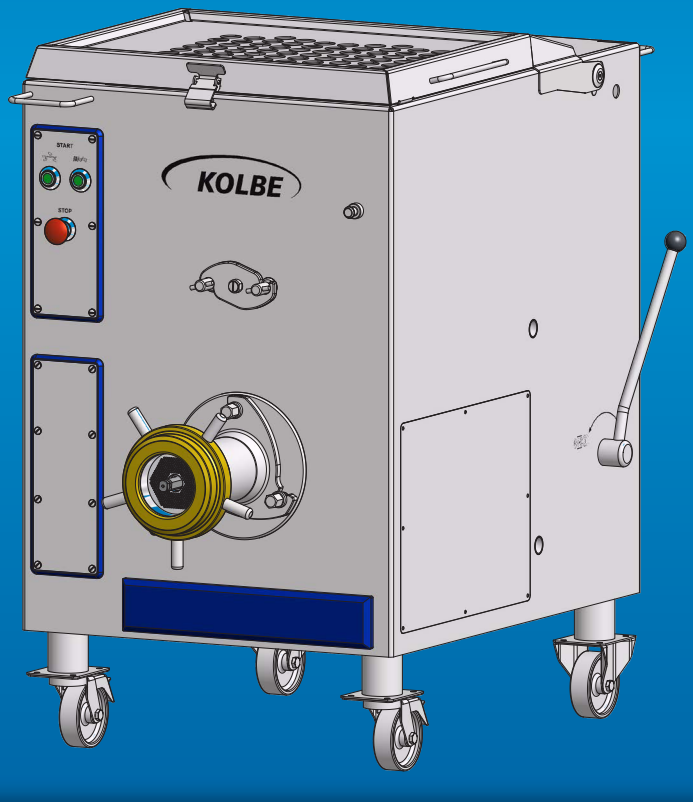
KOLBE

FOODTEC

GB

English

# OPERATING MANUAL


## MW32-120 / MW114-120 MW52-120 / MW130-120

# MEAT MINCERS

Machine No. 127 _ _ _ _

Machine No. 128 _ _ _ _

## Table of Contents:

1. Safety instructions
2. List of hazards
3. Machine data
4. Delivery of the machine
5. Installation of the machine
6. Commissioning
7. Cleaning the machine
8. Warranty
9. Machine type plate
10. Maintenance and inspection
11. Measures in the event of operating malfunction
12. Technical data
13. EC Declaration of Conformity

## 1. Safety instructions!

**Prior to commissioning, the Operating Manual and safety instructions must be carefully read and complied with! Pass on all safety instructions to other users, as well!**

- Any person assigned by the operating company to a function involving the assembly, disassembly, commissioning, operation or maintenance (inspection, maintenance, repair) of KOLBE butcher shop machinery must have read completely and thoroughly understood the respective Operating Manual and, especially, the safety instructions. It is recommended that the operating company establish an appropriate written verification requirement.

- KOLBE butcher shop machines have been manufactured and are operationally safe according to the latest standards of technology. However, hazards can be associated with the machines if they are operated by untrained persons in an improper manner or in applications, for which they were not intended.

- The KOLBE butcher shop machines (meat mincers, bandsaws, portioning units, conveyors, lift/tilt equipment) have been manufactured exclusively for the processing of meat and fish products. Any other usage is deemed to be utilisation not in accordance with the intended purpose. The manufacturer is not liable for damages resulting from such utilisation! The user bears sole responsibility for this risk.

- Utilisation according to the intended purpose also includes compliance with the manufacturer's prescribed operating, service and maintenance requirements.

- The KOLBE butcher shop machines (meat mincers, bandsaws, portioning units, conveyors, lift/tilt equipment) must be operated, serviced or maintained only by authorised persons who have been properly trained and appropriately briefed. These persons must have received special instruction on the potential hazards involved.

- From a safety perspective, the responsibilities for assembly, disassembly, service, commissioning, maintenance and operation must be clearly stipulated in order to avoid confusion with regard to competencies.

- Prior to beginning work, the operator should be familiar with all machine equipment and actuating controls, as well as with their function! During work, time is no longer available for this and it is too late!

- The shutdown procedures prescribed in the Operating Manual must be observed during all work associated with assembly, disassembly, service, commissioning, maintenance and operation.

- All forms of work that could potentially impair the safety of the machine are prohibited.

- The operator must at all times ensure that unauthorised persons are restricted from working on the machine.

- The operator is responsible to ensure that any unforeseen changes, which could potentially impair the safety of the machine, are reported immediately to the supervisor.

- The user is responsible at all times to ensure that the machine is operated only in a fault-free condition.

- Through appropriate instructions and controls, the user must ensure the cleanliness and clear layout of the workplace on and around the machine.

- Arbitrary modifications to, or conversions of the machine are not permitted and exclude any manufacturer liability for damages resulting from such actions.

- Do not reach into the inlet / outlet areas or into operating tooling (e.g. bandsaw blade, mincer feed screw, cross knife, lifting blade, etc.).

- Do not undertake any setting changes to the machine while it is running, but always wait until the machine has come to a standstill.

- Do not remove any electrical or mechanical safety equipment.

- Prior to performing troubleshooting, maintenance or repair activities, disconnect the electrical supply. This work must be carried out only by an authorised specialist (post warning signs on or around the machine as necessary).

- Prior to re-commissioning following machine maintenance or repair, check to ensure that all safety equipment has been re-installed.

- The generally valid occupational safety and accident prevention regulations, as well as other generally accepted safety-related rules, must be complied with.

## 2. List of hazards (residual dangers)

**Be particularly aware of the following danger areas on the machine!**

### 2.1 Mechanical hazards

- Risk of injury on the cutting edges of the cross knife. Do not reach into the outlet to access the rotating cross knife behind the perforated disc (e.g. cuts and abrasions on hands or fingers, or shearing-off of a finger). When removing the knife, cut-resistant gloves must be worn.

- The risk exists of crushing or shearing-off of a finger, hand or lower arm at the intake area of the working screw.

- The risk exists of cutting-off, shearing-off, cutting, catching, tangling, being drawn in or trapped by the rotating working screw, feed screw, mixing arm, loosening shaft or rotating knife behind the perforated disc.

- The risk exists of crushing, shearing-off and jamming of fingers, hands, feet or other body parts when .... or between .... :

- Assembling or disassembling cutting set parts
- Assembling or disassembling the locking nut, mincer feed screw, mincer housing, splatter guard, housing outlet protective cover, feeder screw, mixing arm, loosening shaft, as well as all removable parts
- Working with the combination hook wrench
- Closing the hopper cover or hopper attachment
- The batching trolley and the lift/tilt pylon
- The batching trolley and a wall or other objects
- Releasing the locking devices on mobile models
- Plugging or unplugging CEE plug connections
- Disassembled parts falling or toppling
- All moveable and stationary parts

- The risk of jamming or crushing exists due to machine toppling, in particular on the mobile models.

- The risk of crushing exists between the mobile machine and walls or other objects, as well as between the floor and the castors.

- The risk of being drawn in, crushing or shearing-off of fingers or hands exists during maintenance and inspection work at the machine drive component intake areas with opened inspection covers.

**2.2 Hazard due to instability**

- The risk exists to bodily parts due to impact or crushing, in particular when the machine is mobile or topples. Always bear in mind the need for a secure foundation and stable flooring when installing the machine!

**2.3 Electrical hazards**

- The risk of injury exists due to direct or indirect contact with electricity.

- The risk of injury exists due to defective electrical components or malfunction.

**2.4 Noise hazards**

Risk of hearing loss due to noise emissions greater than 80 dB(A). With the meat mincers MW32-120 / MW114-120 and MW52-120 / MW130-120 the noise level at idle / sound pressure level has been determined according to EN ISO 3746:2011 (constant K=4 dB) to be 68 dB(A), and this results in a sound power level of 80 dB(A).

The values set forth are emission values and do not necessarily represent safe values for the workplace. Although there is a correlation between emission and immission levels, a reliable conclusion as to whether additional safety precautions are necessary according to EN ISO 11690-1/-2 cannot be drawn. Factors present at the workplace, which would influence immission levels, could relate to the peculiarities of the workshop, itself, and other noise sources, such as the number of machines and neighbouring work processes, as well as non-standard operating conditions.

The allowable levels at the workplace can vary from country to country. Nonetheless, this information should help the user to better estimate the hazards and risks involved.

With a noise level of > 80 dB(A), the operator must take appropriate precautions for hearing protection, such as mandating the use of earplugs or other hearing protection devices.

**2.5 Hazards to health**

The risk of harm to human health exists due to low ambient temperatures. Thermal protective clothing should be worn at ambient temperatures < 7 °C.

**2.6 Hazards due to neglect of hygienic principles and cleaning instructions:**

- The risk of harm to human health and unacceptable change in the foodstuffs being processed, such as:

- Spoilage of foodstuffs (food poisoning!)
- Internal chemical burns suffered by the consumer due to cleaning and disinfectant agent residue in the foodstuffs
- Internal injuries to the consumer due to a foreign object
- (e.g. machine parts or parts from other origins)

**2.7 Predictable operator error**

- Non-compliance with installation instructions

- Non-adherence to operator instructions

- Non-observance of danger notices

- Non-compliance with shutdown procedures

- Non-observance of operating instructions

- Non-observance of cleaning instructions

- Non-compliance with maintenance intervals

- Non-adherence to utilisation according to intended purpose

## 3. Machine data

**3.1 Manufacturer**

Paul KOLBE GmbH
FOODTEC
Gewerbestraße 5
D-89275 Elchingen

**3.2 Designation**

Mixer mincer machine with Enterprise or Unger cutting system

**3.3 Product number**

Models MW32-120 / MW114-120
Models MW52-120 / MW130-120

**3.4 Leistungsdaten**

| Models MW32-120 | |
|---|---|
| Cutting system | Enterprise E32 |
| Perforated disc diameter | 100 mm |
| Hopper volume | 120 Ltr |
| Output capacity with 3 mm perforated disc approx. | 1700 Kg/h |
| Main drive motor / IP55 | 5,5 kW |
| Mixer drive motor / IP55 | 1,1 kW |

| Models MW114-120 | |
|---|---|
| Cutting system | Unger D114 |
| Perforated disc diameter | 114 mm |
| Hopper volume | 120 Ltr |
| Output capacity with 3 mm perforated disc approx. | 1700 Kg/h |
| Main drive motor / IP55 | 5,5 kW |
| Mixer drive motor / IP55 | 1,1 kW |

| Models MW52-120 | |
|---|---|
| Cutting system | Enterprise E52 |
| Perforated disc diameter | 130 mm |
| Hopper volume | 120 Ltr |
| Output capacity with 3 mm perforated disc approx. | 2000 Kg/h |
| Main drive motor / IP55 | 7,5 kW |
| Mixer drive motor / IP55 | 1,1 kW |

| Models MW130-120 | |
|---|---|
| Cutting system | Unger E130 |
| Perforated disc diameter | 130 mm |
| Hopper volume | 120 Ltr |
| Output capacity with 3 mm perforated disc approx. | 2000 Kg/h |
| Main drive motor / IP55 | 10,0 kW |
| Mixer drive motor / IP55 | 1,1 kW |

**Each KOLBE product is subject to a thorough acceptance test run prior to shipping, whereby all functions and safety equipment are checked and documented.**

## 4. Delivery

For delivery, the machine will be bolted onto a wood pallet and shrink-wrapped in polyethylene protective film. Machine accessories, such as adjustable machine feet, fixed and steering castors, combination hook wrench, splatter guard, KOLBE mincer plunger, Operating Manual, etc., are delivered in an accompanying carton.

(We use reusable and recyclable packaging exclusively.)

Please inform us or the delivery company immediately if the delivered contents do not agree with the packing list.
**In the event of transport damage, contact the transport company immediately for claims assessment.**

## 5. Installation of the machine

**5.1 Installation instructions**

Remove the shrink-wrapped foil and dismantle the machine from the shipping pallet by removing the four bolts. Carefully lift the machine with a forklift or crane apparatus and remove the wood pallet. Bolt the four adjustable machine feet (69) supplied to the threaded holes in the machine legs or, depending on the mobile machine model, mount the two rear fixed castors (8) and the two forward steering castors (9). The adjustable machine feet are set accordingly by means of the screw threads to compensate for uneven floor surfaces.

The installation site must be selected based on load bearing capacity of the foundation or floor covering with respect to the weight of the machine.

Kolbe meat processing machinery are to a certain extent dangerous machines, and may therefore only be installed and operated in areas not accessible to the general public. Moreover, these machines are intended only for artisanal and industrial use.

Kolbe meat processing machinery are not suitable for use in potentially explosive environments.

For hygienic reasons, the machine should be installed in a cooled or air conditioned room. Besides the floor space required for the machine, additional space must be provided for user needs equating to at least 1 m x 1.5 m dependent on operator orientation (front or side).

