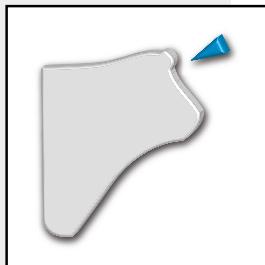
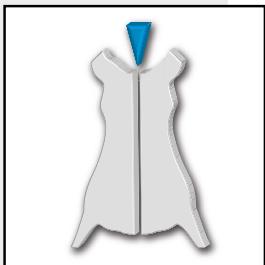


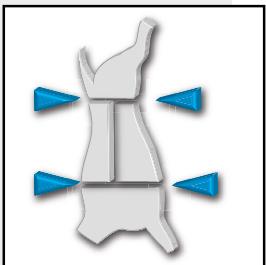
TRADITION + INNOVATION = FUTURE



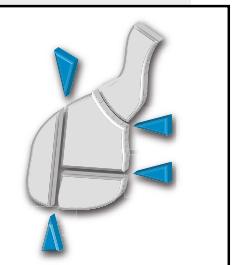
STUNNING



SLAUGHTERING



PRIMAL CUTTING



TRIMMING



**PRODUCT CATALOGUE
2026**



www.freund-germany.com



TRADITION + INNOVATION = FUTURE



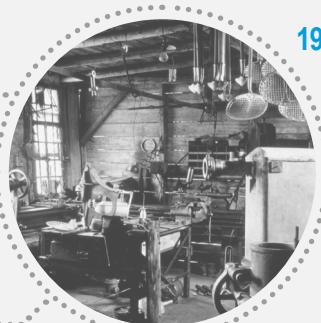
18th century SOLINGEN

Engagement with blade and cutlery manufacturing in Solingen (Barl & Wald).



19th century WUPPERTAL

First mention of a forge in Wuppertal.



1928 PADERBORN

Walter Freund registers his fitter's shop for the production of blades, grinding machines and butcher's tools in Paderborn.

1965

Reinhard Freund builds a modern factory building in Schulze-Delitzsch-Straße in Paderborn.



1990

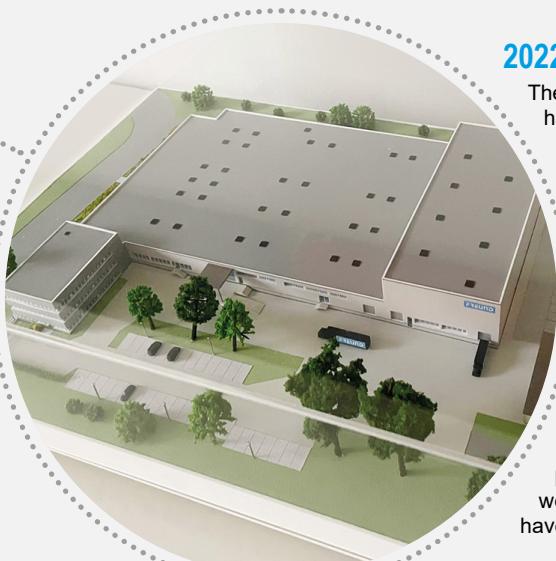
The office building is extended by one floor.

1992

The sole proprietorship becomes a KG. First Managing Director: **Robert Freund**.

2001

Extension of the hall to create more space for work and better work processes.



2022

The location for the new Smart Factory has been finalised, financing has been secured and the rough planning for the conversion/renovation has begun.

2023

The fine and detailed planning of the infrastructure are underway. Renovation work is being carried out on the hall floors and the underground pipes are being renewed.

2024

Project management and the next phase of remodelling/renovation as well as the planning of the move have been initiated.

A NEW LOCATION >> NEW OPPORTUNITIES IN THE SMART FACTORY

Dear customers, partners and friends of FREUND Maschinenfabrik,

Our journey has entered a new beginning.

At our new location, we are building bridges between decades of mechanical engineering craftsmanship and the digital intelligence of Industry 4.0. This step represents a significant part of our continuous development and our commitment to innovation and quality.

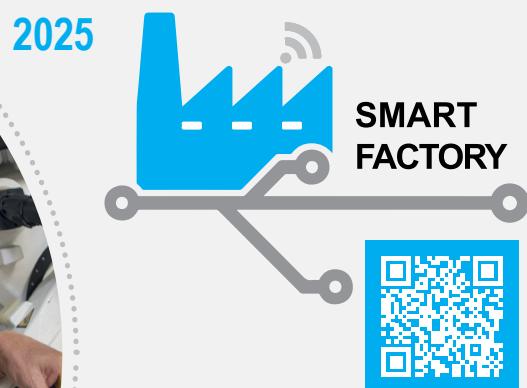
FREUND Maschinenfabrik has always stood for the highest precision and reliability in the mechanical engineering industry. Our philosophy is based on the pursuit of excellence and the conviction that progress is achieved through continuous improvement. The new Smart Factory enables us to integrate modern technologies and intelligent production processes in order to offer you even better products and services.

In our new Smart Factory, we are not only expanding our production capacities, but also leveraging the advantages of automation, data analytics, and connectivity. This allows us to work more efficiently, respond more quickly to market changes, and develop tailor-made solutions for your needs. We are convinced that this will help us further advance our vision of sustainable growth and technological progress.

We sincerely thank you for your trust in FREUND Maschinenfabrik. Your support enables us to realize this important transformation together.

We warmly welcome you to our new location and look forward to shaping the future of mechanical engineering together with you!

With kind regards,
Your FREUND Maschinenfabrik Team



*"We ramp-up our new
Smart Factory to improve
our services to you!"*

Robert Freund



STUNNING

STUNNING



Professional stunning plays a very important role in the slaughtering process.

Ethical animal welfare requirements coupled with a sustainable, cost-effective procedure and optimum meat quality is what needs to be achieved. In this regard, FREUND offers the perfect solution with an extensive product range for electrical stunning with high-frequency constant current with high-frequency constant current or constant voltage.

Programmable stunners with a recording function for transparent documentation of the on-going process and suitable stun tongs for every animal size make an efficient slaughtering yield possible.

The FREUND service department supports the user by offering expert advice in all matters relating to the products.

CONTENTS



Droving

6-7



Stunning

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▶ Stun tongs 8-11

▶ Electric stunning devices and accessories 12-23

▶ Captive bolt stunner 24

▶ Compressed air compressors 24-25

▶ SCHERMER
Captive bolt stunners / accessories 26-31

▶ Cartridges 32-33

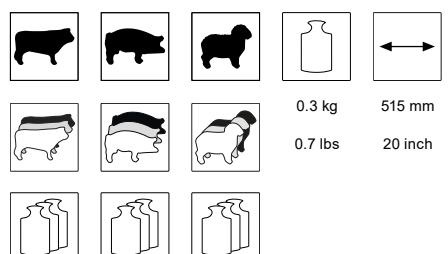
MOVIT-M

Animal drover / Drowsing aid



Swatter for effective drowsing in a manner conducive to the well-being of the animal

- Pain-free drowsing: no electric shocks, no sharp tips
- No sudden noise and contact trigger
- Reduced risk of bleeding and dead animals
- The MOVIT-M animal drover complies with the applicable animal welfare requirements



KAWE 8001

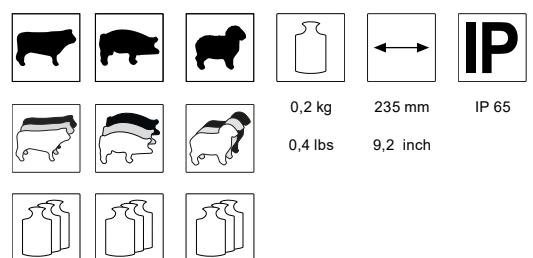
Animal drover (electronical)



SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND
www.freund-germany.com

Electronic animal drover for effective drowsing of the animal

- Electronic control, therefore no mechanical wear
- Battery-operated (2 Monocells 1,5V)*
- Maintenance-free electronics
- Housing made of robust plastic



*Not included in the scope of delivery due to transport regulations



► Not permissible for use in plants within a member state of the European Union (TierSchlV 1099 vom 01.03.2013)

KAWE 21

Animal drover (electronical)

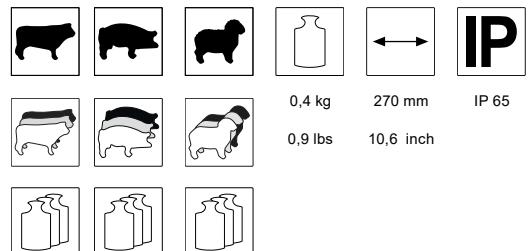


SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND
GERMAN QUALITY SLAUGHTER-TOOLS

Electronic animal drover for effective droving in a manner conducive to the well-being of the animal

- Automatic switch-off of the current pulse after 1 second
- Electronic control, therefore no mechanical wear
- Battery-operated (2 Monocells 1,5V)*
- Visual display
- Maintenance-free electronics
- Housing made of robust plastic
- The KAWE 21 complies with the applicable animal welfare requirements

*Not included in the scope of delivery due to transport regulations



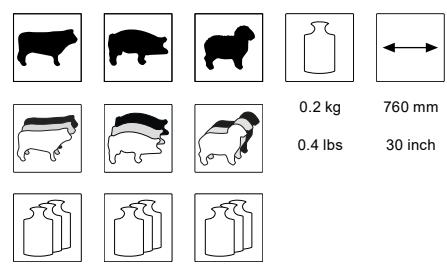
EXTENSION ROD / VERLÄNGERUNGSSTAB

Extension rod for KAWE 21 / KAWE 8001



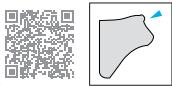
SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND
GERMAN QUALITY SLAUGHTER-TOOLS

- increases the user's reach
- effortless insertion
- compatible with KAWE 8001 and KAWE 21
- made of robust plastic



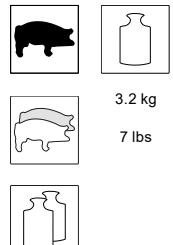
STUN-TONG-EP STEEL

Electric stun tong



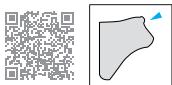
Electric stun tong for suckling pig and pig head stunning

- spike electrodes provide better skin contact and prevent slipping
- Electrode quick-change system
- Stable stainless steel design ** INOX / rust-free **
- Robust pivot joint
- Non-slip handle
- Wear-resistant spiral cable SK



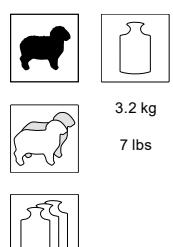
STUN-TONG-EA STEEL

Electric stun tong



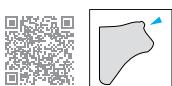
Electric stun tong for sheep, lambs & goats

- With hexagon electrodes
- Extra long spike for optimum skin contact
- Electrode quick-change system
- Stable stainless steel design ** INOX / rust-free **
- Robust pivot joint
- Non-slip handle
- Wear-resistant spiral cable SK



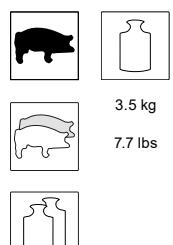
STUN-TONG-ES STEEL

Electric stun tong



Electric stun tong for pigs and sows

- With hexagonal electrodes
- Electrode quick-change system
- Wide opening range for head and heart stunning
- Angled, ergonomic handle
- Stable stainless steel design ** INOX / rust-free **
- Wear-resistant spiral cable



STUN-TONG-EPP2

Electric stun tong (pneumatic)

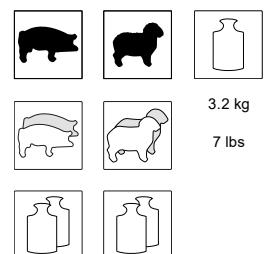


Electric stun tong, pneumatic

- Can be integrated for stunning animals in stun traps or stunning animals in restrainers
- Electrode quick-change system
- Significant relief for the user thanks to the pneumatic drive for opening and closing



3.2 kg
7 lbs



STUN-TONG-EPP3

Electric stun tong (pneumatic)



For trap stunning or for stunning in the restrainer for pigs and sheep

- Easy and safe to use
- Adjustable in 2 opening sizes:
 - ▶ for pig/sheep
 - ▶ for sow
- Significant relief for the user thanks to pneumatic closing process and spring tensioner (optionally available)
- Innovative material alloy of the electrode for optimal current flow and significantly increased durability
- Prepared for use with an F-series stunning device in conjunction with an interface control box
- Can be used in combination with a manual or automatic cardiac electrode

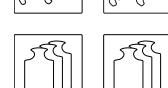
*Image similar



SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND



4 kg
8.8 lbs



OPTIONAL:

- ▶ Electrodes with long thorn for sheep and sows
- ▶ **F3-1,6N** Spring balancer with cable extension up to 1,6 m

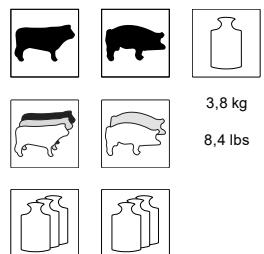


ZK-1

Electric stun tong



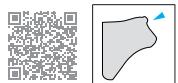
- Plastic side pieces
- Larger opening angle due to extended side pieces for combined heart-brain stunning in bays
- Spiral cable
- CEE plug



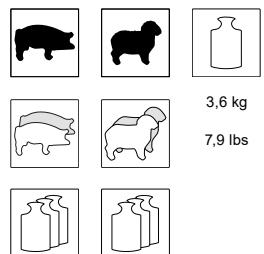
3,8 kg
8,4 lbs

ZK-2

Electric stun tong (standard)



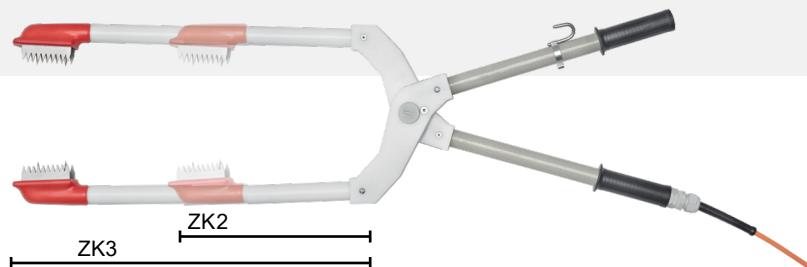
- Plastic side pieces
- Large opening angle for combined heart-brain stunning in bays
- Spiral cable



3,6 kg
7,9 lbs

ZK-3

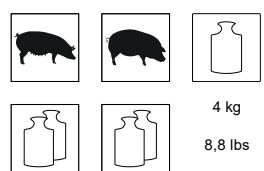
Electric stun tong



ZK2

ZK3

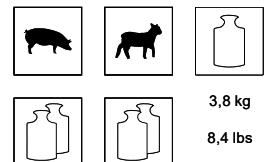
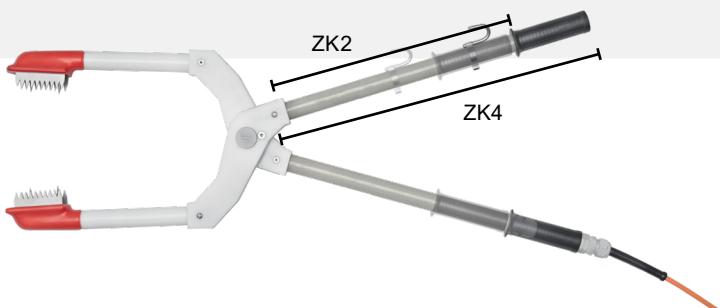
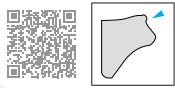
- Plastic side pieces
- Large opening angle for combined heart-brain stunning in bays
- Spiral cable



4 kg
8,8 lbs

ZK-4

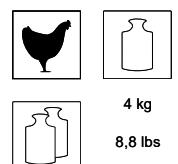
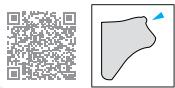
Electric stun tong



- Plastic side pieces
- Large opening angle for combined heart-brain stunning in bays
- Spiral cable

Z-KT

Electric stun tong



- Plastic side pieces
- Spiral cable



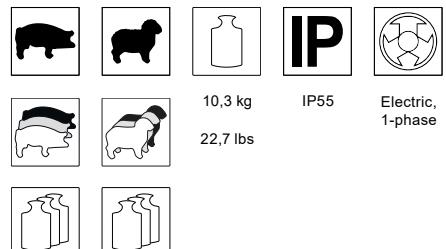
STUN-F6

Stunning device for trade and medium-sized businesses



NEW!

NEW!



*Image similar



*The images show examples of the screen displays

- Powerful constant current or constant voltage electric stunning device with variable frequency response for trap stunning in craft and medium-sized businesses
- USB/LAN/WLAN interfaces for data/parameter transfer
- Stunning programs pre-installed; if required expandable up to 25 stunning programs
- Predefined stunning parameters for optimal stunning effectiveness and best possible meat quality, individually adjustable on request
- Remote parameterization of programs and stun device is possible upon customer request
- Complies with the valid legal and normative requirements:
 - ▶ COUNCIL REGULATION (EC) No. 1099/2009 of September 24, 2009 on the protection of animals at the time of killing
 - ▶ REGULATION on the protection of animals in connection with slaughter or killing and on the implementation of Council Regulation (EC) No. 1099/2009 (Animal Welfare-Slaughter Ordinance - TierSchlV)
 - ▶ EU Low Voltage Directive
 - ▶ relevant VDE standards
- High-resolution touchscreen for setting and displaying key parameters during stunning
- Interface for an external three-colour signal light
- Rapid current ramp up to 3.0 A
- Internal storage space for approx. 1.2 million stunning records
- Integrated tally counter (updated daily)
- Reliable, industrial-grade electronic transformer
- Easy installation and operation for the user
- Robust plastic housing with handlebar and wall bracket

SCHERMER STUN PORTAL

Web server for data recording and remote parameterization (STUN-F series)



www.schermer-stun-portal.com



devices English log off

The screenshot shows the main interface of the SCHERMER STUN Portal. On the left, a sidebar menu includes 'device list', 'stuns' (selected), 'statistic', and 'stun record upload'. The main content area is titled 'stuns Freund F8' and displays a table of 13 rows of data. The table columns are: total count, no of stuns per day, point in time, program, head current, head time, heart current, and heart time. Rows 651-663 are shown, with row 655 highlighted in orange. To the right of the table is a graph showing 'Spannung [V] / Frequenz [Hz]' over time, with multiple colored lines representing different parameters. At the bottom right, there are buttons for 'PDF print daily tab' and 'PDF-report complete'.

[Printable PDF view of the daily table](#)

daily tab:	
stuns:	1.663
stuns ok:	1.628
stuns error:	35
error rate in %	2,1%

▲ The figure shows an example of the daily statistics of the stuns carried out.

► The figure shows an excerpt from the report on the stun carried out.

The screenshot shows a report excerpt from the SCHERMER STUN Portal. At the top, the SCHERMER logo is displayed with the text 'STUNNER EXPERTS SINCE 1896' and 'A BRAND OF FREUND'. Below the logo, the 'device: Freund F8' and 'time:' are specified. The main content area is a table with 13 rows of data, identical to the one in the main interface. To the right of the table is a graph showing 'Spannung [V] / Frequenz [Hz]' over time, with multiple colored lines representing different parameters. At the bottom right, there is a page number 'page: 2 / 2'.

- If there is an existing network connection, the stunning data and the stunning parameters set on the device are automatically saved
- In offline operation, alternative data transfer via USB stick is possible
- Upon customer request, remote parameterization of the stunning device is possible via the SCHERMER Stun portal
- Recording, displaying and evaluating the stunning processes with all relevant data
- Evaluation of anesthesia data to create daily, weekly and monthly statistics directly in the portal. All statistics can be printed and/or saved (PDF)
- Extensive filter function (e.g. error rates) for analyzing the stunning data
- Additional device access with different authorizations is possible

STUN-F8

Stunning device, suitable for industrial use and high frequency
(constant current or voltage)



16,7 kg

IP55

36,8 lbs



*Images similar



- High-frequency constant current or constant voltage electric stunning device for trap or restrainer stunning in industrial and medium-sized companies
- USB/LAN/WLAN interfaces for data/parameter transfer
- Stunning programs pre-installed and can be expanded to up to 25 stunning programs if required
- Predefined stunning parameters for optimal stunning effect and best possible meat quality, individually adjustable on request
- Remote parameterization of the device is possible upon customer request
- Signal provision for external controls (e.g. pneumatic peripherals, PLC, signaling devices)
- Rapid current increase up to 3.5 A
- Internal storage space for approx. 1.2 million stunning sessions
- Integrated piece counter (updated daily)
- Reliable, industrial-grade electronic transformer
- Easy installation and operation for the user
- Robust stainless steel housing with wall bracket complies with the valid legal and normative requirements:
 - ▶ the current COUNCIL REGULATION (EC) No. 1099/2009 of September 24, 2009 on the protection of animals at the time of killing
 - ▶ the Regulation on the protection of animals in connection with slaughter or killing and on the implementation of Council Regulation (EC) No. 1099/2009 (Animal Welfare-Slaughter Ordinance - TierSchlV)
 - ▶ the EU Low Voltage Directive
 - ▶ the relevant VDE regulations

STUN-F8



*The images show examples of the screen displays

- High-resolution touchscreen for setting and displaying key parameters during stunning

SCHERMER STUN PORTAL

Web server for data recording and remote parameterization (STUN-F series)



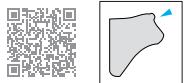
www.schermer-stun-portal.com



- If there is an existing network connection, the stunning data and the stunning parameters set on the device are automatically saved
- In offline operation, alternative data transfer via USB stick is possible
- Upon customer request, remote parameterization of the stunning device is possible via the SCHERMER Stun portal
- Recording, displaying and evaluating the stunning processes with all relevant data
- Evaluation of anesthesia data to create daily, weekly and monthly statistics directly in the portal. All statistics can be printed and/or saved (PDF)
- Extensive filter function (e.g. error rates) for analyzing the stunning data
- Additional device access with different authorizations is possible

STUN-TONG-EPP3 F-SERIE

Electric stun tong (pneumatic)

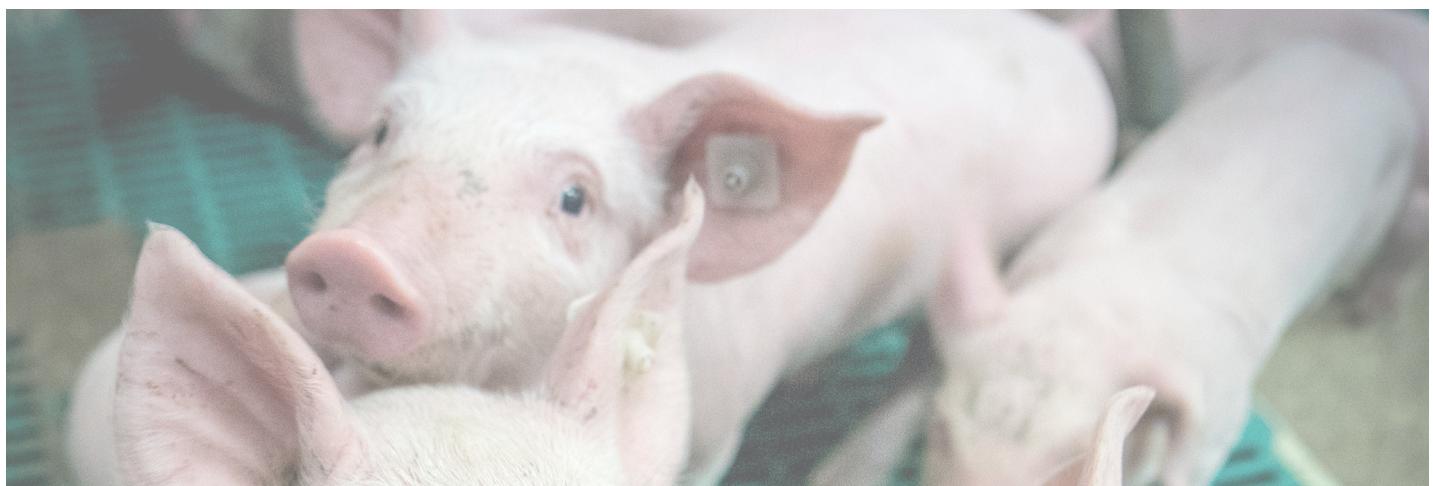


For trap stunning or for stunning in the restrainer for pigs and sheep

- Easy and safe to use
- Adjustable in 2 opening sizes: ▶ for pig/sheep
▶ for sow
- Significant relief for the user thanks to pneumatic closing process and spring tensioner (optionally available)
- Innovative material alloy of the electrode for optimal current flow and significantly increased durability
- Prepared for use with an F-series stunning device in conjunction with an interface control box
- Can be used in combination with a manual or automatic cardiac electrode

OPTIONAL:

- ▶ Electrodes with long thorn for sheep and sows
- ▶ **F3-1,6N** Spring balancer with cable extension up to 1,6 m

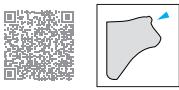


STUN-IF1-F8 / STUN-IF2-F8

Interface control boxes (suitable for STUN-F8)



*Image similar



	IP
2,1 kg 4,6 lbs	IP44
6,2 kg 13,7 lbs	IP44

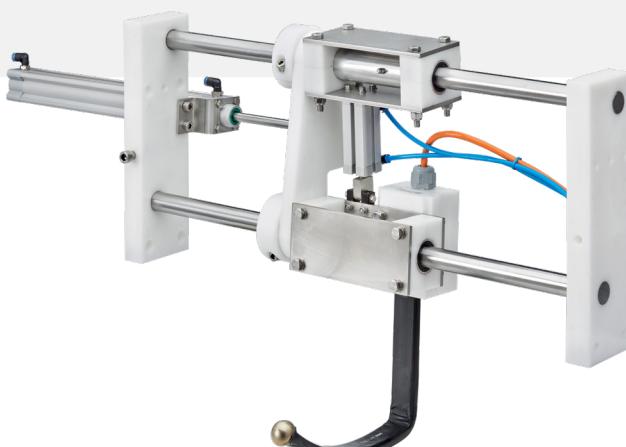
Additional devices for the STUN-F8 stunning device for controlling pneumatic components.

