

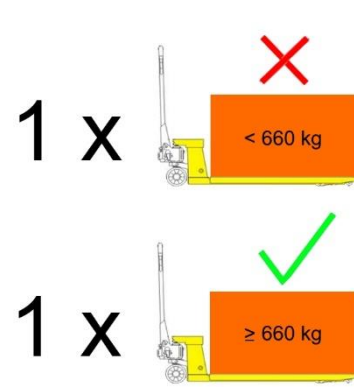
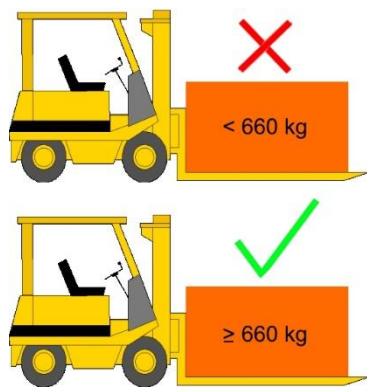


Quick installation guide

GR 50

RÜHLE
Echte Originale.

I • Installing the machine



II • Operation



- 1) Main switch
- 2) Quick spanner conveyor belt
- 3) Conveyor belt
- 4) Stop button
- 5) Start button
- 6) Locking device (Knife protection box)
- 7) Locking device (conveyor belt)
- 8) Hood conveyor belt
- 9) Hood charging
- 10) Folding table
- 11) Locking bolt
- 12) Tray charging
- 13) Side panel
- 14) Machine foot
- 15) Knife protection box
- 16) Power supply cable
- 17) Type plate
- 18) Cutting knife
- 19) Knife beam
- 20) Vertical blades

III • Operating elements

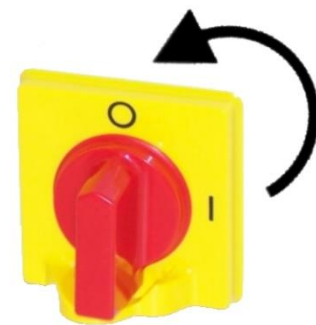


Start button

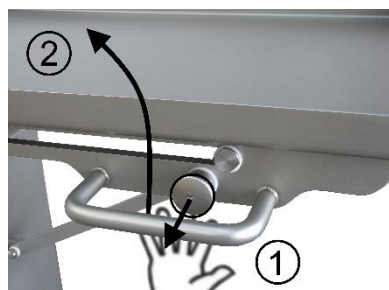


Stop button

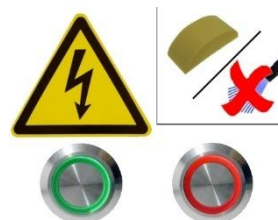
IV • Safety functions



V • Folding table



VI • Initial operation



VII • Setting the machine



Machine start



Machine stop

VII • Setting the machine



VIII • Trolley



IX • Folding table (charging)



X • Tray (charging)

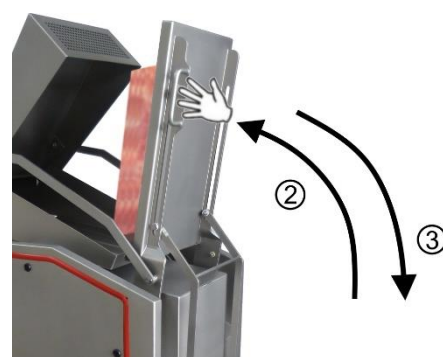


XI • Start



Machine start

XII • Operation



② Stop ③ Start

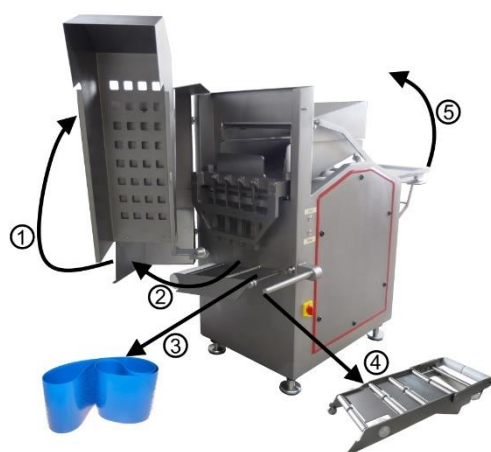
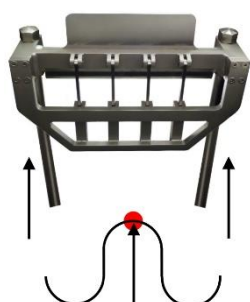
XIII • Stop