The machine must be operated only in a room with a minimum illumination of 500 Lux.
All components for assembly or disassembly weigh less than 20 kg so that height-compensating transport equipment is not necessary.

**5.2 Connection of the machine**

Compare motor voltage (see rating plate) with the supply voltage. Connection must be made by an authorised

electrician. (Observe local regulations!)
According to EN 60204, the machine is either to be connected to a plug connection or a mains switch is to be installed in the fixed supply line.

**5.3 The electrical circuit diagrams for the respective machine configurations are listed as follows:**

**5,5 kW + 1,1 kW** - drive motors

| | |
|---|---|
| Nr. 4SB532/55-4775N | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4775N-230V | 230/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4777FUI-N | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4777FUI-N-RA | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4778N-FUI | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4771N-FUI | 230/24 VAC (3Ph/N/PE) |

**7,5 kW + 1,1 kW** - drive motors

| | |
|---|---|
| Nr. 4SB532/55-4774N | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4774N-RA | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4777FUI-N | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4777FUI-N-RA | 400/24 VAC (3Ph/N/PE) |

**10 kW + 1,1 kW or 1,5 kW** - drive motors

| | |
|---|---|
| Nr. 4SB532/55-4776N | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4776N-RA | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4779FUI-N | 400/24 VAC (3Ph/N/PE) |
| Nr. 4SB532/55-4779FUI-N-RA | 400/24 VAC (3Ph/N/PE) |

Connection cable 5 x 6.0 $mm^2$
(3 phase + protective earthing conductor, yellow/green + neutral conductor, blue)

**When installing the electrical connection, check the direction of mincer feed screw rotation. When facing the mincer, the mincer feed screw should rotate in a counter-clockwise direction.**

# 6. Commissioning

**Prior to commissioning the machine, thoroughly read the Operating Manual. Please also refer to the pictures on pages 14 to 25.**

### 6.1 General

KOLBE mixer mincers with Enterprise or Unger cutting systems are designed for the production of minced meat products and sausages. The solid and functional machine construction also allows for the processing of coarsely ground output product, although the hopper thereby should be filled only to a maximum of two-thirds its holding capacity. The separately switchable mixer unit serves the raw product blending of different meat types, as well as the mixing of herbs and spices prior to mincing. The mixing blade, the mincer feed screw and the mincer housing are designed in such a manner that the meat is fed quickly and gently to the cutting set, where it minced to the desired granulation.
The standard mobile models are particularly suited to applications in cold storage rooms.

KOLBE mixer mincers fulfil the highest requirements for hygiene, cleanliness, operating safety and practice-oriented detailed solutions, while also meeting demands for user-friendliness.

### 6.2 Authorised intended use

KOLBE mixer mincers are to be deployed only in food processing facilities for the production of fresh or slightly frozen minced meat products. Any other application, incorrect handling, overloading or deficient servicing and maintenance is considered to be improper usage and represents a hazard to persons and property.

Included in the KOLBE bandsaw standard scope of delivery is a universally combinable bandsaw blade with 6.0 mm toothing with hardened tooth tips, which is suitable for use with meat, fish or bone products in a fresh or frozen state. On request, fish saw blades can also be supplied with 8.0 mm toothing with hardened toot tips for fresh or frozen fish, as well as wavy edge bandknife blades with a concave tooth profile for fresh meat without bones.
(see KOLBE price list)

The KOLBE machine (grinders, bandsaws, portioning solutions, etc) operator must be trained in the butcher's craft (butcher, butcher salesperson etc.), fish processing, food processing industry or a training of comparable quality which teaches the proper and safe operation of the machinery. Work on the KOLBE machines is in some cases hazardous and can therefore be linked to the risk of accidents.

To protect young trainees aged between 15 and 18 and enable them to achieve their training objective, work on these machines is only allowed under the supervision of a qualified trainer, ensuring that operating instructions and warnings about all machine hazards have been given.

Trainees of over 18 years of age may only work on these machines after having received specialized instructions and warnings about all hazards (see operating instructions).

Trainees under 15 years are not allowed to work on such machines.

Basically, people are not permitted to work on such a machine if it exceeds their physical or psychological capacity!

### 6.3 Product feed for mincing

The pre-partitioned product must be filled into the meat mincer hopper, whereby it must be ensured that the hopper is filled only to a maximum of two-thirds its holding capacity. Subsequently close the protective cover (5) and switch the mixing process ON according to (6.4). During mincing, the mixing blade (62) supplies the mincer feed screw (21,27,36 or 41), which conveys the meat quickly and gently to the cutting set.

With the Unger cutting system, the meat is cut to the desired granulation after a **one-time cutting passage**. With the Enterprise cutting system, a homogeneous and appetizing minced meat texture is realised after **two cutting passages**.

### 6.4 Switching the machine ON

The machine ON and OFF buttons are located on the left-front, upper side of the machine stand, while the mains switch (4) for start-up is located on the rear side of the

machine. To initiate mixing, the green ON button (1) must be actuated, whereby the mixing blade (62) begins blending the raw product while turning in a clockwise direction.

For subsequent mincing, first actuate the red OFF button (3), then the green ON button (2). During mincing, the mixing blade (62) turns in the opposite direction and the mincer feed screw (21,27,36 or 41) conveys the product being minced.

Mixing = depress green push-button (1)
OFF = depress red mushroom-head button (3)
Mincing = depress green push-button (2)

**Operate the meat mincer at all times only in its filled condition, as otherwise the cutting set could be damaged due to running dry. Check the direction of mincer feed screw rotation!**

### 6.5 Mixing interval circuit (optional)

Depending on the controller model, the mixing blade (62) can be set optionally to rotate to the right and to the left as it blends the raw product at cyclical intervals during the mixing process. At the same time, the working screw (21,27,36 or 41) momentarily rotates in a reverse direction at cyclical intervals. Start the mincing process with the green ON button (2) and stop it with the red mushroom-head button (3).

Mixing = depress green push-button (1)
OFF = depress red mushroom-head button (3)
Mincing = depress green push-button (2)

### 6.6 Drive speed control (optional)

Depending on the model of the controller, it is possible to infinitely variably control the speed of both drives (mincer feed screw and mixing blade) by means of a rotary potentiometer (11+12 or 15+16) via a frequency converter controller.
For this, the frequency converter controller is actuated to the operationally ready status via the ON button (13 or 17) while the mixing and mincing processes are started as described in point 6.4. Drive speeds are infinitely variably controlled, independent of each other, via the individual rotary potentiometers (11+12 or 15+16). The mere Stop-function is actuated via the red mushroom-head STOP button (3), while the frequency converter controller, meaning the system, is switched off via the OFF button (14 or 18).
(FC = frequency converter)

| | | |
|---|---|---|
| Mincer feed screw | = | rotary potentiometer (12 or 16) |
| Mixing blade | = | rotary potentiometer (11 or 15) |
| System on (ON) | = | green illuminated button (13 or 17) |
| System off (OFF) | = | red push-button (14 or 18) |

### 6.7 Mixing time control (optional)

The length of the mixing time can be infinitely variably set via the optional potentiometer (19) from approx. 2 to 30 minutes, meaning that, after expiration of the set time, the mixing process will switch off automatically.
Possible options are dependent on the machine model and type of controller.

### 6.8 Protective cover

The machine's upper hopper protective cover (5) is coupled with a magnetic sensor in accordance with CE safety regulations so that the meat mincer can be switched ON only when the cover (5) is closed and, accordingly, will switch OFF automatically as soon as the cover (5) is opened.

### 6.9 Disassembly of the working screw

- Switch the machine OFF, wait for standstill and disconnect the primary electrical power (mains switch)
- Loosen and remove the locking nut (6) using the combination hook wrench (58, 59, 80 or 81)
- Use the ejector lever (90), if so equipped, to release the mincer feed screw and cutting set.
- Remove the insert ring for cutting systems D114 / E130
- Loosen the working screw (21, 27, 36 or 41) using the combination hook wrench (58, 59, 80 or 81)
- Remove the cutting set and working screw

**Open the locking nut (6) only with the combination hook wrench (58, 59, 80 or 81) supplied. Do not use a hammer or other heavy object! When working in the vicinity of the cross knife, cut-resistant gloves should be worn.**

### 6.10 Disassembly of the mincer housing

- Switch the machine OFF, wait for standstill and disconnect the primary electrical power (mains switch)
- Remove the working screw (21, 27, 36 or 41) as described in (6.9)
- Loosen all three front attachment bolts (25) using the combination hook spanner (58, 59, 80 or 81)
- Remove the mincer housing (20, 26, 35 or 40) while rotating it slightly to the right
- Assembly takes place in the reverse sequence, whereby the marking "Up/Top" on the mincer housing must be observed!

**During assembly, proper seating of the mincer housing must be ensured, the marking "Up/Top" on the mincer housing must be observed and the mincer housing attachment bolts (25) must be tightened securely!**

### 6.11 Disassembly of the mixing blade

- Switch the machine OFF, wait for standstill and disconnect the primary electrical power (mains switch)
- Open the protective cover (5)
- After loosening both front tommy nuts (60), remove the mixing blade bracket (61) towards the front while rotating it slightly to the right and while simultaneously holding the mixing blade (62) firmly with the other hand.
- Pull the mixing blade (62) out of the rear attachment and remove it by tilting it slightly upwards.
- Installation takes place in the reverse sequence

**Ensure the proper assembly and secure attachment of the mixing blade bracket (61) at all times!**

### 6.12 Insertion of the coded cutting set variants

**Only outlet-sided perforated discs with a max. bore hole diameter of 8.0 mm are to be used with the coded cutting system. For safety reasons, regrinding of the discs is permissible only to a disc thickness of 8 mm!**

Fault-free operation of the meat mincer is warranted only when the cutting tools are properly inserted.
(See the pictures on pages 19+20)

**Enterprise cutting system, size E 32 / E 52 - coded**

- Perforated disc with 4 slots and hub (23) / (38)
- Cross knife (24) / (39)

The locking nut (6) must be tightened **firmly** using the combination hook wrench (58) / (80) so the cross knife (24) / (39) lies securely on the perforated disc (23) / (38). Only then can a clean-cut of the minced meat be warranted.

**Unger cutting system, size D 114 / E 130 - coded**

- Pre-cutter (29) / (43)
- Cross knife (32) / (46)
- Perforated disc, coarse incl. 1 slot (30) / (44)
- Cross knife (32) / (46)
- Perforated disc, fine incl. 2 slots (31) / (45)
- Insert ring incl. stub (33 or 34) / (47 or 48)

Tighten the locking nut (6) by hand only so the cross knife (32) / (46) will lie on the perforated discs (29, 30, 31) / (43, 44, 45) and cut without causing excessive abrasion.
**The combination hook wrench (59) / (81) must be used only for opening the Unger locking nut.**

### 6.13 Insertion of the uncoded cutting set variants

**Use of the uncoded cutting system is permitted only in conjunction with the use of a housing outlet protective cover (10), meaning that outlet-sided perforated discs with a max. bore hole diameter of greater than 8.0 mm may also be used. For safety reasons, regrinding of the discs is permissible only to a disc thickness of 8 mm!**

Fault-free operation of the meat mincer is warranted only when the cutting tools are properly inserted.
(See the pictures on pages 17+18)

**Enterprise cutting system, size E 32 / E 52**

- Perforated disc with 3 slots and hub (23) / (38)
- Cross knife (24) / (39)

The locking nut (6) must be tightened **firmly** using the combination hook wrench (58) / (80) so the cross knife (24) / (39) lies securely on the perforated disc (23) / (38). Only then can a clean-cut of the minced meat be warranted.

**Unger cutting system, size D 114 / E 130**

- Pre-cutter (29) / (43)
- Cross knife (32) / (46)
- Perforated disc, coarse (30) / (44)
- Cross knife (32) / (46)
- Perforated disc, fine (31) / (45)
- Insert ring (33 or 34) / (47 or 48)

Tighten the locking nut (6) by hand only so the cross knife (32) / (46) will lie on the perforated discs (29, 30, 31) / (43, 44, 45) and cut without causing excessive abrasion.
**The combination hook wrench (59) / (81) must be used only for opening the Unger locking nut.**

**Please note that the perforated discs and cross knives are parts subject to wear. They will require regrinding at time intervals determined by and adapted to the operating conditions. Only sharp tools provide a good cut while conserving the knife studs (22,28,37 or 42), as well as the overall machine.**

### 6.14 Housing outlet protective cover (optional)

To comply with applicable safety regulations, the use of a housing outlet protective cover (10) is absolutely essential when using outlet-sided perforated discs with bore hole diameters greater than 8.0 mm. It covers the outlet-sided perforated disc and thereby prevents direct access to the perforated disc by fingers or hands. A magnetic sensing safety device on housing outlet protective cover (10) switches the meat mincer automatically OFF as soon as it is opened and prevents it from being switched ON unless the protective outlet cover is closed.
When opened, the housing outlet protective cover can be removed for cleaning purposes towards the front.

