

OPERATING MANUAL

ADE

Machines for Meat Processing



Meat mincer - FL-E Series

FL-E-210504-Rev008-UM-en



Table of Contents

Table of Contents	1
INTRODUCTION	2
SAFETY INSTRUCTIONS	3
General safety instructions.....	3
Personal safety	3
Safety of the device	3
Work area safety.....	4
Safety during maintenance	4
Residual risks	4
Safety inspection.....	5
SET-UP AND FIRST OPERATION	5
Checking the box contents.....	5
Device identification	6
Installation.....	6
Electrical connection	7
Inspection test.....	7
OPERATING FEATURES AND SAFETY PRECAUTIONS	7
Operating the meat mincer.....	7
Turning the device on and off.....	8
Using the device	8
Assembling and disassembling the cutting set	8
Changing the cutting set	9
Operating time	9
CLEANING AND MAINTENANCE	9
Maintenance	10
Lubricating the gear units.....	10
Checking the safety devices.....	10
Storage and disposal	10
FAULTS.....	11
Troubleshooting	11
TRAINING	11
WARRANTY	12
Warranty	12
Storage and Transport Conditions	12
CE MARKING AND DECLARATION OF CONFORMITY.....	13
TECHNICAL DATA.....	14
CIRCUIT DIAGRAMS	14
EXPLOSION SIGNS.....	16
SPARE PARTS LIST	19
Distributor	23

INTRODUCTION



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.

General information

This publication contains all necessary information for the installation, operation and maintenance of the meat mincer.

The purpose of this publication, hereinafter also referred to as the "manual", is to inform the user in a clear and easily understandable form in order to ensure a long service life and a fault-free operation of the machine.

Your ADE meat mincer is a quality product designed for use in the catering and hotel industry, commercial kitchens, meat-producing plants and large households.

This meat mincer is used to process (mince, chop) fresh meat. Do not process frozen meat.

Other goods may not be processed on it.

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

The models of the FL-E series have short operation time.



First unpack the device, then connect and set it up after carefully reading through this operating manual.



ADE assumes no liability for personal and material damage resulting from non-compliance with this operating manual and its safety instructions!



Dismantling the protective equipment is not allowed!



In the event of damage to protective equipment, the machine must be put out of operation immediately. It must be handed over immediately to your customer service for refurbishment or replacement.



Do not install and use perforated discs with a hole diameter exceeding 7,8 mm for meat mincers of the FL-E series!

The device must not be repaired or tampered with in a manner that is not described in this manual.

Meat mincers are subject to continuous improvements, but this in no way affects the instructions and details in this manual.

This manual must be read carefully before putting the meat mincer into operation.

If this manual becomes worn out or gets lost over time, immediately request a copy of the manual from the manufacturer.

The majority of accidents and injuries that occur when using the machine is due to insufficient knowledge of its functions and safety devices.

Therefore, the instructions and details contained herein should be read carefully before starting work with the machine.

The manufacturer cannot be held liable for damage caused by use of the device that is not described in this operation and maintenance manual or by improper maintenance.

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!

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.

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.)!
- Never touch any moving parts of the device.
- Do not tamper with the electrical installation or the safety devices! Always have electrical defects repaired by a specialist.
- Make sure to unplug the power cord before any intervention!
- Wear safety gloves during maintenance work if possible!

Further residual risks:

- Electric shock due to touching live parts of the device.
- Danger due to improper working position of the user.

Safety inspection

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 (27) 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.

SET-UP AND FIRST OPERATION

Upon receipt of the meat mincer package, make sure that it is free of any damage that occurred during transport.

In the event of any damage, please notify immediately the dealer from whom the device was purchased.

Checking the box contents



Always keep the packaging box vertical, see also arrows on the packaging.

- Open the box and remove the machine;
- Check the box contents for completeness:
 - 1 meat mincer of the FL-E series
 - For FL-E-800:
 - Two-piece cutting set, consisting of:
 - 1 cross blade
 - 1 perforated disc (standard 4.5 mm hole diameter)
 - For FL-E-1200 + FL-E2200:
 - Three-piece cutting set, consisting of 1 pre-cutter, 1 cross blade + 1 perforated disc (standard 4.5 mm hole diameter)
 - Stainless steel filling tray
 - Stainless steel collecting tray (only for FL-E-1200 + FL-E-2200)
 - Pusher
 - Operating Manual
 - Declaration of Conformity.

Packaging materials are valuable materials and must not be disposed of in household waste. Check with your local authorities for proper disposal options.



Local regulations must be followed during disposal.

