



STUNNING

DEVICES FOR STUNNING & EQUIPMENT



TRADITION
+ INNOVATION
FUTURE



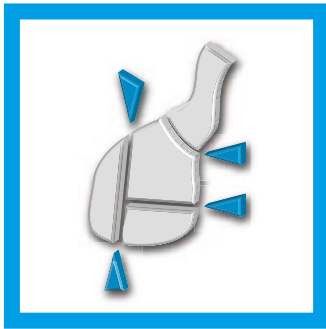
FEEL THE
NEW
ENERGY
IN
PERFECTION



STUN F-SERIE



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.

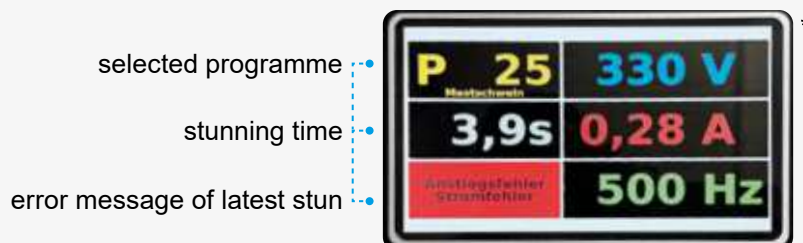
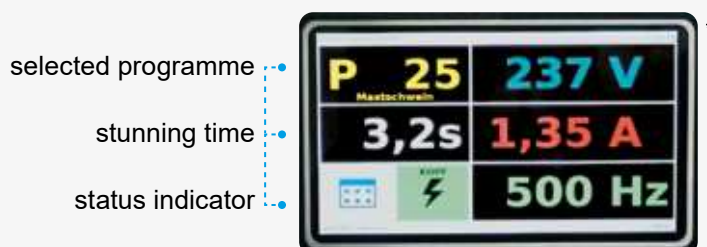
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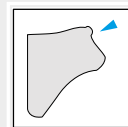
*The images show examples of the screen displays



STUNNING DEVICE STUN-F8

SUITABLE FOR INDUSTRIAL USE AND HIGH FREQUENCY (constant current or voltage)

- 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
- Robust stainless steel housing with wall bracket
- High-resolution touchscreen for setting and displaying key parameters during stunning
- 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
- 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



TECHNICAL DATA

Dimensions H x W x D (mm)	400 x 300 x 180
Weight (kg)	16,7
Supply voltage (V)	230 V, 50-60 Hz
Ingress protection code	IP 55
Stunning current (A)	0,05-3,5 A / 0,05-3,0 A
Output power [W]	P=1100 W, P _{max} = 1800 W
Output voltage	50-500 V / 50-600 V
Stunning time	0,1 - 120 sek.
Frequency range	25 - 1.000 Hz
Measuring voltage	20 V DC
Appliance class	1