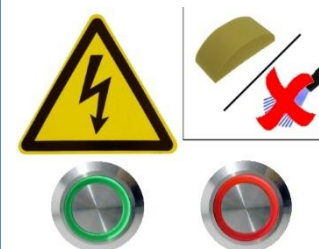
Machine stop



XIV • Cleaning (preparation)



XV • Cleaning





Translation of the original instructions

RÜHLE - Frozen meat cutter

Type: GR 50

**Rühle GmbH, Beim Signauer Schachen 10, 79865 Grafenhausen
Germany**

Phone: +49 7748 523 11; fax: +49 7748 523 8511

www.original-ruehle.de



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Version: 05 December 2022 (Version 2.2)

Subject to change

1 Safety instructions

!!! Observe the safety instructions during the installation, operation, cleaning and maintenance of the Rühle Frozen meat cutter!



Hazard potentially causing irreversible injuries if disregarded.



Warning potentially causing serious injuries if disregarded.



Note



Warning of electrical power



Pull the mains plug!



Warning of sharp object. (Risk of cutting)



Warning of non-ionising radiation

Non-ionising radiation is not specifically generated, but is only emitted by the electrical equipment (e.g. electric motors, power lines or solenoid coils) for technical reasons. In addition, the machine has no strong permanent magnets. If a safety distance (distance field source to implant) of 30 cm is maintained, the influence on active implants (e.g. cardiac pacemakers, defibrillators) can be excluded with a high degree of probability.

1.1 Safety instructions

!!! A **supervisor** (responsible person) must be assigned to the machine! This person must:

- a) Completely read and understand these operating instructions before transport, commissioning, setup, operation, cleaning, decommissioning, care/maintenance as well as dismantling/disposal!
- b) Prepare work instructions for intended and safe transport, commissioning, setup, operation, cleaning, decommissioning, care/maintenance as well as dismantling/disposal!

- c) Ensure that the qualified workers have completely read and understood the respective work instructions according to section 1.1b!
- d) Proper functioning of the protective devices must be checked at least once a year by a Rühle service engineer!
- e) Provide personal protective equipment!

All life cycle phases:



Use foot protection according to EN ISO 20345!
(E.g. recommended for butcher stores, dairies, meat and fish processing: safety boots S4 with steel cap)



Use hand protection according to EN ISO 388!
(e.g. gloves with high cutting/puncture resistance)



Wear protective clothing according to EN ISO 13688! (E.g. appropriate aprons/coats/overalls)

Cleaning; care/maintenance; dismantling:



Use eye protection according to EN 166!
(E.g. tightly closing safety goggles)



Use light breathing masks according to EN ISO 149!
(E.g. simple breathing mask protection class FFP1)



Use hand protection according to EN ISO 374!
(Acid-resistant, butyl rubber, Viton)



Wear protective clothing according to EN ISO 13688, EN ISO 17491!
(E.g. appropriate coats/overalls)



[The information on the proposed personal protective equipment has only an advisory function. A full risk assessment should be carried out before using the product to assess whether the indicated personal protective equipment is suitable for local conditions. Personal protective equipment should conform to the relevant EU standards.]

!!! The **operator** must operate the machine according to the intended use and strictly observe all points listed in the "Operation" work instructions prepared by the supervisor.

