

# Operating Manual

Translation of the original Operating Manual



**Models  
VA 25 S**



Swiss design

Produced in EU



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## 1 Notes for the user

### 1.1 Before using

It is extremely important that you:

- Make sure that the delivery is complete and that you check for any possible damage caused during transit/transport.
- Observe the safety instructions
- Read the Operating Manual

### 1.2 Reading this Operating Manual

If there are any questions on your part after reading this Operating Manual please get in touch with the manufacturer or the nearest service center.

The manufacturer is not responsible for any damage or breakdown resulting from non-observance of the Operating Manual.

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### 1.4 Trade marks ®

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### 1.5 Patents

Various components and processes listed and illustrated in this Operating Manual are patent-pending or national and international patents have already been granted.

### 1.6 Illustrations and technical modifications

Illustrations may differ from the real machine and appear without any obligations on our part.

In order to meet the rapidly changing customer demands, we reserve the right to make technical modifications without prior notice.

### 1.7 Translations

Solely the German version of this Operating Manual is legally binding.

### 1.8 Safekeeping

Please keep this Operating Manual in a safe place.

### 1.9 Further information

**Manufacturer:**

Von Arx EOOD

4000 Plovdiv

Telefon: +359 32 94 05 53

**Country of origin:** Bulgaria

## 2 Safety instructions

### 2.1 For your safety

Von Arx machines and tools are state of the art technology and they are built according to the construction guidelines of the EC. They have been tested and approved and are safe to operate when used as described in the instructions. There are dangers in using machines when the machine is used by an untrained person and when it is not used as described in the operating instructions. Each person who is involved in preparation, putting into operation, operation and maintenance must have read and understood the entire Operating Manual, especially the safety instructions.



**Avoid an unnatural posture!**

- Be sure to stand firmly on the ground while you are working and keep your balance at all times.



**Wear suitable protective clothing!**

- Do not wear loose fitting clothing or jewelry, it might get caught by moving parts.
- Cover long hair with a hairnet.
- The machine operator must wear goggles, gloves, ear protectors and non-slip safety shoes.
- Wear a dust mask if the work generates dust.



**Never leave a machine which is not in a safe state!**

- Before leaving the machine, turn the motor or engine off.
- Secure the machine with the parking brake.
- Interrupt the ignition contacts or remove the mains plug.



**Do not remove protective devices!**

- Only operate the machine when all the protective devices fitted in the factory are mounted and in good working order.



**Only use on horizontal surfaces!**

- The surface preparation machine must only be used on horizontal surfaces.  
Make sure that all the wheels rest firmly on the surface to be treated.



**Do not misuse the electrical power cord!**

- Do not use the cable to pull the plug out of the socket.
- Protect the cable against heat, oil and sharp edges.
- Lay the electric cable in such a way that it cannot be damaged by the working tools.
- In the open air, use only specially authorized and suitably marked extension cables.
- Use only electric cables with a suitable cross-section and the necessary length.
- Unroll the extension cable completely from the cable drum.



**It is essential that you comply with the Operating Manual of the electric motor manufacturers and the following regulations!**

- When not in use, make sure that the machine is disconnected from the power supply.
- Always pull out the plug when the machine is not being used.

Modifications to the electrical wiring which may be prejudicial to safety or change the original regulating and control functions are prohibited.

- Repairs to the electrical wiring may only be performed by a qualified electrician.

### 2.2 Marked parts in this Operating Manual

Read and always observe the safety instructions in this Operating Manual! The safety instructions are marked like this:



**Failing to observe an instruction marked with this sign may lead to serious injury or death.**



**Failing to observe an instruction marked with this sign may damage the machine or cause damage to property.**



**Mark** any explanatory information or special instructions.

Lists

When the instructions are simply listed they are marked by a • before the line:

- 1st line
- 2nd line

Step-by-step instructions (when you have to do something) are marked by a stroke ▶ before the line:

- ▶ 1st step
- ▶ 2nd step

The sequence of the step numbers is binding.



**Take your work environment into account!**

- Never use the machine or the tool near explosive materials (the electric motor may give off sparks)!
- Never use an electric tool that is damp or wet (electric shock)!
- Protect the machine or the tool from moisture, water, extreme heat, extreme cold, chemical solutions and gases.



**Keep other people away!**

- Keep other people - especially children - away from the machine or the tool and the power cord.
- Keep other people out of your work area while you are working!