Available in two versions:

- **STUN-IF1-F8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 F-series)
- **STUN-IF2-F8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 F-series), as well as up to 2 pneumatic cylinders on a heart electrode (e.g. STUN-HE-PP)

STUN-HE-PP

Heart electrode, automatically movable

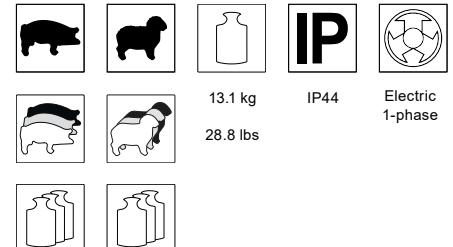
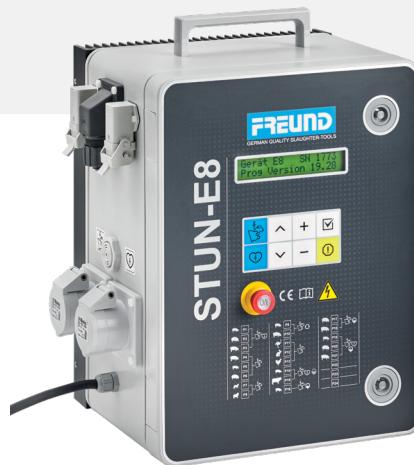


	IP
17,4 kg 38,4 lbs	IP44

- Designed for integration into stun traps and restrainers
- Enables automated heart circulation in the industrial slaughter process
- The constant, consistent process flow supports good stunning and immobilization as well as high meat quality, which depends on the stunning process
- Left/right installation position available
- Installation in existing system possible (if compatible)

STUN-E8XXL

Stunning device (constant current & high frequency)



Electronic, high-frequency, constant-current, cloud-enabled, stunning device for Industry. Also suitable for stunning animals in stun traps

- 10 pre-installed stunning programs, individually adaptable
- Can be extended to up to 24 stunning programs
- LCD display with 40 characters for real time display of program number, current, voltage, frequency and stunning time
- Linear frequency ramp, without abrupt gradations
- Acoustic and visual display for errors and the end of stunning
- 6 convenient buttons for program selection and programming
- Control of a heart electrode possible
- Network-compatible (Ethernet RJ45)
- Second outlet for separate heart-electrode
- Remote programming of the parameter data sets possible via a web interface
- Access to stun data via the web interface with daily/weekly/monthly statistics
- Internal data storage for additional backup
- Remote control outlet for pneumatic stun tong and pneumatic heart electrode
- Stun data coupling of two stunners via master/slave control (all data of one stunning procedure in one diagram)

STUN-TONG-EPP3 E-SERIE

Electric stun tong (pneumatic)

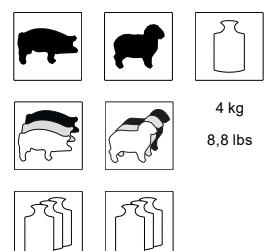


For trap stunning or for stunning in the restrainer for pigs and sheep



SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND

- Easy and safe to use
- Adjustable in 2 opening sizes: ▶ for pig/sheep
▶ for sow
- Significant relief for the user thanks to pneumatic closing process and spring tensioner (optionally available)
- Innovative material alloy of the electrode for optimal current flow and significantly increased durability
- Prepared for use with an F-series stunning device in conjunction with an interface control box
- Can be used in combination with a manual or automatic cardiac electrode



OPTIONAL:

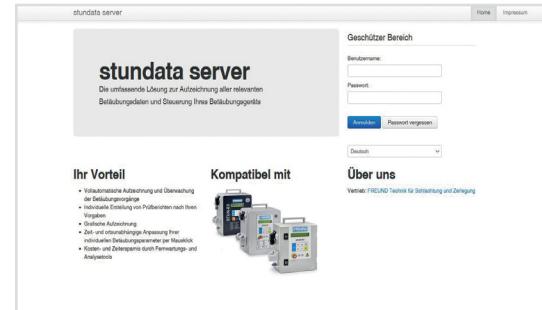
- ▶ Electrodes with long thorn for sheep and sows

STUNDATA SERVER

Web server for data recording (for STUN-E series)



- Automatic storage of stunning data is possible with a network connection
- User-friendly setting options for the stunning parameters via the portal (current, frequency + the times for the stunning process and the stunning duration) for an optimal stunning result
- Recording and evaluation of stunning processes in the portal with date, time, stunning current, filterable by current date
- Optimal adaptation of the anesthesia through the ability to set various parameters (current, frequency + stun times and duration)
- Parameter settings can be transferred to the stunning device via the Internet



<https://stun.freund-germany.com/user/login>

STUN-IF1-E8 / STUN-IF2-E8

Interface control boxes (suitable for STUN-E8XXL)



*Image similar



3,2 kg
7,1 lbs



IP44

7,5 kg
16,5 lbs

IP44

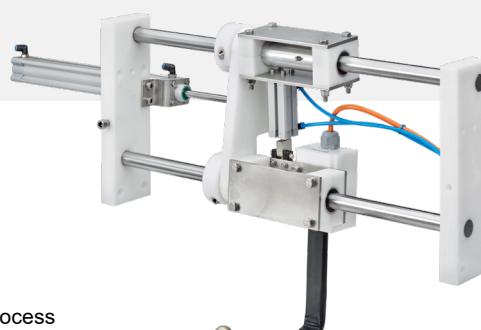
Additional devices for the STUN-E8 stunning device for controlling pneumatic components.

Available in two versions:

- STUN-IF1-E8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 E-series)
- STUN-IF2-E8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 E-series), as well as up to 2 pneumatic cylinders on a heart electrode (e.g. STUN-HE-PP)

STUN-HE-PP

Heart electrode, automatically movable



SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND



17,4 kg



IP44

38,4 lbs

- Designed for integration into stun traps and restrainers
- Enables automated heart circulation in the industrial slaughter process
- The constant, consistent process flow supports good stunning and immobilization as well as high meat quality, which depends on the stunning process
- Left/right installation position available
- Installation in existing system possible (if compatible)

STUN-E6XXL

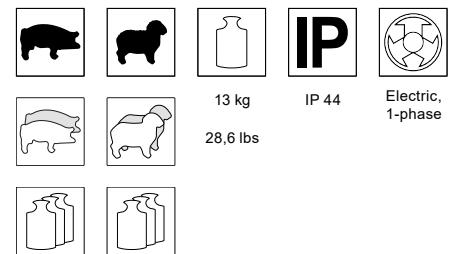
Stunning device (constant current & high frequency)



Electronic, high-frequency, constant-current, cloud-enabled stunning device for the large application



- 8 pre-installed stunning programs, individually adaptable
- Can be extended to up to 24 stunning programs
- LCD display with 40 characters for real time display of program number, current, voltage, frequency and stunning time
- Linear frequency ramp, without abrupt gradations
- Acoustic and visual display for errors and the end of stunning
- 6 convenient buttons for program selection and programming
- Network-compatible (Ethernet RJ45)
- Remote programming of the parameter data sets possible via a web interface
- Access to stun data via the web interface with daily/weekly/monthly statistics
- Internal data storage for additional backup



STUN DATA ONLINE

Lfd. Nr.	Datum/Uhrzeit	Anstieg	Kopf/Strom	Fehl.	Kopf Zeit	Fehl.	Herz Strom	Fehl.	Herz Zeit
3.334	2021-10-14 11:25:23		0.15 A		0.9 sek				
3.335	2021-10-14 11:25:31		0.18 A		1.6 sek				
3.336	2021-10-14 11:25:37		0.22 A		1.6 sek				
3.337	2021-10-14 11:25:42		0.21 A		1.4 sek				
3.338	2021-10-14 11:26:52		1.80 A		2.9 sek				



REMOTE PARAMETERISATION BY MOUSE CLICK

Senden		Strom	Kopf Strom	Ge	Max. Strom		As	1.4	4 sek	Netzspann.		Sprache		Ans				
Nr.	Kopf Starfzeit	Kopf Endfreq	Kopf Verzug	Ra	s	1.8 A	6 sek	Hz	Endfreq	Verzug	Rampzeit	Ladezeit	Heiz Strom	Heiz Ge Zeit	Kopf min Strom	Kopf min Zeit	Heiz min Strom	Heiz min Zeit
1	800 Hz	600 Hz	0 sek	0.5 sek		1 A	1 P	Hz	50 Hz	0 sek	0 sek	0 As	0 A	0 sek	13 A	3.9 sek	0.3 A	0 sek
2	400 Hz	50 Hz	1.5 sek	2.3 sek	7.0			400 Hz	60 Hz	1.5 sek	2.5 sek	7.4 As	1.5 A	7 sek	13 A	4 sek	0.8 A	4 sek
3	150 Hz	100 Hz	0 sek	0.5 sek	7 As	1 A	1.5 sek	50 Hz	50 Hz	0 sek	0 sek	0 As	0 A	0 sek	0.4 A	1.4 sek	0.3 A	0 sek
4	800 Hz	600 Hz	0 sek	0.5 sek	10 As	1.5 A	4 sek	50 Hz	50 Hz	0 sek	0 sek	0 As	0 A	0 sek	13 A	4 sek	0.3 A	0 sek
5	800 Hz	600 Hz	0 sek	0.5 sek	10 As	1.8 A	4 sek	50 Hz	50 Hz	0 sek	0 sek	0 As	0 A	0 sek	13 A	4 sek	0.3 A	0 sek
6	150 Hz	120 Hz	0 sek	0.5 sek	7 As	1.7 A	1.5 sek	50 Hz	50 Hz	0 sek	0 sek	0 As	0 A	0 sek	14 A	4 sek	0.3 A	0 sek
7	160 Hz	120 Hz	0 sek	0.5 sek	7 As	0.6 A	1.5 sek	60 Hz	60 Hz	0 sek	0 sek	0 As	0 A	0 sek	0.4 A	1.4 sek	0.3 A	0 sek

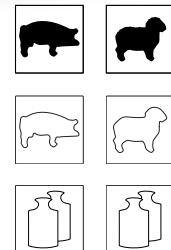
STUN-E4

Stunning device (constant current & high frequency)



Electronic, high-frequency, constant-current stunning device for the craft application suitable for trade

- 4 pre-installed stunning programs, individually adaptable
- Can be extended to up to 24 stunning programs
- LCD display with 40 characters for real time display of program number, current, voltage, frequency and stunning time
- Acoustic and visual display for errors and the end of stunning
- 6 convenient buttons for program selection and programming
- Network-compatible (Ethernet RJ45)
- Web interface with daily/weekly/monthly statistics



9.7 kg
21 lbs

IP

IP44

Electric,
1-phase

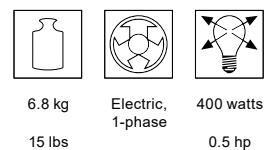
STUN-CHECK-M

Test device for electric stunner



The "STUN-CHECK-M" test device checks the functions and programs (safety and stun functions) of electric stunners.

The STUN CHECK-M is used for checking the stunner, functional testing of individual programs and for checking that the tongs are working correctly (potential cable break or other damage to the tong). This is done in conformity with the current standards.



6.8 kg
15 lbs

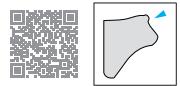
Electric,
1-phase

400 watts
0.5 hp



STUN-E-INSPECTION

Inspection package for electric stunners of the FREUND brand



Electrical safety in accordance with DIN VDE 0701/0702/EN60204-1

All our electrical machines are tested for electrical safety prior to commissioning and following modification or repair in our factory by a qualified electrician in accordance with the electrical engineering rules of DIN VDE 0701-0702/EN 60204-1 and a test badge is attached to said machines.

This test badge indicates when the next repeat inspection must take place.

Inspection interval:

The inspection interval for electrical machines and equipment that is used in slaughtering and cutting plants is every six months.

Inspection in accordance with the German Animal Protection Slaughter Regulation (TierSchIV)

With regard to all FREUND electric stunners, all relevant stunning and work safety parameters are inspected prior to initial commissioning in accordance with the applicable German Animal Protection Slaughter Regulation (TierSchIV) and the EC Regulation 1099/2009, the operational safety regulation and the accident prevention regulation.

Regulation (EC) No. 1099/2009 applies to the slaughter and killing of vertebrate animals intended for the production of food and other products. It therefore contains provisions applicable to the slaughter or killing of animals kept for farming. An inspection sticker is attached to the device.

Inspection interval:

This inspection sticker indicates when the next annual repeat test must take place.

A replacement device (STUN-E4, E6XXL or E8XXL) can be made available for the duration of the inspection/test in accordance with the applicable Animal Slaughter Protection Regulation, operational safety regulations and accident prevention regulations.

- You give us a call on +49 5251 1659-0
- We send you a replacement device from the latest generation (premium package subject to an additional charge)
- You send us your device with the tong and we check that it complies with regulations
- Does the unit meet all test requirements, we issue a test sticker and a test certificate
- Does the unit not meet all test requirements, we put together a cost estimate for the repair work
- After the inspection/repair has been completed, you will receive your unit back.
The replacement appliance is collected (premium package subject to a charge).



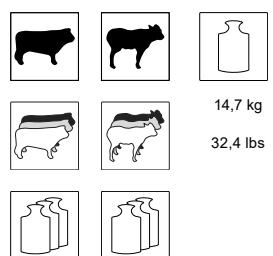
STUN-BP1

Captive bolt stunner (pneumatic)



Pneumatic captive bolt stunner for cattle, calves and solipeds

- 2-hand safety switch
- powerful one-shot stunning
- stunning suitable for animal protection
- penetrating



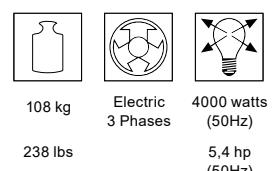
COMP-BP1-1

Compressed air compressor



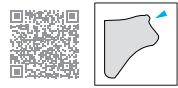
Compressed air compressor for < 60 stuns per hour
(mobile version on wheels)

- 90L tank
- 850 rpm
- incl. maintenance unit (filter, regulator, lubricator)
- 5 metre hose
- 1L oil
- ready for connection



COMP-BP1-2

Compressed air compressor



Compressed air compressor for > 60 stuns per hour
(mobile version on wheels)

- 300L tank
- 850 rpm

Optional:

- maintenance unit (filter, regulator, lubricator) R3/8" with lock adjusted and checked ready for connection
- 2 x 5 metre hose
- 1L oil



*Image similar

	195 kg		Electric 3 Phases		4000 watts (50Hz)
430 lbs					5,4 hp (50Hz)



SCHERMER K SERIE

Captive bolt stunner of series K

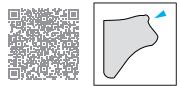


Captive bolt stunner in different designs and sizes

- High penetrating power even for high slaughter throughput
- Effective trigger safety system
- Automatic cartridge ejector
- Quick-release bayonet lock
- Low wear thanks to robust design
- Low cleaning and maintenance costs
- Easy handling
- Economical high-performance cartridges, calibre .27 - 6.8/18 mm
- Bears a test mark from the PTB in Braunschweig

SCHERMER KLS

Captive bolt stunner with automatic bolt retraction system



The captive bolt stunner of type KLS is designed for stunning slaughter animals with a live weight >1000 kg (e.g. heavy bulls).

- Automatic bolt retraction system
- Bolt discharge: 125 mm
- Trigger safety system
- Maximum power performance due to undamped bolt discharge
- Calibre .27 - 6,8/18 mm
- PTB tested and certified according to CIP and CE

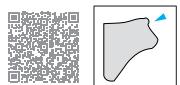
3,1 kg 416,5 mm

6,8 lbs 16,4 inch



SCHERMER KS

Captive bolt stunner with automatic bolt retraction system



Captive bolt stunner with automatic bolt retraction system for cattle, pigs and sheep up to 650 kg live weight

- Automatic bolt retraction system
- Bolt discharge: 80 - 85 mm
- Trigger safety system
- Calibre .27 - 6,8/18 mm
- PTB tested and certified according to CIP and CE

3,1 kg 385 mm

6,8 lbs 15,2 inch



SCHERMER KR

Captive bolt stunner with bolt discharge



Captive bolt stunner with bolt discharge for maximum performance.
For pigs, sheep and horses or cattle up to 1000 kg live weight

- Manual bolt return
- Bolt discharge: 85 mm
- Trigger safety system
- Maximum power performance due to undamped bolt discharge
- Only in combination with head fixation
- Calibre .27 - 6,8/18 mm
- PTB tested and certified according to CIP and CE



3,1 kg
6,8 lbs
385 mm
15,2 inch



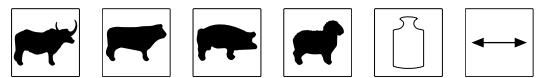
SCHERMER KL

Captive bolt stunner in extended design



Captive bolt stunner in extended design particularly suitable for large animals over 1000 kg live weight such as breeding bulls and water buffaloes as well as for heavy boars

- Manual bolt return
- Bolt discharge: 125 mm
- Trigger safety system
- Elongated design with extra long bolt
- Only in combination with head fixation
- Calibre .27 - 6,8/18 mm
- PTB tested and certified according to CIP and CE
- Design is otherwise the same as that of captive bolt stunner type KR



3,3 kg
7,3 lbs
425 mm
16,7 inch



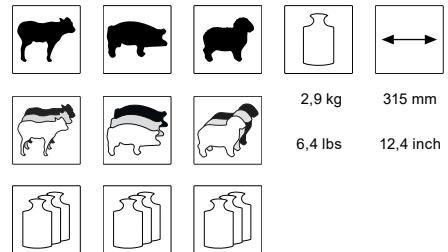
SCHERMER KK

Captive bolt stunner in shortened design



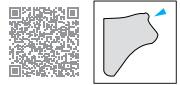
Captive bolt stunner for calves, pigs and sheep up to 650 kg live weight

- Manual bolt return
- Bolt discharge: 75 mm
- Trigger safety system
- Easy handling when space is limited, e.g. for stunning in a transport truck
- Calibre .27 - 6,8/18 mm
- PTB tested and certified according to CIP and CE
- Design is otherwise the same as that of captive bolt stunner type KR



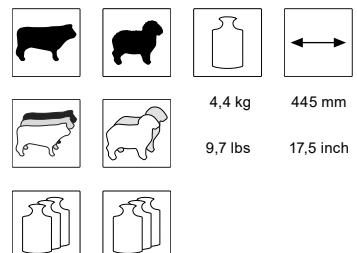
SCHERMER KC

Captive bolt stunner for concussion stunning



Captive bolt stunner for concussion stunning of cattle, calves and sheep up to 1000 kg live weight

- Non penetrating
- Suitable for Halal slaughter
- Trigger safety system
- Calibre .27 - 6,8/18 mm
- Use may be subject to national regulations and restrictions



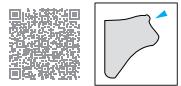
► Not permissible for stunning in plants within a member state of the European Union (TierSchIV 1099 vom 01.03.2013)

STUN-K-INSPECTION



STUN-K-INSPECTION

Inspection package for Karl SCHERMER captive bolt stunner of series K



THE INSPECTION PACKAGE FOR KARL SCHERMER CAPTIVE BOLT STUNNER

Ensure that your livestock gun is reliable and compliant with legal requirements – with our comprehensive STUN-K inspection package. We carry out a complete inspection in accordance with the **German Firearms Act (BeschussV)**, including all relevant functional parameters.

IMPORTANT: Material and parts costs are not included in the scope of services.

OUR SCOPE SERVICES:

Comprehensive maintenance by FREUND

- Including replacement of all wear and spare parts (if necessary).

Complete administrative processing

- We take care of all the formalities – quickly and easily.

Statutory 2-year inspection in accordance with BeschussV

- Legal certainty and tested operational readiness.

OUR SERVICE PROMISE

We ensure that your **cattle shooting device is ready for use** – including all mandatory inspections.

INSPECTIONS IN ACCORDANCE WITH THE GERMAN FIREARMS ACT (BESCHUSSV)

1. Repeat inspection

Operators are obliged to submit every cattle shooting device for inspection 2 years after purchase and then every 2 years thereafter.

2. Inspection in the event of significant functional defects

If there are any malfunctions or safety-related defects, the device must be checked and repaired immediately.

3. Inspection period / inspection sticker

The sticker clearly shows when the next repeat inspection is due.

REPLACEMENT DEVICE DURING INSPECTION

To avoid downtime, we provide you with a replacement device from the **SCHERMER K series** as part of our **premium package** (subject to a fee) – in accordance with:

- Animal Welfare Slaughter Ordinance
- Operational Safety Ordinance
- Accident Prevention Regulations

INSPECTION PROCEDURE

- You call us: +49 5251 1659-0
- We send you a replacement device (premium package subject to a fee)
- You send your livestock shooting device to FREUND
- We test the captive bolt stunner:
 - If the test is successful: **test sticker + test report**.
 - If the requirements are not met: **preparation of a cost estimate**.
- After testing/repair, you will receive your device back
- The replacement device will be collected again (premium package)



OPTIONAL

Accessory set for cleaning captive bolt stunners



- Included in the purchase of captive bolt stunners
- Also available as an option



STUN TEST-GERÄT

Test device for captive bolt stunners



The captive bolt stunners type KR, KL, KK, KS and KLS are tested for functionality in the firing mechanism of the test device before slaughter begins.

The bolt firing speed measured by 2 light barriers after triggering the shot is the measured variable for the calculated points.



STUN TESTHÜLSE

Test sleeve for ensuring constant test conditions



The captive bolt stunner is loaded with a test cartridge for the functional test. The test cartridge prevents any unnecessary wear on the captive bolt stunner.

Constant test conditions are ensured by means of the captive bolt stunner inserted in the test sleeve. In this type of proof testing, the shot is fired into square timber. The penetration depth of the bolt is the measured value to be checked.



OPTIONAL

Cartridges



Test cartridges calibre .27 6.8/11 mm

to check the functionality of livestock shooting devices before the start of slaughter in the STUN test device



*Image similar



High-performance cartridges Cal .27" 6,8/15 mm

When choosing a suitable cartridge strength, consider the following: age, weight, breed, hair coat, skin folds, sex of the animal and any head fixation.



	KLS	KS	KR	KL	KK	KC
Applications	RECOMMENDED CARTRIDGE CONFIGURATION					
 > 1000 kg*		-	-		-	
 650 - 1000 kg*		-		-	-	
 300 - 850 kg*			-	-	-	
 300 - 650 kg*				-		
 < 300 kg*				-		
		-	-		-	
				-		
 > 150 kg*		-			-	
 30 - 150 kg*				-		
 < 30 kg*				-		
 				-		

Observe
country-
specific
legal
position

*Specified weight relates to live weight



SLAUGHTERING

SLAUGHTERING



CONTENTS

	Stimulation	36
	Bleeding	36
	Weasand clip	37
	Feet / neck	38
	Neck	39
	Horns, legs	40
	Horns	41
	Dehiding	43

The 'Slaughtering' product group completes the FREUND machine range with the latest technology in meat processing.

These machines are characterised by a robust design coupled with the most important features for optimum, user friendly operation in day-to-day slaughtering activities.

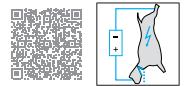
The saws are freely configurable and can be adapted accordingly to the needs of the user.

In technical matters, the FREUND service department will be happy to advise you.