**As safety regulations evolve, it is possible that the use of housing outlet protective covers overall will become compulsory at some point.**

### 6.15 Motor protection

The machine contactor control is outfitted with overcurrent relays. In the event of an overload resulting in an inadmissible increase in current consumption in the motor windings, the machine will automatically shutdown.
This is the case, for example, with phase failure, insufficient cooling or machine blockage.

If the automatic overcurrent relays have triggered, they will reactivate automatically after a cooling-down period.
The machine can then be switched back ON.
If the cause of the overload has not been rectified, however, the overcurrent relays will trigger once again after a short period of time.
In the event of frequency converter control of the machine, an overload can result in a malfunction shutdown. In this case, the machine must be reset by switching the supply voltage OFF for 5 minutes via the mains switch.

### 6.16 Mobile and stationary machine models

When outfitting a stationary machine with four adjustable feet, it must be ensured that a suitable lifting device (e.g. lift truck, forklift, crane, etc.) and transport security are available.

The mains plug on the mobile version, which includes two

steering castors (9) with locking devices and two fixed castors (8), must always be removed prior to moving the machine. The supply cable, incl. CEE plug, must be protected from damage during movement. Once moved, always set the locking devices on the steering or fixed castors by pressing them downwards.

### 6.17 Hopper cooling (optional)

As an option, the KOLBE mixer mincer can be supplied with hopper cooling, incl. protective cover with shock-resistant viewing glass.
The temperature in the filling hopper is regulated between 2 - 4 °C by means of a thermostat.

### 6.18 Hopper attachment incl. access protection (optional)

As an option, the KOLBE mixer mincer can be supplied with a hopper attachment incl. frame shutoff (67) in combination with a KOLBE batching unit (69) with a 200 litre batching trolley (70). During installation, according to safety regulations, it must be ensured that the clearance between the protective outlet cover (10) and the upper edge of the batching trolley (70) is not greater than 50 mm.

As an additional option for the hopper attachment version, and with consideration given to applicable safety dimensions, a retractable steel grating step (68) mounted in the machine's base frame can also be supplied. This steel grating step enables better access to the filling hopper for cleaning when the hopper attachment (67) is folded back.

### 6.19 Remote operation (optional)

If desired, a remote operation foot switch pedal (76) with Stop-function can be supplied. This makes possible the stopping of combined units, for example the mixer mincer with a portioning unit (74), directly from downstream packaging equipment (77).

### 6.20 Separating device (optional)

It is possible to significantly improve the quality of the meat product by removing tendons and sinews and separating out cartilage tissue by means of a distinct separating device in the cutting set. Application of the Turbocut separating device is pictured on page 20.

## 7. Cleaning the machine

**Prior to performing any cleaning tasks, disconnect the primary electrical power (remove the mains plug; position the mains switch to OFF).**

**First wait for the mincer feed screw and mixing blade to come to a standstill before carrying out any work on the machine. Wear protective goggles. When performing cleaning tasks in the vicinity of the cross knife, cut-resistant gloves should be worn.**

### 7.1 Cleaning according to a Cleaning plan

The machine's non-rusting design simplifies service and maintenance of the meat mincer. For functional and hygienic reasons, the meat mincer should be cleaned on a daily basis according to a Cleaning plan (see page 12).
Shorter cleaning intervals may need to be adapted to the type of application and hygiene regulations. Only those cleaning agents approved for use with food processing may be used.

### 7.2 Access openings for cleaning

Meat juices resulting from the mincing process can flow out via two laterally positioned openings (7) for protection of the main gearing or the mixing blade gearing in the event of subsiding shaft sealing. These openings should be cleaned out with a water hose during daily cleaning activities.

### 7.3 Cleaning instructions

- Switch the machine OFF, wait for standstill and disconnect the primary electrical power
- Remove and clean the locking nut (6)
- Remove the cutting set and mincer feed screw (21,27,36 or 41) for cleaning
- Remove and clean the mincer housing (20,26,35 or 40)
- Remove and clean the mixing blade bracket (61) and mixer blade (62)
- Thoroughly clean the protective cover (5) and hopper
- Rinse the cleaning access openings (7) with a water hose
- Clean and subsequently lightly lubricate the insertion zones on the mincer housing (20,26,35 or 40) and machine stand
- Observe the detailed cleaning instructions on page 13.

**All KOLBE machines are suited to cleaning with hose and jet water spraying. However, it must be ensured that any electrical components and shaft sealing rings on the rear of the mincer housing, as well as the working screw attachment openings on the mincer stand, are exposed only momentarily to the hose water spray.**

## 8. Warranty claims and liability for defects

8.1 We provide a 24 month warranty on our products according to German law. Prerequisites for this are single-shift operations and completion of a machine service check after 12 months, as calculated from the date of delivery from the factory, performed by KOLBE or an authorized service technician.

8.2 The warranty provides for the repair or replacement through our facilities or specifically authorised repair workshops, of all products shown to be defective during the period of the warranty due to verifiable material or manufacturing defects.

8.3 Excluded from any liability for defects are all parts subject to natural wear and tear, as well as the consequences resulting from excessive loading, improper cleaning, faulty handling and non-compliance with the Operating Manual.

8.4 We assume absolutely no responsibility for arbitrary tampering of the object of any kind by the customer or a third party without our specific order to do so.

8.5 Products manufactured by us are subject to the provisions of the EC Machinery Directive.

## Cleaning instructions

**For KOLBE mixer mincer machines**
**Machine zones requiring special and careful cleaning:**

| Cleaning zones | Cleaning agent | Procedure | Device | Instructions |
|---|---|---|---|---|
| Removable parts:<br>• Mincer feed screw, cutting set, removable mincer housing, feed screw, mixing blade, locking nut, loosening device, etc.<br>• Mincer housing attachment bolts | according to the Cleaning plan | manually, mechanically | Scrub brush, Brush | Disassemble parts and clean in a tub or dishwasher, thoroughly clean out threads with a scrub brush or brush. |
| Mincer stand and mincer hopper:<br>• Housing outlet protective cover (if available)<br>• Mincer housing attachment and transfer housing<br>• Outer and inner areas of the mincer bowl or filling hopper<br>• Mincer base frame and retractable trays (if available)<br>• Rear, side inspection access covers | according to the Cleaning plan | manually, mechanically | Scrub brush, Brush | Thoroughly clean outer and inner areas with a scrub brush or brush. Thoroughly clean the base frame with a scrub brush or brush. Thoroughly clean outer contours and inspection covers with a scrub brush or brush. |

KOLBE
FOODTEC

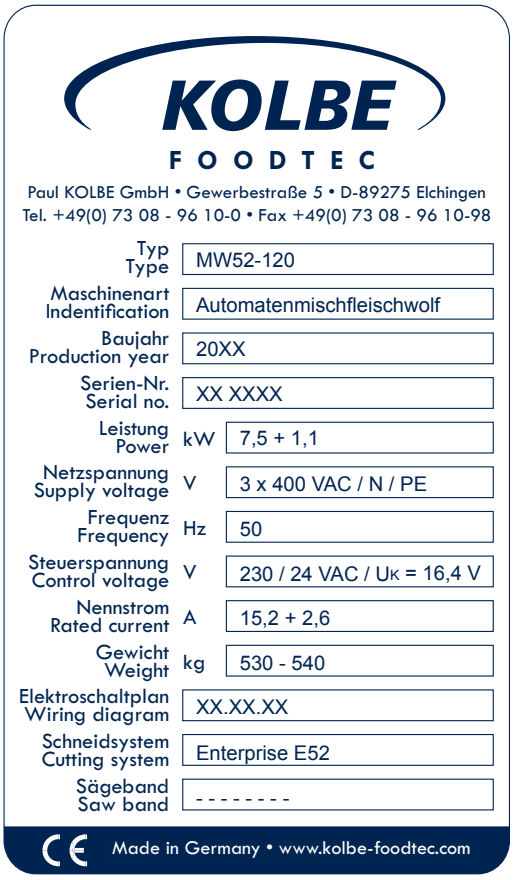
## Cleaning plan

**For KOLBE butcher shop machines**
**Attention: Read and comply with the Operating Manual!**

| Work steps | Cleaning agent | Procedure | Device | Instructions |
|---|---|---|---|---|
| Coarse cleaning, remove product residue, as needed after disassembly of small parts | | manually, mechanically | Putty knife, Scraper | Begin directly after completion of production |
| Thorough alkaline cleaning or, as needed, acidic cleaning instead of alkaline cleaning | 2-5 %, e.g.:<br>Henkel Hygiene Co.<br>• P3-topax 19<br>• P3-topax 66<br>Goldschmidt Co.<br>• Somplex grease solvent<br>For aluminium parts, e.g.:<br>Henkel Hygiene Co.<br>• 2-5 % P3-topax 12<br>Goldschmidt Co.<br>• Somplex F | foaming or manual<br>Exposure time approx. 15 minutes | Low pressure foaming unit<br>Scrub brush, tub, Hand-held sprayer | |
| Rinse | Water | Low pressure less than 30 bar<br>Temperature 50-60 °C | Low pressure unit<br>Water hose | |
| Check | | visual cleanliness | | |
| Thorough acidic cleaning | e.g.:<br>Henkel Hygiene Co.<br>• 3-6 % P3-topax 56<br>Goldschmidt Co.<br>Somplex acidic foam | manual, foaming<br>Exposure time approx. 15 minutes | Low pressure foaming unit<br>Hand-held sprayer<br>Scrub brush for removing scale deposits | as needed instead of alkaline cleaning.<br>Heed specific instructions from the manufacturer:<br>Check critical locations and problem areas |
| Rinse | Water | Low pressure less than 30 bar<br>Temperature 50-60 °C | Low pressure unit,<br>Water hose | |
| Check | | visual cleanliness | | Heed specific instructions from the manufacturer:<br>Check critical locations and problem areas |
| Disinfect | according to the product datasheet 0.5-2 %, e.g.:<br>Henkel Hygiene Co.<br>• P3-topax 99<br>• P3-topax 91<br>Goldschmidt Co.<br>• TEGO 2000<br>• TEGO IMC | spray, foaming<br>Exposure time according to the product datasheet | Low pressure foaming unit,<br>Spray gun | After completion of all cleaning measures to be performed in the room |
| Wash-up | Drinking water | Low pressure less than 30 bar | Low pressure unit<br>Water hose | |
| Dry | | | | |
| Service | P3 care oil | spray | Spray gun | Outer machine surface |

This cleaning plan is valid only for machines comprised primarily of non-rusting materials. The use of other active substances requires coordination with the respective cleaning agent manufacturer. The information in the cleaning plan is based on single-shift operations.
For multi-shift operations, cleaning intervals must be adapted accordingly.

## 9. Machine type plate (example)




① Motor drive capacities are dependent on machine configuration.

② $U_K$ = Control transformer short-circuit voltage.

③ Weight information is dependent on machine configuration, from - to.

④ Cutting system according to type of machine

## 10. Maintenance and inspection

**Prior to performing any maintenance or inspection tasks, disconnect the primary electrical power. Remove the mains plug; position the mains switch to OFF.**

**First wait for the mincer feed screw and mixing blade to come to a standstill before carrying out any work on the machine. Wear protective goggles. When performing work in the vicinity of the cross knife, cut-resistant gloves should be worn.**

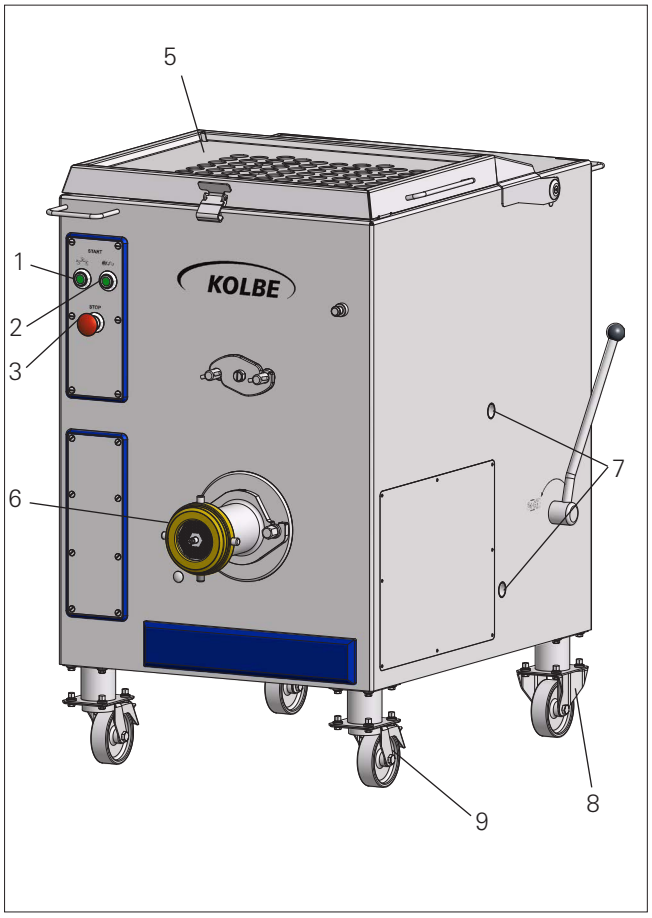
- Ensure compliance with the safety instructions when performing maintenance or inspection tasks.
- Along with many other factors, the operational safety and service life of the machine are dependent upon proper execution of the maintenance function.
- Operating malfunctions resulting from insufficient or improper maintenance can lead to high repair costs and lengthy periods of machine downtime. For this reason, regular maintenance is indispensable.
- The following table contains time, inspection and maintenance related information and instructions for normal machine deployments.
- Due to the widely varying operating conditions, however, a definite schedule for wearing part checks, servicing or maintenance cannot be established in advance. A practical inspection schedule should be established based on the specific on-site operating conditions.
- Our specialists are available and would be pleased to offer assistance in this area.