DATA RECORDING

STUNNING



SCHERMER STUN PORTAL

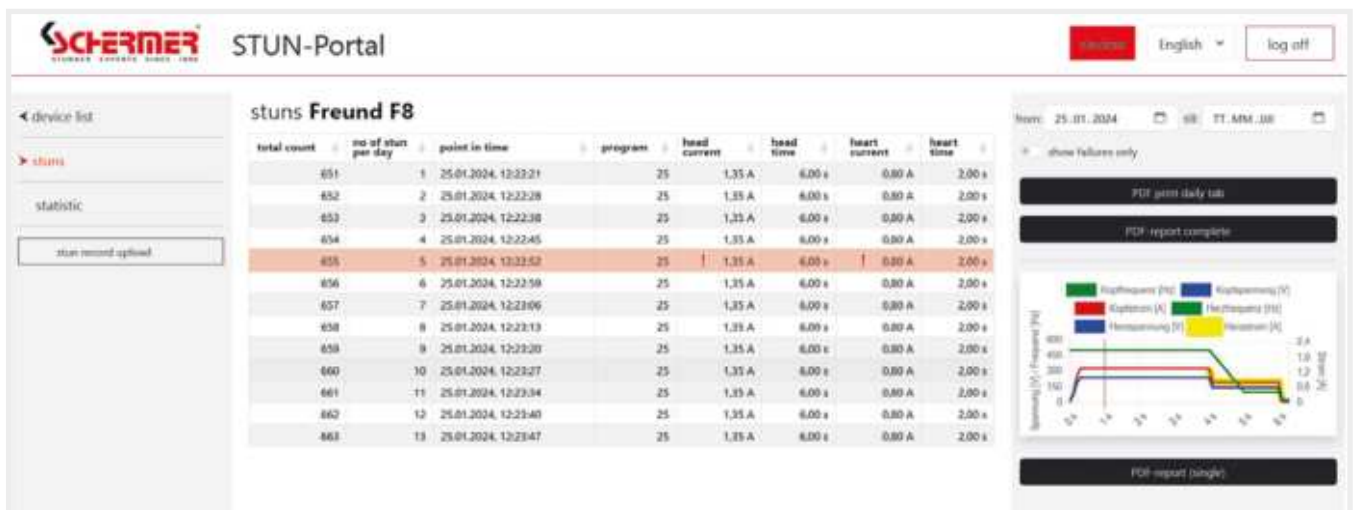
Web server for data recording and remote parameterization (STUN-F series)

- 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



www.schermer-stun-portal.com

SCHERMER STUN PORTAL



Printable PDF view of the daily table

daily tab:

stuns:	13
stuns ok:	12
stuns error:	1
error rate in %:	7,6%

▲ 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.



STUN-TONG-EPP3 F-SERIES

STUNNING



*Image similar

STUN-TONG-EPP3 F-SERIES

Electric stun tong (pneumatic)



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

- Easy and safe to use
- 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



Adjustable in 2 opening sizes:

- ▶ for sow
- ▶ for pig/sheep

OPTIONAL:

- ▶ Electrodes with long thorn for sheep and sows



F3-1,6N

Spring balancer with cable extensions up to 1,6 m



ADDITIONAL DEVICES STUN F-SERIES

STUN-IF1-F8 / STUN-IF2-F8

Interface control boxes



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

Available in two versions:

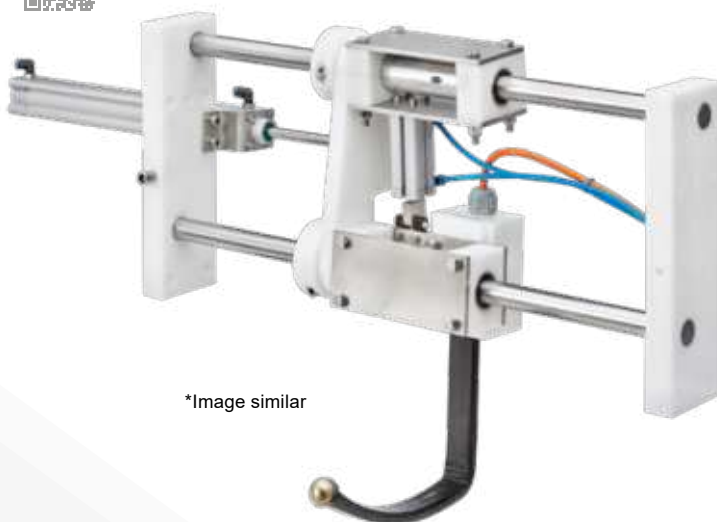
- **STUN-IF1-F8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 F-series)
- **STUN-IF2-F8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 F-series), as well as up to 2 pneumatic cylinders on a heart electrode (e.g. STUN-HE-PP)



STUN-HE-PP

Heart electrode, automatically movable

- 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)



*Image similar

STUNNING DEVICES STUN E-SERIES

STUN-E8XXL / STUN-E6XXL

Electronic stunning devices (constant current & high frequency)

- 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
- Control of a heart electrode possible
- 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 coupling of two stunners via master/slave control (all data of one stunning procedure in one diagram)



