

EFA stunning device

EFA VB 215

EFA VB 225

EFA VB 316



12.2021

Original operating instructions

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Any changes or amendments to these original operating instructions are only allowed to be made by us, otherwise any warranty claim against us will be void.

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1 Introduction and general information

Important!

Operating instructions cannot prevent misuse in every case!

1.1 Information on the operating instructions

These operating instructions are part of the technical documentation of the machine and comply with the Machinery Directive.

The machine has been designed and built according to the careful selection of the harmonising standards to be observed as well as other technical specifications.

The operating instructions are intended to describe the operation and handling of the EFA stunning device and provide the necessary safety instructions.

These operating instructions are intended for the machine operator and contain the details of the intended use and important information:

- for safe handling of the machine,
- for maintenance,
- for cleaning and maintenance.

If the instructions are followed, the EFA stunning device will be operated safely, properly and economically and its operational capability will be maintained.

Observance of these instructions helps to avoid dangers, minimise repair costs and downtimes, and increase the reliability and service life of the machine.

A prerequisite for safe handling and trouble-free operation of the machine is observance of the following:

- the operating instructions,
- the company directives (safety signs and danger warnings),
- the legal provisions on occupational safety,
- the applicable laws and regulations.

These operating instructions must always be kept accessible at the machine for all work to be carried out.

Note!

If your operating instructions are damaged or lost, you can request a new copy by stating the machine designation, part number, serial number and year of production, see *section 3.2 Nameplate*.

If you have any questions, or if you cannot solve a problem with the help of these operating instructions, please contact our Service department.

1.2 User group

Only instructed and/or trained personnel over 16 years of age are allowed to set up or operate the EFA stunning device. Furthermore, it is imperative that everyone working with and on the machine has read and understood the operating instructions, and observes them.

The operation of the stunning device by persons who are under the influence of alcohol, medication, or drugs is strictly prohibited.

Instructed person

Persons over 16 years of age who have been instructed and trained by a qualified person (specialist) in the tasks assigned to them and about possible dangers in the event of improper behaviour, as well as in the handling of the necessary protective devices and protective measures, are considered to be instructed persons.

Trained person (specialist personnel)

Persons who have obtained a professional qualification and have demonstrated this by checking the results or passing an examination are considered to be trained persons.

1.3 Scope of supply

Upon receipt of the delivery, check immediately whether the scope of supply corresponds to the accompanying documents.

Submit a complaint in the event of:

- apparent transport damage immediately to the supplier,
- apparent defects/missing items, to **Schmid & Wezel GmbH**.

This operating manual describes the **EFA** stunning device with all possible options, these are not necessarily included in the scope of supply and can only be retrofitted to a limited extent.

1.4 Intended use

Danger!



Never point the device at people!

Danger!



**Never reach into the area of the bolt,
you could injure yourself.**

The stunning device is operated with compressed air.

Areas of application

- **EFA VB 215**
Stunning device for the stunning of heifers, cows and bulls with an impact depth of 101 mm.
- **EFA VB 225**
Stunning device for the stunning of heifers, cows and bulls without penetration hole (concussion shot).
- **EFA VB 316**
Stunning device for the stunning of heifers, cows, calves and bulls with an impact depth of 121 mm.

The machine is not equipped for a different type of use. Should the user desire to use the equipment for a different purpose than intended, please contact **Schmid & Wezel GmbH & Co. (S&W)**. For all other types of use, the user must be advised of the inherent accident hazard and increased wear. **In the event of non-compliance, the liability shall be borne by the user alone.**

The stunning device is only allowed to be used:

- in a fully functional and perfect technical state, in line with the intended use, in consideration of all of the safety- and hazard-relevant aspects,
- with properly functioning safety devices,
- with the equipment approved by the manufacturer.

Do not use materials harmful to health.

If, contrary to the intended use, materials harmful to health are to be processed then **Schmid & Wezel GmbH** must be informed in writing about the planned use and the protective measures taken by the customer/ operating company.

The customer/operating company is solely responsible for suitable protective measures (e.g. extraction devices, respiratory protection, protective suits, etc.) and company directives.

If the EFA stunning device is not used as intended or is modified without the approval of **Schmid & Wezel GmbH**, persons could be injured and the machine damaged.

The operating permit is invalidated.

The intended use includes in particular that you:

- Observe the operating instructions and company directives;
- Observe maintenance instructions and intervals;
- Immediately rectify any faults that impair safety;
- Do not operate the stunning device if safe working is not possible;
- Do not make any structural changes to the stunning device without authorisation.

1.4.1 Residual hazards

As the stunning device is intended for industrial use on carcasses, there is a possibility of injury or, in case of gross misuse, of **fatal** injury. Therefore, in case of misuse, the possibility of immediate death or death by blood loss must be expected.

Consequently, always pay attention to the correct handling of the machine.

1.5 Claims for defects, liability, warranty

Warranty and liability claims for personal injury and damage to property are excluded in particular in the following cases:

- Improper use or unsuitable use,
- Improper transport or storage,
- Improper assembly and/or initial start-up,
- Improper operation (operating errors),
- Disregarding of operating instructions/company directives,
- Faulty or negligent handling,
- Improper maintenance/repair,
- Unsuitable equipment or spare parts that are not approved by **Schmid & Wezel GmbH** Maschinenfabrik,
- Natural wear and tear,
- Improper or unprofessional rectification of defects by the customer/operating company or third parties,
- Unauthorised structural changes to the machine without written permission from **Schmid & Wezel GmbH**,
- Chemical, electrochemical or electrical influences – unless they are the responsibility of **Schmid & Wezel GmbH**.

Liability

The manufacturer accepts no liability for accidents, machine damage and consequences of machine failure resulting from failure to observe the operating instructions. In addition, the local accident prevention regulations and general safety regulations for the area of application of the machine apply.

Limitation of liability

All technical information, data and instructions for the operation of the machine contained in the operating instructions are up to date at the time of delivery. They are provided to the best of the manufacturer's knowledge, taking into account previous experience and knowledge. The manufacturer reserves the right to make technical modifications in the course of further development of the machine described in these operating instructions. No claims can therefore be derived from the information, figures and descriptions in these operating instructions. The manufacturer shall be liable for any errors or omissions within the scope of the warranty obligations entered into in the contract, to the exclusion of further claims.

Claims for damages are excluded, irrespective of the legal basis on which such claims are derived. Only the text of the **original operating instructions** is authoritative.

The textual and graphical representation in the operating instructions does not necessarily correspond to the scope of supply or a spare parts order. Illustrations in these instructions are not to scale.

Technical changes

The manufacturer **Schmid & Wezel GmbH** reserves the right to make technical changes within the scope of improving the usage properties and further development without prior notice.

Figures are for basic understanding and could differ from the actual design of the system.

Copyright

The manufacturer reserves the copyright to these operating instructions. These operating instructions are intended for assembly, operating, maintenance and monitoring personnel.

Transferring the operating instructions to third parties without the written consent of the manufacturer **Schmid & Wezel GmbH** is not permitted. Duplication in any kind and form – in whole or in part – as well as the use and/or communication of the contents are not permitted without written declaration of the manufacturer.

Note!