### 10.1 Maintenance and inspection list

| Inspection interval | Inspection points / Service notes |
|---|---|
| daily | • Check cutter sharpness and cutting set wear<br>• Check safety equipment for function, e.g. check the housing outlet protective cover, removable hand guard, hopper protective cover or attachment, incl. frame protection or light barrier protection, for shutdown function.<br>• Clean thoroughly according to Cleaning plan |
| monthly | • Check mincer feed screw knife studs for wear, renew or replace as needed |
| annually | • Check mincer feed screw and mincer housing for wear, renew or replace as needed<br>• Check gearbox mounting (in the event of bearing damage, replace ball bearing)<br>• Check motor mounting (in the event of bearing damage, replace ball bearing)<br>• Check v-belts, renew or replace as needed |
| every 5 to 6 years | • Change gearbox oil |

## 11. Measures in the event of operating malfunction

| Fault | Cause | Remedy |
|---|---|---|
| Meat mincer cannot be switched ON | • Mains plug not plugged in<br>• Mains supply interrupted<br>• Primary circuit protection has triggered<br>• Thermal contacts in the motor or overcurrent relay in the controller have triggered<br>• "ON" push-button defective<br>• Electronic controller defective<br>• Frequency converter malfunction shutdown | • Plug in the mains plug<br>• Commission an electrician<br>• Renew or replace circuit protection device (commission an electrician)<br>• Allow motor to cool down, then repeat switch-ON procedure<br>• Commission an electrician<br>• Commission an electrician or customer service<br>• Switch supply voltage OFF for approx. 5 minutes via the mains switch, then repeat switch-ON procedure |
| Thermal contacts in the motor or overcurrent relay in the controller have triggered, meaning the meat mincer has switched OFF | • Meat mincer has overloaded<br>• Meat mincer is blocked<br>• 2-phase operation (motor humming) | • Allow motor to cool down, then repeat switch-ON procedure<br>• Remove blockage from meat mincer, allow motor to cool down<br>• Commission an electrician |
| Mincer feed screw is blocked and drive motor is humming | • Mincer feed screw is jammed or blocked (e.g. cross knife or perforated disc is broken) | • Shutdown meat mincer immediately and remove blockage from mincer feed screw |
| Reduction of cutting quality | • Cutting set is dull<br>• Mincer feed screw has too much play in the mincer housing (wear)<br>• Mincer feed screw and mincer housing have too much play (wear) | • Regrind or replace perforated discs and cross knife, renew or replace cutting blades as needed<br>• Renew or replace mincer feed screw<br>• Renew or replace mincer feed screw and mincer housing |
| High degree of wear on cutting set | • Knife studs worn down (wear)<br>• Mincer feed screw and mincer housing have too much play | • Renew or replace knife studs<br>• Renew or replace mincer feed screw and mincer housing |
| Meat mincer emits loud noises | • Ball bearing or motor bearing defective<br>• Mincer housing not secure, meaning it has come loose<br>• Motor damage | • Customer service required<br>• Slide in the mincer housing to the stops and tighten securely<br>• Customer service required |



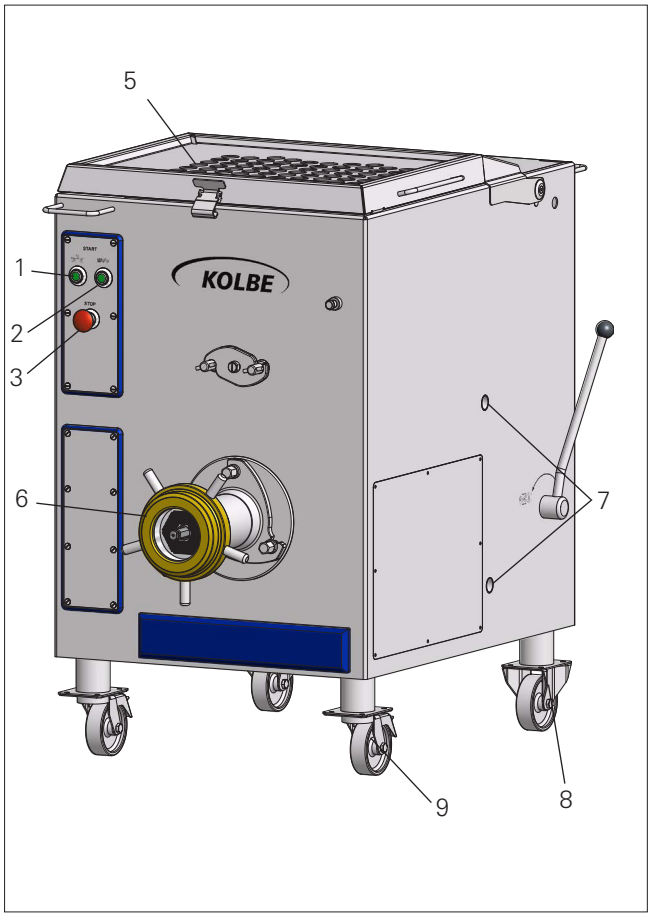

## Mixer mincer machines
## MW32-120 / MW52-120

The KOLBE MW32-120 / MW52-120 mixer mincer machine with Enterprise E32 / E52 cutting system is designed for the production of large quantities of minced meat for supermarkets and stores.

The standard mobile models are particularly suited to applications in cold storage rooms.
The non-rusting design of the machine stand, mincer hopper, mincer housing, mincer feed screw and locking nut meets the highest hygiene requirements.

The powerful **5.5 kW / 7,5 kW drive performance** and motor protection features, along with the limit switch secured protective cover (5), guarantee a high degree of operational safety.

1 = ON - button for mixing
2 = ON - button for mincing
3 = OFF - mushroom-head STOP button
5 = Protective cover
6 = Locking nut
7 = Access openings for cleaning
8 = Fixed castors
9 = Steerable castors with Allstopp locking devices



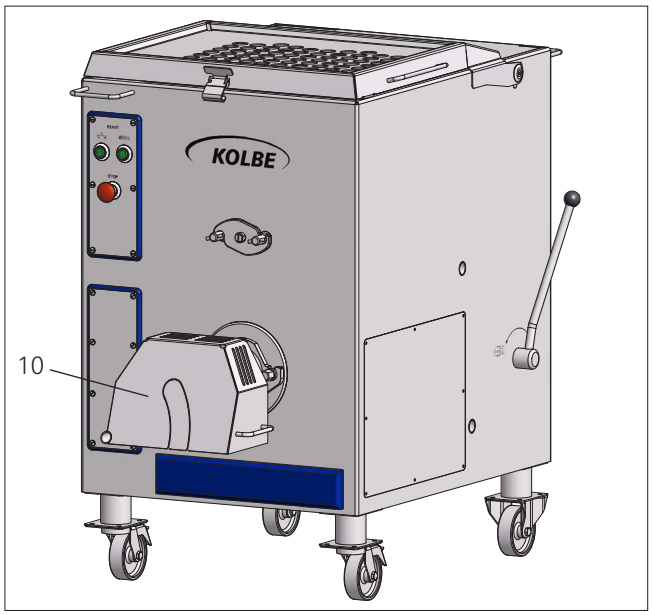

## Mixer mincer machines
## MW114-120 / MW130-120

The KOLBE MW114-120 / MW130-120 mixer mincer machine with Unger D114 / E130 cutting system is designed for the production of large quantities of meat and sausage products for trade shop operations.

The standard mobile models are particularly suited to applications in cold storage rooms.
The non-rusting design of the machine stand, mincer hopper, mincer housing, mincer feed screw and locking nut meets the highest hygiene requirements.

The powerful **5.5 or 10.0 kW drive performance** and motor protection features, along with the limit switch secured protective cover (5), guarantee a high degree of operational safety.

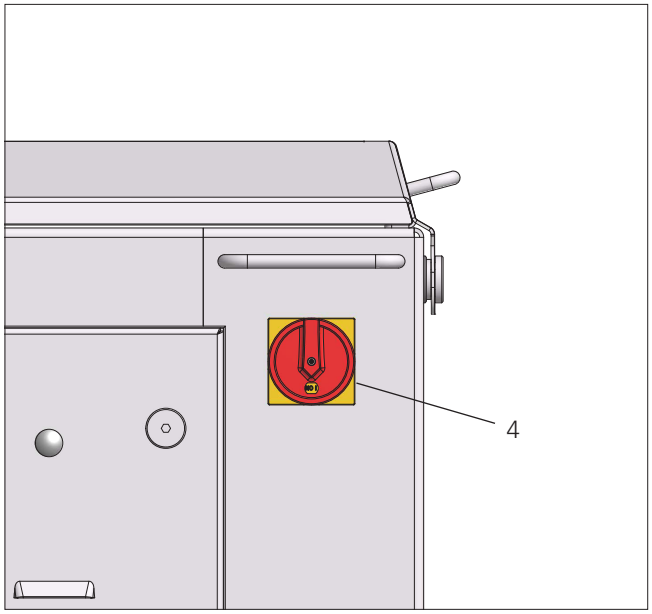
1 = ON - button for mixing
2 = ON - button for mincing
3 = OFF - mushroom-head STOP button
5 = Protective cover
6 = Locking nut
7 = Access openings for cleaning
8 = Fixed castors
9 = Steerable castors with Allstopp locking devices




## Housing outlet protective cover (optional)

To comply with applicable safety regulations, the use of a housing outlet protective cover (10) is absolutely essential when using outlet-sided perforated discs with bore hole diameters greater than 8 mm.

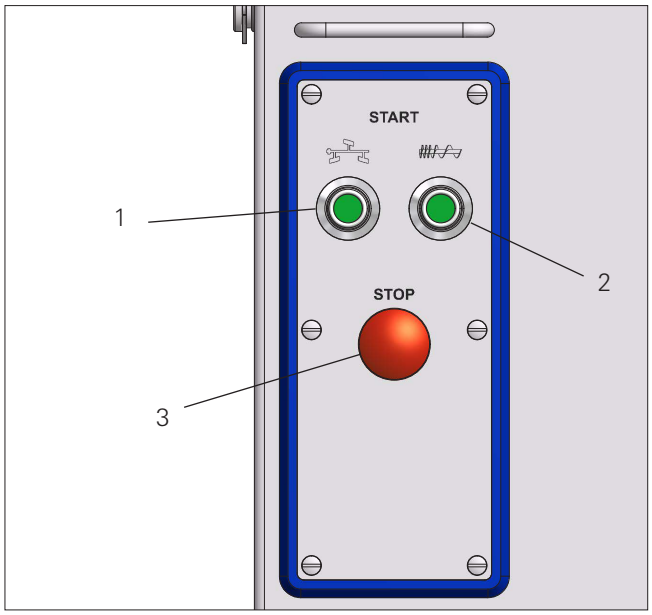
10 = Housing outlet protective cover




## Mixer mincer machines mains switch

The mains switch (4) for machine start-up is located on the rear side of the machine.

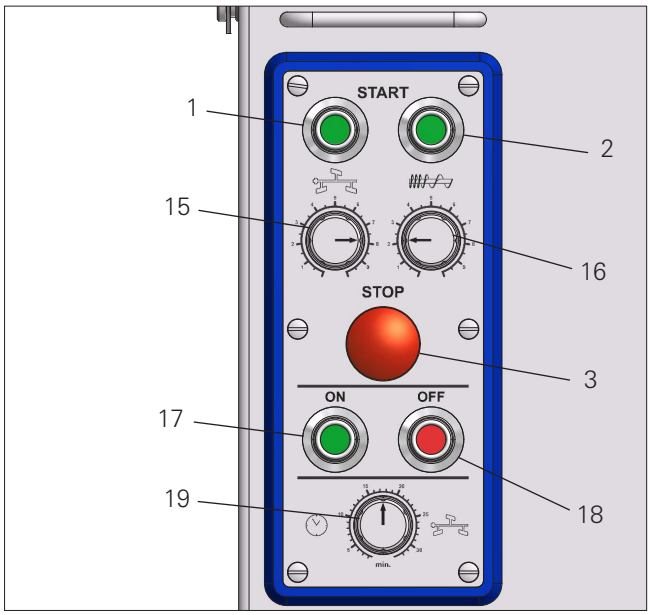
4 = Mains switch




## Operator control panel

Mixing is started by means of ON button (1) while mincing is started with ON button (2). The Stop function is by means of the mushroom-head STOP button (3).