**Check the machine or tool for potential damage!**

- Prior to operating, safety devices or slightly damaged parts have to be inspected and their satisfactory operating function for the intended purpose to be assured.
- Damaged safety features and switches must be repaired or replaced by an authorized service center. Do not use the electric tool if switches cannot be switched on or off.

### 2.3 Safety instructions



**Keep your workstation tidy!**

- Untidiness in your work area may be a cause for accidents!



**Use caution!**

- Always be aware of your actions. Use common sense during work. Do not operate the machine or the tool when distracted.



**Do not carry!**

- For safety and health reasons, the heavy machines and their drums must not be transported by hand.

## 2 Safety instructions

Never leave a machine which is not in a safe state!

- Before leaving the machine, turn the motor or engine off.
- Secure the machine with the parking brake.
- Interrupt the ignition contacts or remove the mains plug.

Do not remove protective devices!

- Only operate the machine when all the protective devices fitted in the factory are mounted and in good working order.

Only use on horizontal surfaces!

- The surface preparation machine must only be used on horizontal surfaces.

Make sure that all the wheels rest firmly on the surface to be treated.

Do not misuse the electrical power cord!

- Do not use the cable to pull the plug out of the socket.

- Protect the cable against heat, oil and sharp edges.
- Lay the electric cable in such a way that it cannot be damaged by the working tools.
- In the open air, use only specially authorized and suitably marked extension cables.
- Use only electric cables with a suitable cross-section and the necessary length.
- Unroll the extension cable completely from the cable drum.

It is essential that you comply with the Operating Manual of the electric motor manufacturers and the following regulations!

- When not in use, make sure that the machine is disconnected from the power supply.
- Always pull out the plug when the machine is not being used.

Modifications to the electrical wiring which may be prejudicial to safety or change the original regulating and control functions are prohibited.

- Repairs to the electrical wiring may only be performed by a qualified electrician.

## 2 Safety instructions

It is essential that you comply with the internal combustion engine manufacturer's Operating Manual and the following regulations!

- Fill up with fuel in the open air only. Never drain fuel in a confined or poorly ventilated space.

Do not fill with fuel when the engine is running or still hot.

Do not fill with fuel in the vicinity of an open fire. Do not drain fuel in the vicinity of naked flames.

- Do not smoke when filling and draining fuel.
- Never work with internal combustion engines in confined spaces.
- Avoid burns on the hot engine. Let the engine cool down fully before performing any maintenance work.

Do not remove guard devices!

- Damaged protection devices on machines must be professionally repaired or replaced by a customer service workshop.

• Operate the machine only if all the guard devices mounted in the factory are in place and in good working order!

- When work generates dust, always connect the vacuum cleaner system.

• Damaged dust aprons are prejudicial to the performance of the connected vacuum cleaner.

- Do not operate the machine unless the emergency stop switch is in working order.

• When working with the machine, always connect the fatigue switch ripcord to your wrist.

- Never work without the belt guard in place.

Operating location and workplace

► When working with the machine, the machine operator will always stand behind the handlebar. From this position, he can permanently monitor and, if necessary, correct the work to be performed. Standing at this position, the machine operator can:

- steer the machine
- hold the machine back
- actuate all the operating and control elements (such as the parking brake and depth setting) while the machine is in use.

### 2.4 Note: hand-arm vibrations

Working with the VA 25 S leads to vibration stressing. Please follow the legal provisions as regards the permitted operating time.

### 2.5 Safety stickers on the machine



Warning fire hazard substances (For internal combustion engines only)



Warning: cutter shaft



Warning: electric shock hazard



Warning: hot surface



Ear protectors must be worn



Safety shoes must be worn



Study the Operating Manual

• Damaged or lost safety stickers must be replaced immediately. These stickers are obtainable from your Customer Service Center.

## 3 Use for the intended purpose

### 3.1 Use for the intended purpose

The machines are designed exclusively to treat all kinds of horizontal surfaces. Any other use does not correspond to the intended purpose. The manufacturer declines all liability for damage caused thereby.

Surface preparation machines always attack the surface to be treated. They are therefore not suitable for cleaning sensitive surfaces (such as tiled floors) (see also Chapter 4, Field of application).

### 3.2 Residual risk

There is still a residual risk owing to differing characteristics of the floor coverings, even if the machine is used in accordance with applicable regulations.

If you detect irregular cutting, you must reduce the working depth or check the cutting drum and cutters.