All content, texts, drawings, pictures and other representations are protected by copyright and are subject to industrial property rights.

Any improper use may be punishable!

2 Safety

Everyone who is involved in the installation, start-up, operation, set-up, equipping and maintenance of the stunning device in the operating company must have read and understood the operating instructions, in particular the "Safety" chapter.

Safe operation of the machine is only guaranteed if:

- Unauthorised persons are kept away from the working area of the machine,
- Safe working with awareness of the dangers involved is regularly checked in accordance with the operating instructions,
- No working methods are employed that could compromise safety,
- Malfunctions in the machine are eliminated immediately,
- Maintenance work is carried out regularly.

Important!



The operating instructions must be accessible at all times during the entire period of use of the stunning device for the operating, maintenance and cleaning personnel. Therefore, always keep these operating instructions close to the machine.

First aid!

Important!








In the event of an accident, provide **FIRST AID!**

- Keep calm!
- Remove injured persons from the danger area without endangering yourself!
- Inform other employees (first-aiders, paramedics) or request help!



2.1 Safety Instructions

During the use of the stunning device, dangers could arise in certain situations or through certain behaviour. The measures described to protect against dangers must be observed.

The safety instructions are identified as shown in the following tables (pictograms).






Symbol/ pictogram	Signal word	Damage/ injury to . . .	Definition	Possible consequences of disregarding the safety instructions
	Danger	Persons	Imminent danger	Death, serious bodily injury or substantial damage to property
	Warning	Persons	Potentially dangerous situation	Death or serious bodily injury could occur
	Caution	Persons	Less dangerous situation	Slight or minor injuries
	Attention	Property	Potentially harmful situation	Damage to the product or its environment
	Information	–	Application tips and other important/useful information and notes	No dangerous/harmful situation

2.1.1 Other safety signs








Symbol	Meaning
	Mark of conformity! The machine complies with the applicable regulations of the EC Machinery Directive.
	Recyclable materials! Ensure that the materials are recycled properly!

2.1.2 Warning sign


Warnings and symbols used in the operating instructions and documentation are intended to help you to recognise and assess the dangers more easily.

Symbol	Meaning
	Warning: Dangerous electrical voltage! Touching live parts can result in immediate death. Covers or cabinets marked with this sign are only allowed to be opened by qualified electricians after the machine has been switched off.
	Warning: Sharp cutting tool! Contact with the running cutting tool will lead to extremely severe cutting injuries involving permanent or even fatal injury. Ensure that a sufficient safety distance is maintained. Contact with the stationary cutting tool could lead to severe cutting injuries involving permanent injury. Wear safety gloves. Ensure that a safety distance is maintained.
	Warning: Hand injuries! There is a danger of hands being pinched, pulled in or otherwise injured. Keep your hands away from places that bear this warning sign!
	Warning: Noise with high sound pressure level! If the sound pressure level at the workplace is above 85 dB(A). Remaining for a relatively long period can cause permanent hearing damage. Only enter the area if wearing the correct hearing protection.
	Warning of hot surface! It is not always possible to notice the presence of hot machine parts, containers or materials, as well as hot liquids. If such a safety sign is affixed to a component, care must be taken. Do not touch hot surfaces without protective gloves.

2.1.3 Mandatory instruction sign

Symbol	Meaning
	General mandatory instruction sign! Observe company directive, notes in operating instructions and generally applicable safety regulations.
	Wear cut-resistant gloves! Cutting injuries possible. Provide information about suitable cut-resistant gloves.
	Use safety shoes! Safety shoes form part of the personal protective equipment and provide protection for the health of the worker. They prevent accidents and injuries such as crushing by heavy objects.
	Wear a protective helmet! Head injuries are possible due to objects falling, tipping over or being thrown out, or due to swinging loads; bumping into obstacles also represents a danger. A suitable protective helmet must always be worn on the head when in the indicated area.
	Wear protective goggles! Eye injuries (loss of vision) possible when working due to flying solid objects.
	Wear hearing protection! If the continuous sound pressure level of the machine/system is above 85 dB(A), hearing protection must be worn to prevent permanent hearing damage.
	Wear protective clothing! Protection against contact with auxiliary or working equipment. Find out about suitable protective clothing.

2.1.4 Prohibition sign

Symbol	Meaning
	General prohibition sign! The red signal border/prohibition stripe indicates an immediate danger and is overlaid diagonally over the self-explanatory symbol. The general prohibition sign must always be used in conjunction with another sign.

2.2 Personal protective equipment in the following lifecycle phases

Some work requires protective equipment.

This protective equipment must be made available to you.

Lifecycle phase	Protective equipment
Transport	<ul style="list-style-type: none"> Protective gloves Safety shoes
Assembly, start-up & maintenance	<ul style="list-style-type: none"> Safety shoes Protective gloves Protective goggles Hearing protection Hairnet for long hair
Operation	<ul style="list-style-type: none"> Hairnet for long hair Protective goggles Hearing protection Safety shoes Protective clothing
Storage	<ul style="list-style-type: none"> Protective gloves Safety shoes
Disposal	<ul style="list-style-type: none"> Protective gloves Safety shoes

2.3 Conduct at the workplace

The workplaces must be designed in such a way that each employee has at least 1.5 m² of freedom of movement. Ensure proper lighting, at least 500 lux.

No other workplace should protrude into this area, otherwise there is an injury hazard due to the actions carried out with the EFA stunning device.

The floor must minimise the danger of slipping on wet, greasy or dirty surfaces.

The workplace must comply with local hygiene and workplace regulations.

- Always keep your workplace tidy and in good working condition. A cluttered or messy workplace can lead to accidents.
- Take environmental influences into account.
- Keep other persons away from your workplace. Focus on the job in hand when working.
- Do not use the EFA stunning device when you are tired and/or unfocused.
- Avoid wearing loosely fitting items of clothing and jewellery that can be caught by moving parts. Wear sturdy shoes during your work. Always wear a hairnet!
- Ensure that your workplace has a correct, ergonomic set-up and make sure that you are standing securely.
- Store the stunning device in a safe manner. Look after your tools with care.
- Do not leave any tool keys connected. Check that all keys have been removed before switching on.
- Look after your equipment with care.
- Only use genuine EFA accessories/spare parts.
- Changes and modifications to the machine are not permitted and, if any such changes are made, **S&W's** guarantee and liability shall be invalidated.

The use of other equipment, accessories or spare parts can endanger you and other persons.













Non-compliance will void the warranty.