Never dispose of packaging materials in nature!

Device identification

All device identification details are indicated on the nameplate that is located either on the side or on the back of the meat mincer:

Type	Device model
No.	Serial number
V	Power supply
kW	Motor power
Hz.	Electrical frequency in Hertz
% ED	Time-based duty cycle.

Please keep this data handy when you contact your service partner or the manufacturer in writing or by telephone. Be sure to indicate the date of purchase and the dealer from whom the device was purchased and give details of any faults that may have occurred.

Installation



Before connecting to the power supply, make sure that the local power supply and current frequency comply with the data indicated on the machine nameplate.

The machine must not be connected in the event of non-compliance, otherwise this may cause damage to the machine and fire!

Place the meat mincer on a flat, smooth, vibration-free and non-slippery surface that is stable and firm enough to ensure adequate safety, taking into account the net weight of the machine.

There must be sufficient space around the meat mincer to ensure fault-free operation, cleaning and maintenance of the machine. This clearance should be at least 300 mm.

Proper operation of the machine is guaranteed at a relative humidity not exceeding 80% and with heat sources in the immediate vicinity with a temperature not exceeding 30° C.

In order to prevent the escape of oil during transport, the oil fill plug should be sealed with an adhesive tape.

Remove the adhesive tape before operating the device.

Before turning on the meat mincer, check whether the cutting set is locked by means of the locking lever, handle or knob.

The union nut must exert a slight pressure on the perforated disc, and the perforated disc must exert a slight pressure on the blade.



The union nut must NEVER be tightened firmly: this could cause a rapid wear of the blade and the perforated disc.



The meat mincer must NEVER be operated at idle, i.e. without meat in the device! This leads to overheating of the perforated disc and the blade and thus promotes wear and can cause breakage of these parts. The user assumes all liability for damage caused by improper use.

There must be enough free space around the installation site of the machine so that the operator can quickly escape to safety in the event of danger.

Electrical connection



The meat mincer must not be operated in areas with explosion hazards!

Before carrying out the connection, be sure to check whether the power grid ratings comply with the ratings indicated on the machine nameplate.

Insert the plug into the socket and check whether the existing mains supply is equipped with a suitable circuit breaker.

The devices with an AC motor are equipped with the mains plug.

Do not replace the mains plug. If you replace the mains plug, the device will no longer conform to the EC regulations and the warranty will become null and void.

The electrical connection of the devices with the AC motor and subsequent inspections must be carried out by a qualified electrician using the circuit diagram accompanying the device.



Before operating the device, make sure that the direction of rotation is the same as indicated by the arrow.

When turned on, the worm must rotate counter-clockwise.

In three-phase machines, a reverse run may occur due to the different layout of the local power grids. In this case, two of the three current phases in the mains plug must be swapped by an electronics specialist.

Inspection test

Before starting work, please use the operating buttons to check whether the machine can actually be turned on and off.

OPERATING FEATURES AND SAFETY PRECAUTIONS

Operating the meat mincer

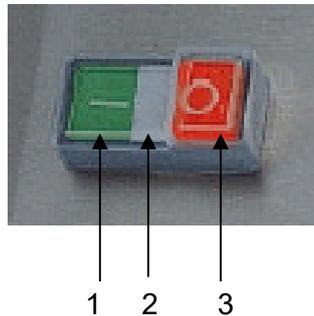
Feeding must always be carried out with the filling tray installed. The supplied darning must be used for pressing. If there is a congestion in the worm area or if a foreign object enters the filling funnel, the device must be turned off immediately and the foreign object must be removed.



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!

Turning the device on and off

- Press the green button (1) to turn on the meat mincer.
- The white light (2) will go on to indicate that the device is in operation.
- Press the red button (3) to turn off the meat mincer.



Using the device

1. Place the meat collecting tray (or similar tray) under the cutting set to collect the mince.
2. Start the meat mincer.
3. Put the meat to be processed into the filling funnel and use the pusher to slightly press the meat in the worm.



NEVER use your hands or other aids to press the meat in the worm!

It is recommended to feed the meat gradually into the filling funnel at a constant speed so that not to overload the meat mincer.

After processing, the meat mincer will eject the mince.

The size of the processed meat (granulation) is determined by the hole diameter of the perforated disc: the smaller the holes, the finer the mince granulation.



Do not install and/or use perforated discs with a hole diameter exceeding 7,8 mm for meat mincers of the FL-E series.

Assembling and disassembling the cutting set



Unplug the power cord from the mains outlet before assembling the cutting set.



