largest possible patties are produced. Similarly, a preset in the right outer notch means positioning for the smallest patties.

First close the compartment of the attachment by pushing it to the left until it stops.

Now turn the programme selector (1) to the right (☰). This activates the patty mode. In this mode, the worm automatically starts to turn counter-clockwise and transports the meat into the patty maker attachment.

As soon as the compartment in the attachment is filled in the preset size, the device switches off automatically.

Now pull the compartment to the right and remove the patty.

When the compartment is closed again, the machine will automatically start and refill the compartment.

To disassemble, pull the latch upwards and remove the patty maker attachment.

The device can also be used with a mounted patty maker attachment as a pure meat mincer whilst the plexiglas disc is opened.

### Cleaning, maintenance and servicing, disposal



**In principle, the machine must be switched off before cleaning, maintenance and service and the power plug must be disconnected from the mains.**

#### **Disassembling the meat mincer for cleaning**

The hand wheel can be unscrewed by turning it to the left. Thereafter, the perforated disc is removed. By pulling on the worm shaft, the worm can now be removed completely with the cutting set.



**If only the cross blade is removed, special care is required. There is a risk of injury (cutting injury).**

Now remove the worm housing. After loosening the lock screw, the worm housing can be pulled out of the housing.

#### **Cleaning**

Before first use, thoroughly clean the machine with a damp cloth and lukewarm water.

Depending on the load and frequency of use, the machine must be cleaned regularly – at least after each daily work sequence.

All parts and cavities that come into contact with meat, where deposits can form, must be cleaned.

Use a damp cloth (preferably a brush for some parts) and approx. 60° warm water for cleaning. For cleaning and disinfecting, choose only products or accessories that are food-grade and approved for this purpose. Follow the instructions for using these materials.

It is strictly prohibited to clean the slicing machine with products that can damage the health of the operator or the customer.

After removing the meat residues, all components must be cleaned with water and disinfectants. Rinse with warm water and rub the components up to drying.

Make sure that the parts do not hit one another to avoid damage.

For better and more effective disinfection, it is recommended to place the parts in a bath containing 3% NaCl hypotonic solution for about 30 minutes, then rinse with warm water and rub dry.

After such treatment, rinse with clean drinking water. Before assembling, ensure that all residues from the drive mechanism, including the housing wall, have been wiped out and that all parts have been completely rubbed dry.

All removable parts must also be cleaned in the dishwasher.

However, regular cleaning of the knives in the dishwasher can cause them to dull faster and thus require more frequent sharpening.



**The machine must in no way be treated with a water jet or a steam pressure cleaner!**

**Likewise, the machine must not be submerged in a water basin.**

**Water must never be sprayed directly into the drive!**

## Troubleshooting

The table below shows the main problems that may occur during operation.

FAULT	CAUSES	REMEDY
The motor does not rotate and the worm shaft has stopped	Check whether the machine is connected to the mains  Check whether the connection of the three-phase plug + ground + neutral is correct.	Connect it to the mains  Ensure proper connection
The worm shaft does not rotate	Foreign object in the mincing section	Remove the foreign object
The running worm shaft makes noise	The hand wheel is over-tightened  The worm shaft is not latched into the slot  Disc and blade are worn out	Slightly loosen the hand wheel  Insert the worm shaft correctly  Sharpen or replace the disc and blade
Oil under the meat mincer	Possible leak in the oil seal of the motor	Replace the oil seal of the motor
Display shows Pr1	Error of room temperature probe	Check the connection of the probe to the device. Check room temperature. Contact the service partner, if possible.
Display shows Pr2	Error of evaporator probe or error of condenser probe	Check the connection of the probe to the device. Contact the service partner, if possible.

### **Storage and Transport Conditions**

Keep all parts of the packaging in case you need to return the shipment to avoid possible damage during transportation.

### **Warranty**

ADE will repair or replace this product if it has failed within 1 year from the date of purchase (proof of purchase is required) due to poor workmanship or defective material.

All moving parts, such as cables, cross blades, perforated discs, etc., are excluded from this warranty. Warranty does not apply to normal appearance of usage or sign of wear or any damages caused by accidents or misuse.

The warranty will not apply for devices that have been opened by unauthorised persons.

This warranty agreement does not affect the customer's legal rights in any manner.

The dealer from whom you purchased the machine is responsible for complaints.

### **Disposal**



**Waste electrical equipment do not belong in household waste. Please dispose of defective or old devices according to the legal and country-specific regulations!**



## Declaration of conformity by the manufacturer

This product has been manufactured in accordance with the harmonised European standards. They conform to the regulations of the EC-directives listed below:

- Machinery directive 2006/42/EC
- EMC Directive 2014/30/EU
- Low voltage directive 2014/35/EU
- RoHS Directive 2011/65/EC
- 1935/2004/EC and 10/2011/EU to food contact materials  
in the currently valid versions.