!!! Before putting the machine into operation for the first time and on each working day, the **operator** must check the functionality of the following safety devices:

- a) Visual check for changes or damages on all machine sides and accessible machine parts, e.g. the cut-off knife. The machine must be shut down in the event of any damage or changes!
- b) Check the safety switches as follows:
Install the upper belt section and the conveyor belt, close the knife protection box and the conveyor belt hood, swivel the folding table down and lock with locking pin.
 - Start the machine. - Turn the main switch to "0 - Off". - If the machine does not switched off, it must be shut down immediately!
 - Start the machine. - Press the stop button. - If the machine does not stop, it must be shut down immediately!
 - Start the machine. - Unlock the folding table and swivel it upward. - If the machine has not switched off, it must be shut down immediately! - Swivel the folding table downward and lock it. - Machine starts.
 - Start the machine. - Open the conveyor belt hood by 20 mm. - If the machine does not switched off, it must be shut down immediately!
 - - Open the conveyor belt hood and knife protection box. - Dismantle the conveyor belt and upper belt section. Close the knife protection box and the conveyor belt hood. - Start the machine. - If it should start, it must be shut down immediately!

!!! To **shut down** the machine the stop switch must be pressed, the main switch turned to "0" - OFF" and the power plug pulled from the outlet! Secure the machine against further use!

!!! The **supervisor** must arrange for the repair of the non-functional safety device by a Rühle service engineer. Until the corresponding parts have been repaired, the supervisor must ensure that the machine or parts of the machine are not put into operation under any circumstances!

!!! The **cleaning personnel** must observe the work procedures from the "Cleaning" work instructions prepared by the supervisor.

!!! The **maintenance personnel** may only carry out work specified as "Regular maintenance" unless any other authorisation has been issued in writing by the manufacturer of the machine. The maintenance personnel must observe the work procedures from the "Maintenance" work instructions prepared by the supervisor.

Disconnect the power plug for maintenance work!

!!! Do not modify the machine.

!!! Only use Rühle spare parts and accessories.

!!! The operating instructions as well as all other technical documents included must be supplied completely when reselling the machine.

1.2 Remaining risk of accidents

!!! All life cycles phases



Damaged knife elements must be replaced!



Cut protection gloves must be worn when working:

- on the open knife protection box,
- on the cut-off knife,
- on the vertical knives,
- in the funnel (product feed).



Any manipulation and bypassing of the safety devices is strictly prohibited!

Reaching into the machine or the funnel during operation is strictly prohibited!



If the trough and hood of the infeed are open, do not reach under the trough, as you may cut yourself on the cutter bar!

The folding table is equipped with a counterweight to support the product feed. When the folding table is swivelled downwards, it must be secured with the locking bolt! If the empty folding table is unlocked and not held, it swings upwards uncontrolled!



There is a danger of crushing in the area of the lever mechanism of the folding table, hood and trough of the infeed as well as under the trough. Therefore, always hold the folding table by its handle when filling the trough and do not reach into the lever mechanism!

Secure the open hood of the conveyor belt against closing with the existing closure!

Hold the open hood of the conveyor belt firmly before unlocking it!

The knife protection box may swivel up when it is unlocked with the hood of the conveyor belt open!



To unlock the folding table, grip the handle by hand from below and pull the locking bolt with 2 fingers.

!!! Maintenance



Touching electrical components may cause serious injuries or death.



Work on electrical equipment of the machine may only be carried out by qualified technicians! Always disconnect machine from the mains during this process!



The protective covers (lids on front and rear) may be removed only while performing maintenance!

1.3 *Intended use*

The frozen meat cutter may only be used for cutting frozen blocks of meat, bone material, fish, vegetables or button up to a temperature of

-40°C. The room temperature must not exceed 12 °C for reasons of food hygiene!



This machine is intended:

- for use during work
- for use by persons over 18
- for use by instructed persons



Claims of any type for damage caused by use other than the intended use are excluded!

Misuse:

- Any use other than the use listed above is strictly prohibited and is considered misuse!
- Operating the machine in explosive atmospheres is prohibited!
- Handling/processing products and materials which are not foodstuffs is prohibited!
- The folding table must not be used as storage area, step or seat!
- Meat or bone material with teeth must not be cut!

2 Installation instructions

Installation and commissioning of the machine may only be carried out in the presence of a Rühle service technician or by persons authorised by Rühle.