3 Technical description

Tab. 3.1 Technical data

Description		EFA stunning device		
		VB 215 130109610	VB 225 130109621	VB 316 130109671
Operating pressure	bar	12	12	14
Air consumption per shot	l	12	14	20
Compressed air connection	Inch	R 3/8"		
Firing pin (effective length)	mm	Ø 12	Ø 56	Ø 14.5
Penetration depth	mm	101	(concussion shot)	121
Dimensions (L x W x H)	mm	360 x 230 x 380	320 x 230 x 380	458 x 291 x 447
Weight	kg	12.0	16.5	22.2

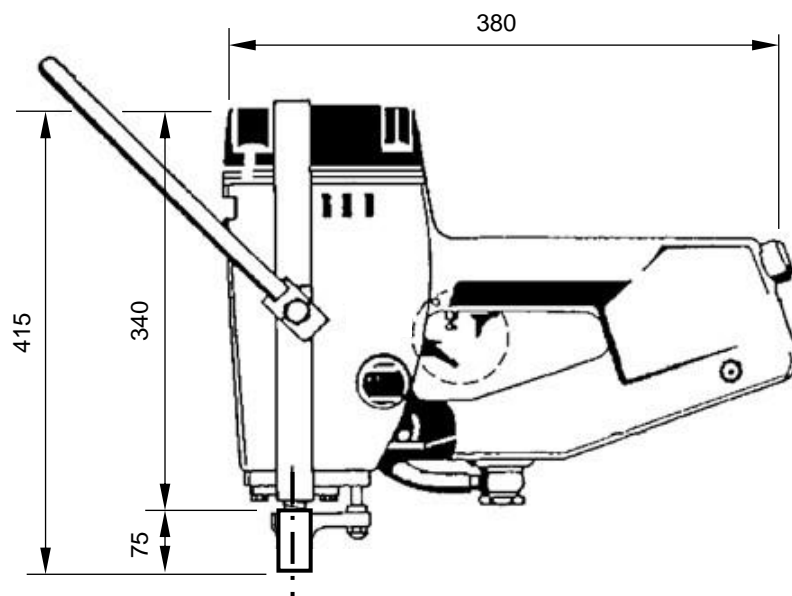
Tab. 3.2 – EFA stunning device overview

EFA stunning device	Application	Application
VB 215 130109610 	  	<p>High performance stunner (air operated) for cattle, horses and calves; for medium and large plants.</p>
VB 225 130109621 	  	<p>High performance stunner (concussion stunning) for cattle, horses and calves; for medium and large plants.</p>
VB 316 130109671 	  	<p>High performance stunner (air operated) for cattle, horses and calves; for medium and large plants.</p>

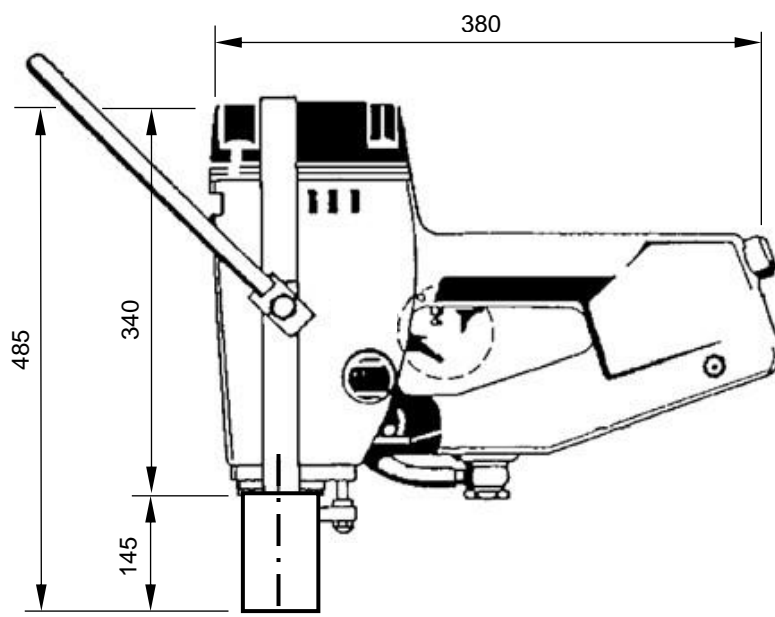
3.1 Dimensions

The following figures give you an overview of the dimensions of the stunning device.

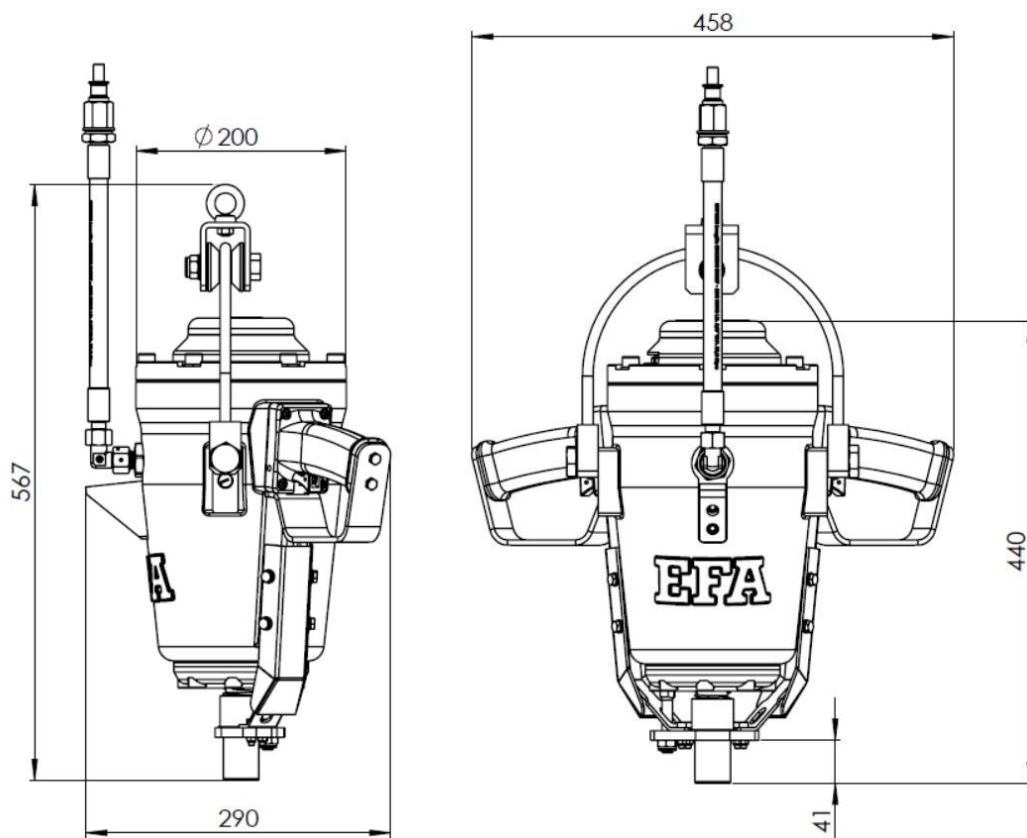
EFA VB 215 (part no. 130109610)



EFA VB 225 (part no. 130109621)

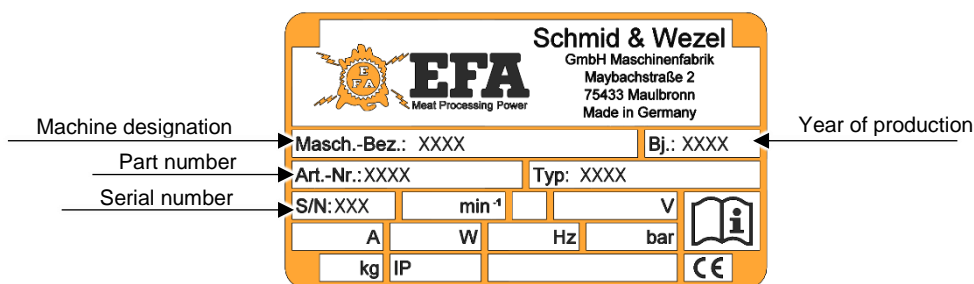


EFA VB 316 (part no. 130109671)



3.2 Nameplate

The nameplate is attached to the machine and contains information on the machine performance. The following figure shows an example of the nameplate for EFA machines.