The declaration will be void if a change that was not agreed with us has been made on the machine.

Hamburg, May 2021

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## Technical data

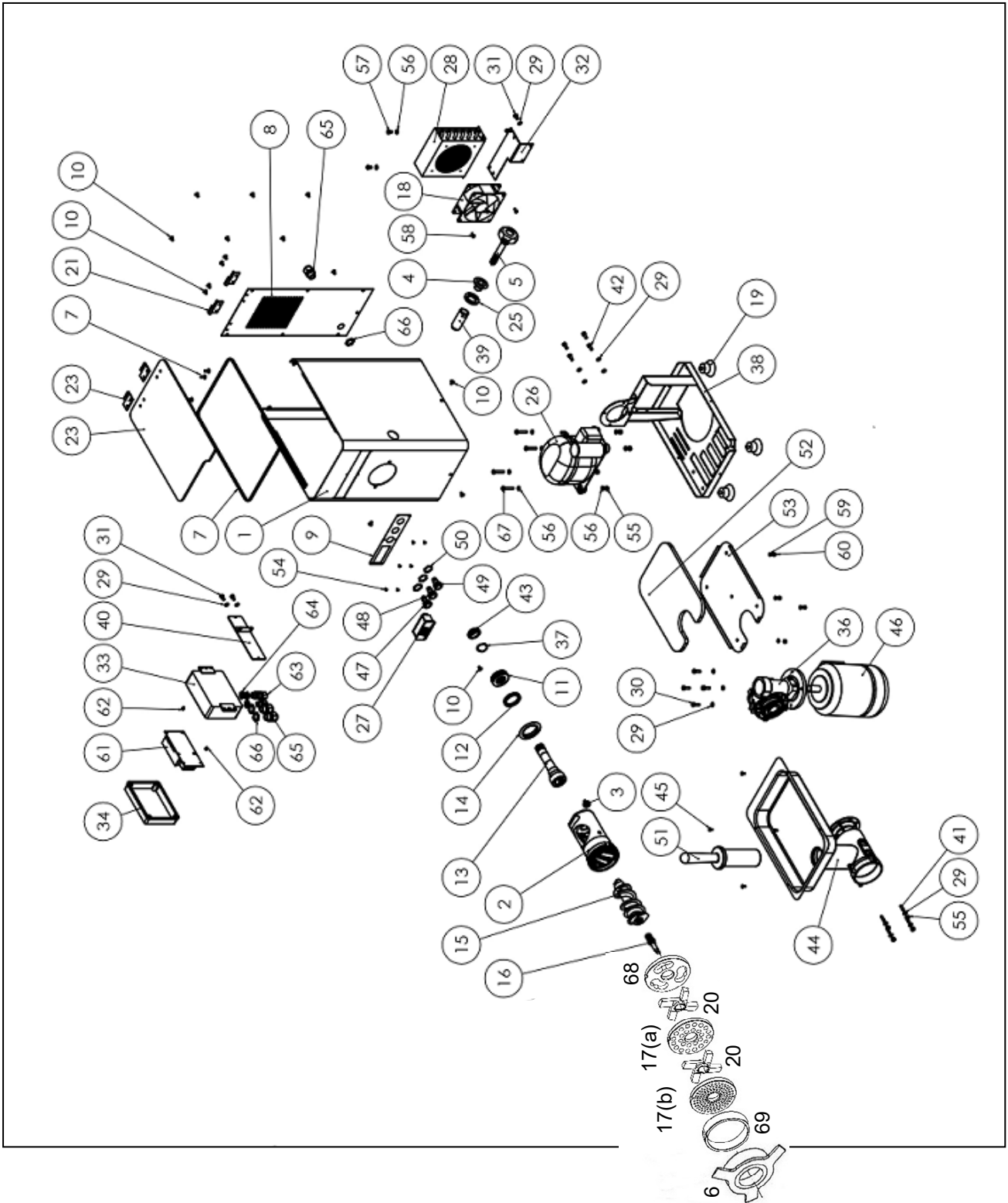
<b>Model</b>	<b>FL 82-Cool</b>
<b>Perforated disc Ø:</b>	82mm
<b>Capacity:</b>	280kg
<b>Dimensions:</b>	270 x 410 x 545 mm
<b>Power:</b>	1.1kW
<b>Type of current:</b>	400V
<b>Net weight:</b>	43kg

### Information about the cooling system

<b>Power:</b>	0.14kW
<b>Frequency:</b>	230V/50Hz
<b>Cold gas:</b>	R134a – 80g

- Housing, worm and worm housing made of stainless steel.
- Adjustable patty maker attachment made of plastic for various patty weights (about 100g/130g/155g/170g – deviations of 10-15% are possible)
- Powerful motor with forward and reverse.
- Easy removal of worm housing, worm and cutting set for easy cleaning.
- Including pusher.
- 5-piece Unger cutting set with precutter, cross blades, perforated discs (hole Ø 3 and 8 mm).