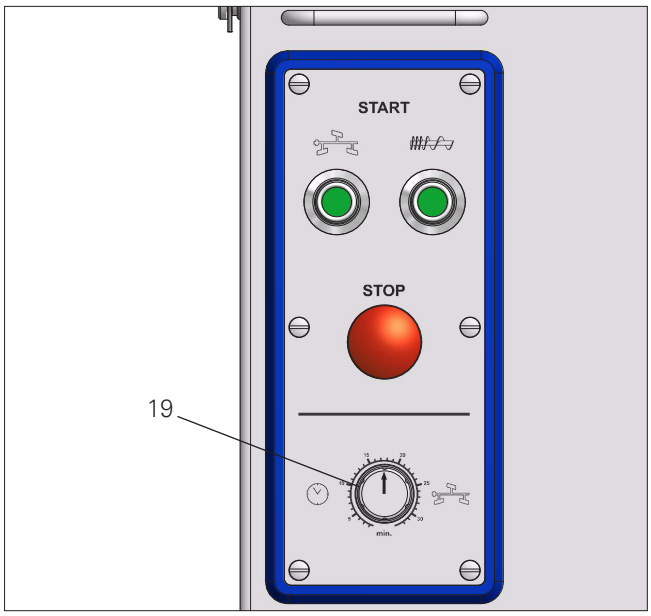
1 = ON - button for mixing
2 = ON - button for mincing
3 = OFF - mushroom-head STOP button




## Operator control panel incl. potentiometer with KOLBE rotary drive (optional)

Optional drive speed control by means of potentiometers (15+16), for which the machine must be set to operationally ready status via the ON illuminated push-button (17). The system, and consequently the frequency converter control, is shutdown via the OFF push-button (18).

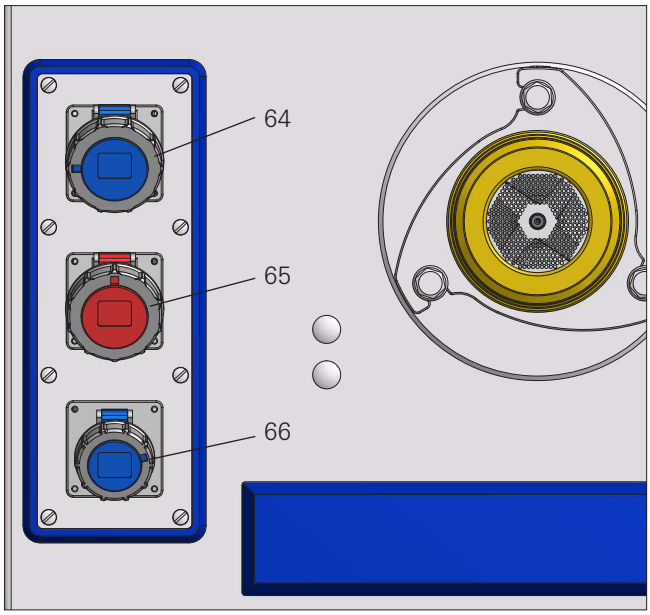
1 = ON - button for mixing
2 = ON - button for mincing
3 = OFF - mushroom-head STOP button
15 = Potentiometer for mixing blade rotation speed
16 = Potentiometer for mincer feed screw rotation speed
17 = ON - illuminated push-button for system On (ON)
18 = OFF - push-button for system Off (OFF)
19 = Potentiometer for mixing time control (optional)




## Potentiometer with KOLBE rotary drive for mixing time control (optional)

The length of the mixing time can be infinitely variably set via the optional potentiometer (19) from approx. 2 to 30 minutes, meaning that, after expiration of the set time, the mixing process will switch off automatically.
Possible options are dependent on the machine model and type of controller.

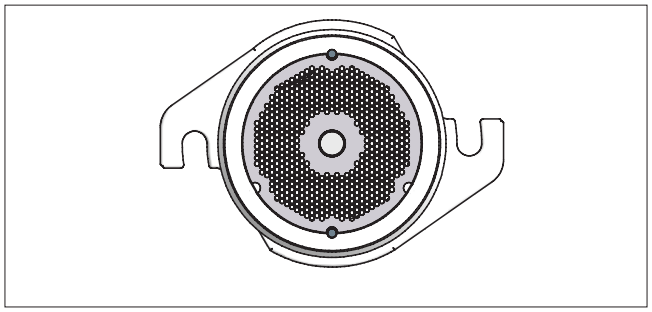
19 = Potentiometer for mixing time control (optional)




## Outlet socket variants (optional)

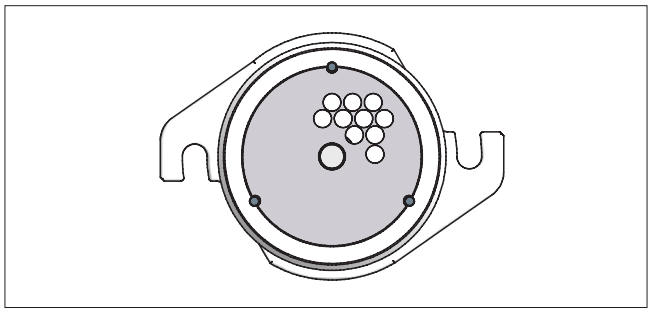
As an option and depending on the machine configuration or machine combinations, the front side of the mixer mincer is outfitted with various outlet socket types.

64 = CEE socket (red) 16A/400V/7Ph - for PM 150
or
64 = CEE socket (blue) 16A/230V/5Ph - for foot switch
65 = CEE socket (red) 16A/400V/5Ph - for MO 1500-K
66 = CEE socket (blue) 16A/230V/3Ph - for PF 110



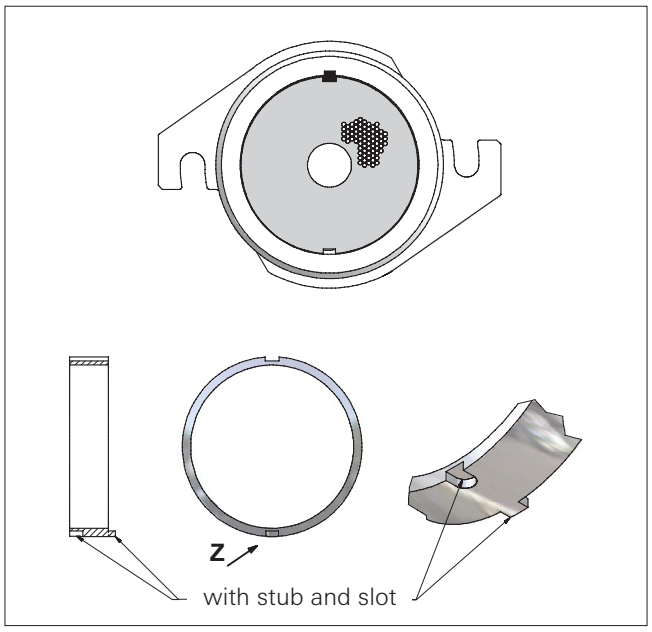
### Enterprise cutting system E 32 / E 52 - coded

Only outlet-sided perforated discs with a max. bore hole diameter of 8.0 mm are to be used with the coded cutting system with 2 housing pins.



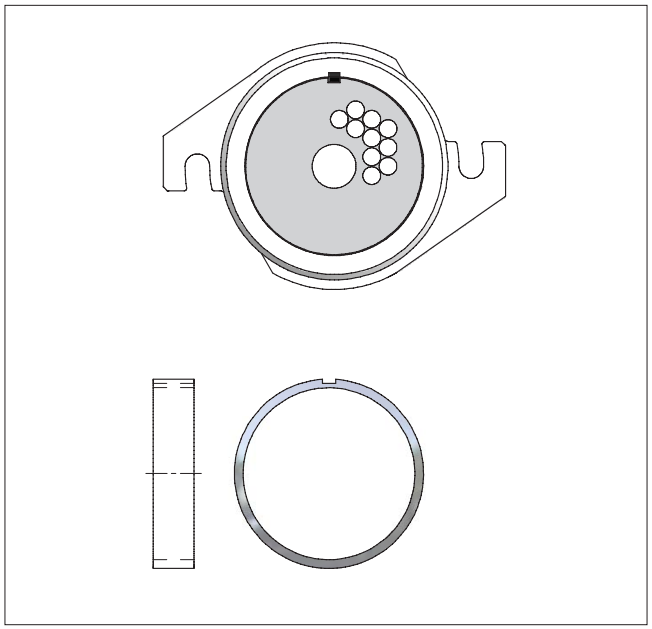
### Enterprise cutting system E 32 / E 52

Use of the uncoded cutting system with 3 housing pins is permitted only in conjunction with the use of a housing outlet protective cover (10), meaning that outlet-sided perforated discs with a max. bore hole diameter of greater than 8.0 mm may also be used.



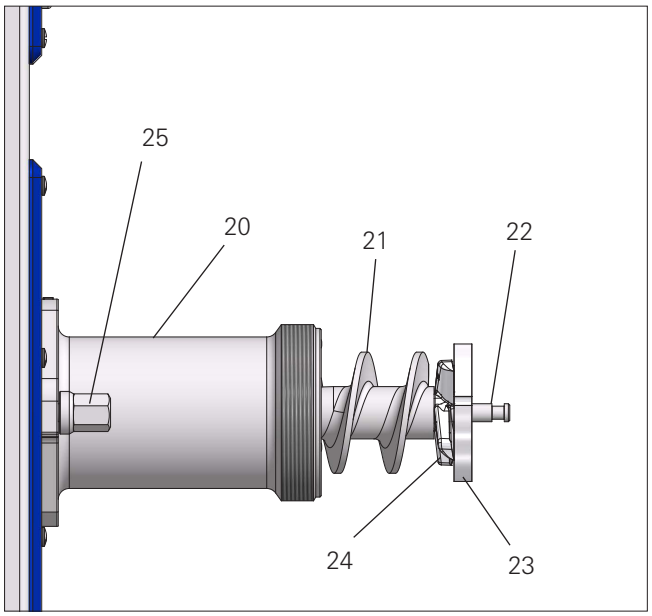

### Unger cutting system D 114 / E 130 - coded

Only outlet-sided perforated discs with a max. bore hole diameter of 8.0 mm are to be used with the coded cutting system with insert ring incl. stub and slot.



### Unger cutting system D 114 / E 130

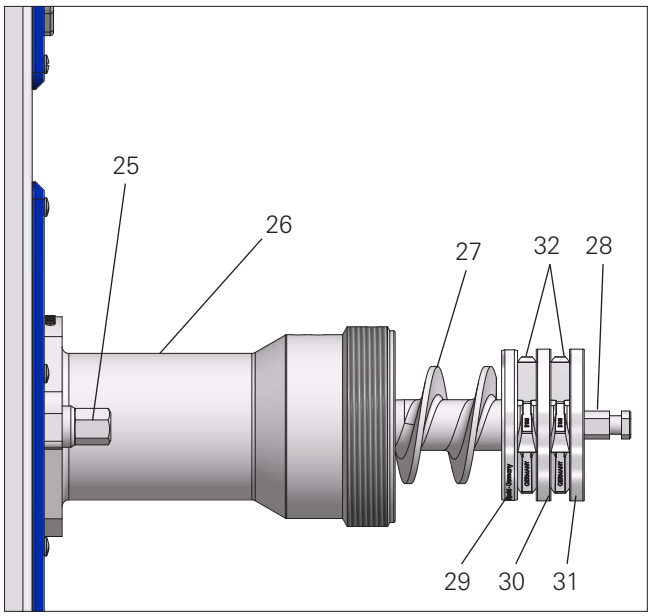
Use of the uncoded cutting system with smooth insert rings is permitted only in conjunction with the use of a housing outlet protective cover (10), meaning that outlet-sided perforated discs with a max. bore hole diameter of greater than 8.0 mm may also be used.




## Enterprise cutting system MW32-120

The Enterprise E32 cutting system, comprised of a cross knife (24) and a perforated disc (23), guarantees the best and most gentle processing of all minced meat products. The homogeneous and appetizingly light minced meat texture is realised after two cutting passages.