	Breastbone	43-44
	Splitting	44-53
▶ Circular saws	44-47	
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	Vacuum action	54-61
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SCHERMER Sprays	62 - 63	
Optional accessories	112-118	

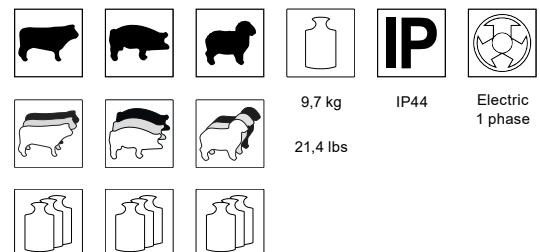
STIM-E3

Stimulation device for immobilisation / stimulation / skinning



Programmable stimulation device for medium-sized and industrial companies

- 6 pre-installed stimulation programs for different applications
- Can be extended to up to 24 stimulations programs
- Acoustic and visual display for errors and end of stimulation time
- 40 character LCD display provides accurate live display of program number, current, voltage, frequency and stimulation duration - for maximum transparency and control in real time
- Convenient 6 buttons for program selection and programming
- Interface for an external signal to start the electrostimulation programme
- Internal data memory for backing up up to 8000 data records
- Network-compatible (Ethernet RJ45) for simple optional connection to the STUN-Data web interface
- Remote programming option for parameterisation - conveniently via the web interface www.stun.freund-germany.com => more information on page 13



Advantages of electrical stimulation in the slaughter process:

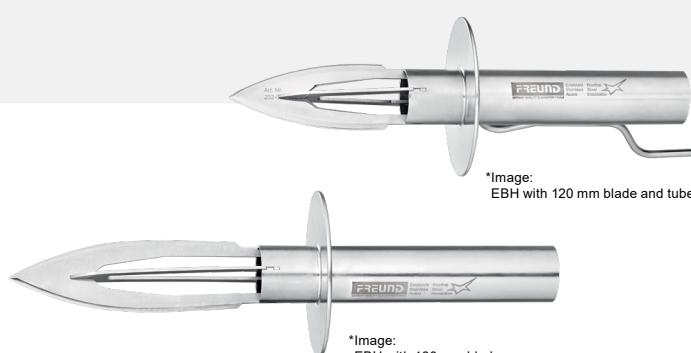
► Acceleration of bleeding	► Increase in meat quality
► Reduction of PSE and DFD	► Extension of product shelf life
► Shortening of the meat maturation time	► High quality of fur due to gentle fur removal

OPTIONAL:

- Web interface with daily/weekly/monthly statistics
- Nose clamp & overhead track connection with 10-meter cable

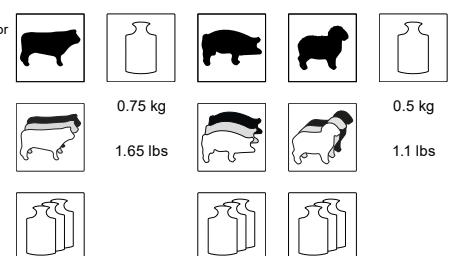
EBH

Sticking knife



*Image:
EBH with 120 mm blade and tube for anti-coagulator

*Image:
EBH with 160 mm blade



Sticking knife for hygienic blood extraction

- Blade and blade holder can be easily exchanged
- Cost-effective, modular design

OPTIONAL:

- Blade available in 2 sizes: ▶ 120 mm for sheep/pigs
- 160 mm for cattle
- Anti-coagulator tube available for all sizes

RÜCKENMARKZERSTÖRER

Cranial insertion rod



SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND
GERMAN QUALITY SLAUGHTER-TOOLS

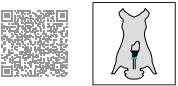
Use after stunning with captive bolt stunner if no blood withdrawal is planned

- Made from plastic
- Available in two lengths

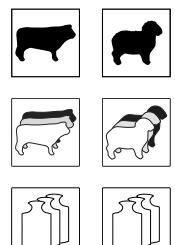


WEASAND CLIP

Weasand clip (oesophagus seal)



- Secure and straightforward sealing of the oesophagus prevents contamination by any stomach content being discharged
- Available in two different sizes (sheep and cattle), easy to use even when the oesophagus is full or damaged
- Secure seating: no slipping out of place, no leakage, no premature release
- FDA food contact approved
- Affordable, graduated price scale

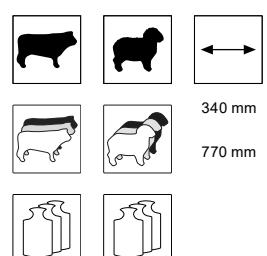


RODDING STAB / WEASAND ROD

Weasand rod

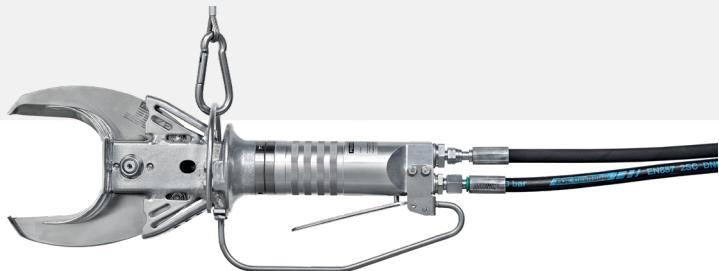


- Made of stainless steel, to ensure correct placement of Weasand clip (oesophagus seal)
- Rod is guided along the esophagus in order to place a clip in front of the cardia
- Prevents the discharge of rumen fluid
- Available in 2 lengths: ▶ 340 mm for sheep
▶ 770 mm for cattle



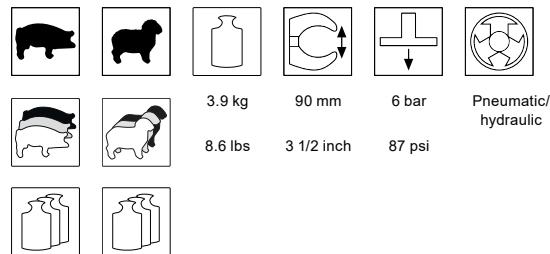
FNS9

Foot and neck shear



Foot and neck shear for pigs and sheep in high throughput plants

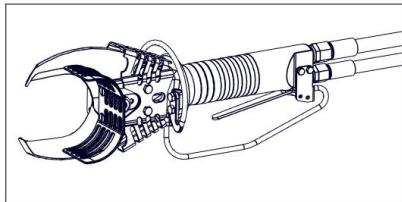
- For severing the head joint and removing the feet of halved pigs and sows by an operator
- user-friendly handling
- Also suitable for cutting the front feet of sows
- Perfect force distribution
- Excellent cut



► configurable en 4 options :

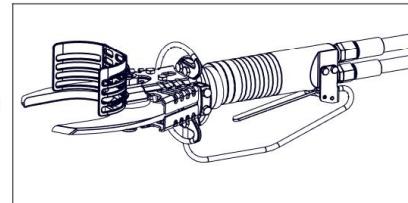
Option 1 :

- vertical knife position



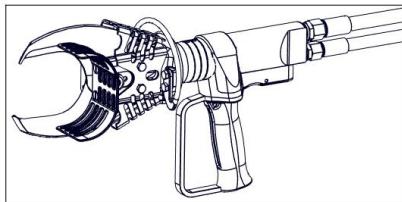
Option 2 :

- horizontal knife position



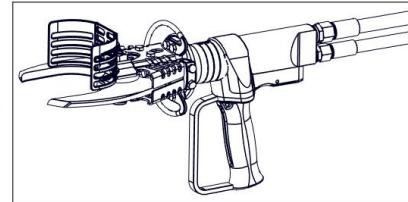
Option 3 :

- vertical knife position
- Pistola Handle



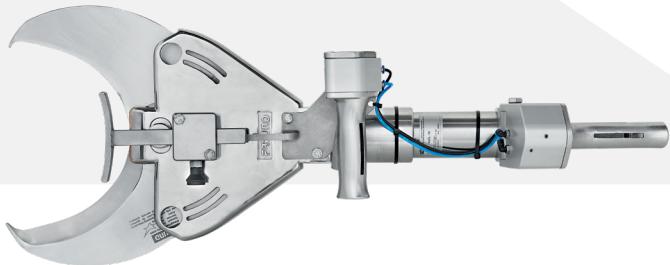
Option 4 :

- horizontal knife position
- Pistola Handle



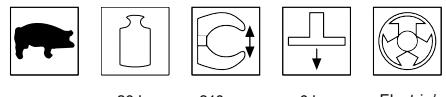
NS21

Neck shear



Hydraulic neck shear for pigs in high throughput plants

- Adjustable handle for better ergonomics
- Two-hand safety switch
- with adjustable depth stop
- Excellent force distribution

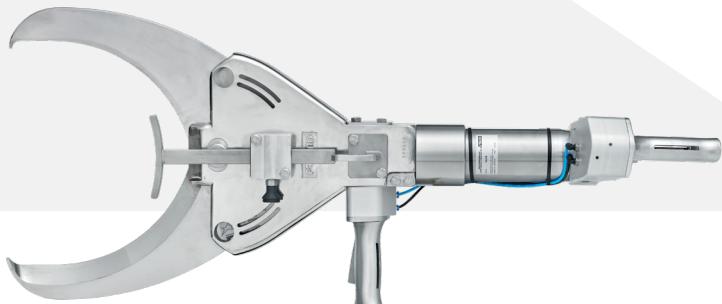


23 kg 210 mm 6 bar
51 lbs 8,3 inch 87 psi



NS26

Neck shear



Hydraulic neck shear for removing the neck of sows & boars in high throughput plants

- Adjustable handle for better ergonomics
- Two-hand safety switch
- with adjustable depth stop
- Excellent force distribution

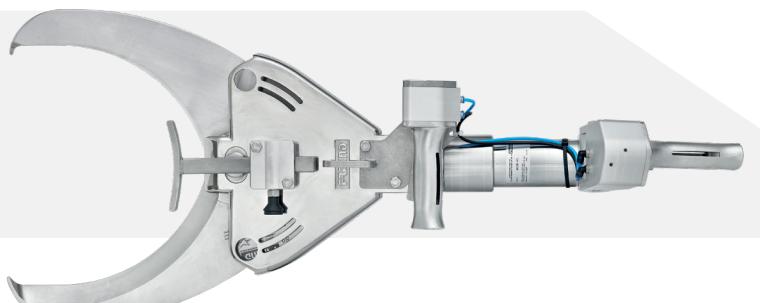


27 kg 265 mm 6 bar
59 lbs 10,4 inch 87 psi



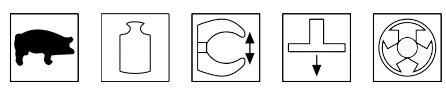
NS26-H1

Neck shear



Hydraulic neck shear for removing the neck of sows & boars in high throughput plants

- Adjustable handle for better ergonomics
- Two-hand safety switch
- with adjustable depth stop
- Excellent force distribution

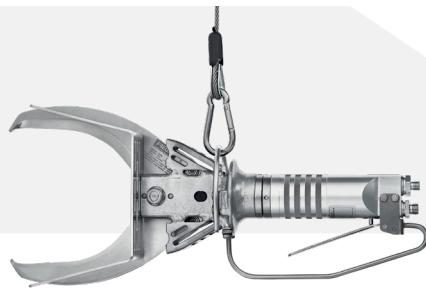


24 kg 265 mm 6 bar
53 lbs 10,4 inch 87 psi



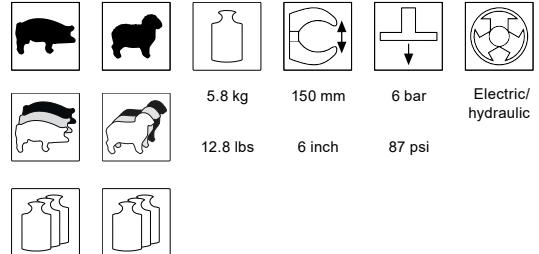
HDS15

Head dropper and general cutting shear



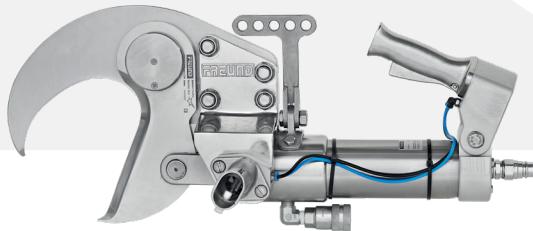
Hydraulic shear for high throughput plants:

- Application in pig cutting
- Severing of complete sheep and goat heads
- Single-hand operation



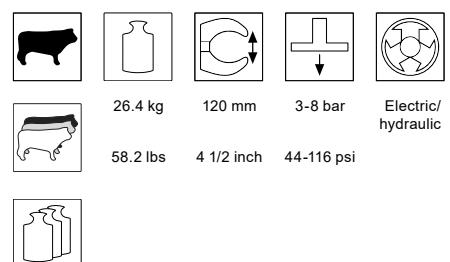
HLS12

Horn and leg shear



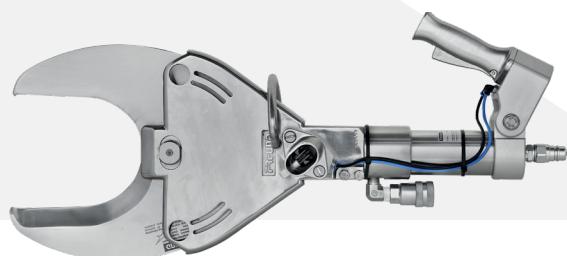
Horn and leg shear for industrial slaughter chains for cattle

- With one fixed and one moveable blade respectively
- Adjustable handle for better ergonomics
- Two-hand safety switch



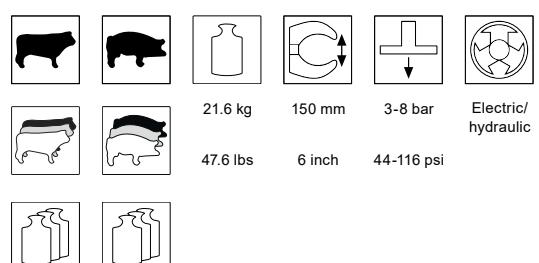
LS15

Leg shear



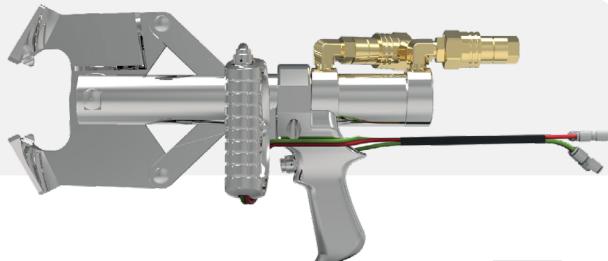
Leg shear for cattle and sows in high throughput plants

- With two movable blades
- Two-hand safety switch
- Adjustable handles for better ergonomics



HZ7

Horn cutter



Hydraulic horn cutter for lambs in high throughput plants

- Two-hand safety switch



6 kg

70 mm

3-8 bar

Hydraulic



13 lbs

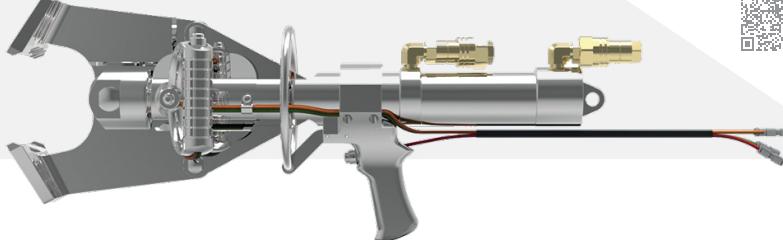
2 1/2 inch

44-116 psi



HZ10

Horn cutter



Hydraulic horn cutter for sheep in high throughput plants

- Two-hand safety switch



15 kg

100 mm

3-8 bar

Hydraulic



33 lbs

4 inch

44-116 psi



HG12

Horn guillotine



Hydraulic horn guillotine for the most arduous applications in high throughput plants

- Pneumatic 2-hand safety switch



33 kg

120 mm

3-6 bar

Hydraulic



73 lbs

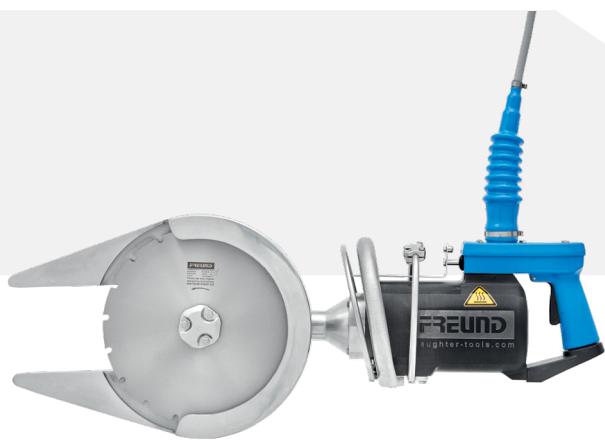
4 1/2 inch

44-87 psi



HBK28-06

Circular horn and leg saw



Circular horn and leg saw for cattle in medium plants

- Mechanical motor brake MMB
- Two-hand safety switch

		21 kg	280 mm	100 mm	IP 65	Electric, 3-phase

46 lbs 11 inch 4 inch 1800 watts (50Hz)
2.4 hp (50Hz)



HBK33-08

Circular horn and leg saw



Circular horn and leg saw for cattle in high throughput plants

- Two-hand safety switch
- With smooth cable GK

		31 kg	330 mm	105 mm	IP 65	Electric, 3-phase

68 lbs 13 inch 4 inch 2300 watts (50Hz)
3.1 hp (50Hz)



SD11

Dehider



Pneumatic dehider with star-shaped blades

- Efficient, clean and safe dehiding - avoids incisions, notches or holes
- Durable and low-maintenance
- Low own weight due to lightweight components



1.4 kg

110 mm

3.5 bar

Pneumatic

410 watts



3 lbs

4 1/2 inch

51 psi

0.55 hp



1.4 kg

110 mm

3.5 bar

Pneumatic

410 watts

BBS14

Breastbone shear



Breastbone shear for sheep and goats in medium and high throughput plants

- with powerful compressed air cylinder
- with second ergonomic handle
- Flexible DL spiral hose 2.5 m



14 kg

145 mm

7 bar

Pneumatic

31 lbs

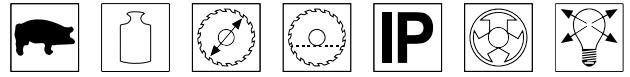
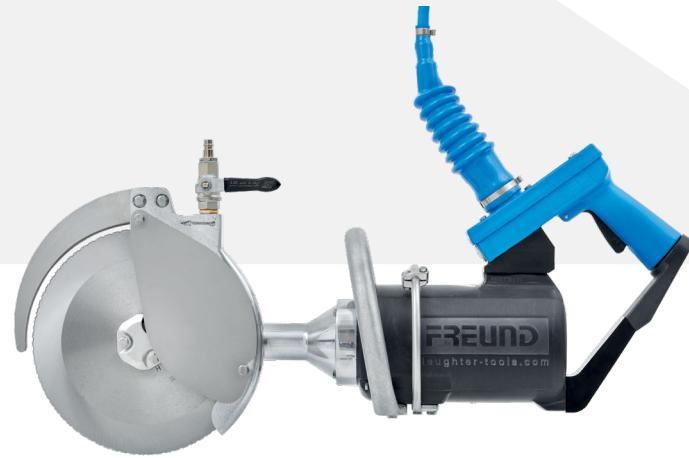
6 inch

102 psi



BBKM25-06D

Circular brisket knife



21 kg 250 mm 85 mm IP 65 Electric, 3-phases 1800 Watt (50Hz)
46 lbs 10 inch 3 1/2 inch 1.8 hp (50Hz)



Circular brisket knife for slaughtering pigs and sheep in medium and high throughput plants

Benefits of the micro-serrated circular knife:

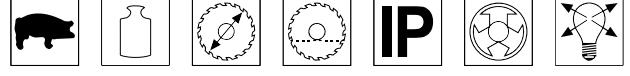
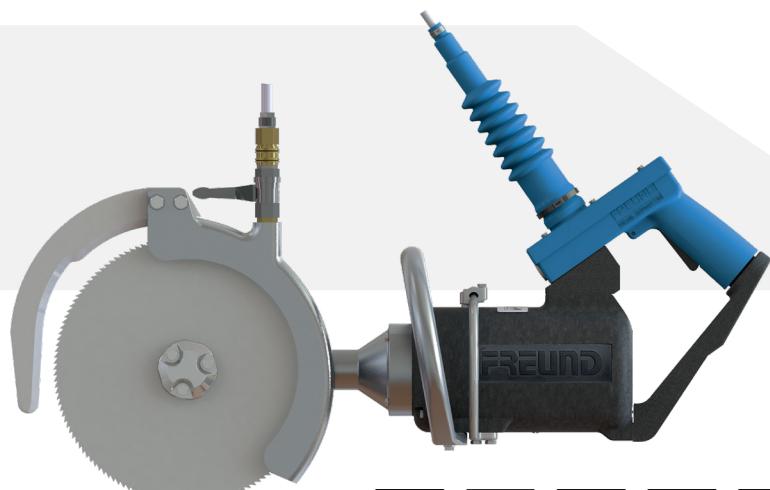
- Optimised hygiene and longer service life
- Clean and smooth blade cut
- Spiral cable SK
- Round handle R (D type)
- Special blade protection prevents organ cutting

OPTIONAL:

- Upright rear handle for working position at belly height or higher

BBK28-06D

Circular brisket saw



21,3 kg 280 mm 100 mm IP 65 Electric, 3-phases 1800 Watt (50Hz)
47 lbs 11 inch 4 inch 1.8 hp (50Hz)



Circular brisket knife for slaughtering pigs and sheep in medium and high throughput plants

Benefits of the micro-serrated circular knife:

- Optimised hygiene and longer service life
- Clean and smooth blade cut
- Spiral cable SK
- Round handle R (D type)
- Special blade protection prevents organ cutting

OPTIONAL:

- Upright rear handle for working position at belly height or higher



SK32-06L

Circular splitting saw



Circular splitting saw for slaughtering pigs and sheep in medium plants (without head)

- Mechanical motor brake MMB
- Circular saw blade, coarse tooth, rust-free KGZ320
- Spiral cable SK
- Upright handle on gear neck GH
- Water connection with spiral hose for cooling and rinsing the cutting surface



19 kg

42 lbs

320 mm

12 1/2 inch

120 mm

4 1/2 inch

IP 65

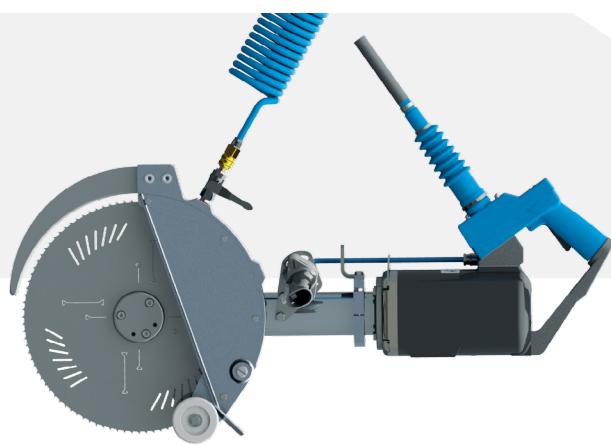
Electric, 3-phases

1800 watts (50Hz) 2.4 hp (50Hz)



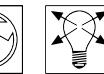
SK40-08L

Circular splitting saw



Circular splitting saw for slaughtering pigs in high throughput plants

- Circular saw blade, coarse tooth, splitting, low-noise, rust-free
KGZ400SPGA
- With smooth cable GK
- Long gear neck
- Two-hand safety switch
- Water connection with spiral hose for cooling and rinsing the cutting surface
- With 2 guide rollers for splitting from the rear



36 kg
79 lbs

400 mm
15 3/4 inch

145 mm
5 1/2 inch

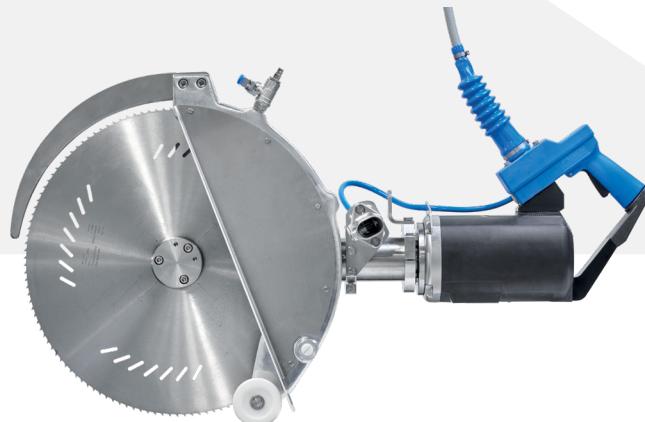
IP 65

Electric,
3-phases

1800 watts
(50Hz)
2.4 hp
(50Hz)

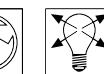
SK52-08L

Circular splitting saw



Circular splitting saw for slaughtering pigs in high throughput plants
(sows to some extent)

- Circular saw blade, coarse tooth, for splitting, low-noise, rust-free
KGZ520SPGA
- With smooth cable GK
- Two-hand safety switch
- Water connection with spiral hose for cooling and rinsing the cutting surface
- With 2 guide rollers for splitting from the rear



41 kg
90 lbs

520 mm
20 1/2 inch

205 mm
8 inch

IP 65

Electric,
3-phases

1800 watts
(50Hz)
3.1 hp
(50Hz)

BBST30-13

Reciprocating breastbone saw



Reciprocating breastbone saw for slaughtering cattle & sows in small and medium plants

- Reciprocating saw blade, fine tooth
- Spiral cable SK
- Round handle R (D type)
- Grease gun, filled
- Low dead weight



12.3 kg

300 mm

IP 65

Electric,
3-phases

950 watts
(50Hz)
1.3 hp
(50Hz)



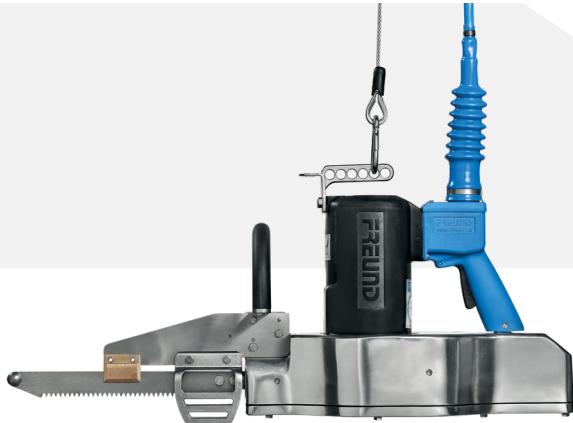
27 lbs

12 inch



BBH30-03

Reciprocating breastbone saw



Reciprocating breastbone saw for slaughtering cattle and sows in all plants sizes