4 Transport and storage

The machine has been tested and carefully checked in our factory before shipment.

The test ensures that the machine is working properly.

Despite all care taken, there is a possibility that the machine could be damaged during transport.

Therefore, check the machine for possible transport damage when unpacking it.

Unpacking the machine

- Remove all packaging materials and dispose of them in a professional and environmentally friendly manner.
- Check the machine for possible transport damage.
- Information on *disposal and recycling* can be found in *chapter 9*.

Storage of the machine

For safe storage of the machine, it is essential to observe the following instructions:

- Only store the machine in a dry, ventilated room.
- Only store the machine in a dry condition.
- Protect the machine from corrosion.

5 Connection and start-up

5.1 Initial start-up

Caution!



Ensure that the stunning device is switched off prior to connecting it to the plant network.

5.1.1 Spring balancer

The stunning device must always be operated in combination with a weight relief device (spring balancer), see Fig. 5.1 and Appendix -B1-B2-.

The spring balancer is secured with a safety chain (2), which must be secured in a fixed position irrespective of how the spring balancer is suspended.

The stunning device should be positioned above the slaughter bay on the spring balancer. Use a trolley to attach the spring balancer to a higher element above the workplace or to the ceiling.

Hang the stunning device with the head uppermost if possible. The vertical alignment can be readjusted if necessary.

Danger!



Due to the weight, see Tab. 3.1 *Technical data*, there could be a hazard due to the machine slipping or falling when the weight relief device is attached or detached.

Danger!



Please note that if the rope rebounds when unloaded, it is very dangerous for people and the spring will also be irreparably damaged. The maximum load specified on the nameplate must not be exceeded.

Also make sure that the machine does not jam either on the snap hook or on the hook of the stunning device. Be careful!

For complete information about the spring balancer, read the operating instructions supplied with it.

Setting the load

The fine-tuning (load setting) of the spring balancer is carried out via the plus/minus (+/-) hexagon screw on its housing (1).

- To do this, turn the screw with the 17 mm socket wrench (1) in the direction of minus (-) until the device is freely suspended and balanced (with the tension spring) at working height.

If it is not possible to pull out, the spring balancer is blocked and readjustment is necessary.

- Turn the screw with the socket wrench in the direction of plus (+) until pulling out is possible and start the fine adjustment again.

When the stunning device is not in use, place it in such a way that there is no accidental contact with the device.

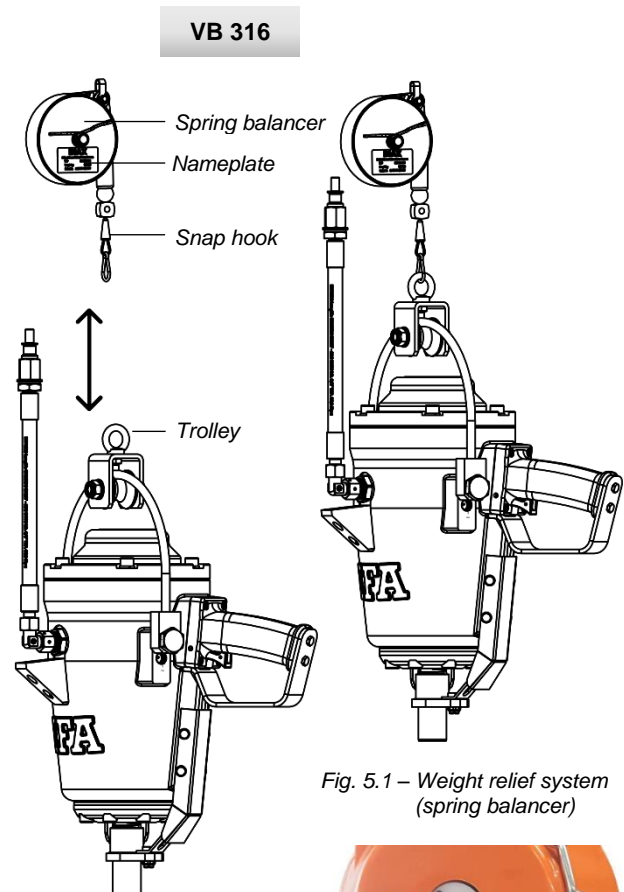


Fig. 5.1 – Weight relief system (spring balancer)

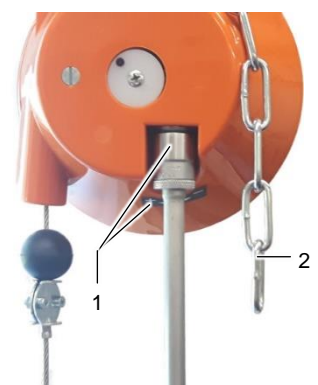


Fig. 5.2 – Fine-tuning of the spring balancer

5.1.2 Compressor

A compressor unit is provided for the operation of the stunning device (see separate operating manual and *Appendix -A2-*).

5.1.3 Oil mist lubricator

See the separate operating manual.

5.1.4 Connection of the stunning device

Caution!



Installation work is only allowed to be carried out by authorised specialist personnel.

Danger!



Only connect the compressed air supply when the devices are switched off!

For the procedure, see the installation diagram in *Appendix -B1- or -B2-*

Before connecting (see Fig. 5.3, Fig. 5.4, Fig. 5.5)

Before connecting the device, check that the release lever and the safety bush or safety button can move freely and easily.

To connect, pull back the knurled sleeve of the rapid action coupling (A), allow it to engage in the plug-type fitting and release the knurled sleeve.

Connecting/coupling

VB 215, VB 225 and VB 316 (see also *Appendix -A1-A2-*)

- 1) Connect the stunning device to an oil mist lubricator (compressor unit special accessory) using the safety rapid action coupling connection (A) and spiral air hose (B).
- 2) When coupling the device, the operating pressure must be > 8 bar, otherwise the release valve will not close and air will escape from the release valve.
- 3) To connect, pull back the knurled sleeve of the rapid action coupling (A), allow it to engage in the plug-type fitting and release the knurled sleeve.
- 4) The stunning device must be mounted on a spring balancer (special accessory) for safe working.

To ensure that the required operating pressure > 8 bar is available at the workplace, an oil mist lubricator with pressure gauge must be permanently mounted.

Mount the oil mist lubricator in the following order:

- Water separator • Pressure gauge • Oiler.

Oiler setting: 1 drop of oil for about 10 – 15 shots.