Rühle GmbH Lebensmitteltechnik accepts no liability for any damage resulting from failure to comply with these operating instructions.

2.1 Machine transport and setup

Please refer to the short instructions supplied with the machine regarding transport and setup of the frozen meat cutter.



The machine and machine parts must be transported by 2 persons (1 person to operate the floor truck/1 person to supervise transport).

The power supply line must not be damaged by driving over or crushing it!

The machine must be shut down until a damaged power supply line has been repaired!



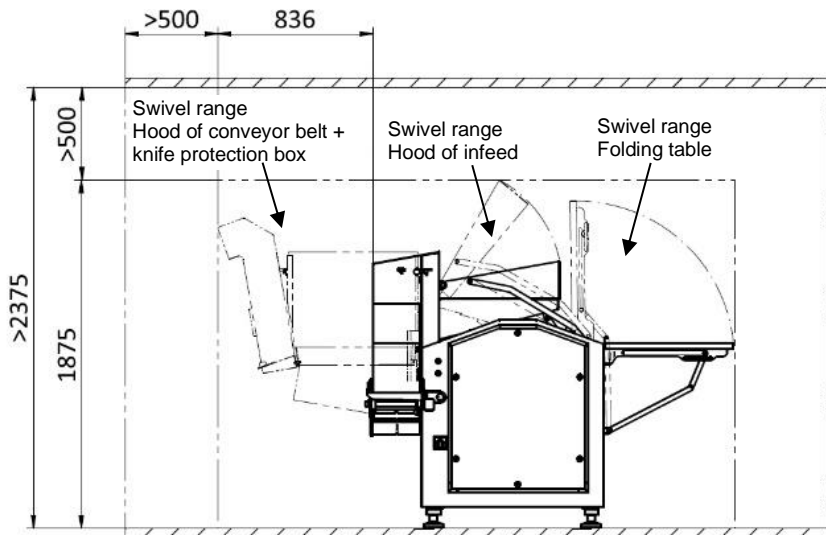
Ensure that the machine is stable!

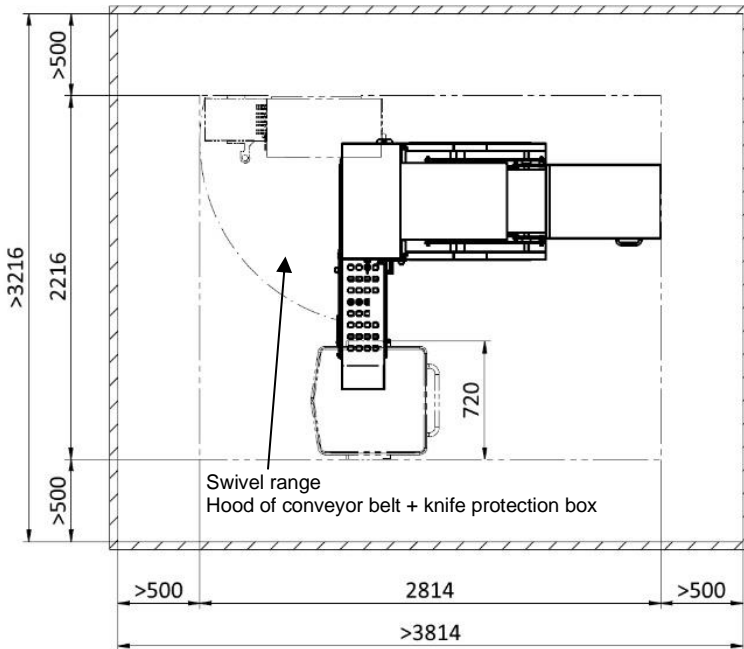
Foundation load: 3,0 kN/m²!

Set up the machine on a solid level floor with sufficient load bearing capacity!

2.2 Workplace description

The work area around the machine, plus a container on the discharge side, is at least 0.5 m on all sides; for maintenance work it is at least 1 m; if used as a passageway, it is at least 1.2 m.