- Reciprocating saw blade, rust-free
- Spiral cable SK
- Round handle R (D type)
- Grease gun and 1 kg grease
- Control box, mounted



21.5 kg

300 mm

IP 65

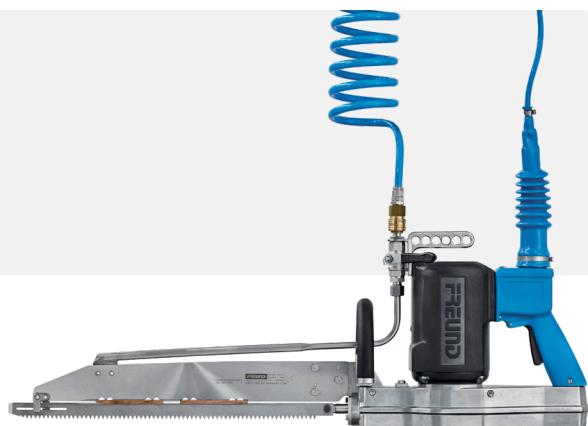
Electric,
3-phases

1300 watts
(50Hz)
1.8 hp
(50Hz)



SST50-13

Reciprocating splitting saw



Reciprocating splitting saw for up to 2 cattle, 15 pigs or 50 sheep per week

- Suitable for trade
- Smallest reciprocating splitting saw of its kind with a completely enclosed three-phase motor
- Low dead weight
- Saw blade STFZ 500 mm
- Spiral cable SK
- Round handle R (D type)
- Gun with special grease



11.5 kg

25 lbs

500 mm

20 inch

IP 65

Electric,
3-phases

950 watts
(50Hz)

1.3 hp
(50Hz)



SH60-03

Reciprocating splitter saw



Reciprocating splitter saw for halving up to 100 pigs or 20 cattle per week

- Suitable for trade
- Reciprocating saw blade, coarse tooth, rust-free HUGZ600SP
- Spiral cable SK
- Round handle R (D type)
- Direct connection to contactor/transformer
- Water connection with spiral hose for cooling and rinsing the cutting surface
- including grease gun



21.6 kg

47.6 lbs

600 mm

23 1/2 inch

IP 65

Electric,
3-phases

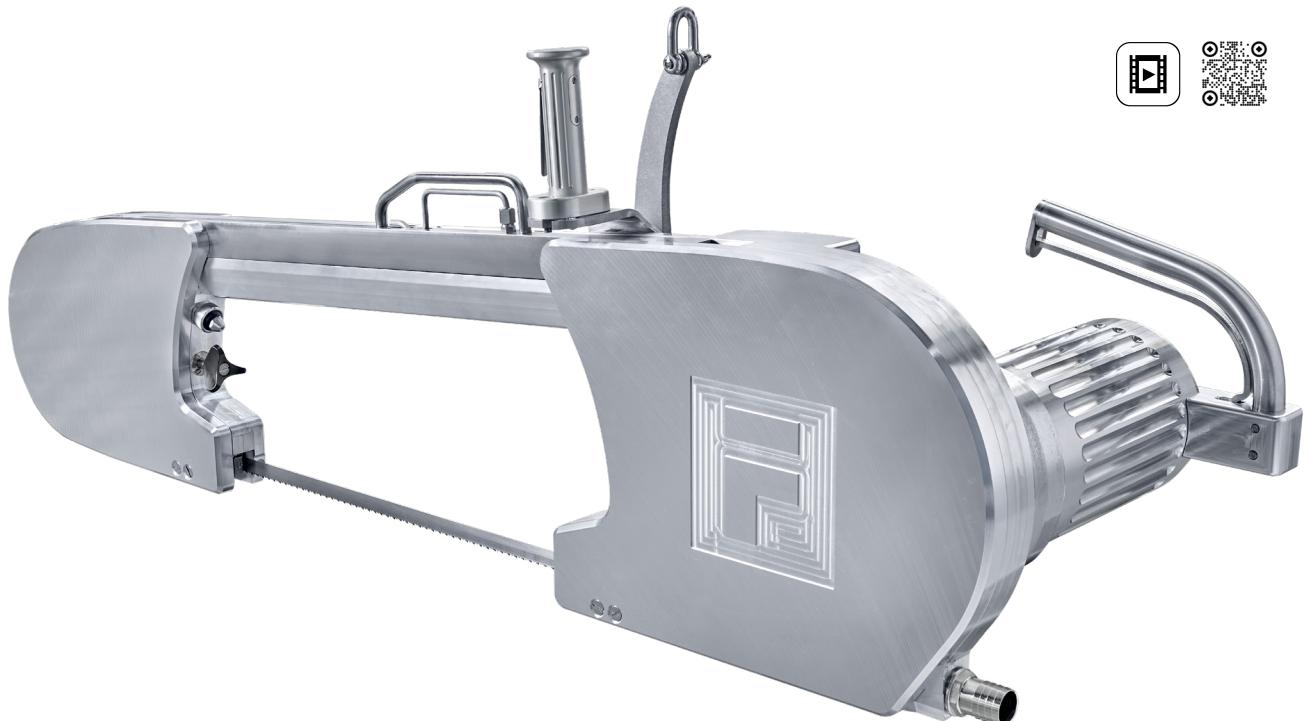
1300 watts
(50Hz)

1.8 hp
(50Hz)



WBS51-08

Splitter-band-saw



Splitting band saw for industrial and medium-sized enterprises for halving pigs. The construction and powerful drive of the saw also allows it to be splitting low to medium quantity of sows and cattle.

- Convenient, reliable belt tensioning system always ensures optimum belt tension and thus supports a long belt service life
- New generation of high-torque drives
- Improved ergonomics of the splitter-band-saw ensures fatigue-reduced working and creates high employee acceptance
- Maintenance-friendly design reduces maintenance times and its resulting costs
- Solid construction, designed for a long service life under heavy duty.
- hygienic design for quick and thorough cleaning after daily use
- quick belt change thanks to ONE-HAND lid lock
- ▶ also available in 42V version



68 kg

150 lbs

516 mm

20 inch

IP 67

elektrisch,
3 Phasen

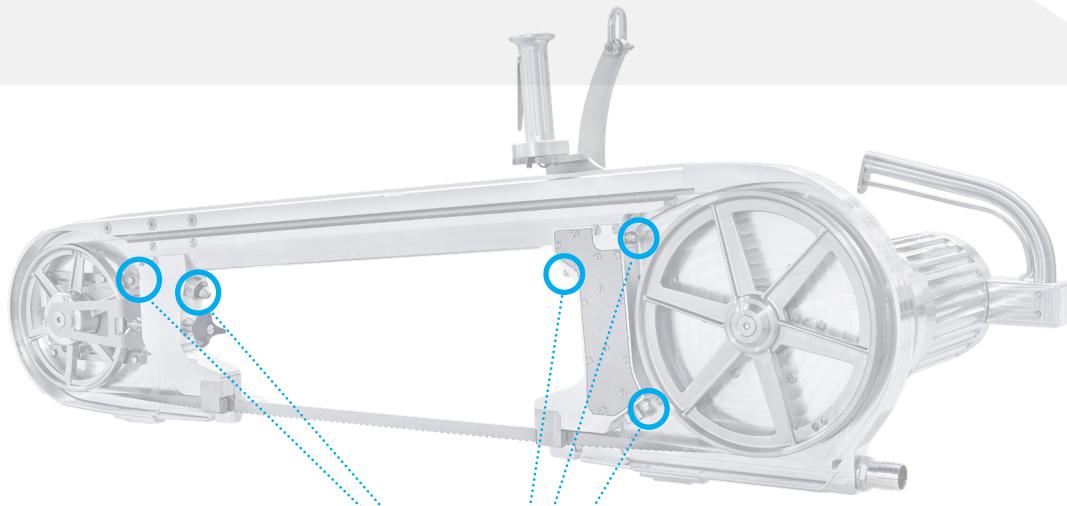
2300 Watt
(50Hz)

3.0 hp
(50Hz)



WBS51-08

Splitter-band-saw



- suitable for low spreader bar slaughtering

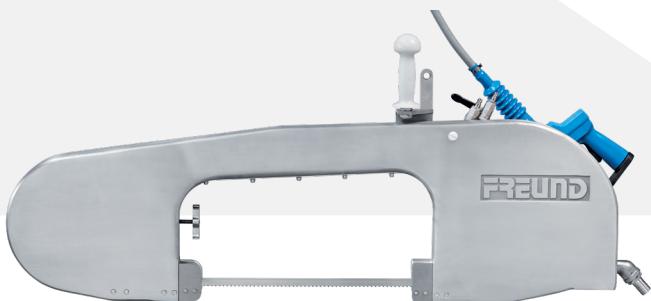


- effectively arranged flushing nozzles reduce the bonedust residues on the carcass and, if necessary, save the downstream process step 'cleaning of bonedust'



SB46-08

Splitter-band-saw



Splitter band saw for pigs/sheep (high throughput plants) and cattle (medium plants) in a combination slaughter line



- If using a low gambrel, halving of pigs is only possible with restrictions (in such cases SB49-08)



64 kg
141 lbs

460 mm
18 inch



SB49-08

Splitter-band-saw



- Particularly suited to expansion brace slaughtering due to the low height (front: 300mm)
- Splitting of cattle is only possible with limitations for this reason



64 kg
141 lbs

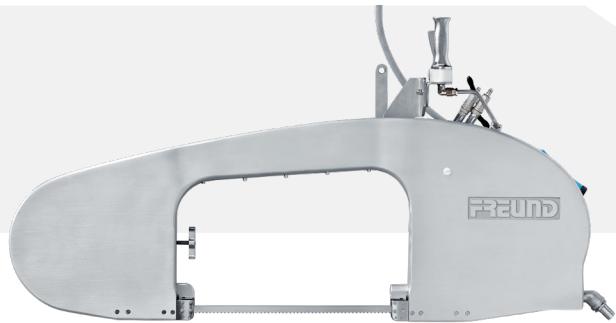
490 mm
19 1/2 inch

19 1/2 inch



SB50-08

Splitter-band-saw

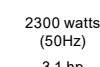


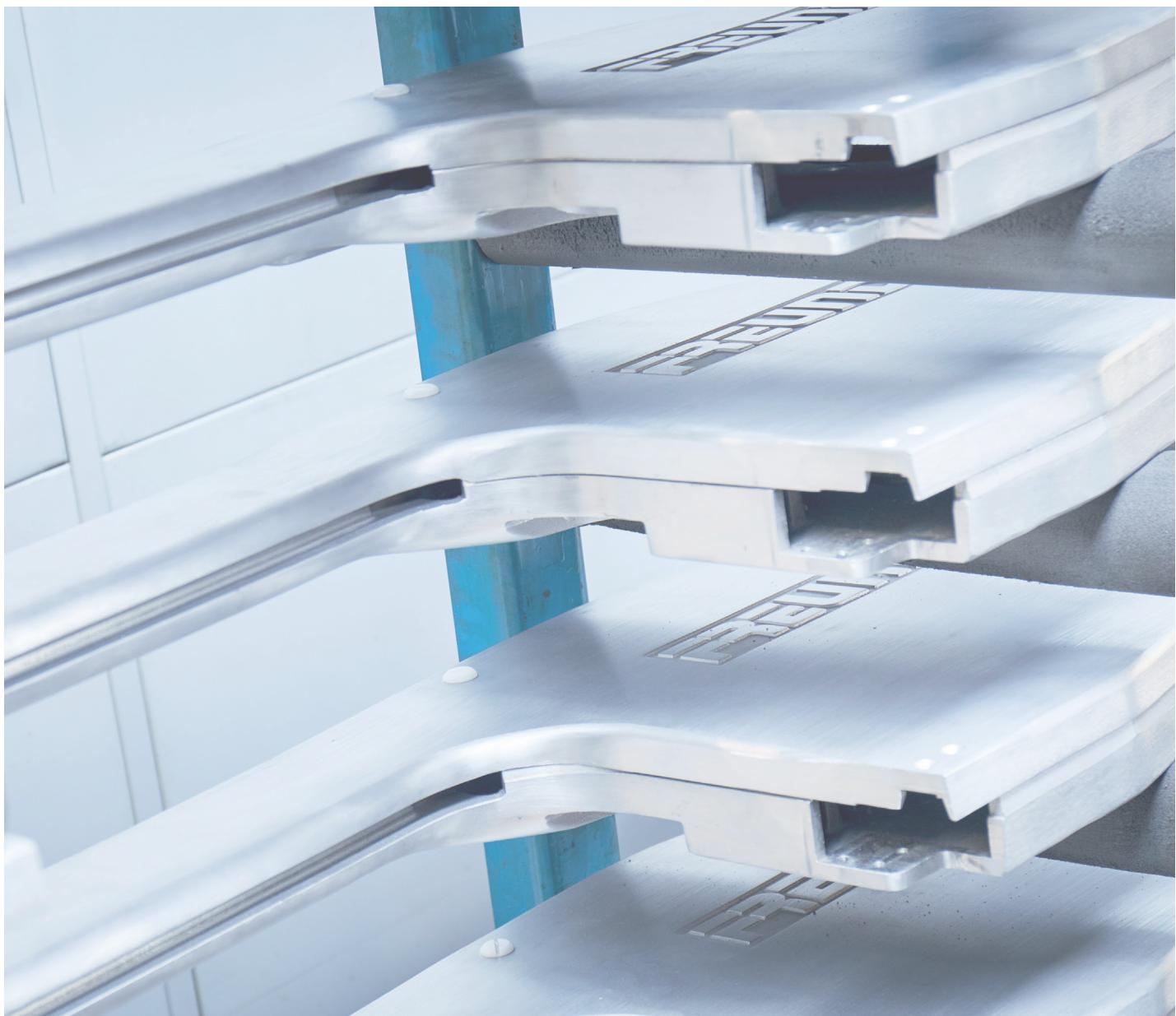
Splitter band saw for cattle and sows in high throughput plants



74 kg
163 lbs

500 mm
19 1/2 inch





All basic models of SB46-08 / SB49-08 / SB50-08 are fitted with the following standard equipment:

- Manual blade tensioning system MAN with lever blade guides HF
- Machine safety switch (cover sensor) MSS
- Water hose unit
- Inbuilt disinfection system DES-E
- 5 replacement saw blades

Bookable as optional extras for standard equipment:

- Automatic tensioning system (hydraulic) for rapid band saw blade exchange and optimum blade tension at all times AUT with automatic band saw blade rotation for rapid band saw blade exchange with adjustable blade guides JF
- Two-hand safety switch 2HATD
- DES-PO7 inbuilt disinfection kit

SVSS

Steam vacuum sanitizer system



*Image similar

SVSS

Steam vacuum sanitizer system



For efficient elimination of contamination and reduction of surface germ counts on carcasses

- Vacuum suctioning of contamination such as bowel contents, hair
- Simultaneous disinfection of the surface using steam
- Significantly better germ reduction compared to cutting with blades e.g. in relation to E.coli bacteria
- Greater food safety
- Increased yield due to lower weight loss compared to trimming
- Reduced risk of cross-contamination thanks to continuous steam disinfection of the hand piece
- No visible change to the surface of the meat
- Vacuum tank (stainless steel), optional:
 - 110 l for mounting on trolley/wall
 - 220 l for mounting on trolley/wall
 - 330 l for wall mounting
- OPTIONAL:
 - Steam generator SVG21
 - Steam generator SVG28



261 kg
575 lbs

IP 54

Electric
3-phase



SVH-38A

Steam vacuum piece



- Disinfection by means of an integrated steam supply and suctioning by means of a vacuum suction line
- Component of the SVSS



1.4 kg
3 lbs

38 mm
1.5 inch



VSS

Vacuum system



Vacuum suction system for vacuum suctioning of spinal cord, brain, leaf lard and grease residues, lungs of poultry etc.

- ▶ The equipment can be combined individually and consists of:
- Vacuum tank (stainless steel), optional:
 - 110 l for mounting on trolley/wall
 - 220 l for mounting on trolley/wall
 - 330 l for wall mounting
- Various hoses
- Hand pieces for different applications
- Vacuum pump optionally available

Optionally also available as version:

- VSS-EDF, specifically for use with rectum cutter EDF64 or EDF76
- VSS-SCR, specifically for use with spinal cord remover-trimmer SCR

EDF

Rectum cutter



To optimally cut out the rectum of pigs and sows.

- Clean and even cut of the rear ham
- Increased yield thanks to more meat on the carcass, on the ham and less on the rectum
- Vacuum extraction of the faecal remains reduces the risk of contamination if the rectum falls into the abdominal cavity
- Internal cleaning system for blades reduces cross-contamination
- ▶ Available in various knife sizes



3.5 kg

6 bar

Pneumatic

750 watts



7.7 lbs

87 psi

1 hp



VSS-VH38B

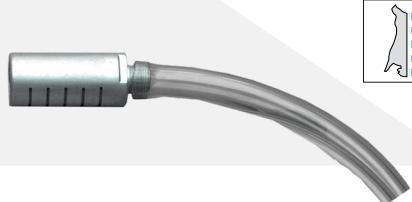
Hand piece for VSS vacuum suction system (optional)



Vacuum suction system hand piece with scraping edge
for removing the spinal cord (from the halved carcass) of cattle, pigs and sheep

VSS-VH38G

Hand piece for VSS vacuum suction system (optional)



Suction handpiece with 2.2 m hose
for removing the spinal cord of cattle with the carcass closed

VSS-VH38H

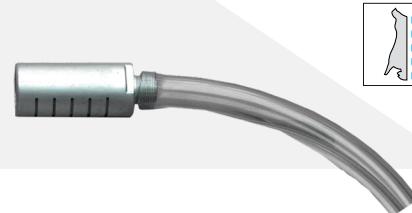
Hand piece for VSS vacuum suction system (optional)



Vacuum suction system hand piece with scraper mandrel
for removing the spinal cord (from the halved carcass) of cattle, pigs and sheep

VSS-VH38E-2106

Hand piece for VSS vacuum suction system (optional)



Suction handpiece with 1.2 m hose
for removing the spinal cord of lambs/sheep with the carcass closed

VSS-VH38I

Hand piece for VSS vacuum suction system (optional)



Vacuum suction system hand piece with extended nozzle
for removing the spinal cord (from the halved carcass) of cattle, pigs and sheep

MODULAR CONSTRUCTION OF TRIMMER_evo3

Trimmer_evo3 with vacuum extraction - Examples of modular design



= Trimmer 35_evo3
▲ variant SCR
spinal cord remover



= Trimmer 35_evo3
▲ variant with
vacuum extraction



= Trimmer 35_evo3



= Trimmer 52_evo3
variant with vacuum extraction



= Trimmer 52_evo3



Exploded views of
Trimmer_evo3 / electrical

NEW!



► Electric motor MDL1

► Further information on the MDL1 and TM-E6000_evo3 motors and the modular design of Trimmer_evo3 can be found on pages 86-87.

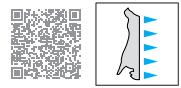


► Electric motor TM-E6000_evo3

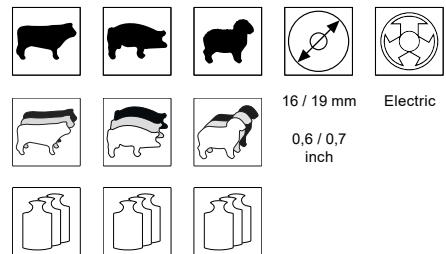


TRIMMER 35 evo3

Trimmer 35_evo3 - variant SCR spinal cord remover



- Ergonomic handle
- New flexible suction and delivery hose
- 2 ring blade sizes available:
 - ▶ SCR16 for pigs
 - ▶ SCR19 for cattle
- One-hand control with the latest start-stop system
- Suitable for right & left-handed users

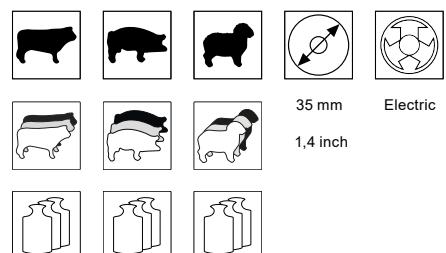


TRIMMER 35 evo3

Trimmer 35_evo3 - variant with vacuum suction



- Ergonomic handle
- New flexible suction and delivery hose
- Ring blade types 35A or 35B for almost any application with vacuum suction
- One-hand control with the latest start-stop system
- Suitable for right & left-handed users

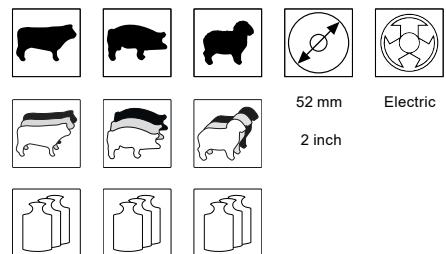


TRIMMER 52 evo3

Trimmer 52_evo3 - variant with vacuum suction



- Ergonomic handle
- New flexible suction and delivery hose
- Ring blade types 52A or 52B for almost any application with vacuum suction
- One-hand control with the latest start-stop system
- Suitable for right & left-handed users

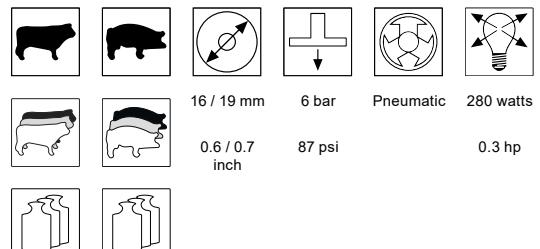


TRIMMER 35

Trimmer 35 - variant spinal cord remover SCR



- The modern way of removing spinal cord in which the risk material is completely isolated
- The spinal cord strand is suctioned by means of a vacuum (VSS vacuum system = accessories). The internal cutting edge separates the spinal cord without harming the spinal cord skin
- 2 ring blade sizes available:
 - SCR16 for pigs
 - SCR19 for cattle

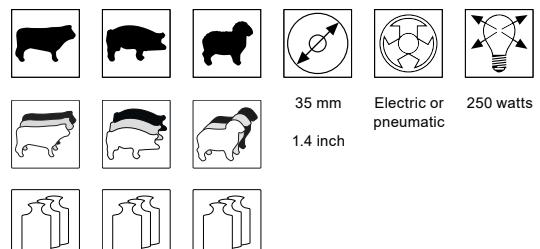


TRIMMER 35

Trimmer 35 - variant with vacuum suction



- Application-optimised design
- Various blade types (straight ring blade, hook ring blade)
- Minimal downtime and servicing costs thanks to low-wear quality components
- Ergonomic handle with robust and abrasion-resistant plastic design
- Quiet operation minimises vibrations on the hand piece
- Optionally powered electrically or pneumatically

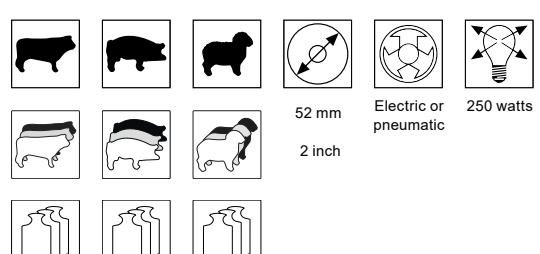


TRIMMER 52

Trimmer 52 - variant with vacuum suction



- Application-optimised design
- Easy handling thanks to spherical suction head
- Various blade types (straight ring blade, hook ring blade)
- Minimal downtime and servicing costs thanks to low-wear quality components
- Ergonomic handle with robust and abrasion-resistant plastic design
- Quiet operation minimises vibrations on the hand piece
- Optionally powered electrically or pneumatically



TRIMMER

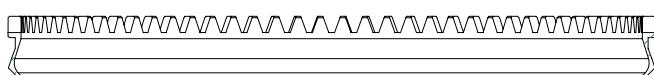
Ring blade selection & application



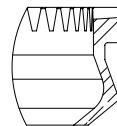
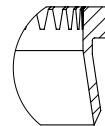
RING BLADE SELECTION



▪ A (straight)

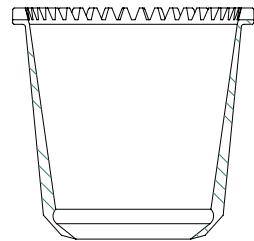


▪ B (hook)

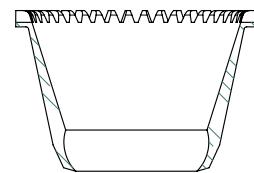


FOR SPINAL CORD REMOVAL

- SCR16



- SCR19

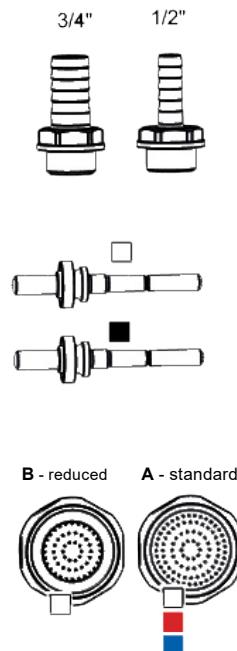


APPLICATION

SLAUGHTERING	Ø 35 mm	Ø 52 mm	VIDEO	CUTTING	Ø 35 mm	Ø 52 mm
Trimming / vacuum suctioning tonsils in head	A 			Trimming / vacuum suctioning auricles	A 	
Trimming / vacuum suctioning spinal hole	A	A 		Trimming / vacuum suctioning eyes	A 	
Cleaning / vacuum suctioning carcasses	A 			Cleaning / vacuum suctioning bones	A 	
Trimming / vacuum suctioning cover fat	A 		B	Deboning / vacuum suctioning long bones	A 	
Trimming / vacuum suctioning chest fat	B			Removing tendons in the shoulder		B
Removing / trimming heart fat			B			
Trimming / vacuum suctioning spinal cord	B		B			
Trimming / vacuum suctioning blood vessels	B	A  / B				
Trimming / vacuum suctioning leaf lard	B		B			
Trimming / vacuum suctioning filets		B				

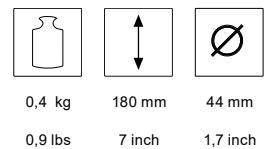
BRAUSE

Spray Model "D"



SCHERMER Sprays for the food industry, agriculture and horticulture.