VB 316

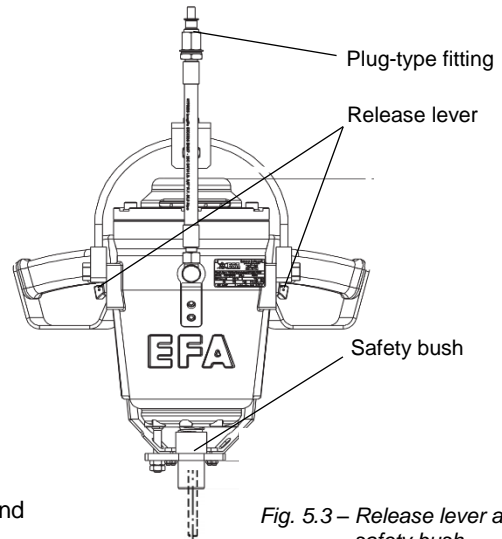


Fig. 5.3 – Release lever and safety bush

VB 215 and VB 225

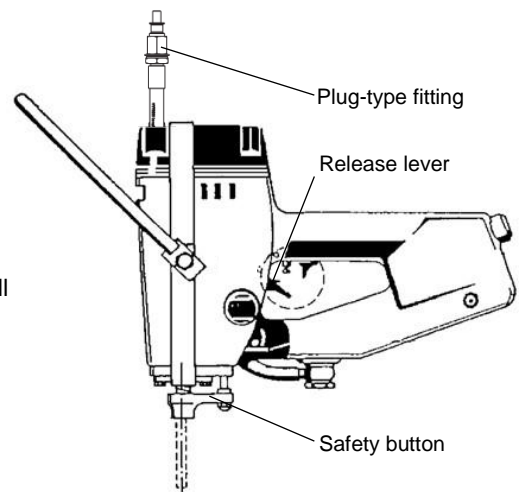


Fig. 5.4 – Release lever and safety button

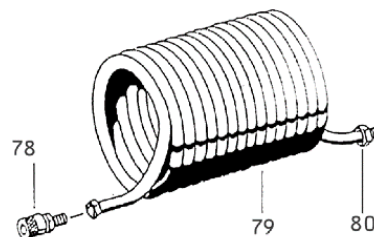


Fig. 5.5 – Spiral hose with coupling

Important!



The device is not protected against exceeding the max. operating pressure of:

- **12 bar** – VB 215
- **12 bar** – VB 225
- **14 bar** – VB 316

5.1.5 Uncoupling the stunning device

Pull back the knurled sleeve of the safety rapid action coupling (A), see *Fig. 5.5 – Spiral hose with coupling*, and hold it against the stop.

After venting the pressure chambers of the device, bring the knurled sleeve into its initial position and pull off the spiral air hose.

6 Handling

6.1 Working with the stunning device

Important!



The stunning device must not be used before the operator has read these operating instructions and the device has been connected correctly!

Caution!



Never reach into the area of the bolt when the device is connected!

Caution!



Never point the device at people!

Warning!



Wear eye protection or protective goggles when working! Hearing protection must be worn during continuous operation!

6.2 Operation

6.2.1 Preparation

Before use, check that the operating data of the compressed air supply and the device match up. Before starting work, it is also necessary to check whether:

- a) the required operating pressure of:
 - **12 bar – VB 215** (heifers, cows and bulls),
 - **10 bar** (heifers), **12 bar** (bulls) – **VB 225**,
 - **14 bar – VB 316** (heifers, cows, calves and bulls),
 is set;
- b) the stunning device is operational;
- c) the device does not have any leaks;
- d) the general safety instructions are observed, see *section 2.1*.

Caution!



Only work with the device in faultless condition, otherwise there is a risk of accidents. If the switched-on pressure is too low, the stunning device can kick back because the bolt does not break through the cranial bones.

Testing the impact energy of the stunning device

The test is only possible with the measuring instrument **MEVB 100** and corresponding attachment, see *Fig. 6.1*.

For complete information about the measuring instrument, read the operating instructions supplied with it.

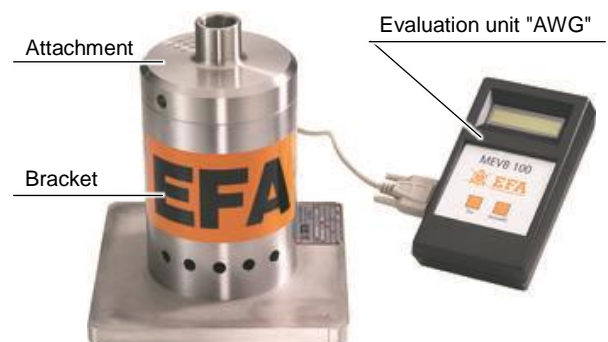


Fig. 6.1 – MEVB 100

6.2.2 Working

Caution!



Caution!



Place the device on the head of the animal for stunning (⊗ ↑), as shown in Fig. 6.2 – *Stunning points*.

When firing, the operator's head must be positioned to the side of the device in order to avoid injury in case of possible kick back of the stunning device!

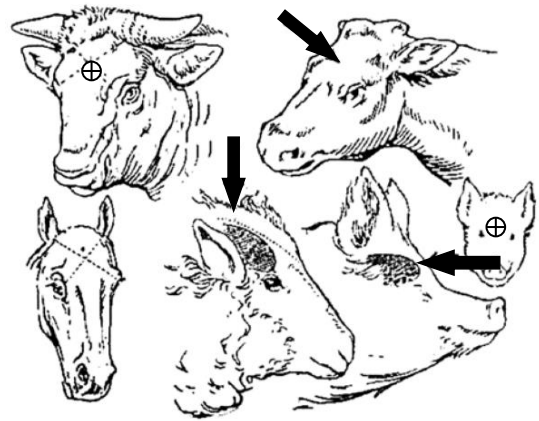


Fig. 6.2 – *Stunning points*

VB 215 and VB 225 (see Fig. 6.3 and Appendix -A1-)

- 1) Operate the release lever (1) on the handle (2) and place the cattle stunner with the safety button (3) on the animal's head.
- 2) Pressing the safety button triggers the shot.
- 3) After the shot has been fired, release the release lever (1) immediately and lift the device off the animal's head.
- 4) The cattle stunner is then ready for operation again.

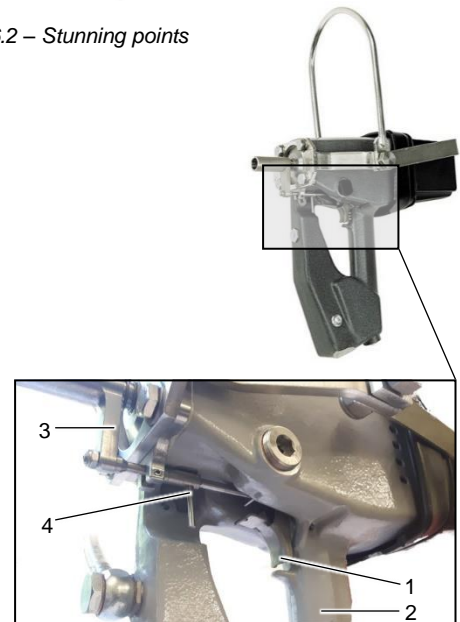


Fig. 6.3 – *Operation (VB 215, VB 225)*

VB 316 (see Fig. 6.4 and Appendix -A1-)

- 1) Operate the release lever (1) on both handles (2) and place the cattle stunner with the safety bush (3) on the animal's head.
- 2) Pressing the safety button triggers the shot.
- 3) After the shot has been fired, release the release lever (1) at both handles immediately and lift the device off the animal's head.
- 4) The cattle stunner is then ready for operation again.