### 3.3 Safety and responsibility at work

- Make your contribution to safety at the workplace.
- Report any discrepancy deviating from normal working immediately to the responsible person.
- Perform all the work with an awareness of the need for safety.

### 3.4 Further safety instructions

Make sure to comply with your local or national regulations, standards and directives.

## 4 Field of application

### 4.1 Field of application

Depending on the cutter type, hard, brittle to firm or elastic surface materials **can be worked** e.g.:

- Asphalt and cast asphalt surfaces
- Concrete and cement, synthetic stone, floor tiles
- Screeds of cement, wood cement, ceramic etc.
- Natural stone
- Metals
- Thermoplastic materials

Surfaces made of highly elastic soft materials or fabrics and fiber materials **cannot be worked, or can only be worked** with certain limitations e.g.:

- Latex, rubber, soft plastics and foam materials
- Wood, carpets and woven materials

## 5 Tools

The right tool for your particular application can best be determined by tests. The following description only gives guide values.

### 5.1 Cutters, drums

#### Drum

Tool drums are obtainable for each surface preparation machine (Section 12: Spare parts lists).



#### Standard cutters

The standard cutters are used most frequently as they are particularly versatile.

- For roughening concrete and asphalt
- Grooving and removal of projections
- Removal of paint from concrete
- Elimination of projections



#### Beam cutters

Beam cutters are made of tempered steel. They are suitable for fine flooring work.

- Removal of paint from concrete and asphalt
- Light cleaning and smoothing of concrete floors
- Removal of paint and rust from steel surfaces (e.g. ship's decks)



#### Milling cutters

Milling cutters are suitable for:

- Removal of thermoplastic and cold plastic marks on asphalt
- Milling floor coverings on a thermoplastic basis (milling effect)



**i** Milling cutters are not suitable for milling concrete floors!

**△** The direction of rotation must be complied with when the milling cutters are fitted.



#### Round cutters

Round cutters are used for the preparation of very large surfaces.

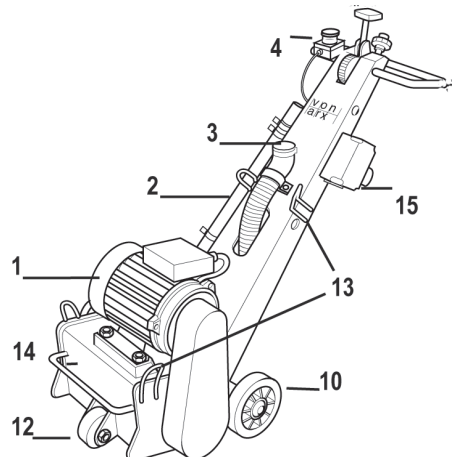
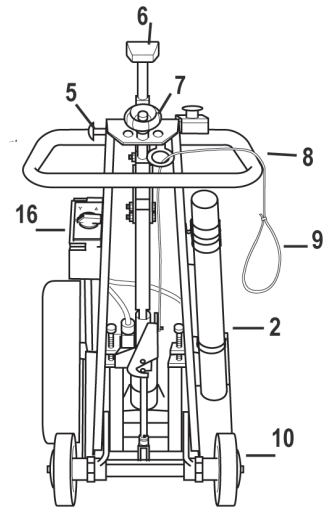
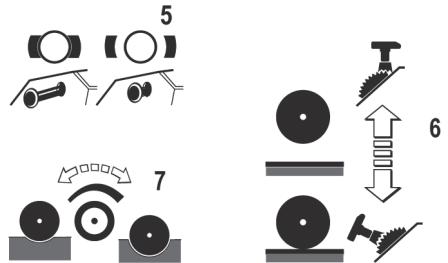
- Removal and grooving of concrete