- High-quality processing and robust design
- Economical water consumption due to quick fastener
- Max temperature 90°C*
- Max. water pressure 6 bar



0,4 kg 180 mm 44 mm

0,9 lbs 7 inch 1,7 inch

* Food-safe plastic complies with Regulation 10/2011 and metal connections comply with the drinking water ordinance (Trinkwasserverordnung)

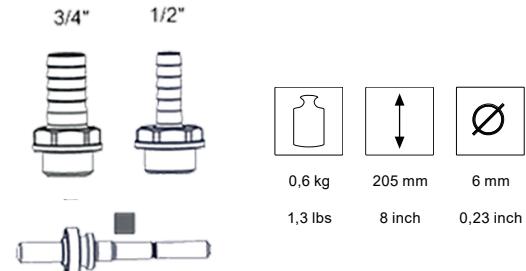
Colourcode: Plastic white Plastic red Plastic blue Metal

DESIGNS OF Model "D"

HOUSING										
CONNECTION		1/2	3/4	-	1/2	3/4	-	1/2	3/4	-
VALVE	SCREEN									
		A / B	A / B	A / B	A	A	A	A	A	A
		A	A	A	A	A	A	A	A	A
		A	A	A	A	A	A	A	A	A
		A / B	A / B	A / B	A	A	A	A	A	A
		A	A	A	A	A	A	A	A	A
		A	A	A	A	A	A	A	A	A

BRAUSE

Spray Model "E"

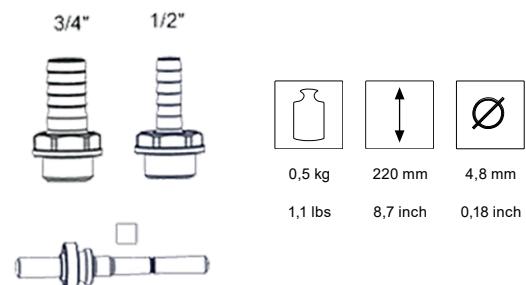


SCHERMER spray with adjustable spray nozzle for the food industry, agriculture and horticulture

- High-quality processing and robust design
- Adjustable water outlet for jet or spray
- Max temperature 90°C*
- Max. water pressure 6 bar

BRAUSE

Spray Model "F"

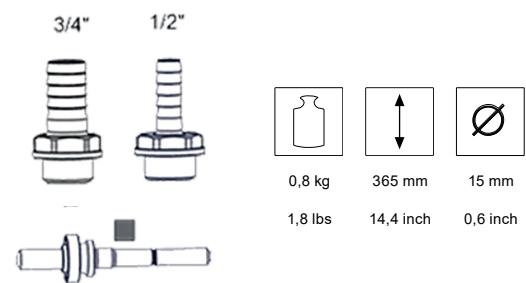


SCHERMER spray with spray nozzle for the food industry, agriculture and horticulture

- High-quality processing
- Efficiently bundled jet
- Max temperature 90°C*
- Max. water pressure 6 bar – diameter 5 mm

BRAUSE

Spray Model "H"



SCHERMER spray with elongated nozzle for the slaughtering industry

- High-quality processing
- Max temperature 90°C*

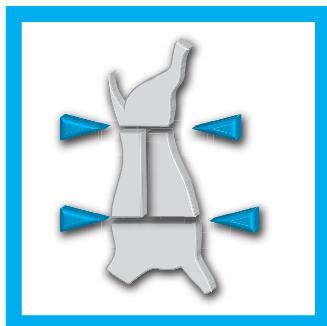
Max. water pressure 6 bar

* Food-safe plastic complies with Regulation 10/2011 and metal connections comply with the drinking water ordinance (Trinkwasserverordnung)



PRIMAL CUTTING

PRIMAL CUTTING



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FREUND circular breaking and quartering saws offer state-of-the-art technology of the highest quality.

Tailored to each application, the individual products provide the right configuration for every kind of processing.

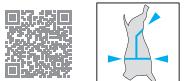
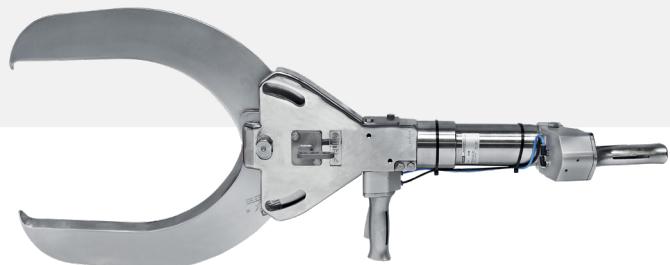
Safety and flexibility when handling saws is just as much at the core of this product group as high-quality processing.

The FREUND service department supports the user by offering expert advice in all technical matters relating to the individual machines.

	Cutting	69 - 81
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▶ ZKM - Circular cutting knife	72 - 73	
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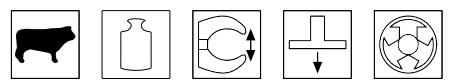
AS28

Quartering shear



Hydraulic shear for quartering cattle

- Clean and smooth cut through the backbone and back muscles
- Two-hand safety switch
- Adjustable handle for better ergonomics



32 kg 280 mm 6 bar Hydraulic
71 lbs 11 inch 87 psi

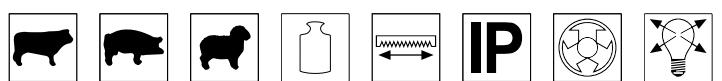


ST40-13

Quartering breaking saw



- Smallest machine of its kind with a completely enclosed three-phase motor
- Breaking saw blade, fine tooth STFZ
- Spiral cable SK
- Round handle R (D type)
- Low-vibration operation thanks to the counterweights installed



12.7 kg 400 mm IP 65 Electric, 3-phases 950 watts (50-60Hz)
28 lbs 15 1/2 inch 1.3 hp (50-60Hz)



ST30-11S

Quartering breaking saw



- Breaking saw blade, fine tooth STFZ
- Spiral cable SK
- Round handle R (D type)
- Low-vibration operation thanks to the counterweights installed
- High speed (S)
- Due to the low dead weight of the machine, no spring balancer is mandatory.



6.5 kg

300 mm

IP 24

Electric, 1-phase

860 watts (50-60Hz)

14 lbs

12 inch

1.17 hp (50-60Hz)



ST40-11S

Quartering breaking saw



- Breaking saw blade, fine tooth STFZ
- Spiral cable SK
- Round handle R (D type)
- Low-vibration operation thanks to the counterweights installed
- High speed (S)



7.4 kg

400 mm

IP 24

Electric, 1-phase

860 watts (50-60Hz)

16.3 lbs

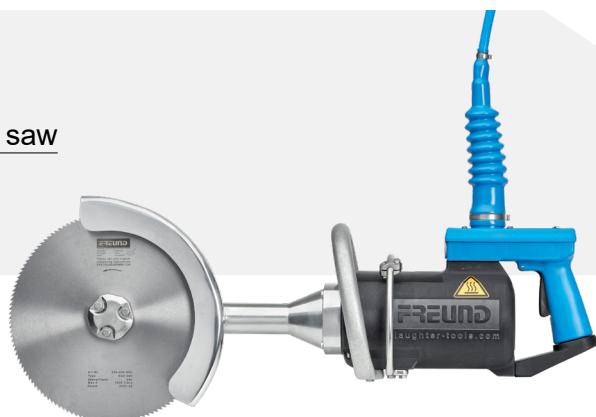
15 1/2 inch

1.17 hp (50-60Hz)



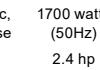
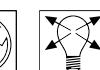
K28-06L

Quartering and circular breaking saw



Quartering and circular breaking saw for general cutting work in high throughput plants

- Long gear neck as a second handle
- Mechanical motor brake MMB
- Circular saw blade, coarse tooth, rust-free KGZ
- Spiral cable SK

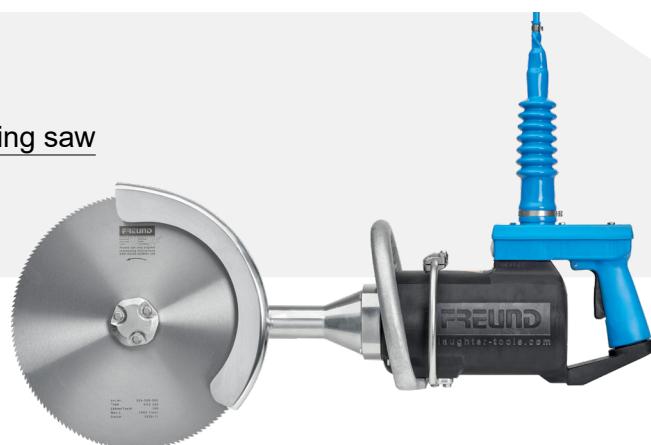


OPTIONAL:

- Two-hand safety switch

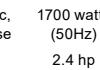
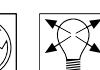
K32-06L

Quartering and circular breaking saw



Circular quartering saw for general cutting work in high throughput plants

- Long gear neck as a second handle
- Mechanical motor brake MMB
- Circular saw blade, coarse tooth, rust-free KGZ
- Spiral cable SK



OPTIONAL:

- Two-hand safety switch

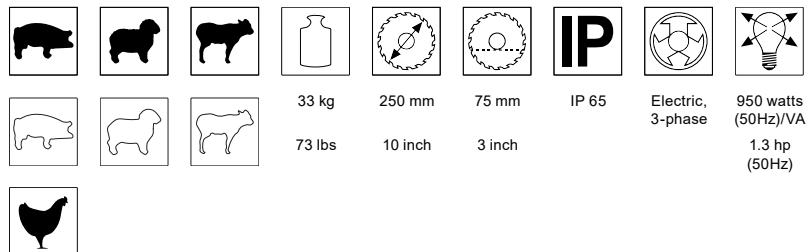
ZKM25-13PC

Circular cutting knife - Tabletop version



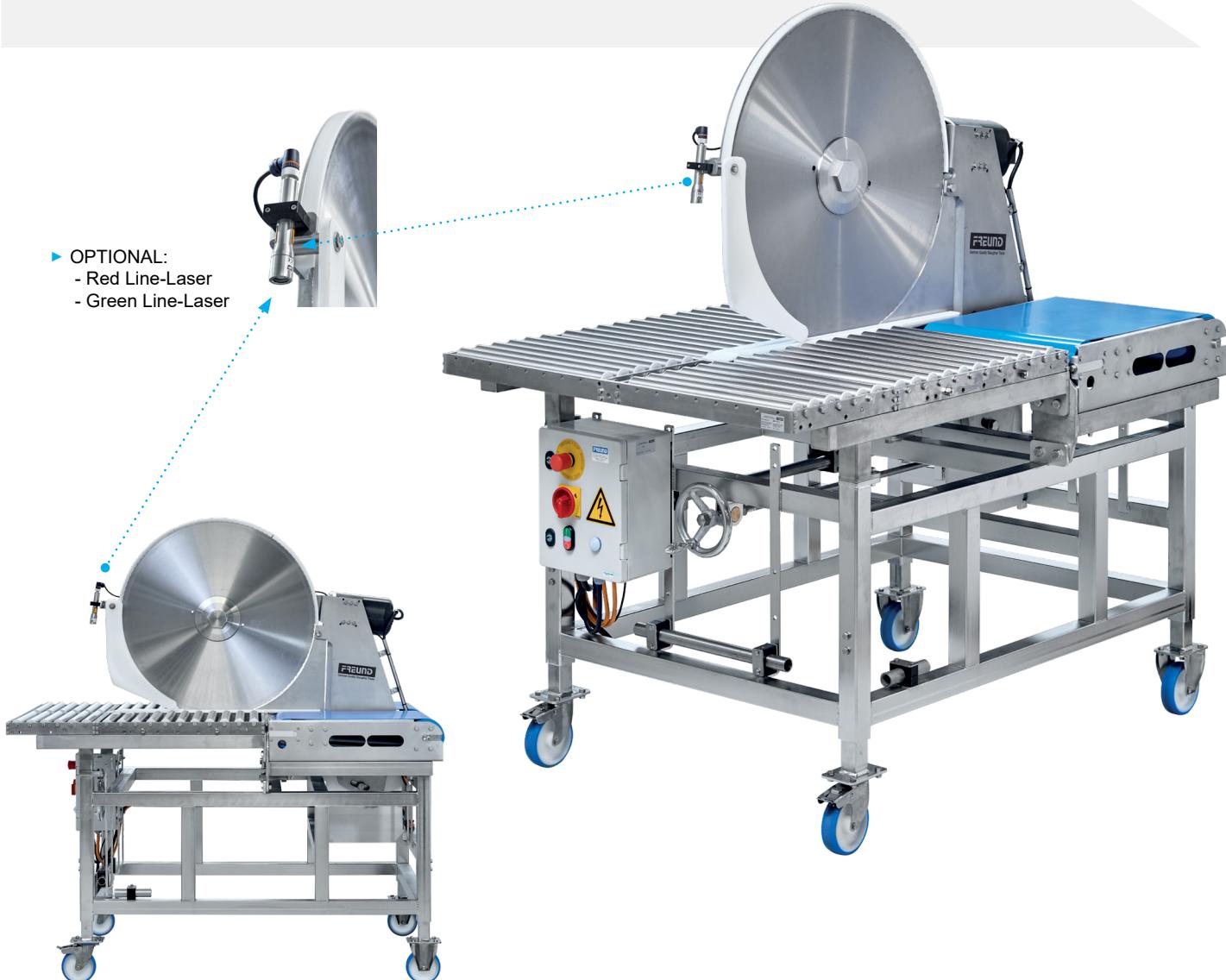
Designed for cutting poultry (chicken, fowl, turkey), small game and small pieces of pig, sheep and calf.

- Optimum ergonomics thanks to open work area on both sides
- Space-saving design with motor above the working area
- Stable bevel gear with lasting durability for the circular breaking saw
- Safety devices and hygiene standard according to CE standard
- Completely enclosed three-phase motor (IP65)



ZKM75-T

Circular cutting knife as a modular table version



Circular cutting knife for low-loss coarse cutting of horizontal carcasses, e.g. on a cutting belt conveyor. Also suitable for halving sheep.



300 kg
661 lbs

750 mm
29 1/2 inch

300 mm
12 inch

IP 65

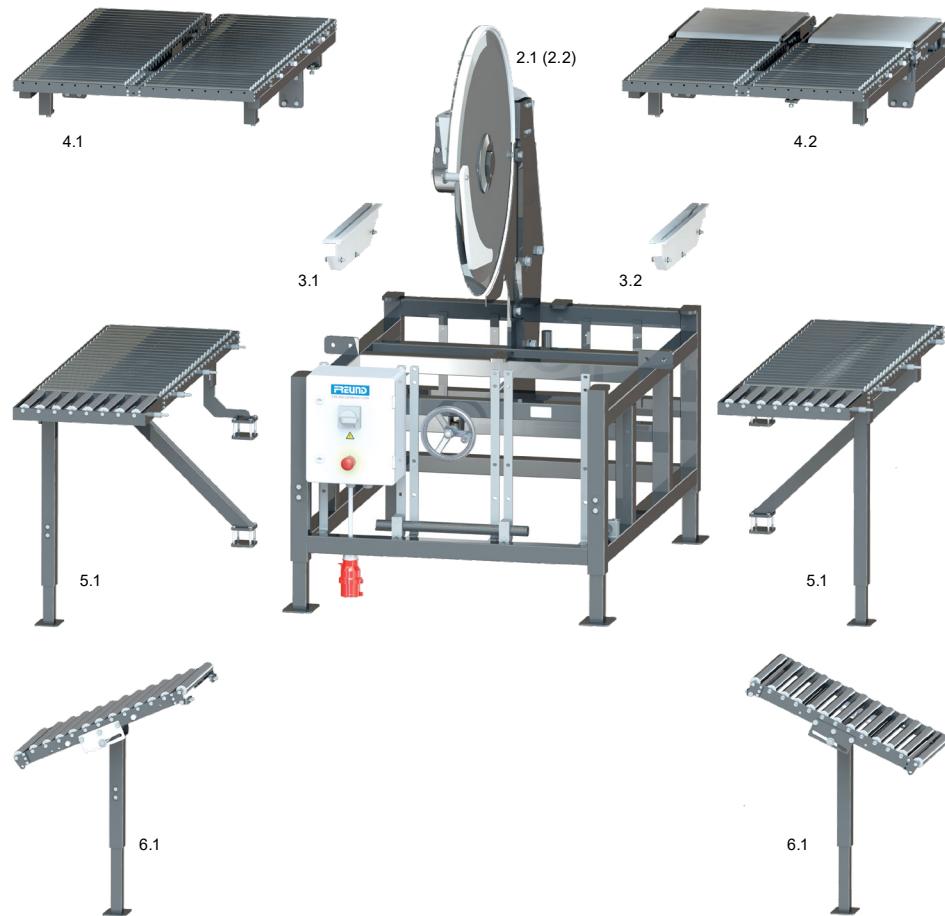
Electric,
3-phases
3.1 hp
(50Hz)

- Compact unit for pre-head positioning in advance of a pig/sheep cutting line
- Loss-free, cleaner and hygienic cut without any smearing
- One operator can coarse cut up to 160 pig halves (3 cuts per hour)
- Design: Table with modular, exchangeable roller frame
- Stainless steel circular knife blade **INOX / rust-free**



ZKM75-T

Circular cutting knife as a modular table version



Pos.	DESIGNATION
1	ZKM75-08-T basic model
2.1	KM750S-1F circular knife for pigs
2.2	KM750S-2F circular knife for sheep
3.1	Guide insert for pigs
3.2	Guide insert for sheep
4.1	ZKM-T roller conveyors (left/right)
4.2	ZKM-T roller conveyors with conveyor belts (left/right)
5.1	Roller table attachment RTA
6.1	Buffer roller conveyor RTA

ZKM75-DA

Circular cutting knife



Circular cutting knife for low-loss coarse cutting of horizontal carcasses, e.g. on a cutting belt conveyor

- Manual lifting of the blade up to 200 mm above the cutting belt
- Space-saving suspension of ceiling or frame structure (suspended installation) in cutting equipment
- ▶ Optionally available with powerful motors:
 - 08 (2300 watts) / 190 rpm
 - 46 (3000 watts) / 190 rpm



140 kg
309 lbs

750 mm
30 inch

300 mm
12 inch

IP 65
Electric,
3-phase

2300 watts
(50Hz)
3.1 hp
(50Hz)



3000 watts
(50Hz)
4 hp
(50Hz)



▶ OPTIONAL:
- Red Line-Laser
- Green Line-Laser



ZKM75-DA-JHS

Circular cutting knife



Circular cutting knife for low-loss coarse cutting of horizontal carcasses, e.g. on a cutting belt conveyor

- Height adjustable up to 200 mm via the cutting belt
- Space-saving suspension of ceiling or frame structure (suspended installation) in cutting equipment
- With lateral movement option
- ▶ Optionally available with powerful motors:
 - 08 (2300 watts) / 190 rpm
 - 46 (3000 watts) / 190 rpm



200 kg
440 lbs

750 mm
30 inch

300 mm
12 inch

IP 65
Electric,
3-phase

2300 watts
(50Hz)
3.1 hp
(50Hz)



3000 watts
(50Hz)
4 hp
(50Hz)

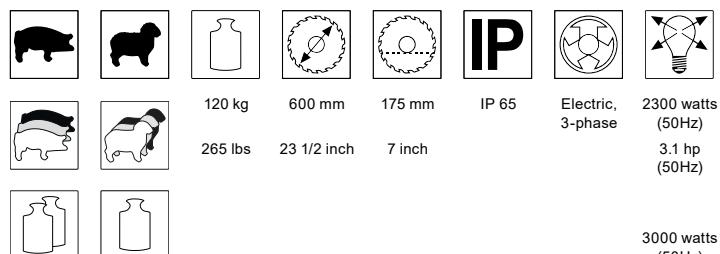
ZKM60-DA-MS

Middle splitter circular knife blade



Circular knife blade for optimum separation of pig mid-sections in belly & cutlet series

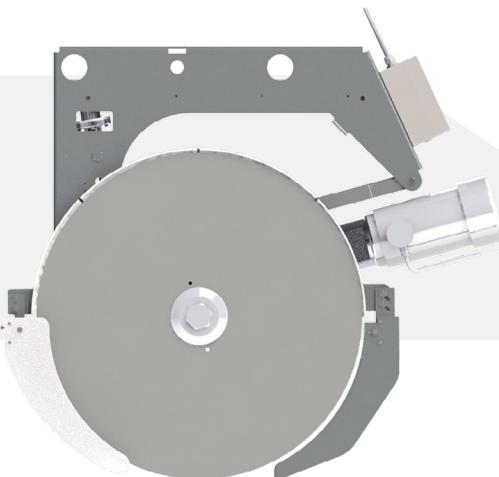
- Space-saving suspension of ceiling or frame structure (suspended installation) in cutting equipment
- Continuous cutting angle adjustment $\pm 15^\circ$ can be set for optimum yield
- ▶ Optionally available with powerful motors:
 - 08 (2300 watts) / 190 rpm
 - 46 (3000 watts) / 190 rpm



3000 watts (50Hz)
4 hp (50Hz)

ZKM95-DA

Circular cutting knife



Circular cutting knife for low-loss coarse cutting of horizontal carcasses, e.g. on a cutting belt conveyor

- Space-saving suspension of ceiling or frame structure (suspended installation) in cutting equipment
- Motor in stainless steel housing with fan cooling
- Large saw blade with a diameter of 950 mm
- Cutting depth of the circular knife blade is 340 mm
- Powerful motor (3000 watts)



3000 watts (50Hz)
4 hp (50Hz)

▶ OPTIONAL:

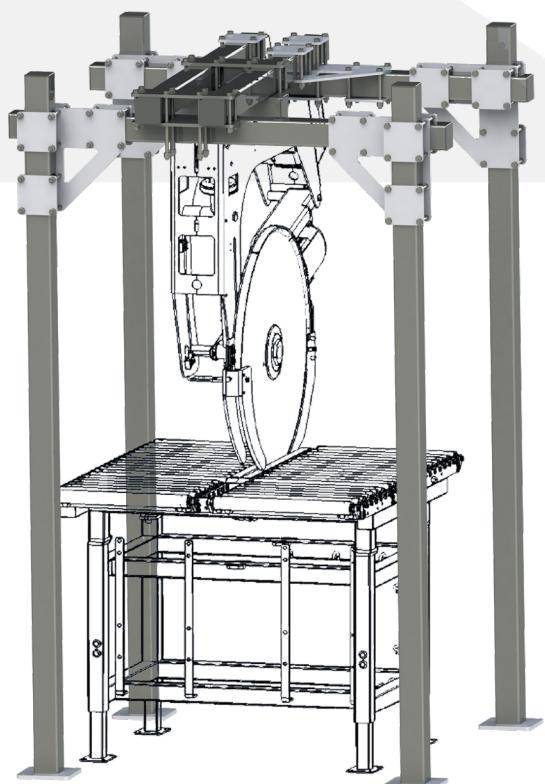
- Red Line-Laser
- Green Line-Laser





UNI-PORTAL UP4

Universal portal frame

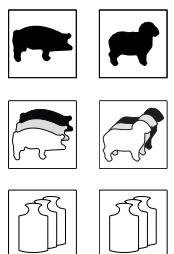


Universally combinable frame design

- for ZKM circular breaking knife and other machines
- Diverse configuration options thanks to the modular design
- Straightforward adjustment of dimensions on-site

For easy set-up or integration of circular knife blades in cutting lines for example:

- ZKM75-DA
- ZKM60-DA-MS



FK40-08

Circular foot saw



Circular foot saw for lateral attachment of cutting equipment

- Circular saw swivel-mounted on the tabletop for optimum cleaning
- Completely encased, powerful bevel gear drive: specifically designed for use in cutting up
- Stable stainless steel design **INOX / rust-free **
- Left and right-hand version available respectively for installation on a table or belt (please specify)
- Including electronic motor brake
- Up to 1200 cuts per hour

58 kg 128 lbs	400 mm 16 inch	125 mm 5 inch	IP 65	Electric, 3-phase	2300 watts (50Hz)/VA 3.1 hp (50Hz)		

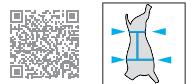
- Saw blade revolutions: 1170/min
- Cutting speed: 1470 m/min.