Use utmost care when assembling and disassembling the blade. It can cause cuts on the hands!

To **assemble** the cutting system, proceed as follows:

1. Insert the worm housing firmly into the housing and tighten it with the handle (lever or knob, depending on the model).
2. Insert the worm into the worm housing. At the same time, check the fitting in the guide of the worm housing.
3. For models FL-E-1200 + FL-E2200: Insert the pre-cutter into the worm with the flat side facing outwards. Insert the pre-cutter only if the notch on the pre-cutter matches the guide on the worm housing.

4. Insert the cross blade in the worm with the hub facing outwards / with the cutting edge facing the pre-cutter.
5. Install the perforated disc. Insert the perforated disc only if the notch on the perforated disc matches the guide on the worm housing.
6. Put on the union nut and tighten. The union nut must exert a slight pressure on the perforated disc, and the perforated disc must exert a slight pressure on the blade. The union nut must NEVER be firmly tightened, as this can cause rapid wear of the blade and the perforated disc.
7. Insert the filler neck into the filling tray.

To **disassemble** the cutting system, proceed in reverse order.

Changing the cutting set

A versatile use is ensured by the fact that you can use perforated discs with different hole diameters depending on the desired granulation.

In any case, the union nut is the last part to put on.



It is important to ensure that the order of assembly of the cutting set be followed as described above.

Operating time

Depending on the model, the machines are suitable for approx. 60 catering persons (FL-E-800), approx. 100 catering persons (FL-E-1200) or even above (FL-E-2200). These values are merely recommendations that are based on empirical values and can differ depending on the application.

The maximum switch-on duration is 40% (based on 1 hour = 24 minutes). Thereafter, a corresponding cooling time for the motor must be taken into account. At shorter switch-on times, the cooling intervals are also correspondingly shorter.

If you use a very tough material, the intervals should correspondingly be kept shorter.

CLEANING AND MAINTENANCE

The meat mincer must always be clean for hygienic reasons. Machines must be thoroughly cleaned after each use and before each new meat processing.

Before cleaning, unplug the power cord from the mains outlet to disconnect the machine from the power grid. Pressing the stop button on the machine should by no means be regarded as sufficient for this purpose.

To clean the housing, only use a cloth dampened with warm water (approx. 60°C) and a non-foaming, environmentally friendly dishwashing detergent with a neutral pH value of 7-8. For cleaning and disinfecting, only products or additives may be selected that are food-compatible and approved for this purpose. Be sure to observe the instructions for use of the cleaning agents! After such treatment, wipe off with clear water and dry thoroughly.

To thoroughly clean the meat mincer, remove the cutting set from the housing to wash the components separately. To avoid damage, do not place the individual components on top of each other. To disinfect the device, put the disassembled cutting set parts in a water solution containing 3% sodium chloride for about 30 minutes, then rinse off with warm water and dry.



The meat mincer, including the worm housing and the worm shaft, must by no means be cleaned in the dishwasher!



The meat mincer must not be cleaned with spray water!



The device must not be cleaned by means of complete or even partial submersion in water!



Under no circumstances can the machine or its parts be treated with a water jet or high-pressure cleaner.

Unplug the power cord from the mains outlet before cleaning and/or performing any maintenance work on the device.

The disassembly and assembly of the device or its components must be carried out on an impeccable work surface once all slipping, catching or entanglement hazards have been eliminated. The installation site must be kept free of any other loose materials.

Maintenance

Lubricating the gear units

Gearing and driving elements are lubricated during manufacture at the factory.

If necessary, add oil, e.g. in the event of oil leak.

Oil must be changed every 5-6 years. For this purpose, please contact your service partner or the manufacturer.

Checking the safety devices

The device safety depends directly on the operability of the protection and safety devices.

Check the turn on and off function every day before starting work.

In addition, the operability and effectiveness of all protective covers must be checked daily before starting work.

Any faults found during these checks must immediately be reported to the person responsible for the device. The latter must put the device out of operation and, if necessary, contact the customer service.

Storage and disposal

In case the device will not be used for a long time, the power supply must be disconnected and the device must be thoroughly cleaned as described above.

The meat mincer must not be stored in damp rooms for extended periods and must be protected from weather effects.

The device is made from pollutant-free and harmless materials.

For scrapping, separate ferrous materials from plastic materials and dispose of them separately.