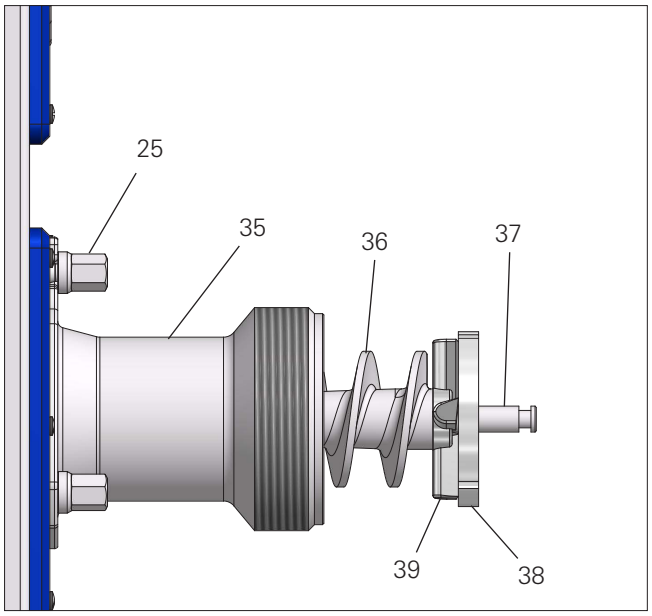
20 = Mincer housing MW32-120
21 = Mincer feed screw MW32-120
22 = Knife studs E32
23 = Perforated disc E32 - ø 3 mm
24 = Cross knife E32
25 = Mincer housing attachment bolts




## Unger cutting system MW114-120

The Unger D114 cutting system, comprised of two cross knives (32), a pre-cutter (29), a coarse perforated disc (30), a fine perforated disc (31) and an insert ring (33 or 34), guarantees the best and most gentle processing of all meat products. The meat is cut to the desired granulation after a one-time cutting passage.

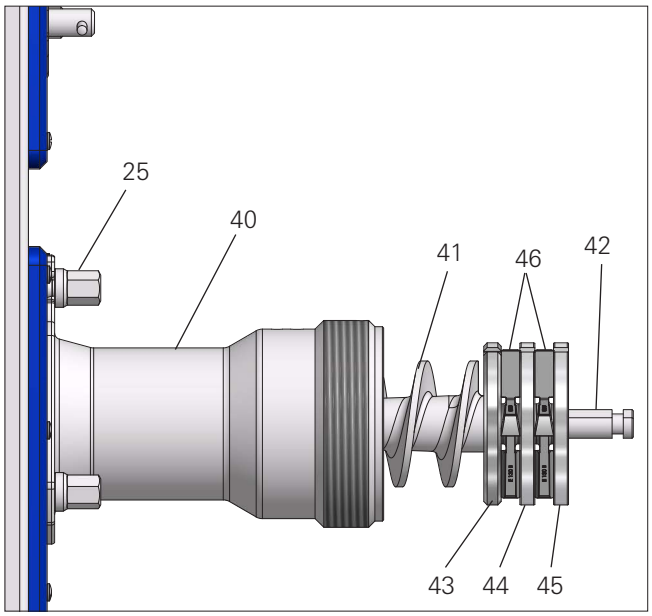
26 = Mincer housing MW114-120
27 = Mincer feed screw MW114-120
28 = Knife studsD114
29 = Pre-cutter D114
30 = Perforated disc D114 – ø 13 mm
31 = Perforated disc D114 – ø 3 mm
32 = Cross knives D114
33 = Insert ring, narrow D114 (not pictured)
34 = Insert ring, wide D114 (not pictured)




## Enterprise cutting system MW52-120

The Enterprise E52 cutting system, comprised of a cross knife (39) and a perforated disc (38), guarantees the best and most gentle processing of all minced meat products. The homogeneous and appetizingly light minced meat texture is realised after two cutting passages.

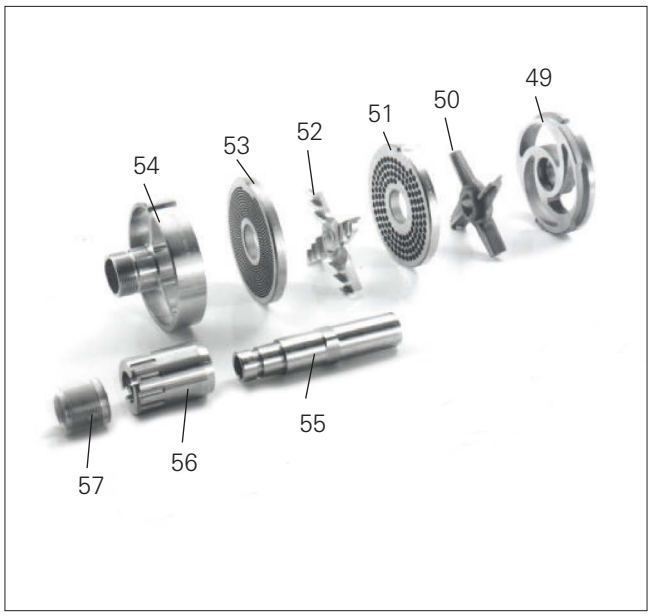
35 = Mincer housing MW52-120
36 = Mincer feed screw MW52-120
37 = Knife studs E52
38 = Perforated disc E52 - ø 3 mm
39 = Cross knife E52




## Unger cutting system MW130-120

The Unger E130 cutting system, comprised of two cross knives (46), a pre-cutter (43), a coarse perforated disc (44), a fine perforated disc (45) and an insert ring (47 or 48), guarantees the best and most gentle processing of all meat products. The meat is cut to the desired granulation after a one-time cutting passage.

40 = Mincer housing MW130-120
41 = Mincer feed screw MW130-120
42 = Knife studs E130
43 = Pre-cutter E130
44 = Perforated disc E130 – ø 13 mm
45 = Perforated disc E130 – ø 3 mm
46 = Cross knife E130
47 = Insert ring, narrow E130 (not pictured)
48 = Insert ring, wide E130 (not pictured)

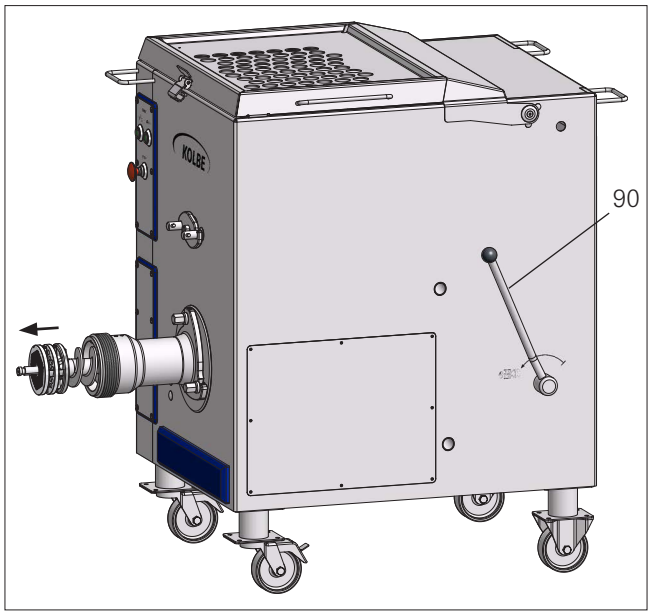



## Turbocut separating device (optional)

The device, comprised of a five-part cutting set incl. separating knife (52), separating unit (54-56) and separating tube (57), removes cartilage tissue, tendons and sinews from the meat. Functionally, the pieces are stripped off the fine perforated disc by the separating knife and diverted through a trough via the separating tube to a receptacle.

49 = Pre-cutter (standard equipment)
Pre-cutter with slide bearing (standard equipment)
50 = Pre-cutter (standard equipment)
51 = Perforated disc, coarse 13 mm (standard equipment)
52 = Separating knife (standard equipment)
53 = Perforated disc, fine 3 mm (standard equipment)
54-56 = Separating unit
57 = Separating tube with bayonet fitting

**Separating device comprised of:**
54 = Support cross
55 = Diversion tube
56 = Regulator bush

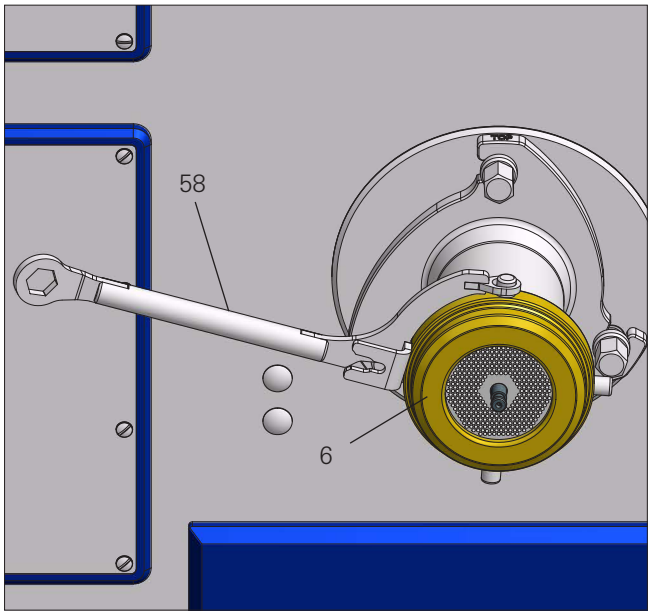



Ejector lever

Use the ejector lever (90) to release the mincer feed screw and cutting set. Use the centre extraction bore hole in the combination hook wrench (58, 59, 80 or 81) to pull out the working screw with the cutting set from the mincer housing.

90 = Ejector lever

## Disassembly of the cutting set and mincer feed screw

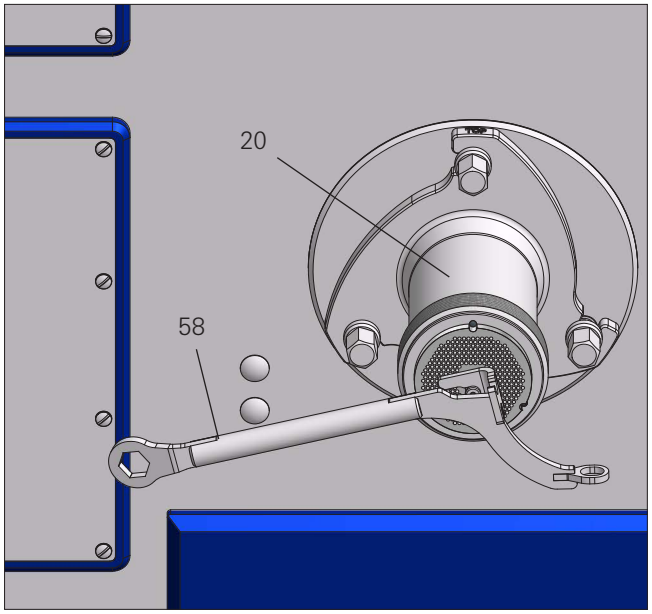



Daily maintenance and checks are performed quickly and easily using the KOLBE combination tool. As depicted in the picture, the combination hook wrench (58, 59, 80 or 81) is used to loosen the locking nut (6), for disassembly of the cutting set or mincer feed screw (21) and for disassembly of the mincer housing (20).

On Enterprise cutting systems, the combination hook wrench (58 or 80) is used for loosening and tightening the locking nut (6).

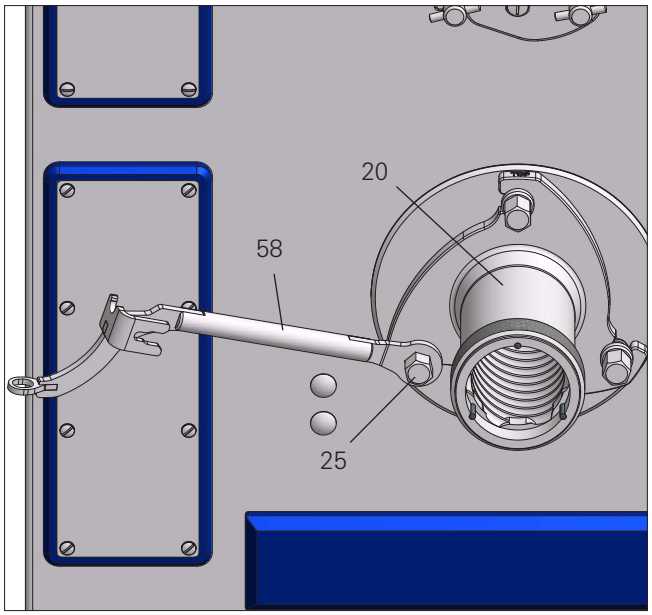
On the Unger cutting system, the combination hook wrench (59 or 81) is suitable only for opening the locking nut (6). Tightening of the locking nut is done only by hand at all times.