*The image shows
FK40-08 incl. Mounting-Set

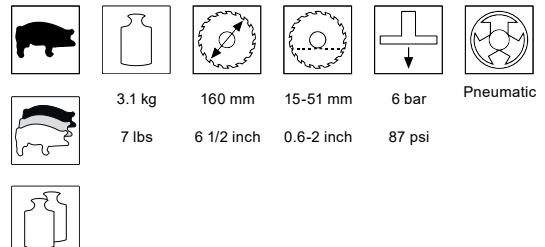
K16-P4_evo2

Circular breaking saw



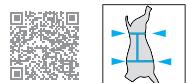
Circular breaking saw for universal use

- Adjustable depth control
- Powerful 800W pneumatic- motor "Made in Germany"
- Stainless steel blade guard & depth control
- Even balance and force transmission protects the wrist joints
- Robust and low-wear gear unit
- Adjustable handle for better ergonomics



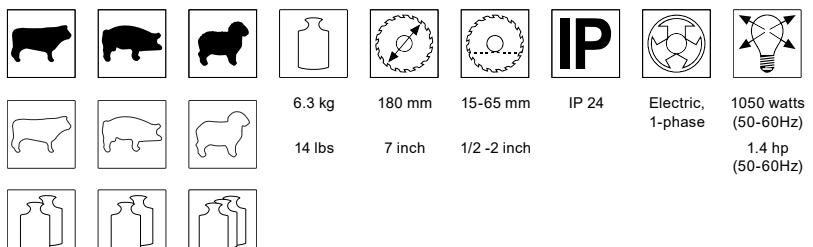
K18-01

Circular breaking saw



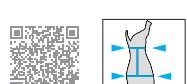
Circular breaking saw for general cutting work in medium plants

- Suitable for trade
- Integrated electronic motor brake (standstill in less than 3 seconds)
- Adjustable depth control
- Round handle R (D type)
- Spiral cable SK



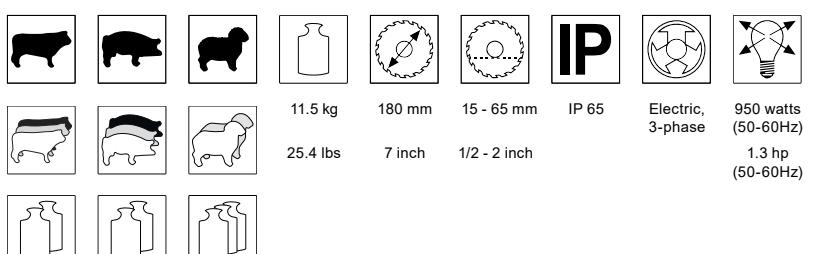
K18-13

Circular breaking saw



Circular breaking saw for general cutting work in medium plants

- Integrated electronic motor brake (standstill in less than 3 seconds)
- Adjustable depth control
- Round handle R (D type)
- Spiral cable SK



K23-03

Circular breaking saw



Circular breaking saw for general cutting work in medium plants

- Adjustable depth control 15-75 mm
- Mechanical motor brake MMB
- Saw blade stop within 3 seconds after switch-off (EU standard)
- Circular saw blades available in various designs
- Round handle R (D type)
- Spiral cable SK



14.5 kg

230 mm

15 - 75 mm

IP 65

Electric, 3-phase

1300 watts (50-60Hz)

1.8 hp (50-60Hz)



32 lbs

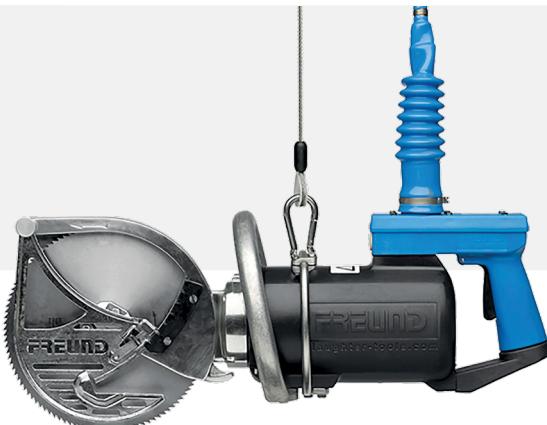
9 inch

1/2 - 3 inch



K23-06

Circular breaking saw



Circular breaking saw for general cutting work

- Adjustable depth control
- Mechanical motor brake MMB
- Saw blade stop within 3 seconds after switch-off (EU standard)
- Circular saw blades available in various designs
- Round handle R (D type)
- Spiral cable SK



19 kg

230 mm

15 - 75 mm

IP 65

Electric, 3-phase

1800 watts (50Hz)

2.4 hp (50Hz)



42 lbs

9 inch

1/2 - 3 inch



K28-06

Circular breaking saw



Circular breaking saw for general cutting work

- Saw blade stop within 3 seconds after switch-off (EU standard)
- Mechanical motor brake MMB
- Circular saw blades available in various designs
- Round handle R (D type)
- Spiral cable SK

			19.5 kg	280 mm	100 mm	IP 65	Electric, 3-phase	1800 watts (50Hz)

43 lbs

11 inch

4 inch

2.4 hp (50Hz)

K32-06

Circular breaking saw



Circular breaking saw for general cutting work

- Saw blade stop within 3 seconds after switch-off (EU standard)
- Mechanical motor brake MMB
- Circular saw blades available in various designs
- Round handle R (D type)
- Spiral cable SK

			20 kg	320 mm	120 mm	IP 65	Electric, 3-phase	1800 watts (50Hz)

44 lbs

12 1/2 inch

4 1/2 inch

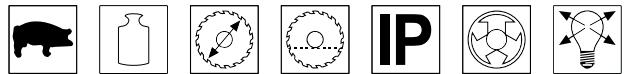
2.4 hp (50Hz)

RTK18-13

Rib top circular saw

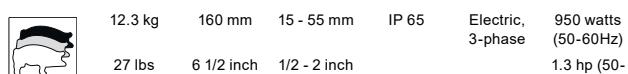


For separating the loin ribs of the spinal column on the complete mid-section



Two adjustable depth stops for

- precise cutting guide
- optimum yield
- high degree of operator safety



Horizontal cutting guide

Thin saw blade 0.8 mm for

- clean cuts and surfaces
- low germ counts
- less sawdust
- optimum yield

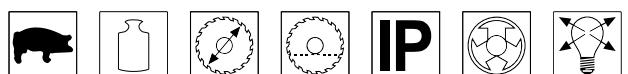


BCK23-03

Circular bacon saw



Circular breaking saw with horizontal saw blade for medium & high throughput plants



For coarse cutting, cutting out the backbone of bacon half-carcasses of pigs

- Circular saw blade, coarse tooth, rust-free KGZ



- Spiral cable SK

- Round handle R (D type)

- Saw blade stop within 3 seconds after switch-off (EU standard)

- Mechanical motor brake MMB



SRC34-H10_evo2

Spare ribs cutter



For optimum separation of the ribs
(loin or back ribs) of split backbone

- Up to 2000 items/hour with trained personnel
- Clean, smooth and even cut
- Optimum extraction of the meat thanks to an additional extraction plate
- Consistent yield (practically no meat loss)
- Longer shelf life of the product thanks to better hygiene (hardly any sawdust)
- Safe working
- Laterally integrated conveyor belt for the ribs
- Low space requirement
- Transport rollers for a quick change of location



250 kg
551 lbs 345 mm
13 1/2 inch IP 65
Electric,
3-phase 2800 watts
(50Hz)
3.0 hp
(50Hz)

- High degree of stability for the guides thanks to being locked via the tension lever
- Quick payback time due to the attractive price/performance ratio
- Circular knife blade can be re-sharpened
- Quick and easy to clean

RTC34

Rib Top Cutter



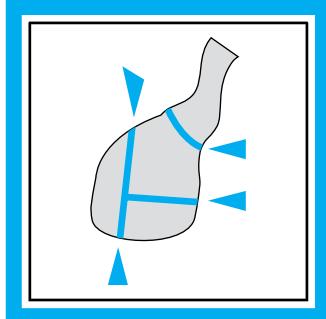
- High performance with up to 1500 cutlet strands per hour
- Circular knife blade technology
- Automatic cutting guide and ejection as well as outward conveyance of the portions
- Consistent precise cuts, less bone removal
- Less bone dust
- Good level of adjustability, including quick adjustment of the cutting depth
- Easy maintenance and cleaning
- Proven SRC drive technology
- Highly robust design
- Increased operator safety

	260 kg 573 lbs		345 mm 13 1/2 inch	IP		Electric, 3-phase	2800 watts (50Hz) 3.0 hp (50Hz)
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TRIMMING

TRIMMING



CONTENTS

In modern meat processing, the type, efficiency and quality of the tools used have a significant influence on the quality of the end product and on the achievable yields.

It is not uncommon for high demands to be placed on such tools. This can result in maintenance-related downtimes and considerable servicing costs.

For this reason, developers of modern trimmers have the task of creating a product that is not only powerful and economical, but also low-wear and therefore cost-efficient. This is exactly the approach that we take here at FREUND.

With our latest Series 2 trimmers and the newly developed Trimmer_evo3, we have created products which - thanks to the use of proven components and high-quality materials - are a low-maintenance and therefore cost-saving alternative to the trimmers widely available on the market.



Trimming

84 - 110

- ▶ Trimmer_evo3
Trimmer Motor_evo3

84 - 87

- ▶ Trimmer_evo3 - Features/
Ring blade selection

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- ▶ Trimmer / Trimmer Motor

100 - 101

- ▶ Trimmer - Features/
Ring blade selection

102 - 107

- ▶ Sharpening

108 - 109

- ▶ Derinding

110

Optional accessories

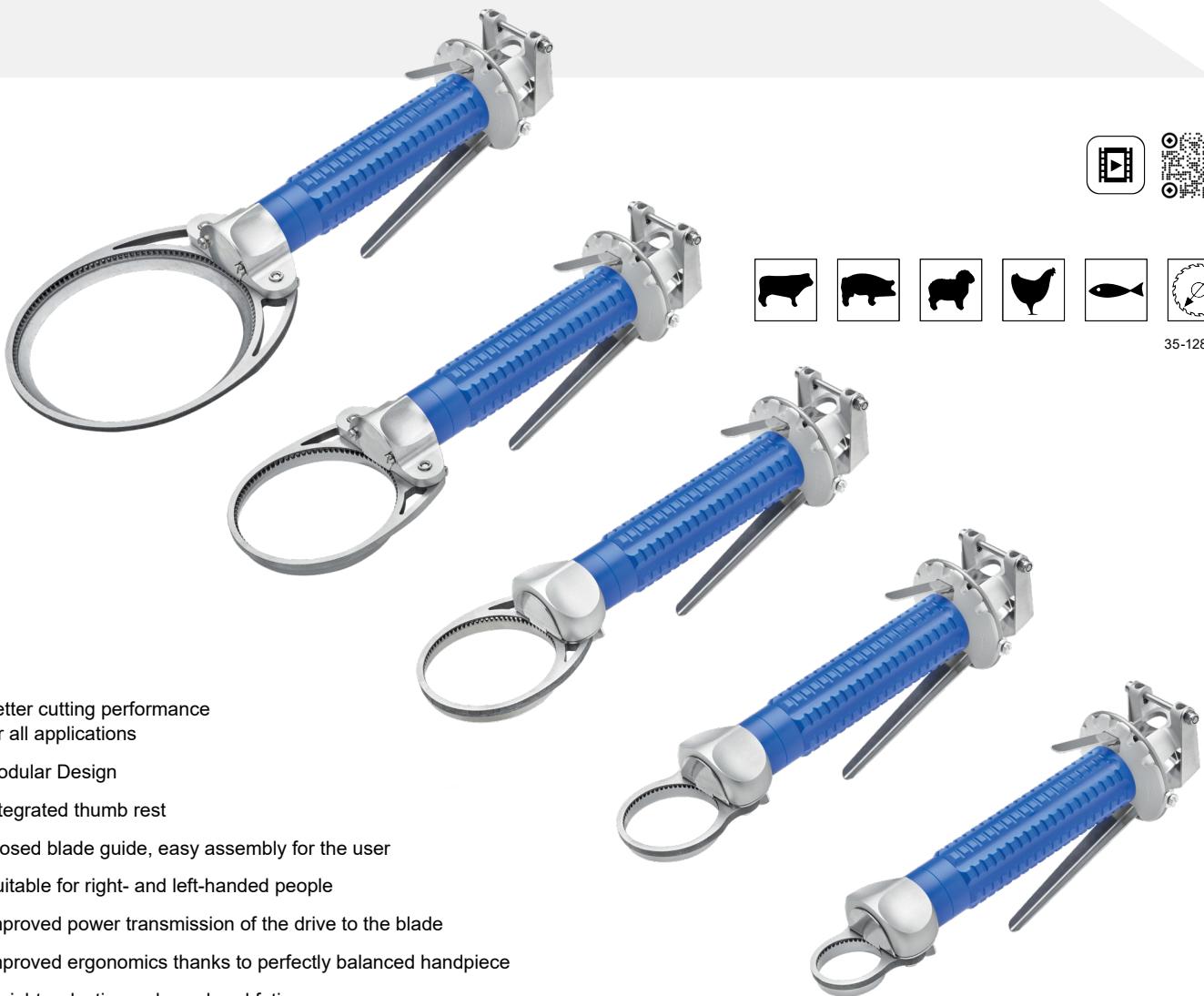
112 - 118

TRIMMER_evo3

New quality Trimmer_evo3



35-128 mm

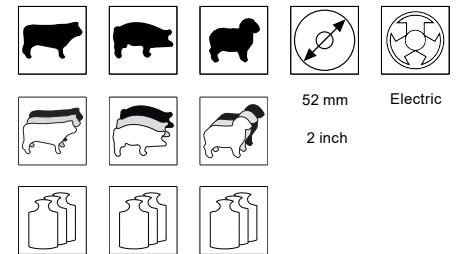


- Better cutting performance for all applications
- Modular Design
- Integrated thumb rest
- Closed blade guide, easy assembly for the user
- Suitable for right- and left-handed people
- Improved power transmission of the drive to the blade
- Improved ergonomics thanks to perfectly balanced handpiece
- Weight reduction reduces hand fatigue
- Patented one-hand switch with the latest start-stop system with ergonomically integrated safety lever
- A puller for 6 different blades reduces costs and errors
- Patented one-hand switch with the latest start-stop system with ergonomically integrated safety lever
- Quality blades made from corrosion-resistant heavy-duty steel for many trimming/protein applications
- New multifunctional grease ring, optionally:
 - ▶ with grease nipple
 - ▶ with hand strap holder
 - ▶ with fat dispenser
- The “fat-free variant” reduces the number of foreign bodies
- Improved powertrain offers:
 - ▶ stress-free coupling of the motor and handpiece
 - ▶ higher flexibility & service life
 - ▶ fewer failures
- Low maintenance costs thanks to low-wear quality components

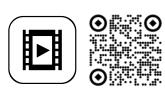
▶ Parts diagram can be accessed via FREUND Assistance (FA)

TRIMMER 52_evo3

Trimmer 52_evo3 - variant with vacuum suction



- Ergonomic handle
- Flexible suction and delivery hose
- Ring blade types 52A or 52B for almost every application
- One-hand control with the latest start-stop system
- Suitable for right- and left-handed people



► **NOTE:** Sharpening of suitable blades only with the TSM-E1 trimmer sharpener

MDL1

Electric motor

NEW!



NEW!

- Constant speed, available in 3 speed variants:
 - 3000 rpm
 - 4500 rpm
 - 6000 rpm
- "Soft start" and "quick stop" of the rotating blade in conjunction with the rest position of the stainless steel handpiece holder for the highest safety standard
- Engaging and disengaging the driveline, faster, easier and according to the highest safety standards
- Extremely robust and waterproof (the completely sealed aluminium housing allows for trouble-free use in wet/damp environments, e.g. in slaughterhouses, on deep-sea fishing trawlers, etc.)
- The hygienic design allows for easy cleaning
- Energy-efficient and safe – automatic switch-off after 30 minutes of idle time or in case of overload
- Available in version 230V~

► Note:
Motor can only be used in conjunction with Trimmer_evo3



12 kg



IP 65



Electric,
1-phase



0.67 hp



TM-E6000_evo3

Electric motor



- Infinitely adjustable up to 6000 rpm
- "Soft start" and "quick stop" of the rotating blade in conjunction with the rest position of the stainless steel handpiece holder for the highest safety standard
- 2-hand operation, maximum operator control/safety
- Engaging and disengaging the driveline, faster, easier and according to the highest safety standards
- Extremely robust and waterproof (the completely sealed aluminium housing allows for trouble-free use in wet/damp environments, e.g. in slaughterhouses, on deep-sea fishing trawlers, etc.)
- The hygienic design allows for easy cleaning
- EU standard technology - stable supply chains reduce the risk of delivery bottlenecks
- Available in 2 versions: 230V~ or 115V~

► Note:
Motor can only be used in conjunction with Trimmer_evo3



16,5 kg



IP 65



Electric,
1-phase



550 watts

36,4 lbs

0,74 hp

FEEL THE NEW POWER IN PERFECTION

Our new Trimmer_evo3 are a cost-saving alternative, designed with durable, robust components to provide excellent performance with low maintenance costs.

We present a variable modular system with quality components that offers advantages such as higher productivity, higher yields, more profits and improved

safety. The new system minimizes the need for spare parts and maintenance and service are more customer-friendly.

Thanks to the new ergonomic shape of the new series, comfortable, fatigue-free and more efficient work is guaranteed.

TRIMMER_evo3 FEATURES

Modular construction of Trimmer_evo3

Depth control

- uniform cutting depth (individually adjustable)
- higher yield due to reduced rejects
- in 2 stainless steel versions DCF(FAT) / DCS(SKIN)

Multifunctional grease ring

- Various versions, including with/without grease nipples, with hand strap holder or with grease bushing (also suitable as a hand strap holder)

Thumb support

- Ergonomically designed for fatigue-free work
- Infinitely adjustable for right- and left-handed users
- significant increase in user safety

One-hand switch

- Low-vibration one-handed operation with start-stop safety system
- Separate grip and functional areas
- perfectly balanced by mass in the rear area
- Stop to counteract the force of pulling movements
- Binding the hand strap and vacuum hose holder

Trimmer handle

- hygienic and abrasion-resistant
- 2 versions (cylindrical/ergonomic) in 2 sizes (S/M)

Drive line

- High flexibility & lightweight
- Longer service life thanks to reinforced inner core (special fiber fabric) and vibration reduction



STANDARD VERSION

\varnothing (mm)	35	52	69	90	128
One hand switch cp	•	•	•	•	•
Frame	small	small	small	large	large
Bearing (plastic)	•	•	•	•	•
Pinion	small	small	small	large	large
Steeling device				•	•
Quick release	•	•	•	•	•
Handle ergonomic EM (middle)	•	•	•	•	•
Blade	A (straight)	A (straight)	A (straight)	C 45°	C 45°

OPTIONAL

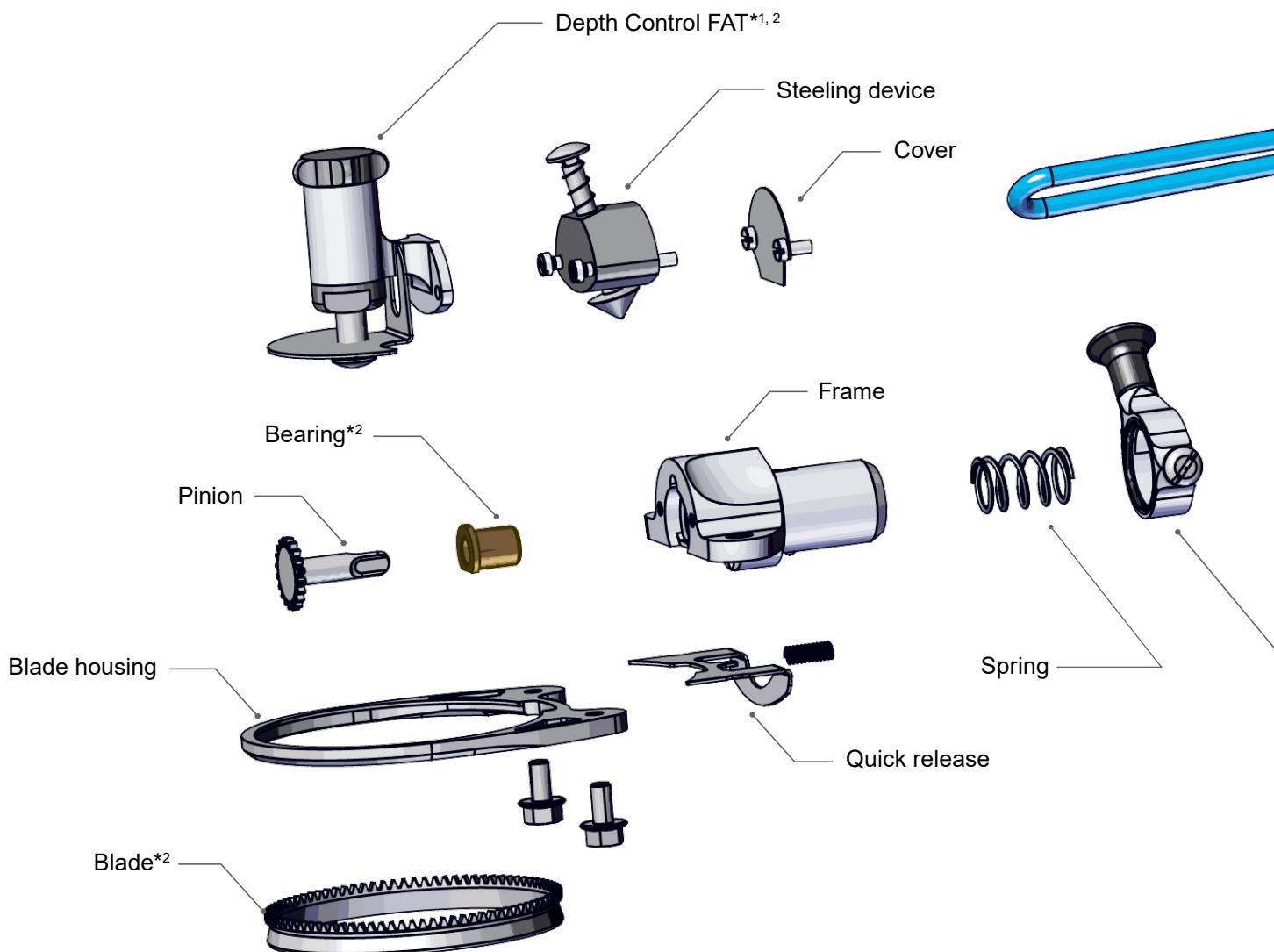
Blade SCR16	•				
Blade SCR19	•				
Blade A (straight)	•	•	•	•	
Blade B (hook)	•	•		•	
Blade C (30°)					•
C (45°)			•	•	•
C (45°) serrated			•	•	• NEW!
Blade D (30°)					•
D (30°) serrated					• NEW!
Depth control			DCS NEW!	DCF/DCS	DCF/DCS
Hose adapter and hose bracket for vacuum hose	•	•			
Bearing (bronze)	•	•	•	•	•
Grease ring w/o grease bush	•	•	•	•	•
Thumb support (plastic)	•	•	•	•	•
Handle ergonomic ES (small)	•	•	•	•	•
Handle cylindric M (middle)	•	•	•	•	•
S (small)	•	•	•	•	•
Strap	•	•	•	•	•



*The Image shows some of the possible configurations

TRIMMER_evo3

Exploded view of one of the possible variants for TRIMMER E90_evo3

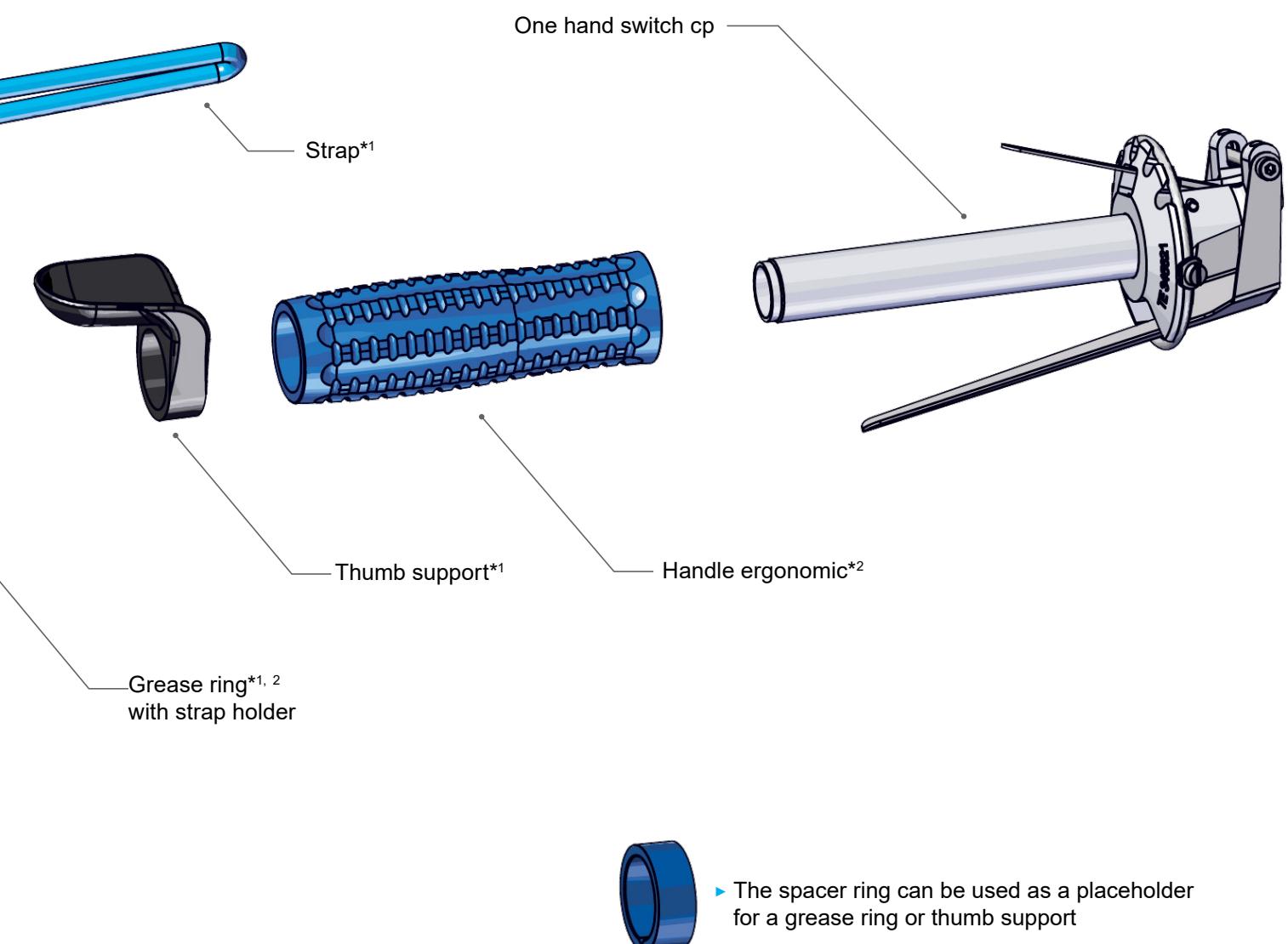


*¹ optional / *² available in various versions



Exploded views of
Trimmer_evo3 / electric

TRIMMER



► The spacer ring can be used as a placeholder
for a grease ring or thumb support