FAULTS

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.	<p>Check whether the machine is connected to the mains.</p> <p>Check that the connection of the three-phase current plug + earthing + neutral conductor is correct.</p> <p>Socket fuses are blown.</p> <p>The circuit board is defective.</p>	<ul style="list-style-type: none"> • Connect it to the mains. • Ensure proper connection. • Replace the fuses. • Replace the circuit board.
The worm shaft does not turn.	Foreign object in the chopping area.	<ul style="list-style-type: none"> • Remove the foreign object.
The running worm shaft makes noise.	<p>The hand wheel is overtightened.</p> <p>The worm shaft is not snapped into position.</p> <p>The disc and the knife are worn.</p>	<ul style="list-style-type: none"> • Loosen the hand wheel slightly. • 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.	<ul style="list-style-type: none"> • Replace the oil seal of the motor.

TRAINING

- All users must be properly trained in the use, set-up and operation of the meat mincer.
- All users must read the operation and maintenance manual and pay particular attention to the safety instructions, in particular:
 - a) the principles of the functioning of the device, the proper use of the protective covers,
 - b) the handling of the individual parts during meat processing,
 - c) the position of the hands during meat processing.

Users must also be aware of hazards associated with the use of the meat mincer and the precautions to be followed and must be trained for regular inspections of the protection and safety devices.

WARRANTY

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.

Storage and Transport Conditions

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



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/EC
- Low voltage directive 2014/35/EC
- RoHS Directive 2011/65/EC
- 1935/2004/EC and 10/2011/EU on 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

ADE Germany GmbH

Neuer Hoeltigbaum 15
22143 Hamburg / Germany

Manufacturer:

ADE Germany GmbH
Neuer Hoeltigbaum 15
22143 Hamburg / Germany
 +49 40 432 776-0
 +49 40 432 776-10
 info@ade-germany.de
 www.ade-germany.de

TECHNICAL DATA

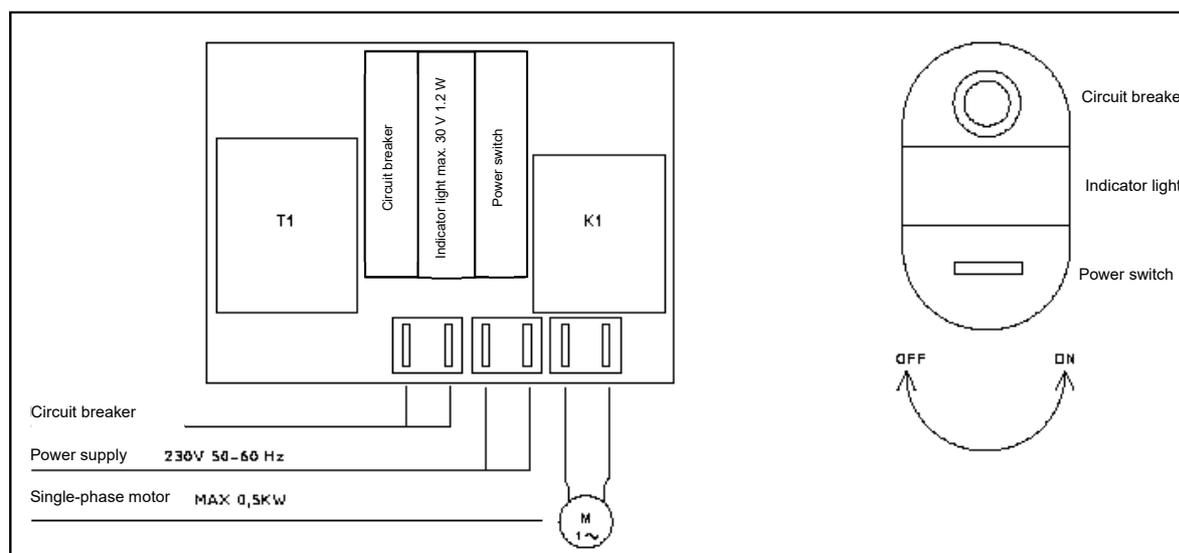
Model	FL-E-800	FL-E-1200	FL-E-2200
Perforated disc Ø:	62 mm	70 mm	82 mm
Capacity/hour approx.:	8 kg	120 kg	220 kg
Dimensions (WxDxH):	325x270x330 mm	230x400x385 mm	240x450x390 mm
Power:	0.4 kW	0.8 kW	1.1 kW
	(short operation)		
Type of current:	230 V	230 V and 400 V	400 V
Net weight:	12 kg	27 kg	36 kg

- Housing, filling tray, collecting tray (only for models FL-E-1200 + FL-E-2200) and cutting set made of stainless steel
- Worm and worm shaft made of cast iron (FL-E-800) or stainless steel (FL-E-1200 + FL-E-2200)
- Easy removal of worm housing, worm and cutting set for easy cleaning
- Including plastic filling plug
- Sound pressure level according to VDI directive 2058: < 70 db (A)