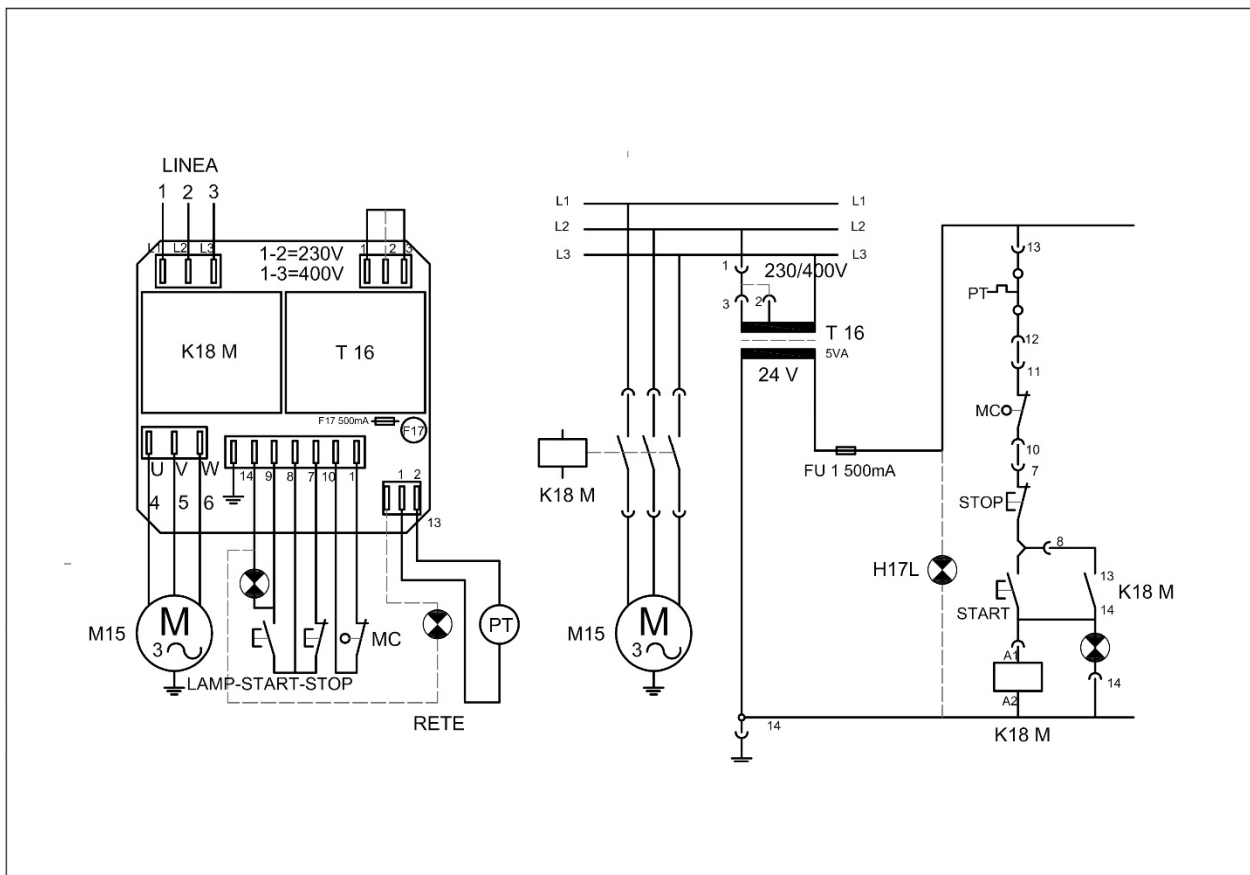
# Exploded view



### Spare parts list

No.	Description	Spare part number FL82-Cool
2	Worm housing	H4327-0021
5	Lock screw	H4327-005
6	Hand wheel	H4327-006
15	Worm shaft	H4327-015
16	Pins for worm shaft	H4327-016
17a	Perforated disc (Ø 7,8 mm)	H4305-028
17b	Perforated disc (Ø 3 mm)	H4305-027
19	Foot	H4327-019
20	Cross blade	H4307-002
23	Plastic lid for filling bowl	H4327-023
27	Display	H4327-027
36	Gear	H4327-036
46	Motor	H4327-046
47	Reverse button	H4327-047
48	Off button	H4327-048
49	On button	H4327-049
51	Pusher	H4327-051
61	Circuit board	H4327-061
68	Precutter	H4327-001
69	Spacer Ring 18mm	H4305-026

## Block diagram



**Distributor:**

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