*Figure shows one of the configuration options

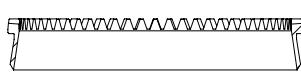
TRIMMER_evo3

Ring blade selection

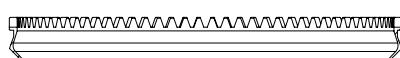


RING BLADE SELECTION

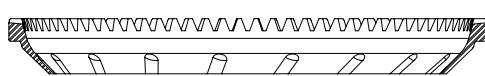
TYPE	Ø (mm)	35	52	69	90	128
A (straight)		•	•	•	•	
B (hook)		•	•		•	
C (30°)						•
C (45°)				•	•	•
C (45°) serrated				•	•	•
D (30°)						•
D (30°) serrated						•



▪ A (straight)



▪ B (hook)



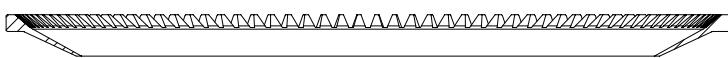
▪ C (45°) serrated



▪ C (45°)



▪ C (30°)



▪ D (30°)



▪ D (30°) serrated

TRIMMER_evo3

Ring blade application



APPLICATION

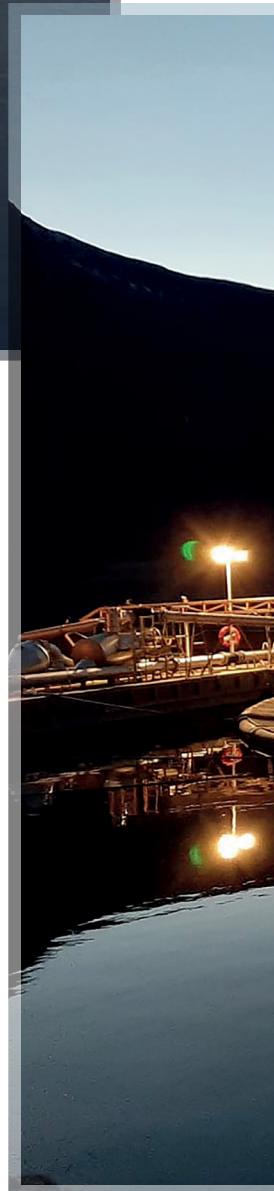
	Ø (mm)	35	52	69	90	128
Deboning / cleaning						
Bones		A	A			
Heads		A	A	A / C	A	
Chicken thighs		A	A			
Ribs from belly		A				
Removal						
Cheeks				A / C	A	
Chicken breast			B		B	
Spinal cord			A / B			
Remaining skin				C	C	C
Veins and glands		A	A			
Pig eyes		A				
Pork fillet				A	A	
Lean meat from fat				C		C
Tuna					C	C
Degreasing / trimming						
Skins					C	C
Warm fat trimming					C	C
Hard fat trimming					B	D
Ham / shoulder / cutlet				C	B / C	C
Slicing						
Salmon		B		A / C		C
Gyros / doner kebab					C	C



► NOTE: Sharpening of suitable blades only with the TSM-E1 trimmer sharpener

TRIMMER IN THE SALMON INDUSTRY

TRIMMING

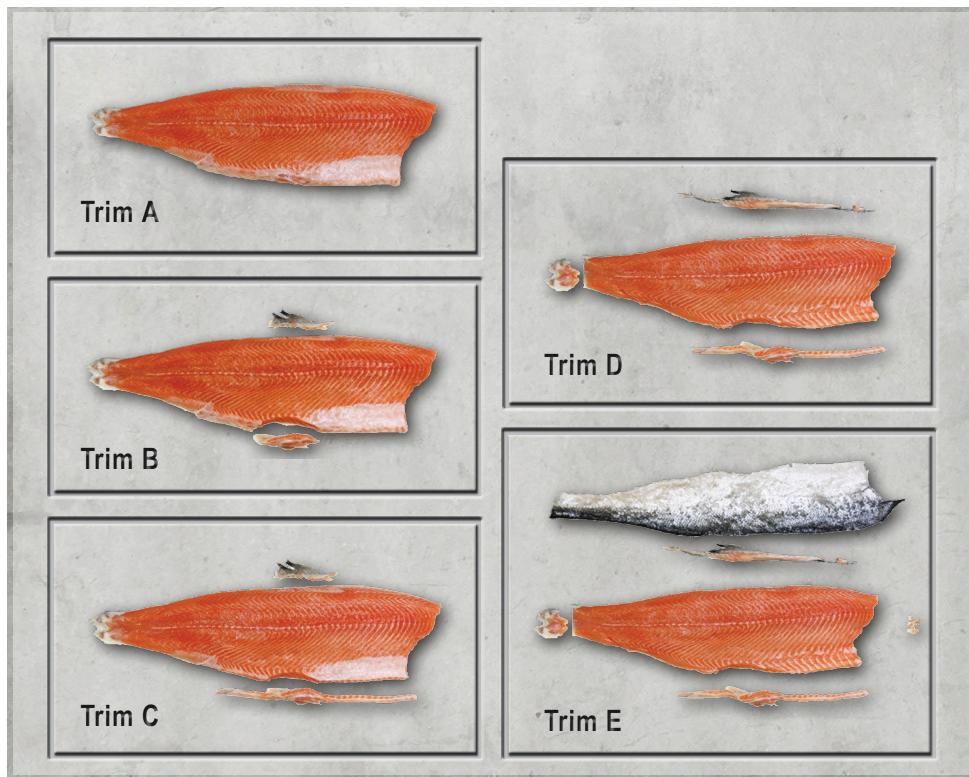




TRIMS FROM A-F

EFFECTIVE CONTROLLED

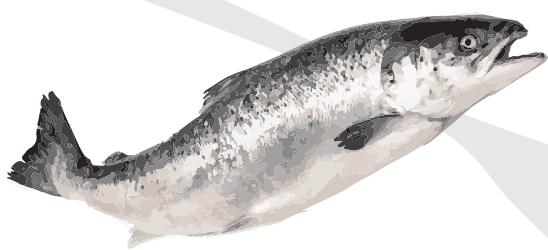
MAXIMUM YIELD



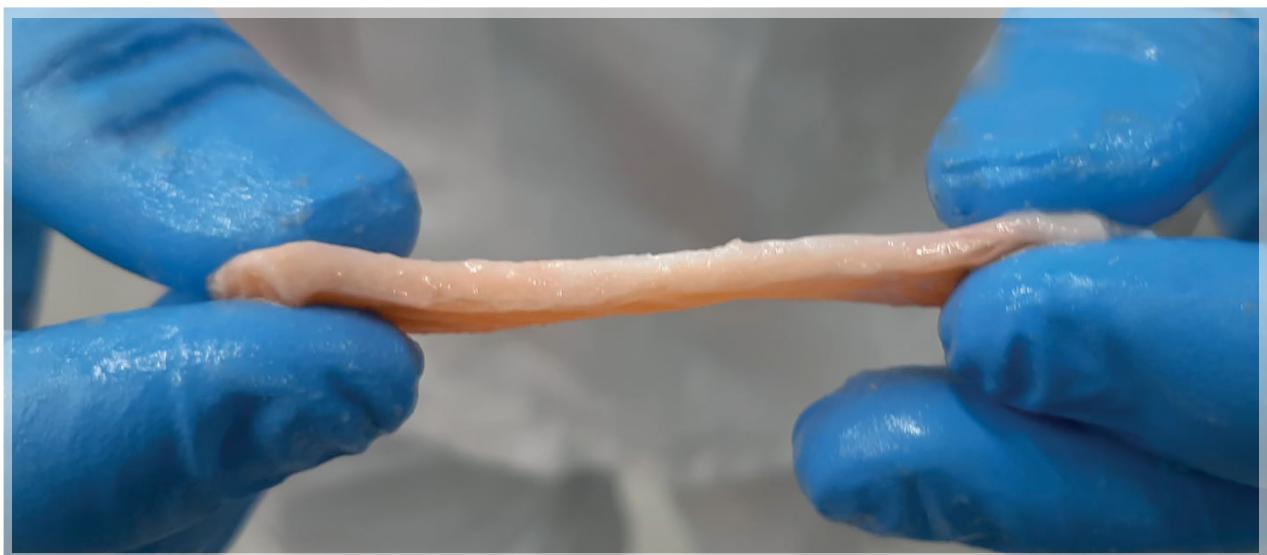
**SUITABLE
FOR ALL
TYPES OF
TRIM!**

With our trimmers you can perform any trim with high yields on the fillet.

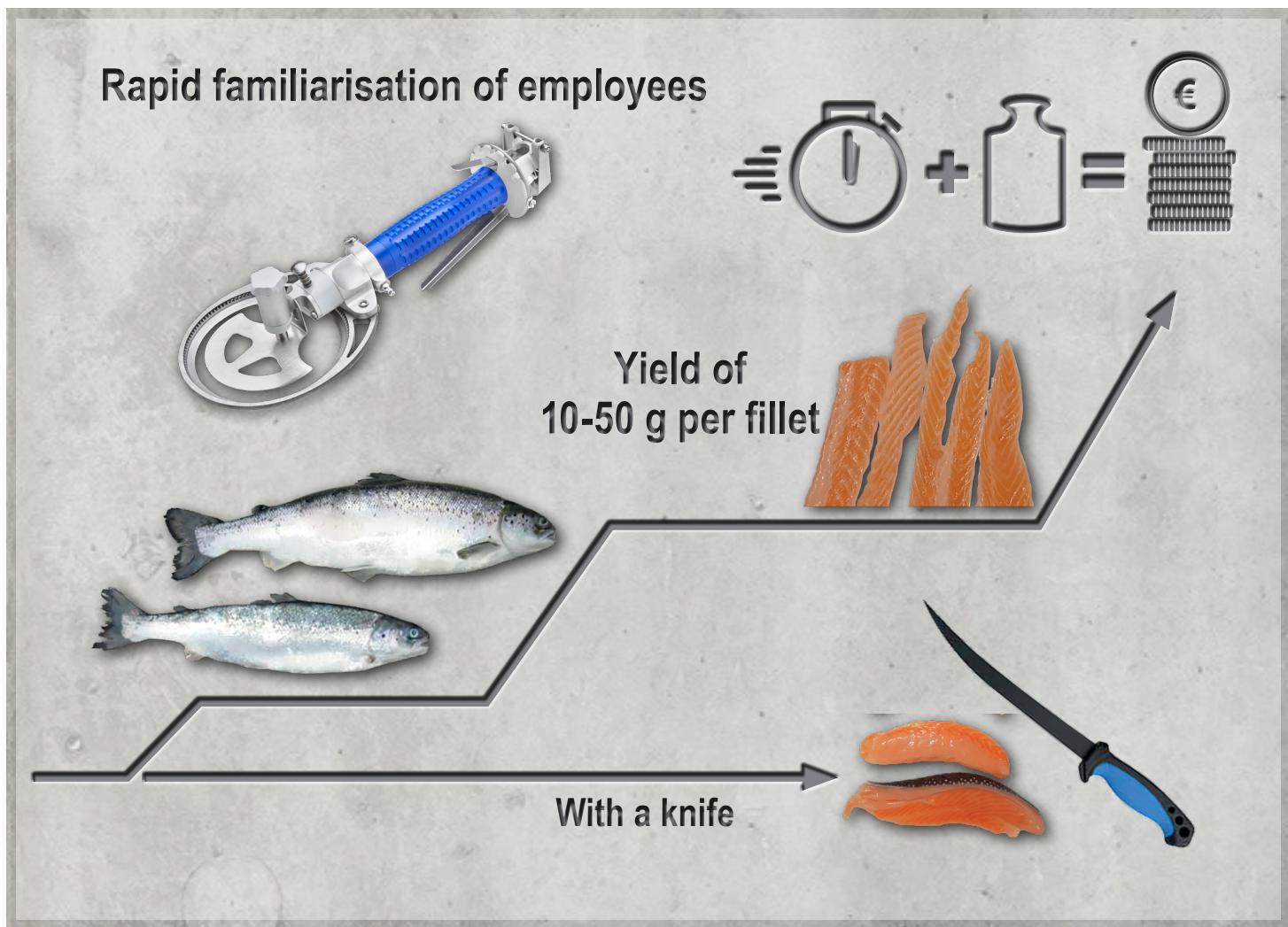
With a choice of electrically operated trimmers, we offer you the right hand tool for the diverse requirements on your farm.



**CLEAN & TIDY CUT
DUE TO DEPTH CONTROL**



MORE PROFIT THROUGH HIGHER YIELD!



TECHNICAL ADVANTAGES AT A GLANCE

- ▶ Suitable for all common types of trimming in salmon processing
- ▶ Precise, controlled cutting

- ▶ High yield for all trims
- ▶ Designed for continuous industrial operation
- ▶ Proven worldwide in leading salmon processing plants

TECHNOLOGY FOR CONSISTENT RESULTS

PRECISE TRIMMING SOLUTION FOR INDUSTRIAL SALMON PROCESSING

The Trimmer_evo3 was also developed to meet the requirements of industrial salmon processing.

It enables precise, controlled trimming processes while maintaining high line performance and consistent product quality – regardless of product size or trimming requirements.

The Trimmer_evo3 is designed for continuous use in production lines and meets the highest requirements for process reliability and operability:

- High cutting performance with consistent precision
- Intuitive operation to minimise operating errors
- Ergonomic design to reduce fatigue in multi-shift operation
- Precise cuts with a particularly clean, smooth surface
- Optimal control during cutting and trimming
- Higher yield compared to using a knife
- Reduced training requirements compared to working with a knife

ROBUST DESIGN ENSURES

- low downtime
- long service life even under demanding production conditions

THE POWERFUL BLADE SYSTEM OF THE TRIMMER_EVO3 OFFERS:

- Long service life
- Consistent cutting performance throughout the entire period of use
- Reduced maintenance and replacement intervals

Thanks to its precise blade guidance and stable construction, the Trimmer_evo3 ensures clean cuts with minimal material loss. This results in::

- Reproducible trimming quality
- Reduced over-trimming rate
- Measurable increase in raw material yield



TRIMMER

Quality trimmer



- Optionally powered electrically or pneumatically
- Further enhanced trimmer blade surface
- Less downtime and lower servicing costs thanks to low-wear quality components
- Ergonomic handle with robust and abrasion-free plastic design
- Patented quick-change blade system for toolless trimmer blade change
- Significant improvement of user safety thanks to start-stop safety system
- Quiet operation minimises vibrations on the handle
- Four different measurement types A, B, C and D in diameters Ø 35, 52, 69, 90 and 128 mm
- Optionally available with depth control in different user-oriented designs
- Conformity depending on configuration



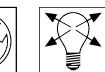
35-128 mm

PNM2

Pneumatic-motor



*Figure also shows trimmer Ø 35 mm



- Handle with integrated pneumatic-motor for compressed air operation with 6 bar
- new PNM2-D34 handle with 34mm diameter for better handling
- Can be used with FREUND Trimmers (except Trimmer_evo3)
- Start-stop safety system with stop lever
- Non-slip handle
- Available with pneumatic connecting kit including service unit and couplings (recommended)

0.6 kg

1.3 lbs

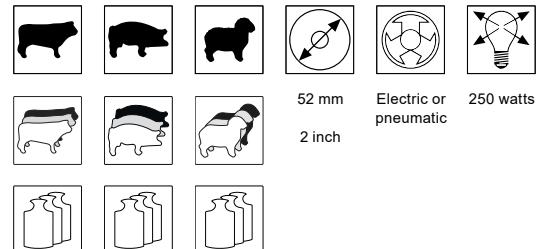
6 bar 87 psi

Pneumatic

250 watts

TRIMMER 52

Trimmer - variant with vacuum suction



- Application-optimised design
- Easy handling thanks to spherical suction head
- Various blade types (straight ring blade, hook ring blade)
- Minimal downtime and servicing costs thanks to low-wear quality components
- Ergonomic handle with robust and abrasion-free plastic design
- Quiet operation minimises vibrations on the handle
- Optionally powered electrically or pneumatically

TM-E6001 EF2_evo2

Electric motor



- Integrated handles suspension
- Infinitely adjustable up to 6000 rpm
- Less downtime thanks to low-wear operation
- Compact and lightweight aluminium housing
- Hygienic design
- Handles and trimmers (except Trimmer_evo3) can be used individually

Connection unit EF2

Enables conversion from EF1 to EF2
(Part-No. 028-010-015)



From defatting degreasing of meat, poultry and fish products to precision cutting of wafer-thin salmon slices – with our optionally electrically or pneumatically powered trimmers, we offer you the right tool for the diverse requirements of your plant.

At the same time, the modular design of our trimmers gives you the option of choosing from four different blade types in five diameters (35, 52, 69, 90 and 128 mm) and countless optional features such as an ergonomic thumb rest, depth control in a robust and hygienic stainless steel design and many other features.

TRIMMER FEATURES

The right machine for every application

Trimmer modules

Depth control

- Even cutting depth (individually adjustable)
- Higher yield thanks to lower number of rejects
- Especially suited to cutting & filleting salmon and kebab in variant DCS (plastic) and DC2S (stainless steel)
- Especially suited for degreasing hard and cold meat in variants DCF (plastic) and DC2F (stainless steel)



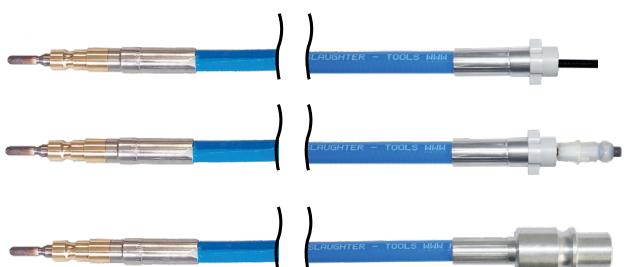
Thumb rest

- Ergonomically shaped to enable fatigue-free working
- Freely adjustable for right- and left-handers
- Significant increase in user safety



Trimmer handpieces

- Ergonomically shaped, abrasion-free and hygienic
- Optimal handling thanks to different handle shapes
- Available in handle diameters 31, 34 and 38 mm



Connecting kits EF1 / EF2 / ADAPTIVE

- Low-maintenance thanks to integrated coupling sleeve
- Compatible with all FREUND hand pieces
- Also available as a special ADAPTIVE version to enable further use of your existing trimmer motor¹

¹⁾ compatible with common trimmer motors

OPTIONS

	Ø (mm)	35	52	69	90	128
Blade SCR16		•				
Blade SCR19		•				
Blade A (straight)		•	•	•	•	
Blade B (hook)		•	•		•	
Blade C (30°)						•
C (45°)				•	•	•
C (45°) serrated				•	•	•
Blade D (30°)						•
D (30°) serrated						•
Depth control					DCF / DCS	DCS / DC2F / DC2S
Pinion gear and Bushing		small	small	small	large	large
Thumb rest		•	•	•	•	•
Grease cup		small/large	small/large	small/large	small/large	small/large
Steering device only					•	•
Pneumatic-motor PNM2		•	•	•	•	•
Start-stop safety system		•	•	•	•	•
Grease fitting and vacuum suction system		•	•			



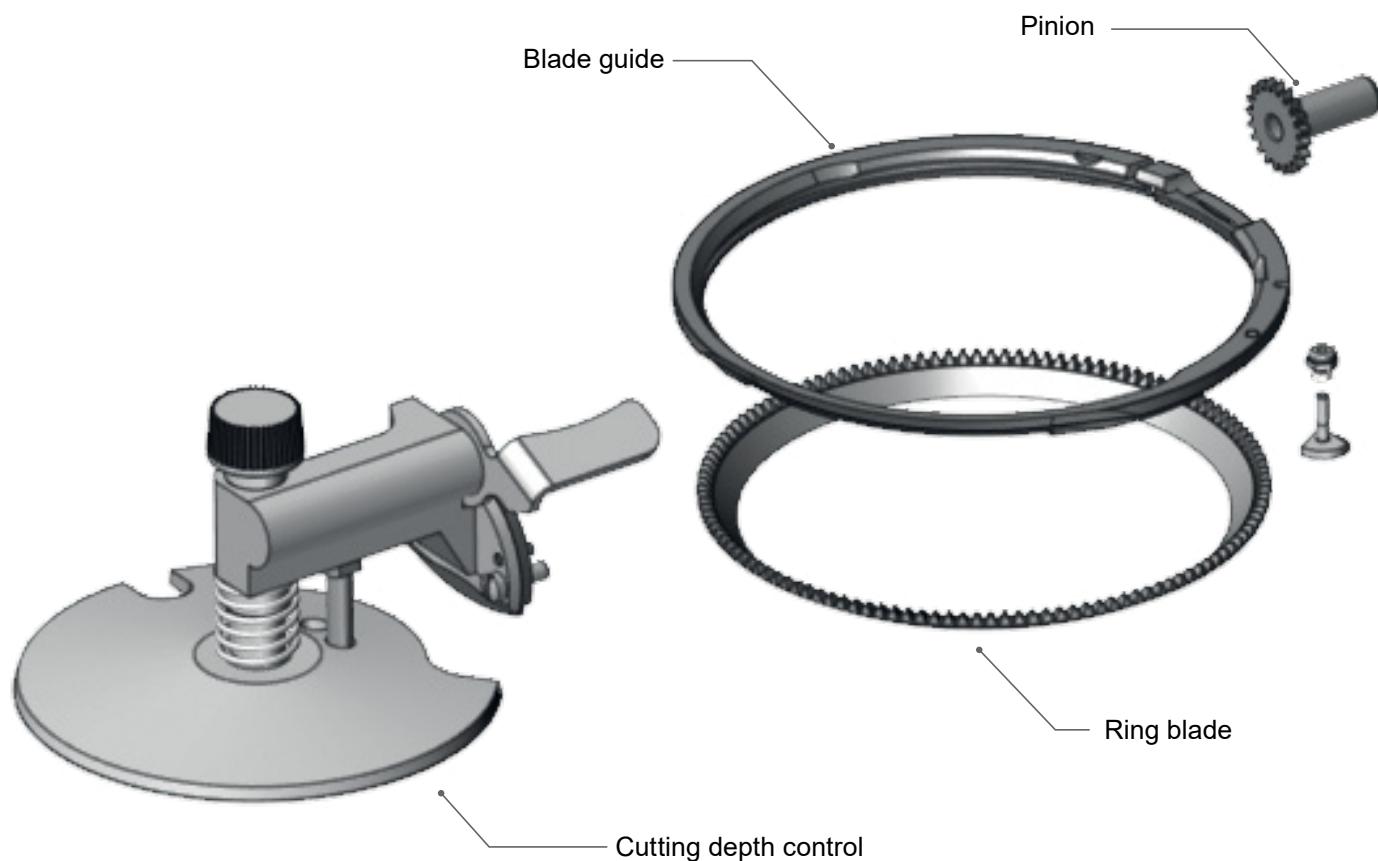
TRIMMER

Bearing plastic design



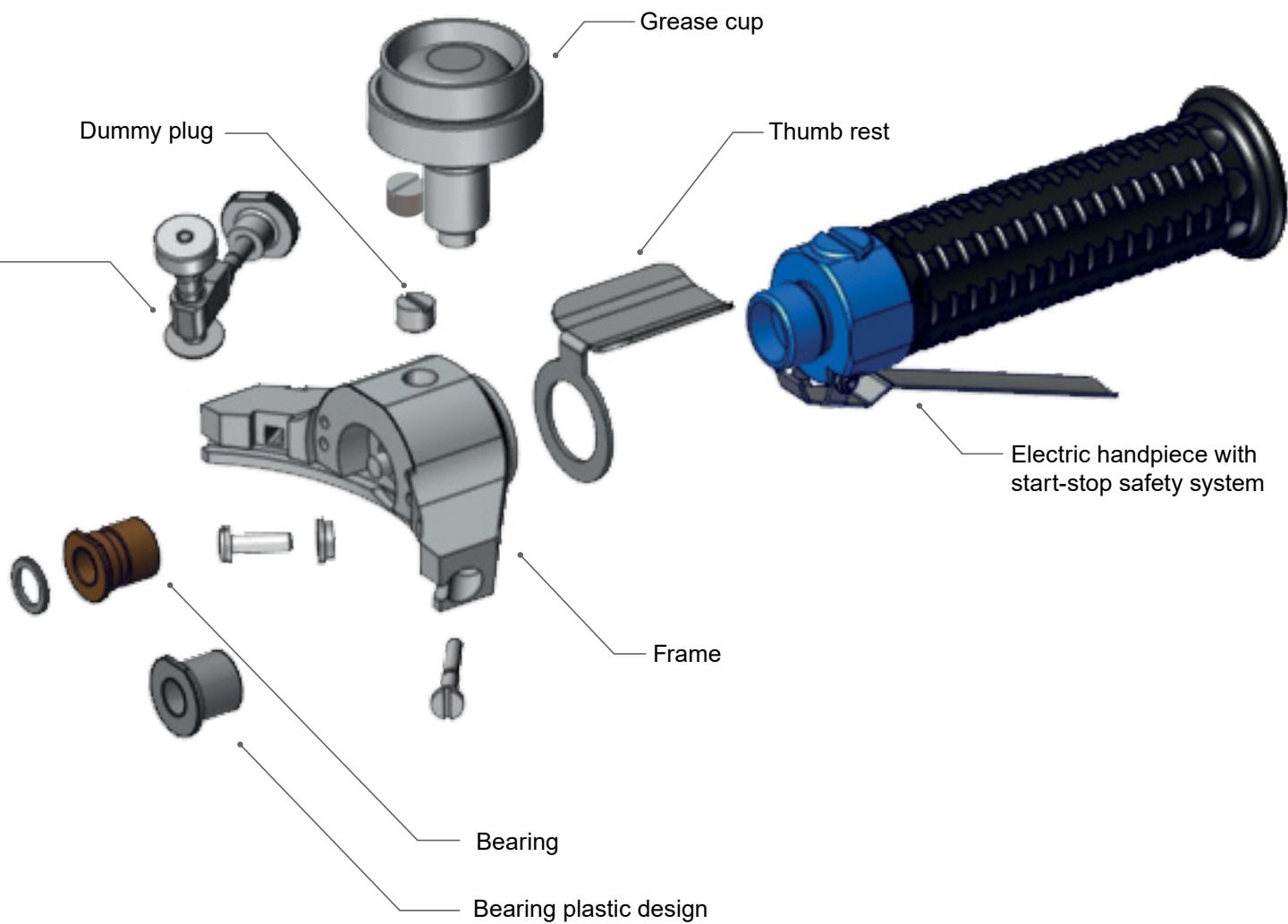
- all saleable trimmer handpieces can be equipped with the newly configurable plastic plain bearing
- available without an extra charge
- high endurance
- additional lubrication of the pinion is not necessary
- the daily greasing of the plain bearing is no longer necessary
- minimal weight reduction of the handpiece
- the handpiece is supplied without grease nipple and grease bushing (a blind plug is fitted)