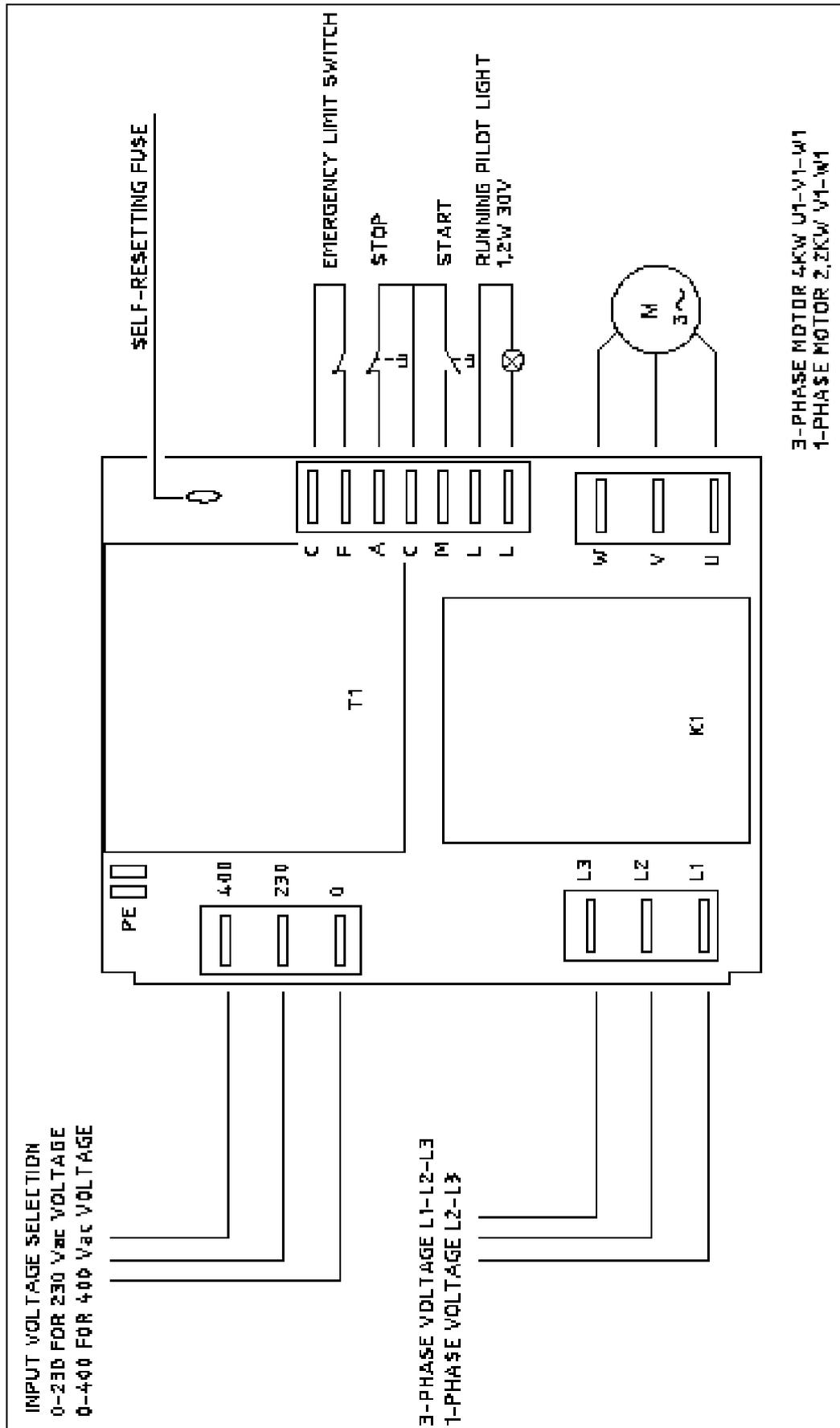
measured at a distance of 1 m and
a height of 1.70 m