6 = Locking nut
58 = Combination hook wrench



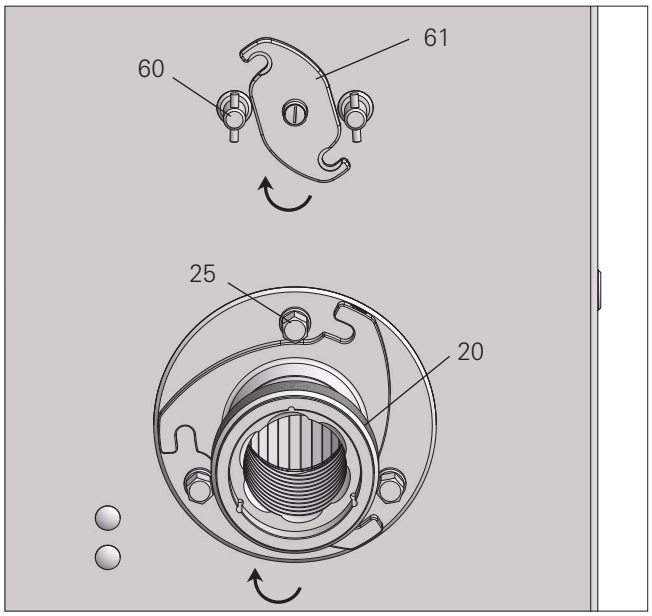

Insert the combination hook wrench (58, 59, 80 or 81) precisely onto the cutter stub slot as shown in the picture and carefully extract the mincer feed screw incl. cutter set using both hands.

20 = Mincer housing
58 = Combination hook wrench




Using a ring spanner SW24 opening on the combination hook wrench (58, 59, 80 or 81), loosen the mincer housing (20) attachment bolts (25) for disassembly.

20 = Mincer housing
25 = Attachment bolts
58 = Combination hook wrench

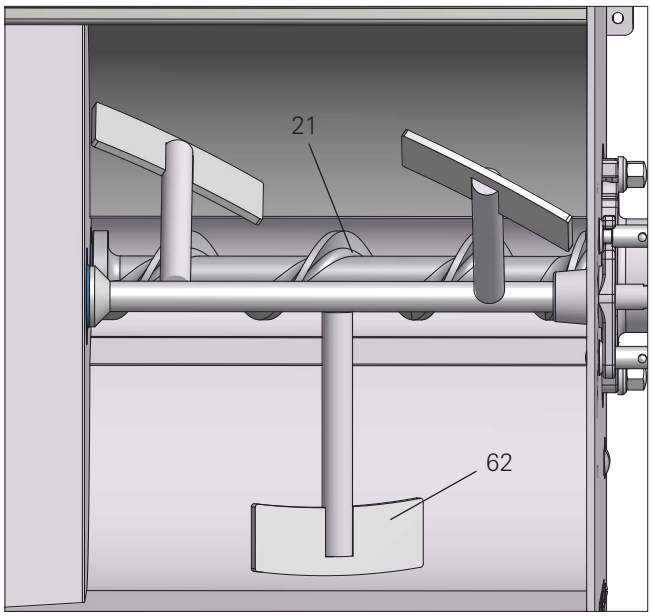



## Disassembly of the mincer housing and mixing blade

The mincer housing (20) is easily removable for quick and thorough cleaning. After loosening the attachment bolts (25), remove the mincer housing (20) towards the front while pivoting it to the right, as shown in the picture.

After loosening both front tommy nuts (60) by hand, remove the mixing blade bracket (61) towards the front while rotating it slightly to the right and while simultaneously holding the mixing blade (62) firmly with the other hand. Pull the mixing blade (62) out of the rear attachment and remove it by tilting it slightly upwards.

20 = Mincer housing
25 = Mincer housing attachment bolts
60 = Tommy nuts for mixing blade bracket
61 = Mixing blade bracket

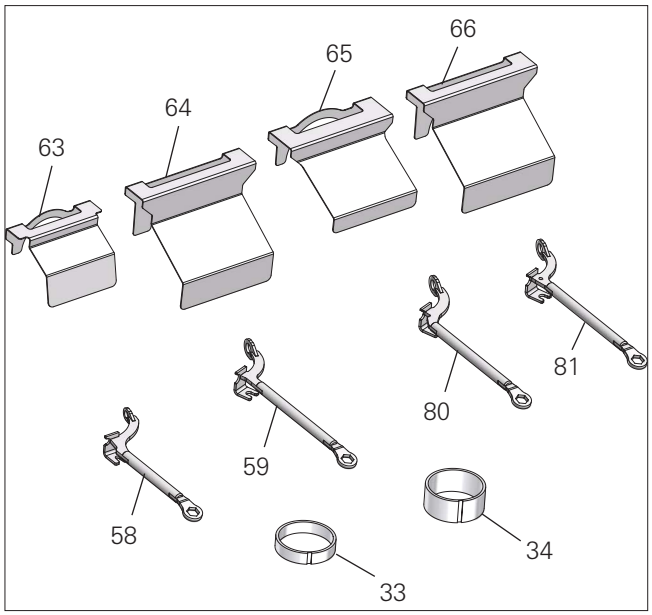



## Mixer equipment

The separately switchable mixer equipment serves the raw product blending of different meat types, as well as the mixing of herbs and spices prior to mincing.
The mixing blade (62), the mincer feed screw (21) and the mincer housing (20) are designed in such a manner that the meat is fed quickly and gently to the cutting set, where it minced to the desired granulation.

Attention:
The meat mincer can be switched ON only when the protective cover (5) is closed.

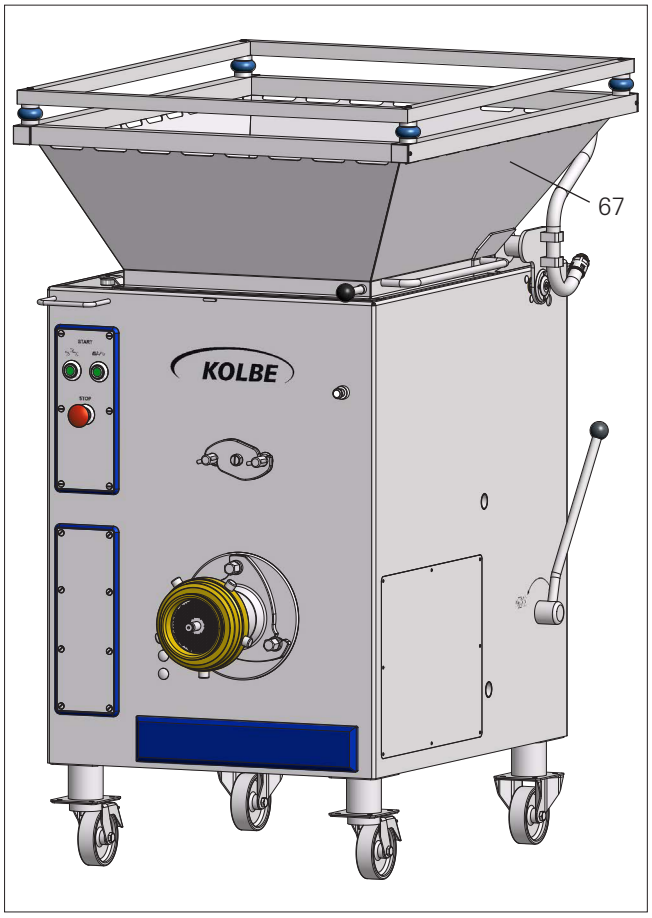
21 = Mincer feed screw
62 = Mixing blade




## Mixer mincer machine accessories

The following accessories are included in the scope of delivery depending on machine model:

33 = Insert ring, narrow (only for the Unger cutting system)
34 = Insert ring, wide (only for the Unger cutting system)
58 = Combination hook wrench for MW32-120
59 = Combination hook wrench for MW114-120
63 = Splatter guard MW32-120
64 = Splatter guard MW114-120 (Optional)
65 = Splatter guard MW52-120
66 = Splatter guard MW130-120 (Optional)
80 = Combination hook wrench for MW52-120
81 = Combination hook wrench for MW130-120




## Hopper attachment incl. access protection (optional)

As an option, the KOLBE mixer mincer can be supplied with a hopper attachment (67) incl. frame shutoff for batching with a 200 litre batching trolley (70).

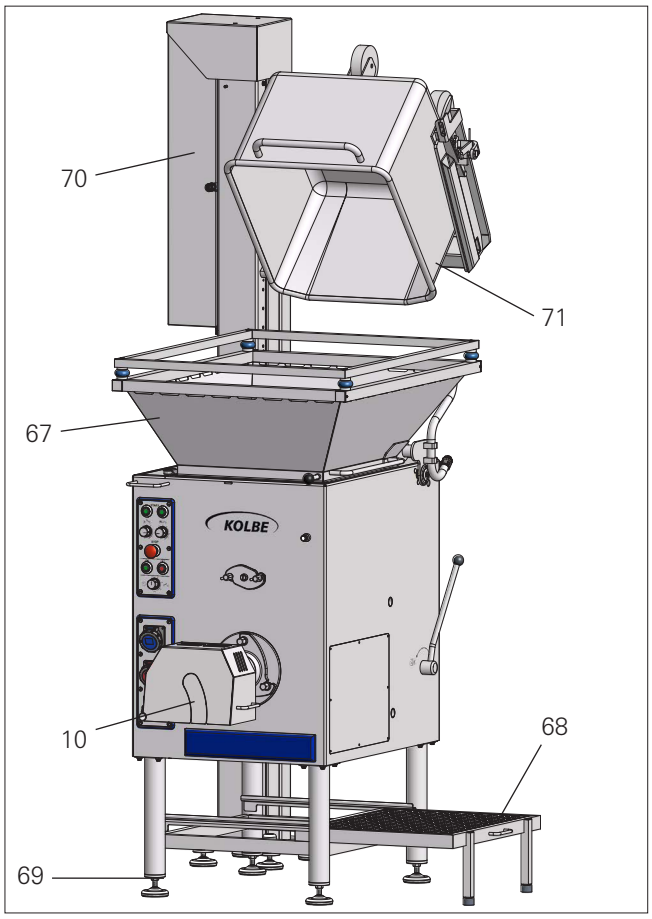
Note:
Optimally tuned filling situation incl. crash protection with the optionally available KOLBE FD 200 batching unit (see page 24).

67 = Hopper attachment


## Retractable steel grating step (optional)

The retractable steel grating step (68) enables better access to the filling hopper for cleaning at increased housing heights when the protective cover (5) or hopper attachment (67) is open
(e.g. with deployment of the 200 litre batching trolley).

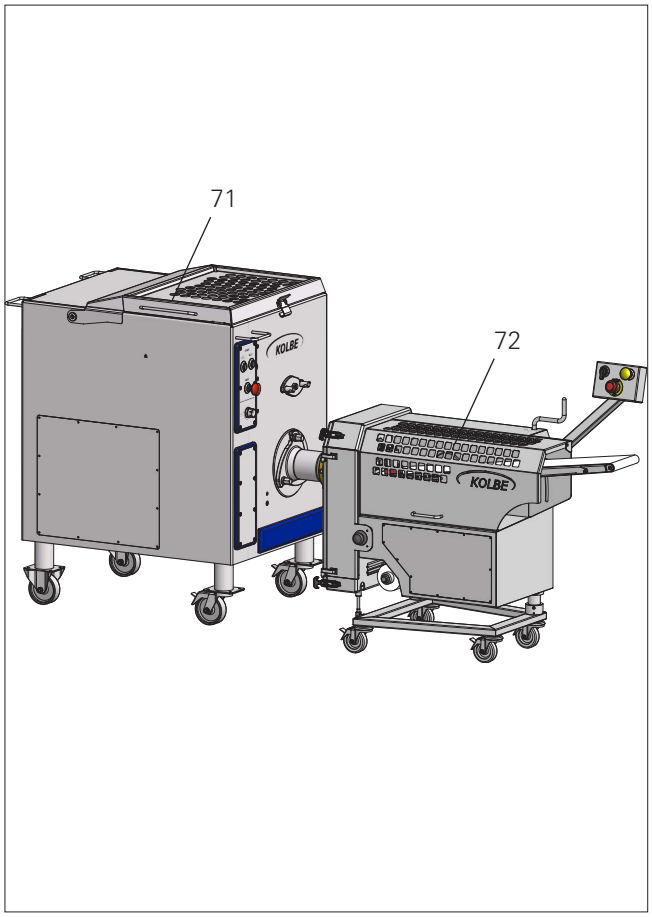
68 = Retractable steel grating step




## Lift and tilt pylon batching (optional)

As an option, the KOLBE mixer mincer can be supplied with a hopper attachment incl. frame shutoff in combination with KOLBE lift/tilt equipment and a 200 litre batching trolley. During installation, according to safety regulations, it must be ensured that the clearance between the protective outlet cover and the upper edge of the batching trolley is not greater than 50 mm.