Extractor



Exploded view TRIMMER Ø 35mm
variant with vacuum extraction,
elektrisch und pneumatisch

TRIMMER



Exploded view
TRIMMER Ø 90mm
pneumatic

*Figure shows one of the configuration options of electric TRIMMER Ø128mm

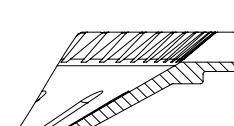
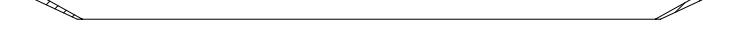
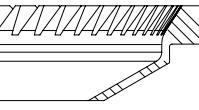
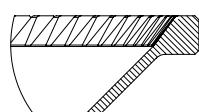
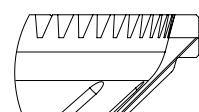
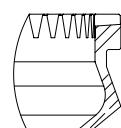
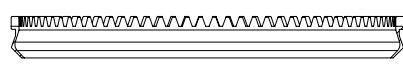
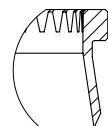
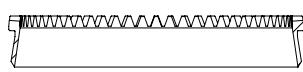
TRIMMER

Ring blade selection



RING BLADE SELECTION

TYPE	Ø (mm)	35	52	69	90	128
A (straight)		•		•		•
B (hook)		•		•		•
C (30°)						•
C (45°)				•	•	•
C (45°) serrated				•	•	•
D (30°)						•
D (30°) serrated						•



▪ A (straight)

▪ B (hook)

▪ C (45°) serrated

▪ C (45°)

▪ C (30°)

▪ D (30°)

▪ D (30°) serrated

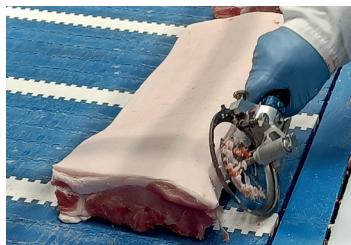
TRIMMER

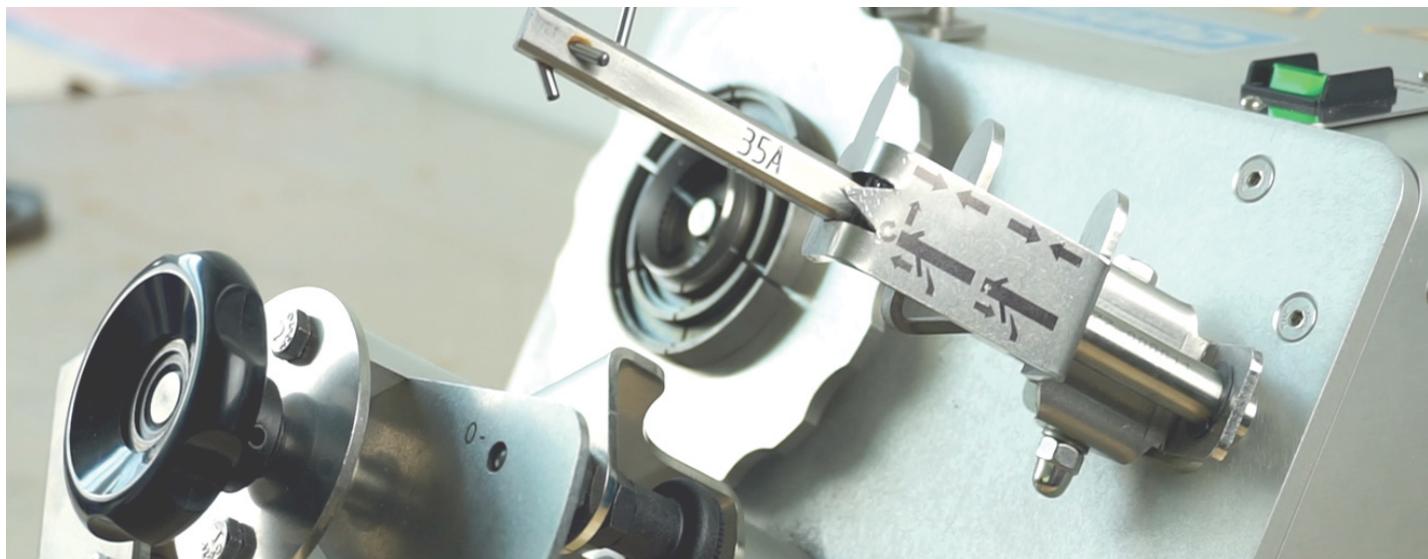
Ring blade application



APPLICATION

	Ø (mm)	35	52	69	90	128
Deboning / cleaning						
Bones		A		A		
Heads		A		A		A
Chicken thighs		A		A		
Ribs from belly		A				
Removal						
Cheeks				A		A
Chicken breast			B			B
Spinal cord			A / B			
Remaining skin					C	C
Veins and glands	A		A			
Pig eyes	A					
Pork fillet				A		A
Lean meat from fat						C
Tuna					C	C
Degreasing / trimming						
Skins					C	C
Warm fat trimming					C	C
Hard fat trimming					B	D
Ham / shoulder / cutlet					B / C	C
Slicing						
Salmon				A		C
Gyros / doner kebab					C	C





TSM-E1

Trimmer sharpening machine



*Figure: variant with steeling device for blades Ø 35 -52mm

Trimmer sharpening machine for optimum sharpening results

- Precise sharpening of suitable trimmer blades for all FREUND trimmers in all diameters except SCR16 and SCR19
- Quick clamp device in two different sizes enables rapid insertion of the trimmer blade with minimal installation effort
- Steeling device available in 3 sizes:
 - for Ø 35 and 52 mm
 - for Ø 69 and 128 mm
 - for Ø 128 mm
- Spring-loaded deburring lever prevents contact being too forceful
- Pre-coated precision grinding disc enables optimum sharpening results while, at the same time, ensuring the maximum service life for the grinding unit
- Integrated load indicator indicates potential overload
- Compact aluminium housing with stable design
- Drive with up to 8000 rpm



13.8 kg



IP 32



Electric,
1-phase



150 watts
(50 Hz)

30 lbs



SCHÄRFSTAHL

Sharpening steel



- Precision resharpening of trimmer blades of type A 35 / 52 / 69 mm and trimmer blades of type B,C and D 90 / 128 mm
- Significant improvement of surface thanks to fine removal of material from the blade
- Increased service life for trimmer blades thanks to improved surface
- Design made of resistant chrome/vanadium alloy tool steel

	344 g
	248 mm
	12.9 mm

	0.8 lbs
	9.8 inch
	0.5 inch

SCHÄRFSTAHL-HAKEN

Sharpening steel hook



- Precision resharpening of trimmer blades of type A 35 / 52 / 69 mm and trimmer blades of type B,C and D 90 / 128 mm
- Significant improvement of surface thanks to fine removal of material from the blade
- Increased service life for trimmer blades thanks to improved surface
- Design made of resistant chrome/vanadium alloy tool steel

	92 g
	190 mm
	6.5 mm

	0.2 lbs
	7.5 inch

SCHÄRFSTAHL FÜR ARBEITSTISCHE

Sharpening steel for work tables



- Precision resharpening of trimmer blades of type B, C and D 90 / 128 mm
- Significant improvement of surface thanks to fine removal of material from the blade
- Increased service life for trimmer blades thanks to improved surface
- special design enables clamping in screwing device and attachment to work table
- Design made of hardened chrome/vanadium alloy cold work steel

	270 g
	160 mm
	9.5 mm

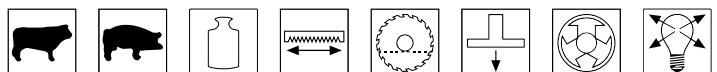
	0.6 lbs
	6.3 inch

HSK8-P5

Hand-Skinner (pneumatic)



- Quick coupling system with bayonet lock
- Exhaust air outside the working area
- The quietest machine in use on the market



1,8 kg 76 mm 3,5 mm 6 bar Pneumatic 660 watts
4 lbs 3 inch 0,14 inch 87 psi 0,89 hp



Hand-Skinner for easy skinning/fat trimming/removing rind from pig half/ham and other pieces of meat (cold fat trimming)

- Blade quick-change system for tool-less blade change
- High degree of operational safety

Powerful pneumatic-motor "Made in Germany"

Maintenance-friendly:

- Easy disassembly
- All parts of the roller are individually replaceable

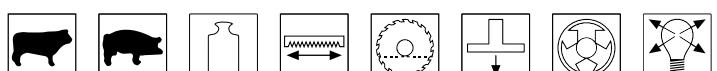
- Easy cleaning thanks to the hygienic design
- No dead spaces where dirt can accumulate
- Stable design
- With stainless steel safety guard
- Stainless steel scraper
- Low-noise operation
- Suitable for right- and left-handers

HSK8-P3_evo2

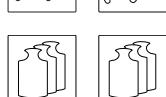
Hand-Skinner (pneumatic)



- Direct compressed air connection to the motor



1,6 kg 76 mm 3,5 mm 6 bar Pneumatic 320 watts
3,5 lbs 3 inch 0,14 inch 87 psi 0,43 hp



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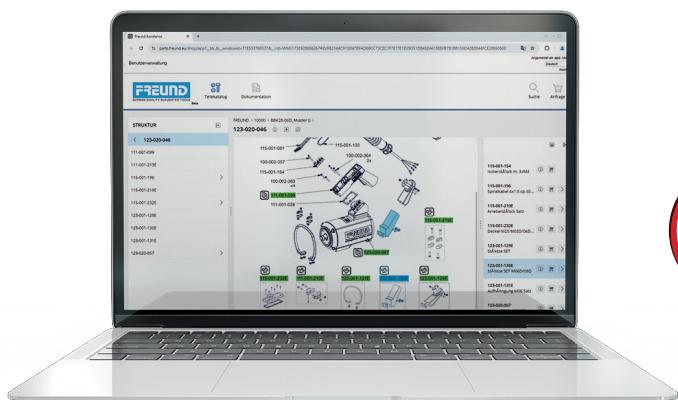
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Here you will find detailed information about the FREUND technical service.

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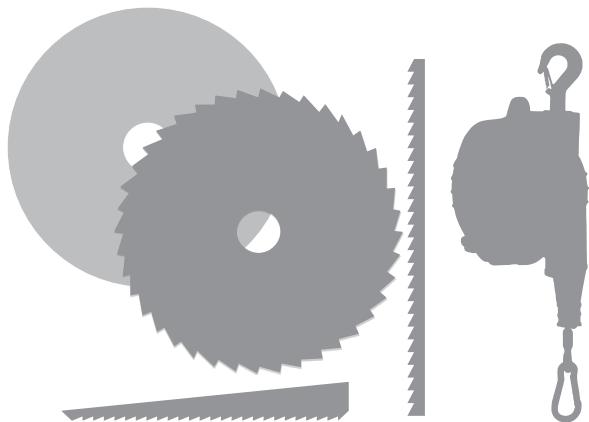
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OPTIONAL

Circular saw blades (optional accessories)



TYPE	Ø mm	APPLICATION			Q	mm	TYPE	PART NO.
Fine tooth			•	•	120	1.1	KFZ160	220-000-011
Fine tooth	160		•	•	120	0.8	KFZ160	220-000-012
Coarse tooth			•	•	60	0.8	KGZ160	220-005-014
Fine tooth			•	•	120	1.3	KFZ180	220-000-004
Coarse tooth		•			90	1.3	KGZ180	220-005-003
Special tooth	180	•	•		14	1.3	KSZ180	220-010-004
Special tooth, low-noise		•	•	•	120*	1.2	KSZ180GA	220-000-506
Hard metal circular saw blade		•	•		30	1.4	KHZ180GH	220-100-001
Fine tooth		•	•	•	150	1.5	KFZ230	220-000-005
Coarse tooth		•			110	1.5	KGZ230	220-005-004
Coarse tooth, low-noise		•	•		60	1.5	KGZ230-60GA	220-005-550
Special tooth	230	•	•		18	1.3	KSZ230-16	220-010-050
Special tooth, low-noise		•	•	•	120*	1.7	KSZ230GA	220-000-507
Hard metal circular saw blade		•	•		36	1.7	KHZ230GA	220-100-003
Fine tooth		•	•		200	1.5	KFZ280	200-000-006
Coarse tooth		•			140	1.6	KGZ280	220-005-005
Special tooth for horns and legs	280	•			18	2.2	KSZ280H	220-010-006
Special tooth, low-noise		•	•		144*	1.7	KSZ280GA	220-000-508
Hard metal circular saw blade		•	•		40	1.7	KHZ280GA	220-100-005
Coarse tooth		•			160	1.6	KGZ320	220-005-006
Special tooth, low-noise	320	•	•		144*	1.7	KSZ320GA	220-000-509
Hard metal circular saw blade		•	•		40	1.7	KHZ320GA	220-100-006
Special tooth for horns and legs	for	•			28	2.2	KSZ320H	220-010-008
Hard metal coarse tooth for horns	HBK33-08	•			40	2.2	KHZ320HGA	220-100-010
Coarse tooth for splitting			•		100	1.2	KGZ400SPGA	220-006-001
Special tooth for splitting	400		•		180*	1.7	KSZ400SPGA	220-000-512
Hard metal coarse tooth for splitting			•		52	1.6	KHZ400SPGA	220-100-013
Hard metal coarse tooth			•		52	2.2	KHZ400GA-FK	220-100-014
Special tooth, low-noise	FK40-08		•		64	1.2	KSZ400-64GA	220-000-515
Coarse tooth for splitting			•		130	1.2	KGZ520SPGA	220-006-002
Special tooth for splitting	520		•		272	1.3	KSZ520SPGA	220-000-513
Hard metal coarse tooth for splitting			•		60	1.6	KHZ520SP	220-100-012

*Number of cutting teeth without intermediate teeth

OPTIONAL

Breaking saw blades / reciprocating saw blades / band saw blades (optional accessories)



BREAKING SAW BLADES

TOOTHING	LENGTH [MM]	TYPE	PART NO.
Fine tooth	300	STFZ 300	222-000-002
Coarse tooth	300	STGZ 300	On request
Fine tooth for breastbone	315	STFZ 315 BB	222-000-510
Fine tooth	400	STFZ 400	222-000-003
Fine tooth	500	STFZ 500	222-000-011

RECIPROCATING SAW BLADES

TOOTHING	LENGTH [MM]	TYPE	PART NO.
Fine tooth for breastbone	300	HUFZ 300 BB	223-000-001
Coarse tooth for breastbone	300	HUGZ 300 BB	223-005-007
Fine tooth for splitting	600	HUFZ 600 SP	223-000-102
Coarse tooth for splitting	600	HUGZ 600 SP	223-005-102

BAND SAW BLADES FOR TABLE BAND SAWS

for FREUND model	TYPE	PART NO.
TBS19KT	BA6/1750X16	225-200-002
TBS23KT	BA6/2170X16	225-200-022
TBS28FT / ST	BA6/2430X16	225-212-004
TBS40FT / ST	BA6/315X16	225-200-001



OPTIONAL

Band saw blades / circular knife blades (optional accessories)



BAND SAW BLADES FOR SPLITTER BAND SAWS

- ▶ Packaging unit:
5 items per box
- ▶ Minimum purchase quantity:
20 items per size



for FREUND model	TYPE	PART NO.
SB46-08	BA 46 FA	224-010-004
	BA 46 GA	224-011-004
	BA 46 GC	224-011-204
SB49-08	BA 49 FA	224-010-006
	BA 49 FC	224-010-206
	BA 49 GA	224-011-006
SB50-08	BA 50 FA	224-010-005
	BA 50 FC	224-010-205
	BA 50 GA	224-011-005
WBS51-08	BA 50 GC	224-011-205
	19x0,56-SPS-3023 MFB	224-512-000
	BA8/3022x20GA	224-511-107
QUALITY	PITCH	TOOTHING
FA	8 mm / 3 tpi	Standard 8 mm
FC	10 mm	Cleaning tooth
GA	8 mm / 3 tpi	Standard 8 mm
GC	10 mm	Cleaning tooth

For band saw blades for machines of other manufacturers, please contact our sales team by calling
+49 5251 1659 -46

CIRCULAR KNIFE BLADES

for FREUND model	TYPE	PART NO.
BBKM / ZKM 25	KM250WHT-2F	230-250-006
SRC 34	KM345WD-1F	230-345-001
ZKM 60	KM600WHT-1F	230-600-009
	KM600WHT-2F	230-600-010
ZKM 75	KM750-WHT-1F	230-750-017
	KM750-WHT-2F	230-750-018
ZKM 95	KM950-WHT-1F	230-950-004

Designed by [Freepik](#)

OPTIONAL

Spring balancers - special hygienic design for the food industry



SPRING BALANCERS WITH CABLE EXTENSIONS UP TO 2,0 M

TYPE	CABLE EXTENSION		BALANCING RANGE		WEIGHT, GROSS		PART NO.	
	m	ft	kg	lbs	kg	lbs		
F14-2SK	S	2,0	6,5	10 - 14	22 - 31	7	16	920-426-100
F18-2SK	S	2,0	6,5	14 - 18	31 - 40	8	18	920-430-100
F22-2SK	S	2,0	6,5	18 - 22	40 - 49	8	18	920-431-100
F25-2SK	S	2,0	6,5	20 - 25	44 - 56	8	18	920-432-100
F30-2	S	2,0	6,5	25 - 30	56 - 67	12	26	920-436-000
F35-2	S	2,0	6,5	30 - 35	67 - 78	12	26	920-437-000
F45-2	S	2,0	6,5	35 - 45	78 - 100	13	28	920-438-000
F55-2SK	S	2,0	6,5	45 - 55	100 - 122	13	28	920-439-100
F65-2	S	2,0	6,5	55 - 65	122 - 143	14	30	920-440-000
F75-2		2,0	6,5	65 - 75	143 - 165	15	32	920-441-000

SPRING BALANCERS WITH CABLE EXTENSIONS UP TO 2,5 M

TYPE	CABLE EXTENSION		BALANCING RANGE		WEIGHT, GROSS		PART NO.	
	m	ft	kg	lbs	kg	lbs		
F4-2,5	S	2,5	8	2-4	4-9	3	7	920-414-001
F6-2,5SK	S	2,5	8	4-6	9-13	4	9	920-415-102
F8-2,5SK	S	2,5	8	6-8	13-18	4	9	920-416-101
F10-2,5SK	S	2,5	8	8-10	18-22	4	9	920-417-101
F14-2,5SK	S	2,5	8	10-14	22-31	4	9	920-418-101

OPTIONAL



SPRING BALANCERS WITH CABLE EXTENSIONS UP TO 3,0 M

TYPE	CABLE EXTENSION	BALANCING RANGE		WEIGHT, GROSS		PART NO.		
		m	ft	kg	lbs			
F20-3SK	S	3	10	15-20	33-44	19	42	920-470-100
F25-3		3	10	20-25	44-56	20	44	920-471-000
F35-3	S	3	10	25-35	56-78	21	46	920-472-000
F45-3	S	3	10	35-45	78-100	24	53	920-473-000
F50-3	S	3	10	40-50	89-111	24	53	920-474-000
F60-3	S	3	10	50-60	111-133	25	56	920-475-000
F70-3	S	3	10	60-70	133-156	27	60	920-476-000
F80-3		3	10	70-80	156-178	28	62	920-477-000
F90-3	S	3	10	80-90	178-200	29	64	920-478-000
F100-3	S	3	10	80-100	178-222	29	64	920-479-000
F115-3		3	10	100-115	222-253	40	88	920-480-000
F130-3		3	10	115-130	253-260	40	88	920-481-000
F140-3		3	10	130-140	260-308	43	95	920-482-000
F150-3		3	10	140-150	308-330	46	100	920-483-000
F160-3		3	10	150-160	330-352	49	108	920-484-000
F180-3		3	10	160-180	352-396	50	110	920-485-000

OPTIONAL

Disinfection cabinets / disinfection pools (optional accessories)



DISINFECTION CABINETS

TYPE	FOR FREUND MACHINES		PART NO.
DES-K01	BBH30-03	BBST30-13	913-501-502
	FNS9P	HDS15	
	FNS9	K18-13	
	FS6		
DES-K02	BBK23-03	K23-03	913-506-003
	BBK28-06D	K23-03L	
	BBKM25-03	K23-06	
	HBK28-06	K28-03	
	HLS12	K28-03L	
	HZ7	K28-06	
	HZ10	K32-06	
	LS15		
	PFK23-03		
	SK28-03L		
	SK32-06L		
DES-K03	SH60-03	SST50-13	913-503-502
	ST40-13		
DES-K04	SB46-08	SB49-08	913-505-002
	SB50-08		
DES-K05	LS15	NS21	913-509-00
	NS26	AS28	
DES-K06-ROD			913-508-002
DES-K07	HBK33-08	SK40-08L	913-510-000
	SK52-08L		
DES-K08	HG12		913-511-000

DISINFECTION POOLS

TYPE	FOR FREUND MACHINES		PART NO.
DES-B01	VH38B	VH38I	913-101-220
	VH38E	SVH38A	
	VH38G	SVH38B	
	VH38H	SD11	



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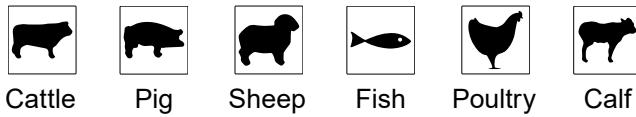
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ANIMAL SPECIES

ANIMALS PER WEEK

Trade	Medium plants	Industry
	1 - 20	
	21 - 500	
	> 500	
	1 - 100	
	101 - 5 000	
	> 5 000	
	1 - 200	
	201 - 10 000	
		> 10 000

CARCASS (DEAD) WEIGHT

	< 200 kg	200 - 400 kg	> 400 kg
	< 80 kg	80 - 120 kg	> 120 kg
	< 15 kg	15 - 25 kg	> 25 kg

TECHNICAL DATA

	Weight (of the tool)		Protection class
	Saw blade diameter		Drive type
	Saw blade / Cutting length		Pressure
	Cutting depth		Power
	Shear opening		Cable extension
	Stroke		Tensile strength of cable
	Diameter		Saw blade teeth
	Saw blade thickness		

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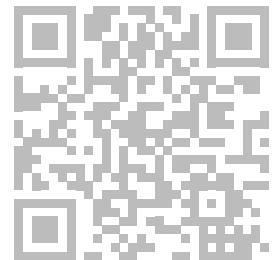
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