STUN-E8XXL

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



In addition to the features listed above:

- Second outlet for separate heart-electrode
- Remote control outlet for pneumatic stun tong and pneumatic heart electrode

TECHNICAL DATA

	STUN-E8	STUN-E6	STUN-E4
Dimensions H x W x D (mm)	350 x 305 x 165	350 x 305 x 165	350 x 305 x 165
Weight (kg)	13,1	13,1	9,7
Supply voltage (V)	90 - 260V, 50-60Hz	90 - 260V, 50-60Hz	115V/230V
Output power (W)	1000 / ED 25%	1000 / ED 25%	500 / ED 20%
Stunning current (A)	max. 2,5A	max. 2,5A	max. 2,5A
Ingress protection code	IP 44	IP 44	IP 44

STUN-E6XXL

Electronic, high-frequency, constant-current, cloudenabled stunning device for the large craft application and medium-sized customers

Features => see left



STUN-E4

Electronic, high-frequency, constant-current stunning device for the small 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

STUNNING

STUNNING ADDITIONAL EQUIPEMENT

stundata server

Home Impressum

stundata server

Die umfassende Lösung zur Aufzeichnung aller relevanten Betäubungsdaten und Steuerung Ihres Betäubungsgeräts

Geschützter Bereich

Benutzername:

Passwort:

Deutsch

Ihr Vorteil

- Vollautomatische Aufzeichnung und Überwachung der Betäubungsvorgänge
- Individuelle Erstellung von Prüfberichten nach Ihren Vorgaben
- Genaue Aufzeichnung
- Zeit- und ortsunabhängige Anpassung Ihrer individuellen Betäubungsparameter per Mausclick
- Kosten- und Zeiterparnis durch Fernwartungs- und Analysehilfe

Kompatibel mit

Über uns

Vertrieb: FREUND Technik für Schlachtung und Zerlegung

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

STUN-CHECK-M

Test device for electric stun devices



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.



STUN-TONG-EPP3 E-SERIES

STUNNING



*Image similar



STUN-TONG-EPP3 E-SERIES

Electric stun tong (pneumatic)



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

- Easy and safe to use
- 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 E-series stunning device in conjunction with an interface control box
- Can be used in combination with a manual or automatic cardiac electrode



Adjustable in 2 opening sizes:

- ▶ for sow
- ▶ for pig/sheep

OPTIONAL:

- ▶ Electrodes with long thorn for sheep and sows



F3-1,6N

Spring balancer with cable extensions up to 1,6 m



ADDITIONAL DEVICES STUN E-SERIES



STUN-IF1-E8 / STUN-IF2-E8

Interface control boxes



Additional devices for the STUN-E8XXL stunning device for controlling pneumatic components.

Available in two versions:

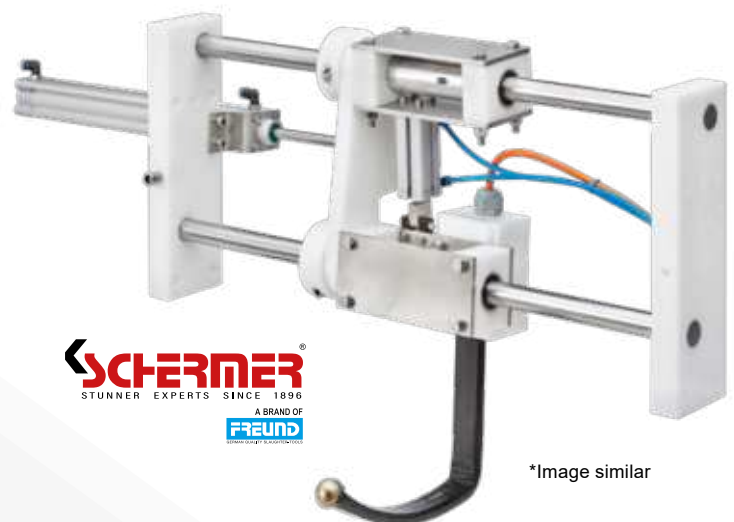
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- **STUN-IF2-E8** offers the possibility of controlling a pneumatic stun tong (e.g. STUN-TONG-EPP3 E-series), as well as up to 2 pneumatic cylinders on a heart electrode (e.g. STUN-HE-PP)

STUN-HE-PP

Heart electrode, automatically movable



- 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)



SCHERMER
STUNNER EXPERTS SINCE 1896
A BRAND OF
FREUND

*Image similar

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.