10 = Protective outlet cover (optional)
67 = Hopper attachment incl. frame shutoff (optional)
68 = Retractable steel grating step (optional)
69 = Adjustable machine feet
70 = Lift and tilt pylon batching unit FD 200
71 = 200 litre batching trolley




## Portioning unit combination (MW52-120 + PM150)

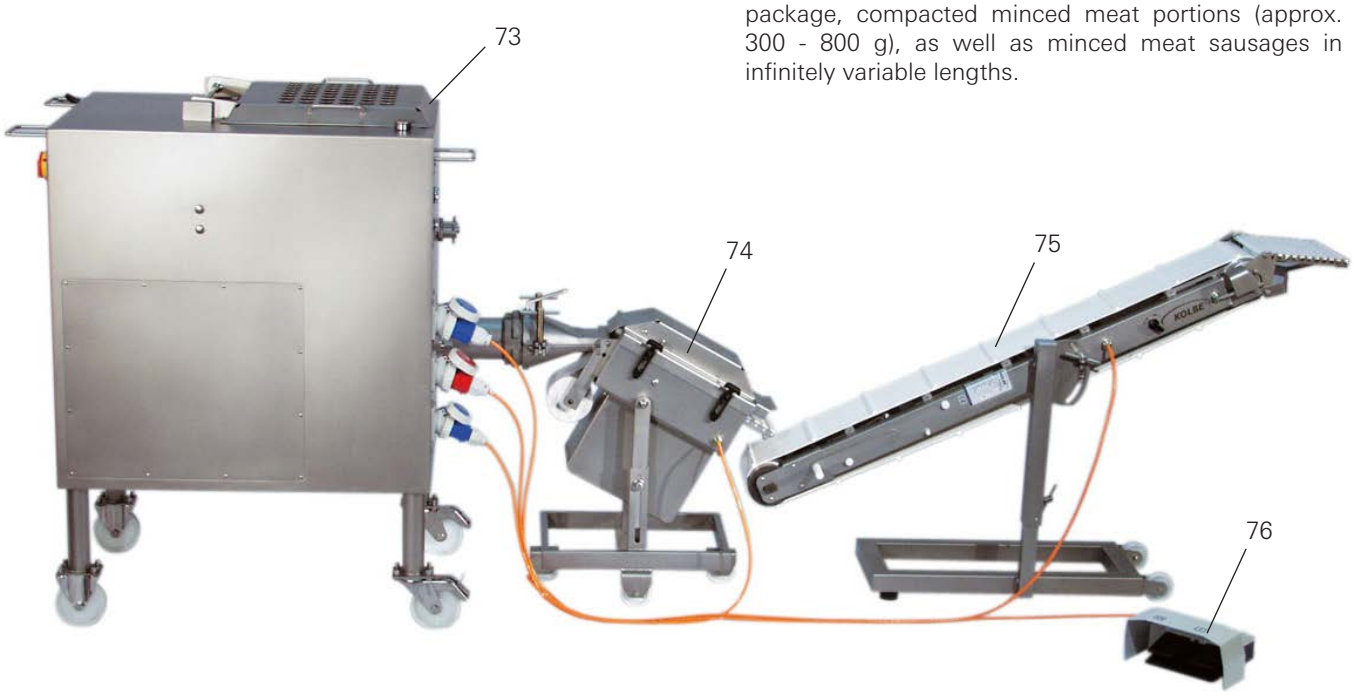
MW52-120 + PM150 - combined for the production of ready-for-sale, fit-for-package, portioned minced meat products on paper underlay for industrial applications.

71 = Mixer mincer MW52-120
72 = Portiomat PM150

ProfiLine

## Portioning unit combination (MW32-120 + PF110 + MO1500)

(MW32-120 + PF110 + MO1500) - combined for fit-for-package, compacted minced meat portions (approx. 300 - 800 g), as well as minced meat sausages in infinitely variable lengths.




73 = Mixer mincer MW32-120 (or previous version MWE 32)
74 = Portiomat PF110
75 = Conveyor belt MO1500
76 = Remote operation foot switch (optional)

SUPER ProfiLine

## Portioning unit combination (MW52-120 + PM150 + e.g. HY 800)


MWE 52 + PM 150 + e.g. HY 800- combined for the production of ready-for-sale, fit-for-package, portioned minced meat products on paper underlay for continuous industrial applications.

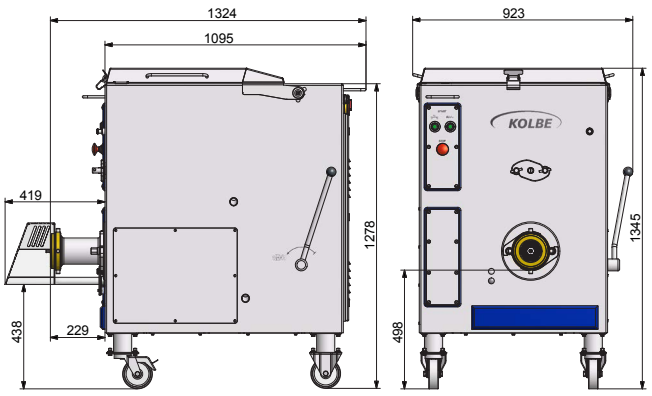
71 = Mixer mincer MW52-120 (or previous version MWE 52)
72 = Portiomat PM150
76 = Fußfernbedienungsschalter (Optional)
77 = Schalenentstapler mit Einleger (z.B. HY 800)

## 12. Technical data

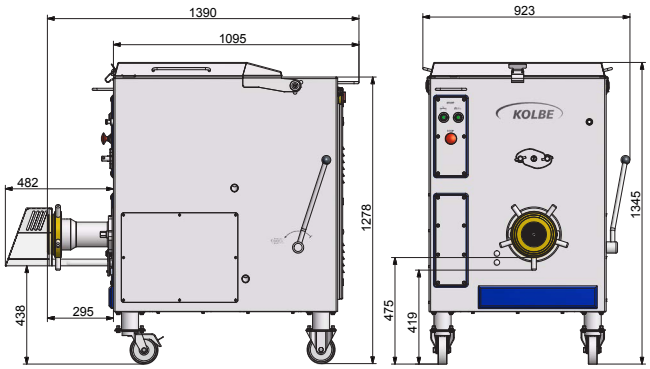
**For KOLBE mixer mincer machine models MW32-120 / MW114-120**

| Mixer mincer machine | | MW32-120 | MW114-120 |
|---|---|---|---|
| Cutting system | | Enterprise E32 | Unger D114 |
| Perforated disc diameter | mm | 100 | 114 |
| Hopper volume | Ltr | 120 | 120 |
| Output capacity with 3 mm perforated disc approx. | kg/h | 1700 | 1700 |
| Feed screw rotation speed | $min^{-1}$ | 210 | 210 |
| Mixing blade rotation speed | $min^{-1}$ | 11 | 11 |
| Motor voltage (3Ph) | V | 400 | 400 |
| Main drive motor / protection class IP55 | kW | 5,5 | 5,5 |
| Mixer drive motor / protection class IP55 | kW | 1,1 | 1,1 |
| Rated current - Main drive motor | A | 11,4 | 11,4 |
| Rated current - Mixer drive motor | A | 2,6 | 2,6 |
| Cable cross-section | $mm^2$ | 6 | 6 |
| Mains fuse 400 V | A - time delay | 25 | 25 |
| Noise level (idle - operating) | dB(A) | 67,8 | 67,8 |
| Weight, net (based on configuration, min. - max.) | kg | 510 - 520 | 525 - 530 |
| Weight, gross (based on configuration, min. - max.) | kg | 540 - 550 | 555 - 565 |
| Filling height | mm | 1278 | 1278 |
| Housing outlet height (with cover) | mm | 438 (498) | 475 (436) |
| Dimensions W x D x H | mm | 923 x 1324 x 1345 | 923 x 1390 x 1345 |

### MW32-120




### MW114-120

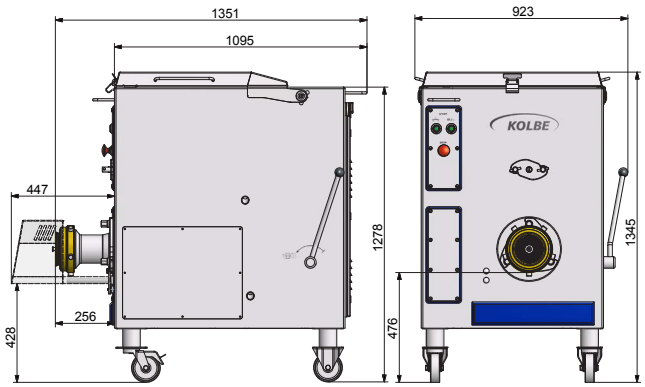


## 12.1 Technical data

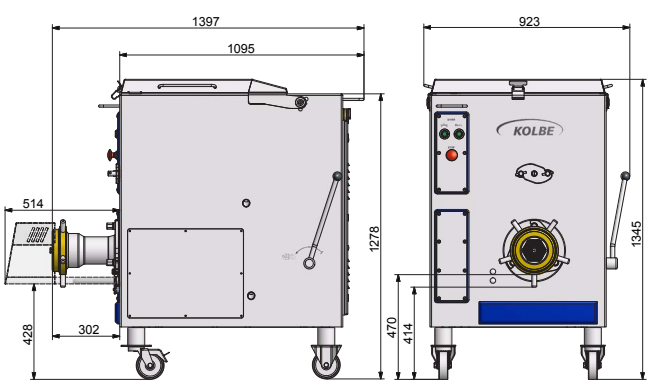
**For KOLBE mixer mincer machine models MW52-120 / MW130-120**

| Mixer mincer machine | | MW52-120 | MW130-120 |
|---|---|---|---|
| Cutting system | | Enterprise E52 | Unger E130 |
| Perforated disc diameter | mm | 130 | 130 |
| Hopper volume | Ltr | 120 | 120 |
| Output capacity with 3 mm perforated disc approx. | kg/h | 2000 | 2000 |
| Feed screw rotation speed | $min^{-1}$ | 210 | 210 |
| Mixing blade rotation speed | $min^{-1}$ | 11 | 11 |
| Motor voltage (3Ph) | V | 400 | 400 |
| Main drive motor / protection class IP55 | kW | 7,5 (10,0) | 10,0 |
| Mixer drive motor / protection class IP55 | kW | 1,1 | 1,1 |
| Rated current - Main drive motor | A | 15,2 (20,5) | 20,5 |
| Rated current - Mixer drive motor | A | 2,6 | 2,6 |
| Cable cross-section | $mm^2$ | 6 | 6 |
| Mains fuse 400 V | A - time delay | 32 | 32 |
| Noise level (idle - operating) | dB(A) | 67,8 | 67,8 |
| Weight, net (based on configuration, min. - max.) | kg | 530 - 540 | 535 - 545 |
| Weight, gross (based on configuration, min. - max.) | kg | 560 - 570 | 565 - 575 |
| Filling height | mm | 1278 | 1278 |
| Housing outlet height (with cover) | mm | 476 (428) | 470 (428) |
| Dimensions W x D x H | mm | 923 x 1351 x 1345 | 923 x 1397 x 1345 |

### MW52-120




### MW130-120



# EC DECLARATION OF CONFORMITY

Under the terms of the Machinery Directive 2006/42/EC, Annex II A

We hereby declare that the following meat mincers in the models delivered

| | |
|---|---|
| Model | **MW 98/100/114**<br>**MWE 32/52/130 + MWD114** |
| Manufacturer | **Paul KOLBE GmbH**<br>**FOODTEC**<br>**Gewerbestraße 5**<br>**D-89275 Elchingen** |

comply with the following relevant provisions

| | |
|---|---|
| - EC Machinery Directive | 2006/42/EC |
| - EMC Directive | 2004/108/EC |

as well as with the harmonized standards applied, in particular:

| | | |
|---|---|---|
| - DIN EN ISO 12100 | Safety of machinery | 2011-03-00 |
| - DIN EN 60204-1 | Electrical equipment – Part 1 | 2007-06-00 |
| - DIN EN 61000-6-2 VDE0839-6-2 | Electromagnetic compatibility (EMC)<br>Immunity to interference for industrial environments | 2006-03-00 |
| - DIN EN 61000-6-4 VDE0839-6-4 | Electromagnetic compatibility (EMC)<br>Interference emissions for industrial environments | 2011-09-00 |
| - DIN EN 61000-3-2 VDE0838-2 | Electromagnetic compatibility (EMC)<br>Part 3-2 Limits for harmonic currents | 2010-03-00 |
| - DIN EN 61000-3-3 VDE0838-3 | Electromagnetic compatibility (EMC)<br>Part 3-3 Limits for voltage fluctuations and flicker | 2009-06-00 |
| - DIN EN 12331 | Food processing machinery, Mincing machines<br>Safety and hygiene requirements | 2011-02-00 |

The reported testing laboratory (according to Annex VII) is the

Fachausschuss Fleischwirtschaft (Ident. No. 0391)
Prüf- und Zertifizierungsstelle im BG-Prüfzert
Lortzingstraße 2, D-55127 Mainz

which performed the EC type-examination test for the meat mixing mincer, series MW98/100/114 and MWE32/52/130 + MWD114 with the following test number: **EC type-examination certificate No. 09091**

This declaration relates to the machine in its delivered condition when placed on the market. Any subsequent change to the machine without the consent of the manufacturer invalidates this declaration.

**Paul KOLBE GmbH**

Elchingen, 01.02.2014

Karsten Hackemesser
Managing Director

Thomas Hagmeier
Managing Director

Karsten Hackemesser jun.
Responsible for documentation

KOLBE

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