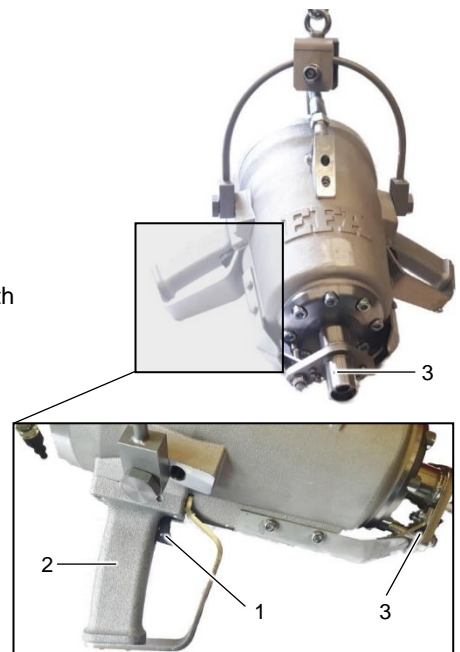


Fig. 6.4 – *Operation (VB 316)*

Not completely inserted bolt

Caution!



If the bolt is not fully retracted prior to the stunning, the stunning device will kick back when firing.

An unfavourable positioning or movement of the animal's head in relation to the stunner can jam the bolt while withdrawing. Therefore the bolt does not automatically return to the initial position. In order to get the bolt back into the initial position, a blank shot must be fired without the use of an animal. The "MEVB 100" is recommended for this.

Insufficient oiling of the compressed air leads to inadequate lubrication on the bolt, which means that complete retraction of the bolt cannot be guaranteed. Provide adequate lubrication. Follow the maintenance instructions in section 8.1.1.

6.2.3 Blank shot with MEVB 100

Danger!



Perform blank shots only with MEVB 100. Danger through shooting bolt.

Danger!



In the event of incorrect usage, there is a direct risk of injury from kickback and damage from the stunning device.

- **Without operating the release lever (1)**, insert the stunner perpendicular into the guid tube of the attachment until it reaches the end.
- Press the release lever (1). Shot fired.
- Release the release lever.
- Take the stunner out of the mount.
- If the bolt is in the initial position the stunner is ready for usage again.



Fig. 6.5 – MEVB 100

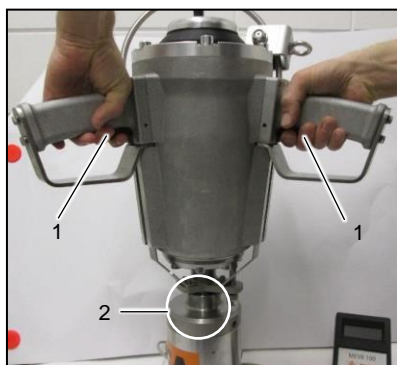
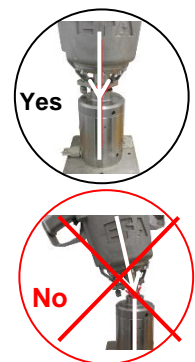


Fig. 6.8 – MEVB 100 (VB 316)

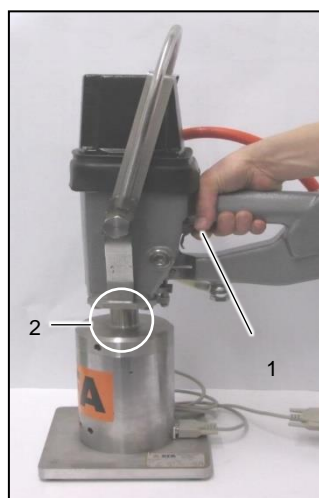


Fig. 6.7 – MEVB 100 (VB 215, VB 225)

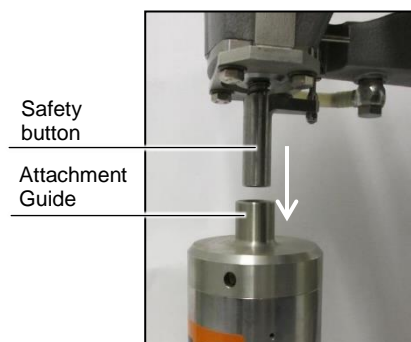


Fig. 6.6 – MEVB 100

6.2.4 Operational safety

- Hold the machine securely.
The device must be guided by the handle and the hoop (VB 215 and VB 225) or by both handles (VB 316).
- Be especially careful when switched on.
- Never operate the release lever when the device is not in use.
- After the shot has been fired, lift the device off the animal's head immediately.
- For safer handling (guiding), the stunning device must be **suspended** from a spring balancer, *see section 5.1.1 Spring balancer*.

7 Cleaning

Danger!



Only carry out cleaning work when the stunning device is disconnected from the compressed air network.

Danger!



Observe the safety and hygiene requirements!

Note!



Clean the device in hot water with a cloth or sponge.

7.1 Daily cleaning after completion of the slaughtering

Trouble-free continuous operation can only be guaranteed if the EFA stunning device is kept perfectly and hygienically clean at all times.

In the normal course of events, the device should be disinfected before each use. There must be at least daily cleaning and maintenance on the individual days of slaughter, and additional cleaning as required in the event of recognisable contamination.

It is recommended for the release valves, safety bush/safety button and the rocker to be cleaned daily to remove dirt.



Also observe the safety instructions in the product data sheets of the cleaning agents.



Do not use any aggressive solvents!
Do not use a steam blaster or high-pressure cleaner! Do not immerse the device in water!

7.1.1 Cleaning of the stunning device

Warning!



Wear protective gloves and safety shoes when cleaning the stunning device.

- 1) Bring the stunning device to your tool point (workshop).
- 2) Remove coarse dirt with a brush and warm water (approx. 45 – 55 °C); tenacious or crusted residues must be soaked in order to be able to remove them.
- 3) Put a cleaning agent in warm water. Spread the solution over the surfaces to be cleaned and allow the cleaning agent to work for 15 – 20 minutes.
- 4) Wash off the dissolved dirt with warm water.
- 5) Wash and dry the entire stunning device with clean water.

8 Maintenance and repair

8.1 Maintenance

Note!



Observe all safety instructions.

Danger!



Maintenance work is only allowed to be carried out by qualified and instructed personnel.

Danger!



Disconnect the stunning device from the compressed air network before maintenance work.

To ensure the longest possible service life and low wear and tear, the stunning device must be checked and serviced regularly.

Only use genuine spare parts or spare parts recommended by **Schmid & Wezel GmbH Maschinenfabrik**.

8.1.1 Before and during slaughter

Danger!



Inadequate lubrication of the stunning device can prevent the bolt from retracting completely. This can cause the stunner to kick back during the next shot.

- To ensure trouble-free operation, it is essential to use an oil mist lubricator R 3/8" with filter, regulator and oiler (included in the compressor) for the compressed air supply.
- Only use acid-free brand-name oil (order no. 001365612).
- Oiler setting: 1 drop of oil for about 10 – 15 shots.
- Regularly check that there is sufficient oil in the reservoir tank.
- Drain condensate from the water separator regularly.