STUNNING

STUN E-INSPECTION



HOW THE PROCESS WORKS

- 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).

ELECTRIC STUN TONGS



STUN-TONG-EP STEEL



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



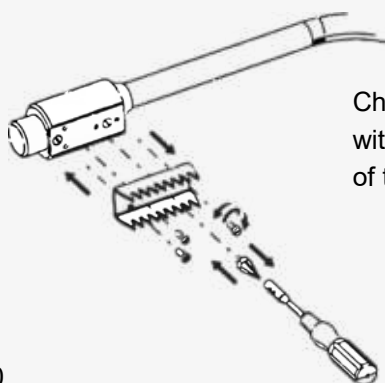
STUN-TONG-EA STEEL



Electric stun tong for sheep, lambs and 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

ELECTRODE QUICK-CHANGE SYSTEM



Change of electrodes without disassembly of tong head

ACCESSORIES: ELECTRODES



EP

(for pigs)

for: STUN-TONG-STEEL



EA

(for sheep)

for: STUN-TONG-STEEL

TECHNICAL DATA

	STUN-TONG-EP STEEL	STUN-TONG-EA STEEL	STUN-TONG-ES STEEL	STUN-TONG-EPP2
Length (mm)	850	850	940	640
Weight (kg)	3,2	3,2	3,5	3,2



STUN-TONG-ES STEEL

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

- 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



► **OPTIONAL** for STUN-TONG-EPP2:



F4-2,5SK

Spring balancer with cable extension up to 2,5 m

ACCESSORIES: WALL BRACKETS



ES

(for pigs)

for: STUN-TONG-ES-STEEL



■ for STUN Tongs



■ for stunning device STUN-E4



■ for stunning devices
STUN-E6XXL / STUN-E8XXL

ELECTRIC STUN TONGS



ZK-1



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



ZK-2

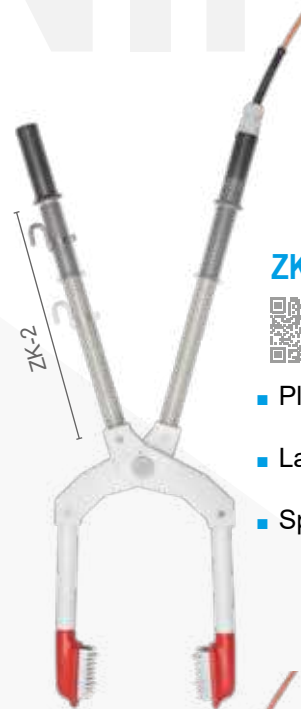


- Standard version
- Plastic side pieces
- Spiral cable



Z-KT

- Plastic side pieces
- Two-hand switch
- Spiral cable



ZK-3



- Plastic side pieces
- Large handle tubes
- Spiral cable



ZK-4



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

TECHNICAL DATA

	ZK-1	ZK-2	ZK-3	ZK-4	Z-KT
Length (mm)	860	760	985	825	495
Weight (kg)	3,8	3,6	4,0	4,0	4,1