2.3 Connecting the machine

The machine is connected to a three-phase outlet (clockwise rotating field); the specifications (voltage, amperage) must correspond to the specifications on the type plate of the machine.



The machine must be shut down until a damaged power supply line has been repaired!

Check the power supply line regularly!

Check the correct direction of the rotary field by starting the machine. The machine does not start in case of wrong rotational field!



- In this case, an electrician has to change the rotating field inside the mains plug.
- The power supply to the machine must be fuse-protected with 16 A and protected with an AC/DC sensitive RCD (type B).

3 Operating instructions

Please refer to the short instructions supplied with your machine for the operation of your frozen meat cutter.



Also observe Chapter 1 Safety instructions!

In its respective life cycle phases (transport, commissioning, setup, operation, cleaning, decommissioning, care/maintenance, dismantling/disposal), this machine is designed for single person operation!

When using this machine, no other person may be present near the machine. The exception (2-man operation):

- Installation and removal of the cutting blades
- Transport of machine and machine parts
- Maintenance activities



The machine may not be commissioned without transport belt!

The following is strictly prohibited and failure to comply represents gross negligence:

- Operating the machine without lids on the front and rear!
- Manipulating or deactivating the safety devices on the machine!

Working on the machine without lids installed on the front and rear is permitted only for a Rühle service technician during maintenance phase!



The operator must ensure that

- No persons who do not know the hazards of the machine or cannot anticipate them are present in the area of the machine!
- The knife protection box is secured with a closure!
- The folding table swivelled down is secured with a locking pin!



- The feather key is placed in the guide groove when installing the transport belt!



The operator controls may only be operated with the fingers. Using any objects (e.g. blade) is prohibited!

4 Cleaning instructions

The frozen meat cutter has been designed to allow for complete cleaning of all parts that come into contact with the food product.

4.1 Safety instructions

- Also observe Chapter 1 Safety instructions!
- The cleaning staff must notify the supervisor immediately of any defects on the machine!
- The cleaning staff must use the specified cleaning agents and disinfectants!
- Germ reduction is achieved only by correct cleaning and subsequent disinfection!
- Appropriate material (e.g. brushes, rags) is required and must be provided for the proper procedures of the above!
- Cleaning products and disinfectants approved for the food product area and suitable to remove contamination (e.g. protein, lime-scale) must be used!
- The cleaning agents and disinfectants must be prepared to a solution as described in the product data sheet of the manufacturer!



Personal protective equipment must be worn as described in Chapter 1.1!



Cleaning with high-pressure cleaners

is permitted only for:

- all outside surfaces,
- folding table,
- inside of the knife protection box,
- cutter bar and knife,
- infeed (trough and hood)
- Conveyor belt and hood

The operator controls must be cleaned manually and must not be exposed to a water jet!

All other parts and surfaces may be cleaned only with normal water pressure!

4.2 Cleaning agents and disinfectants

Recommended cleaning agents and disinfectants:

Art. No.	Product name	Description	pH value	Concentration for application [%]	Exposure times [min]	Temperatures [°C]	
15207	FINK - Spül ASS	Alkaline foam cleaner, mild	alkaline	1.0 - 5.0	5 - 15	20 - 50	daily
19402	FINK - Superfettlöser	Alkaline foam cleaner		0.5 - 5.0	5 - 20	20 - 50	
10030	FINK - FC 30	Cleaning and disinfection, combined		1.0 - 3.0	5 - 15	20 - 50	
18556	FINK - FC Power-foam A2	Alkaline foam cleaner		1.5 - 3.0	5 - 20	20 - 50	
13308 *)	FINK - Antisept G	Disinfectant for spray application, QAC		0.5 - 3.0	5 - 15	20 - 40	
17107	FT 107 DES	Disinfection	neutral	2.0 - 5.0	15 - 30	20 - 40	daily
13302	FINK - Antisept A	Alcohol-based disinfectant		100	5	RT	
13304	FINK - Antisept E	Alcohol-based disinfectant		100	5	RT	