CIRCUIT DIAGRAMS

Model FL-E-800-230V

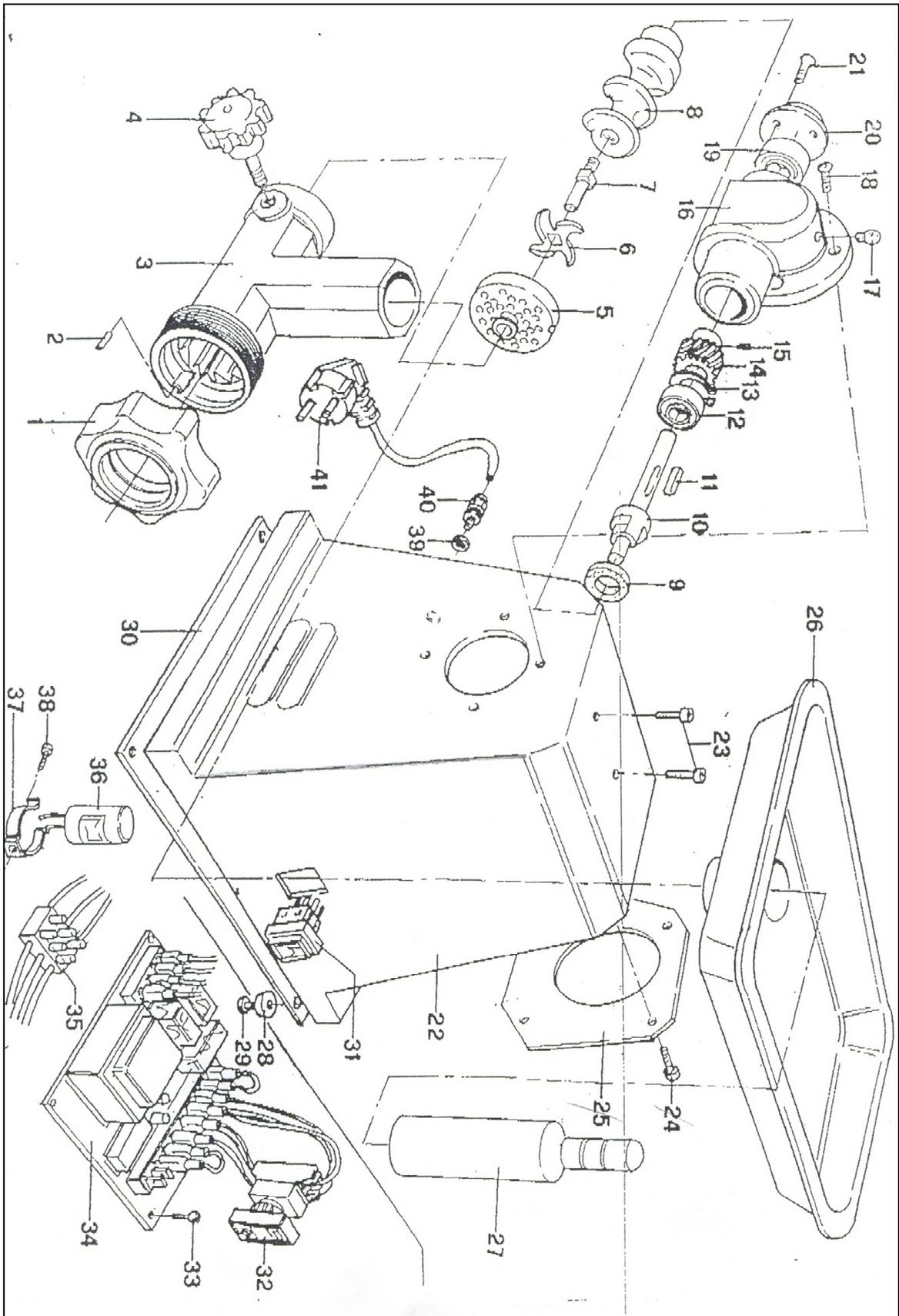


Models FL-E-1200-230V / FL-E-1200-400V / FL-E-2200-400V

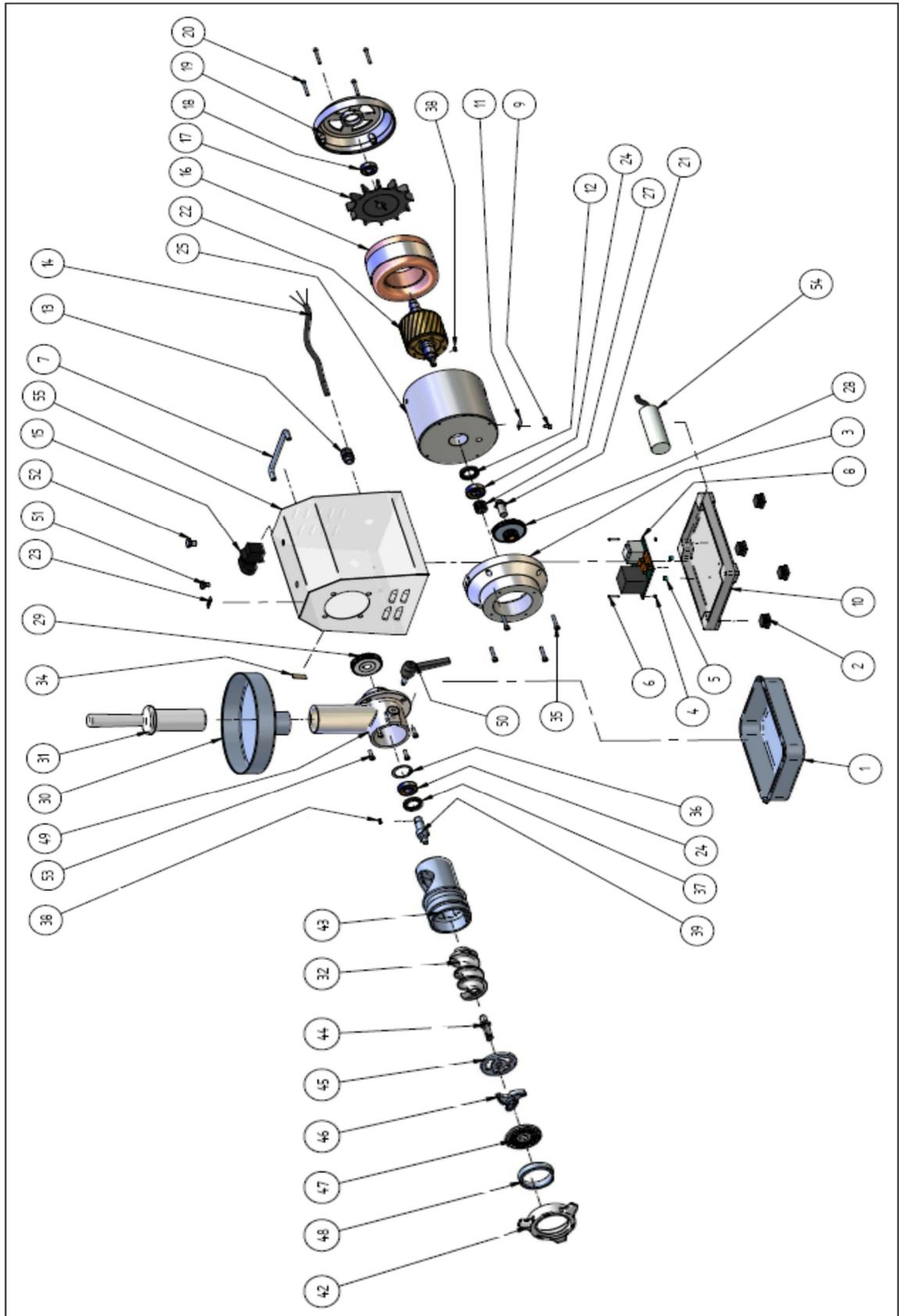


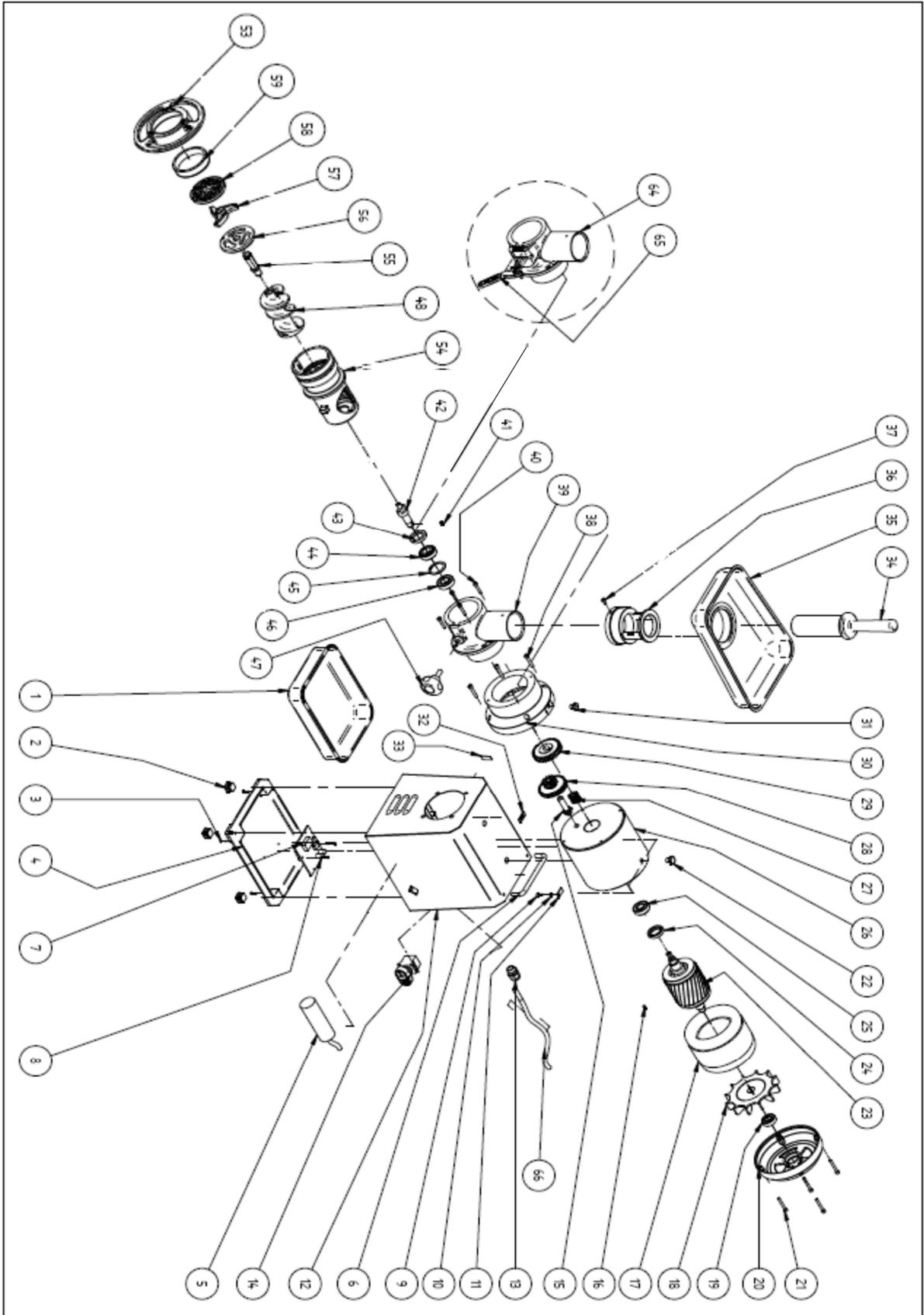
EXPLOSION SIGNS

Model FL-E-800-230V



Model FL-E-1200-230V / FL-E-1200-400V





SPARE PARTS LIST

Model FL-E-800-230V

Number	Description	ADE Item No.
1	Hand wheel	H4318-007
3	Worm housing	H4318-008
4	Locking screw	H4318-009
5	Perforated disc 3 mm, stainless steel	H4318-002
5	Perforated disc 4.5 mm, stainless steel	H4318-004
5	Perforated disc 6 mm, stainless steel	H4318-003