ELECTRODES



E1.0
standard
for ZK-2



E1.1
standard with 2 pins
for ZK-1, ZK-2, ZK-3



E2.0
slanted
for ZK-4



E2.1
slanted with 3 pins
for Z-KT



E3.0
hedgehog/crescent
for ZK-1

DESIGNS

	Side pipes	Handle tubes	Electrodes					Plug	
	mm	mm	E1.0	E1.1	E2.0	E2.1	E3.0	16A	18A
ZK-1 E1.1 (disease)	350	420		■				■	
ZK-1 E1.1 (standard)	350	420		■					■
ZK-1 E3.0 (cattle)	350	420					■	■	
ZK-2 E1.0 (standard)	250	420	■						■
ZK-2 E1.1 (standard)	250	420		■					■
ZK-2 E1.1 (disease)	250	420		■				■	
ZK-3 E1.1 (disease)	500	420		■				■	
ZK-3 E1.1 (standard)	500	420		■					■
ZK-4 E2.0 (disease)	250	520			■			■	
ZK-4 E2.0 (standard)	250	520			■				■
Z-KT E2.1	150	300				■			

APPLICATIONS



> 150 kg



≤ 150 kg



CAPTIVE BOLT STUNNERS



SCHERMER K SERIES

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



Videos on maintenance & care for SCHERMER K series

SCHERMER K SERIES



SCHERMER KLS

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



SCHERMER KS

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
- Only in combination with head fixation
- Calibre .27 - 6,8/18 mm
- PTB tested and certified according to CIP and CE

CAPTIVE BOLT STUNNERS

STUNNING



SCHERMER KR

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



SCHERMER KL

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



Videos on maintenance & care for SCHERMER K series

TECHNICAL DATA

	KLS	KS	KR	KL	KK	KC
Weight (kg)	3,1	3,1	3,1	3,3	2,9	4,4
Length (mm)	416,5	385	385	425	315	445



SCHERMER KK

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 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)

TEST DEVICES FOR CAPTIVE BOLT STUNNERS

STUN TEST-DEVICE



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 TEST SLEEVE



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.

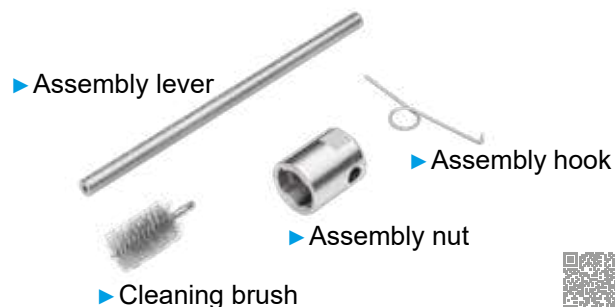


Videos on maintenance & care for SCHERMER K series

OPTIONAL

Accessory set for cleaning captive bolt stunners

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



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



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.



	NEW KLS	KS	KR	KL	KK	KC
APPLICATIONS	RECOMMENDED CARTRIDGE CONFIGURATION					
> 1000 kg*		-	-		-	Observe country-specific legal position
650 - 1000 kg*		-		-	-	
300 - 850 kg*			-	-	-	
300 - 650 kg*				-		
< 300 kg*				-		
		-	-		-	
				-		
> 150 kg*		-			-	
30 - 150 kg*				-		
< 30 kg*				-		
				-		

*Specified weight relates to live weight

STUNNING



TECHNICAL SUPPORT

YOUR REQUEST IS OUR MISSION!



REGULAR
inspections



FAST
processing



COMPREHENSIVE
testing



EFFICIENT
repair



☎ +49 5251 1659 - 0 ✉ service@freund.eu



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

FREUND ASSISTANCE

EXPERIENCE A NEW KIND OF SERVICE!



Mok-Up Designed by zlatko_plamenov / Freepik

With our modern customer portal, we provide you with a tool that not only ensures access to important information and services, but also the next step towards digitalisation.



Access technical documentation, parts catalogues at any time - conveniently and centrally in one place.

Get started - everything you need is just a one click away!

<https://parts.freund.eu>



Here you can find out more about the benefits of FREUND Assistance.

FREUND Maschinenfabrik GmbH & Co. KG

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33106 Paderborn, GERMANY

☎ +49 5251 1659 - 0

✉ mail@freund.eu

🌐 www.freund-germany.com



DE



EN



ES



FR



RU