18803	FINK - Alu-Rei-niger	Acid foam cleaner	acid	2.0 - 5.0	5 - 15	20 - 50	Once in 2 weeks
17043	FT 43 SR	Acid foam cleaner		1.0 - 5.0	5 - 15	20 - 50	
18550	FINK - FC Power-foam S1	Acid foam cleaner		1.0 - 2.0	5 - 20	20 - 50	
17310	Ökoron® 10	Disinfectant, acid		0.3 - 1.0	20 - 30	5 - 70	
17307	Ökoron® 7S	Disinfectant, acid		0.5 - 2.0	1 - 20	5 - 60	
17312	Ökoron® 12	Acid disinfection		0.5 - 3.0	5	Cold	
17313	Ökoron® 13	Acid disinfection, foamable		0.1 - 1.0	5	45	
17900	Ökoron® SR	Ecological cleaner	acid	1.0 - 5.0	15 - 20	20 - 55	daily

*) **13308, FINK - Antisept G** Because of customer-specific application prohibitions, QAC-containing products are sometimes not used since the IFS standard must be met. Possible alternative products would be, for example, FT 107 DES.

Supplier:

FINK TEC GmbH, Oberster Kamp 23, 59069 Hamm, Germany
Tel. +49 2385-730 / info@finktec.com / www.finktec.com

4.3 Cleaning procedure

Please refer to the short instructions supplied with your machine for carrying out the cleaning procedure.

Cleaning preparations:

- To ensure optimum cleaning, some components of the machine must be removed.
- Start the machine first and move the cutter bar to the highest position.
- Unlock and fold up the folding table.
- Open the hood of the conveyor belt and secure it with its closure.
- Open the knife protection box.
- Remove the transport belt. Proceed as follows:
 - Open the quick-action tape clamp by jerking it upward and then fold it onto the belt frame.
 - Reach with one hand under the belt to the feather key. Lift it from the guide groove and remove the transport belt.
 - Remove the upper belt section.

5 Service: care, maintenance, repair

Any work related in any way to servicing may be carried out only by Rühle service engineers and by persons authorised by Rühle in writing. In this regard, a distinction is made between regular care, maintenance and repair. The respective qualification certificate must be issued explicitly for the corresponding task.



Also observe Chapter 1 Safety instructions!



Notify and obtain permission from Rühle customer service if welding or cutting work is required on the machine!



Wear cut protection gloves when working on the blades!



Reaching into the inside of the machine by opening the side covers is strictly prohibited when performing "Regular care" activities!



When working on the electrical equipment of the machine, ensure that



- this is only done by qualified personnel!
- the machine is always disconnected from the power supply!



Use of lubricants - hygiene area

- Multi-purpose grease OKS 476 white, for food technology NSF H1 Reg. No. 137619
 - Replacing seal rings



Use of lubricants - others



- AUTOL TOP 2000, high pressure grease with synthetic base oil (soap basis)

Personal protective equipment:

Protective gloves (EN 374), eye protection (EN 166),

protective clothing (EN 14605), protective mask (EN 1731)



- Maintenance / replacement of moving parts, e.g. connecting rod drive - cutter bar



[The information on the proposed personal protective equipment only has an advisory function. A full risk assessment should be carried out before using the product to assess whether the indicated personal protective equipment is suitable for local conditions. Personal protective equipment should conform to the relevant EU standards.]

5.1 Regular care

Regular care of the machine must be carried out at least once per week. This prevents malfunctions and signs of wear.

Any abnormalities detected during regular care must be reported to the supervisor! The supervisor must immediately initiate rectification or maintenance, or notify Rühle Service!

Care schedule:

- a) Disassemble the machine according to the cleaning instructions. Check for any parts moving with difficulty, material abrasion or other signs of wear and tear.
- b) Remove the cut-off knives with the knife sharpener and check them for any damage or broken blades.
- c) Sharpen the vertical knives on both sides with the knife sharpener and check them for damage or broken blades.
- d) Visually check for changes or damages on all machine sides and accessible machine parts, e.g. the cutter bar. The machine must be shut down in the event of any damage or changes!
- e) Check locking pin on the folding table for proper function and firm seat.