6	Cross blade	H4318-001
8	Worm shaft	H4318-006
26	Filling tray	H4318-005
27	Pusher	H4318-010
34	Circuit board	H4318-011

Model FL-E-1200-230V + FL-E-1200-400V

Number	Description	ADE Item No.
1	Filling tray	H4319-016
2	Feet	H4319-014
30	Filling tray	H4319-015
31	Pusher	H4319-011
32	Worm shaft	H4319-004
42	Hand wheel	H4319-006
43	Worm housing	H4319-005
45	Pre-cutter	H4319-009
46	Cross blade	H4319-007
47	Perforated disc 3.5 mm	H4319-0011
47	Perforated disc 3 mm, stainless steel	H4319-001
47	Perforated disc 4.5 mm, stainless steel	H4319-008
47	Perforated disc 5 mm, stainless steel	H4319-012
47	Perforated disc 6 mm, stainless steel	H4319-002
47	Perforated disc 8 mm, stainless steel	H4319-010
49	Filling funnel	H4319-017
50	Lever locking device	H4319-013

Model FL-E-2200-400V

Number	Description	ADE Item No.
6	Housing, solo	H4320-011
8	Switch board, complete	H4320-010
48	Worm shaft	H4320-003
53	Hand wheel	H4320-005
54	Worm housing	H4320-004
56	Pre-cutter	H4320-008
57	Cross blade	H4320-007
58	Perforated disc 3 mm, stainless steel	H4320-001
58	Perforated disc 4.5 mm, stainless steel	H4320-006
58	Perforated disc 6 mm, stainless steel	H4320-002
59	Spacer ring	H4320-013
	Sausage spout 20 mm	H4320-009

Distributor