8.1.2 After slaughter

- After completing the slaughtering, disconnect the device, see section 5.1.5 – *Uncoupling the stunning device*.
- Oil the moving parts, such as: release valve, safety button and rocker (VB 215 and VB 225) or safety bush, trigger and rocker (VB 316), and check for freedom of movement.
- **VB 316**
After the cattle stunner has been checked and cleaned, retighten the screws daily or every 1000 shots, see Fig. 8.2:
 - a) the screws of the cover (30 Nm),
 - b) the screws of the hoop (25 Nm),
 - c) the screws of the handles (30 Nm),
 - d) the screws of the base plate (30 Nm).

VB 215 and VB 225

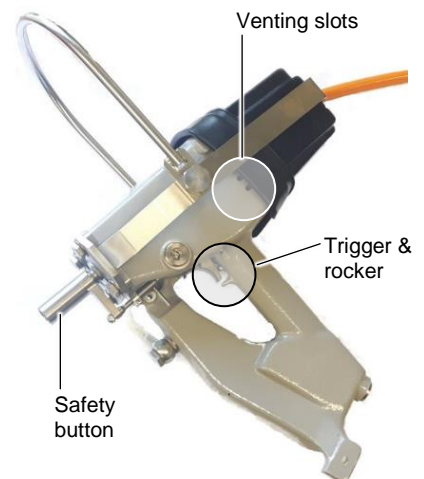


Fig. 8.1 – Maintenance work

VB 316

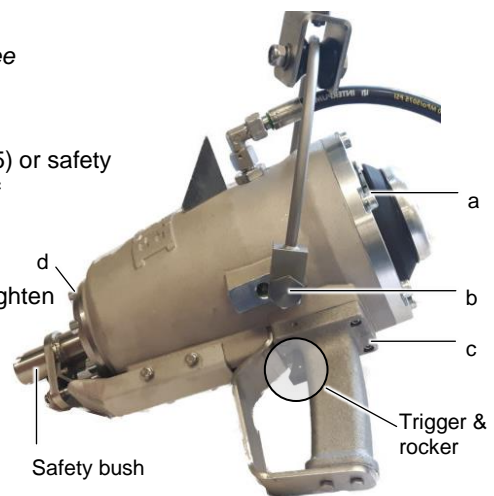


Fig. 8.2 – Retightening screws and oiling parts

Note!



VB 215 and VB 225:

Do not allow water to enter the venting slots, see *Fig. 8.1 – Maintenance work*.

8.1.3 Wear

- Check the cushion(s) after about 50,000 (VB 215 and VB 225) or 15,000 (VB 316) operations (shots) and replace if damaged!
- **VB 316**
The valve slide should be replaced if the axially sealing O-ring repeatedly falls out after a few shots. If wear marks are visible on the flat surface of the guide pipe, replace it.

8.1.4 Replacement of spare parts

Danger!



Disconnect the stunning device from the compressed air network prior to performing any work!

Warning!



Wear safety shoes during all work.

Use only **genuine EFA accessories**.

The use of other tool inserts or accessories presents a risk of injury to you.

If genuine spare parts are not used, the warranty claim is void.

Danger!



Spare parts are only allowed to be replaced by authorised specialist personnel.

Danger!



If possible, all 4 hexagon screws of the housing cover should not be loosened, as they are tightened to the exact tightening torque (Nm).

Attention!



If the prescribed tightening torque is not observed, the threaded inserts in the housing may be stripped out.

8.1.5 Oil mist lubricator

Check at regular intervals (min. 1x per month), remove the condensation and top up with special oil.

Special oil for maintenance system

EFA special oil 0.5 l – part no. 001365611

EFA special oil 5.0 l – part no. 001365612

Special oil for compressor (VB 215 and VB 225)

EFA special oil 1.0 l – part no. 001365637

EFA special oil 5.0 l – part no. 001365636

8.2 Repair by customer service

Danger!



Repairs are only allowed to be carried out by qualified and instructed personnel.

Danger!



Disconnect the stunning device from the compressed air network prior to performing any repair work.

Danger!



Only use genuine spare parts.

The **EFA Service department** of **Schmid & Wezel GmbH** is at your disposal for repairs.

In the event of faults that cannot be clearly localised, the machine should always be returned to Schmid & Wezel GmbH for repair.

Do not repair defective devices on site (in the immediate vicinity of foodstuffs)!

Provide all of the necessary tools and ensure that the work environment is clean.

8.2.1 Return

Return your waste electrical equipment to the head office of **Schmid & Wezel GmbH** for disposal.

9 Waste disposal – recycling

The machine must be disposed of in accordance with the valid legal regulations of the respective countries.

9.1 Disassembly and disposal



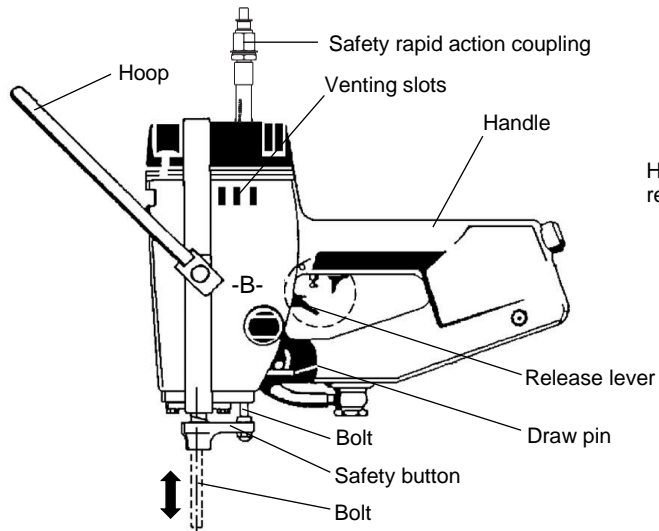
Old and used machines contain reusable materials that can be recycled.

During disposal, it is essential to observe regional and local environmental protection regulations.

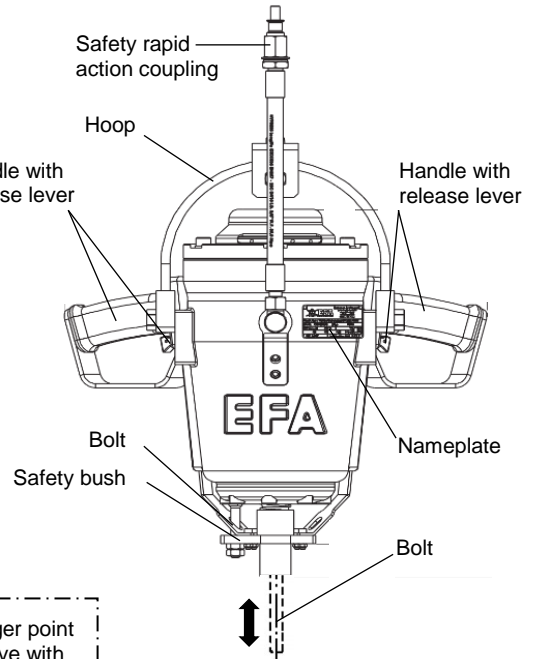
- 1) Disconnect the machine from the mains power and/or the pneumatic/hydraulic supply.
 - 2) Disassemble the machine completely.
 - 3) Degrease the machine completely.
 - 4) Dispose of used oil and components and materials contaminated with oil in accordance with the applicable environmental conditions.
 - 5) Separate all reusable materials according to type.
 - 6) Sort the individual reusable materials for recycling and disposal.
 - 7) Dispose of the hazardous waste at a local hazardous waste disposal site.
- Or
- 8) Return your waste electrical equipment to our head office.