5.2 Regular maintenance

Regular maintenance of the machine must be carried out every 2000 hours of operation but at least once per year.

Maintenance schedule:

- a) Inspect the safety devices as described in Chapter 1.1 Safety instructions!
- b) Carry out a test run with open machine (caution: moving parts)!
- c) All inspection work specified under "Regular Care"!
- d) Replace the vertical knives!
- e) Resharpen and readjust the cut-off knife!
- f) Check the radial shaft seals for tightness; replace otherwise!
- g) Lubricate machine parts according to the list "Lubricant use" at the beginning of this chapter!
- h) Read operating hours!

5.3 Repairs and spare parts

As a damaged part on a machine is usually damaged due to causes unrelated to the part, always carry out a fault diagnosis.

Contact our Service Hotline at +49 (0)7748 523 11 for spare parts or malfunctions. Please keep the machine type and number to hand.

6 Disposal

All materials and operating fuels must be separated and disposed of in accordance with nationally applicable regulations!

1. The following components contain oil:
 - Cutter bar drive
 - Conveyor belt drive

The cutter bar drive is equipped with an oil drain plug. The gearbox must be opened for the conveyor belt drive!

7 Technical documentation

7.1 Technical data

Supply voltage:	400 V 50 Hz 3-phase AC / N / PE
Power consumption:	7.0 kW
Full-load current:	13.6 A
Back-up fuse max.:	16 A
Protection class:	IP54
Protection class:	1
Ambient temperature:	-2°C to +25°C
Cut product temperature:	-40°C to +80°C
Dimensions, W x H x D:	1350 x 1875 x 1110 mm
Work space, W x H x D:	2814 x 1875 x 2216 mm
Machine weight:	660 kg
Transport weight:	820 kg
Funnel, W x H x D:	680 x 250 x 440 mm
Working height:	990 mm
Knife stroke:	45 strokes/min
Output:	2500 kg/h
Folding table, load capacity:	30 kg
Foundation load:	3,0 kN/m²
Emission sound pressure level:	$L_{pA} \leq 70$ dB(A)
Measured according to:	DIN EN ISO 11201 accuracy class 2
Measured when:	Idling without product

The data on the type plate principally applies; it is located on the back of the machine next to the power cable. In case of deviations, please contact the manufacturer for a written confirmation of the data!

If your country requires an RCD as protective measure, an RCD (type B), AC/DC sensitive, must be used.

7.2 Electrical circuit diagram

The electrical circuit diagram of your machine is located in the electrical control cabinet and must be supplied when reselling the machine!

8 EC Declaration of Conformity according to Directive 2006/42/EC

The manufacturer hereby declares		that the following product	
Name, legal form:	Rühle GmbH Lebensmitteltechnik	Type:	GR 50
Address:	Beim Signauer Schachen 10 79865 Grafenhausen Germany	Designation:	Frozen meat cutter
		from serial no.:	0100

complies with all relevant provisions of the Directive indicated above, including any changes that are valid at the time of this declaration.

The product complies with all relevant provisions of the following additional EU Directives and standards, including any changes to these that are valid at the time of the declaration:

- DIN EN 1672-2: 2009-07 Food processing machinery - Basic concepts - Part 2: Hygiene requirements
- DIN EN 60204-1: 2007-06 Safety of machinery - Electrical equipment of machines - Part 1: General requirements
- EC 1935/2004 Regulation on materials and articles intended to come into contact with food.
- EU 10/2011 Regulation on good manufacturing practice for materials and articles intended to come into contact with food.
- EC 2023/2006

	Signed by:	Person authorised for the documentation:
Place of issue:	79865 Grafenhausen Germany	Name: Jürgen Stegerer
Date of issue:	03 April 2019	Address: Rühle GmbH Beim Signauer Schachen 10 79865 Grafenhausen Germany
Position of the signing person in the company:	Management	
Name of the signing person:	Mr. Claus Rühle	

Signature:



A declaration of conformity for your machine (serial number), with updated content, if necessary, can be requested from RÜHLE GmbH.