Appendix -A1- Stunning device

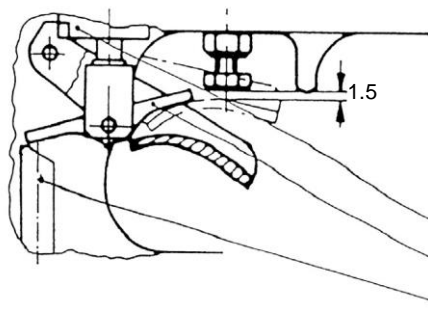
VB 215 and VB 225



VB 316



Detail -B-

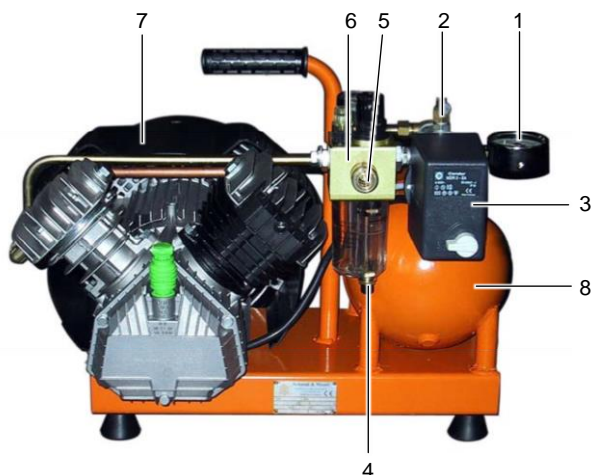


Setting of the trigger point on the release valve with hexagon screw on the release lever.

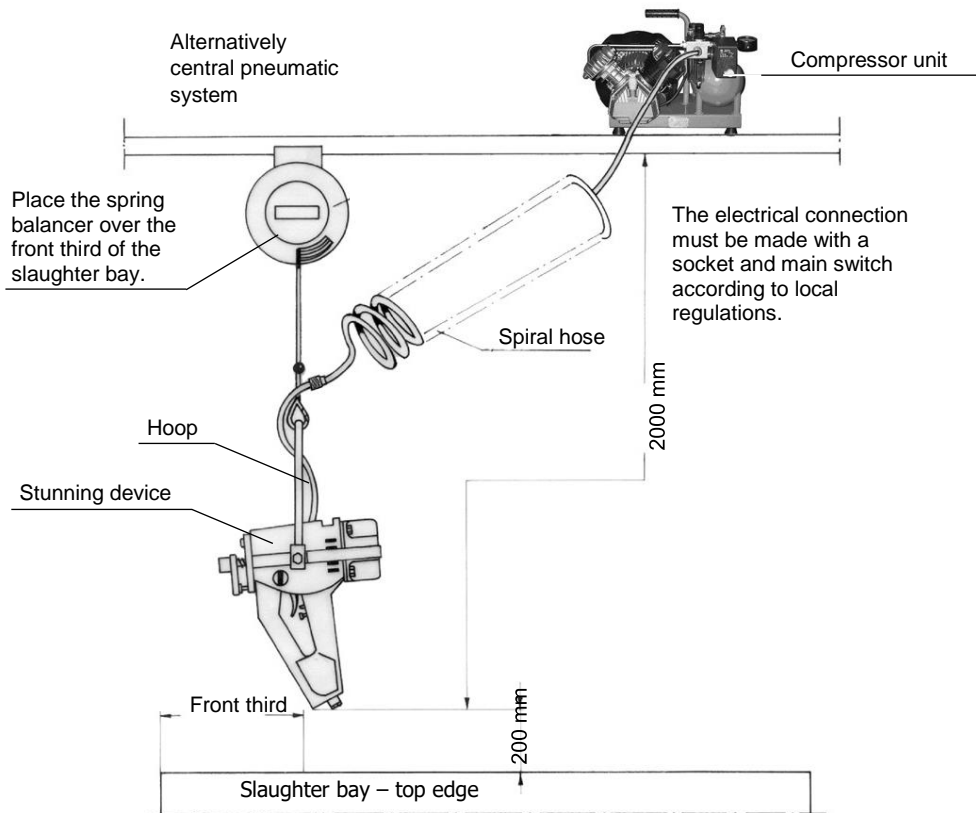
Approx. 2 rotations at 12 bar operating pressure and with the safety button not pushed in.

Appendix -A2- Compressor unit

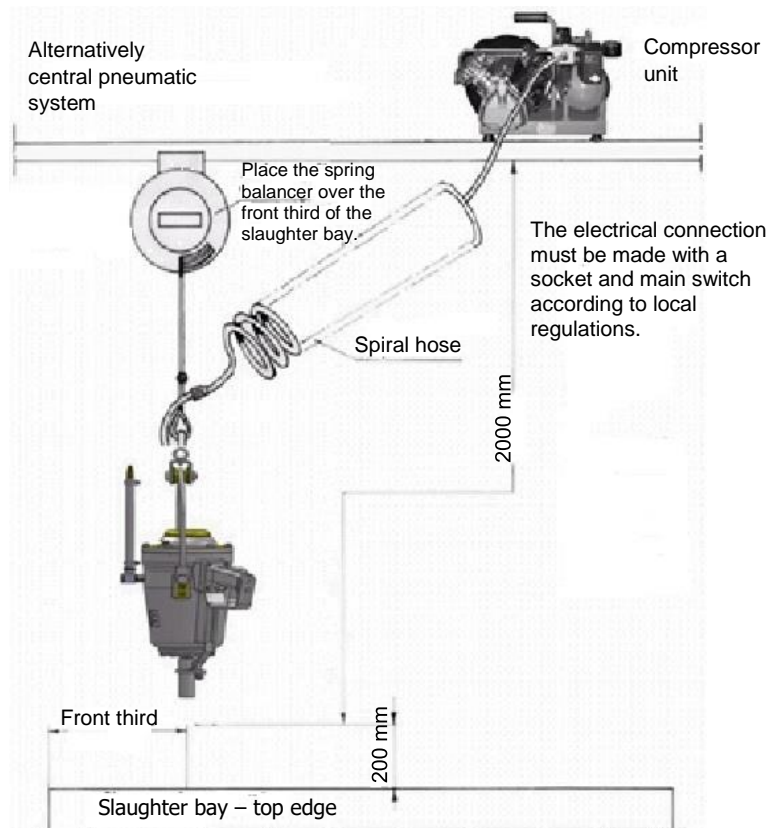
- 1) Pressure gauge
- 2) Safety valve
- 3) Pushbutton switch
- 4) Condensate drain
- 5) Compressed air outlet
- 6) Combined oil mist lubricator
- 7) Compressor unit
- 8) Air receiver



Appendix -B1- Installation diagram for EFA VB 215 and VB 225



Appendix -B2- Installation diagram for EFA VB 316





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