## 6 Machine description and basic mode of operation

### 6.1 Construction of the machine

- 1 Drive motor** 2 drive types  
not interchangeable.
  - Electric motor, • Gasoline engine
- 2 Extraction tube** The connection tube for the dust extraction system.
- 3 Dust extraction socket** Connection to (2)
- 4 EMERGENCY STOP switch** Pushbutton switch for emergency stop.
- 5 Parking brake** Blocks the support wheel.  
PULLED OUT: Wheel blocked  
PUSHED IN: Wheel freely mobile
- 6 Adjusting lever** Fast adjustment to lift and lower the tool drum.  
TOP: Transport position  
BOTTOM: Working position
- 7 Depth adjustment** Handwheel to adjust the working depth. Mechanical depth adjustment with automatic depth stop adjustment.  
LEFT shallow working depth fast advance  
RIGHT greater working depth slow advance
- 8 Steering rod** Retaining handle to steer.
- 9 Fatigue protection** Secure to the machine operator's wrist. Automatically interrupts, the machine goes into the parking mode and the parking brake is applied.
- 10 Supporting wheels** 2 fixed wheels to be advanced and run back on track.
- 11 Belt guard** Safety device
- 12 Guide wheel** Fixed roller (as for 10)
- 13 Transport hooks** Fixing points for crane.
- 14 Tool drum**
- 15 Mains plug** CEE plug 16A/380V/50Hz
- 16 Motor switch** 0=OFF, Y=Star circuit (set to Y 10 sec. after switching on)  
Delta circuit=Operating position



## 6 Machine description and basic mode of operation

### 6.2 Function

The flail shafts can be fitted with various types of cutters for hard, brittle, solid or elastic floors (see Chapter 5).

The floor to be treated is exposed to heavy impacts from the loosely fitted cutters as the tool drum rotates. Depending on the type of cutter, this process results in the removal of varying quantities of material.

The tool drum can be driven by a range of motors or engines (electric or gasoline).

### 6.3 Description of function VA 25 S 230V / 380V

• 3) **Direction of rotation/cutting drum** The cutting drum may only be turned clockwise. Check the cutting drum for correct direction of rotation (clockwise) before starting cutting work. The direction of rotation can be corrected by reversing the phase reverser.

• 4) **Changing the drum direction of rotation** Switch off the machine and then disconnect the plug and use a screwdriver to rotate the phase reverser through 180°. Recheck the direction of rotation when switching back on.

### 6.3 Description of function VA 25 S 230V / 380V

• 1) **Before starting** Put on your ear protectors and protective goggles and firmly attach the ripcord to your wrist.

• **Position of the machine operator** The machine operator must stand behind the machine and steer the VA 25 S in cutting direction, with both hands on the machine handle.

• 2) **Starting** Before starting, set the depth adjuster to 0 position. Then set the rotary switch first to star circuit and then to delta circuit.

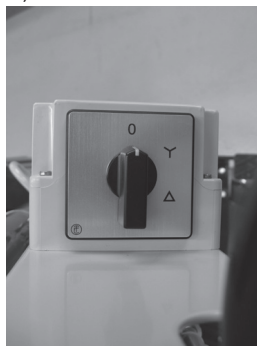
• **Feed** The VA 25 S does not feature automatic feed. The operator steers the VA 25 S in cutting direction over the floor surface to be worked on. The VA 25 S is pushed onto the floor under its own weight and the rotating drum works into the floor covering.

• **Switching off** Before switching off, set depth adjustment to 0 position. Then set the electrical rotary switch to „0“. Detach the ripcord from your wrist.

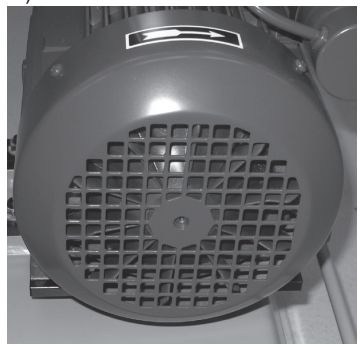
1)



2)



3)



## 6 Machine description and basic mode of operation

### 6.4 Description of function VA 25 S gasoline

- **Before starting** Put on your ear protectors and protective goggles and firmly attach the ripcord to your wrist.
- **Position of the machine operator** The machine operator must stand behind the machine and steer the VA 25 S in cutting direction, with both hands on the machine handle.
- **1 - 3) Starting** Before starting, set the depth adjustment to 0 position. Set the rotary switch to „on“. Then turn the accelerator lever (metallic grey) to the position shown (full throttle). You must now turn the white rotary lever (Choke) for the air supply fully to the right (low air supply) and set the black gasoline slide to „on“. Now pull the pull cord in order to start the engine. You must now move back the white rotary lever for the air supply (full air supply).
- **Feed** The VA 25 S does not feature automatic feed. The operator steers the VA 25 S in cutting direction over the floor surface to be worked on. The VA 25 S is pushed onto the floor under its own weight and the rotating drum works into the floor covering.
- **4) Switching off** Before switching off, set depth adjustment to 0 position. Then set the electrical rotary switch to „off“ and set the gasoline slide to closed. Detach the ripcord from your wrist.

1)



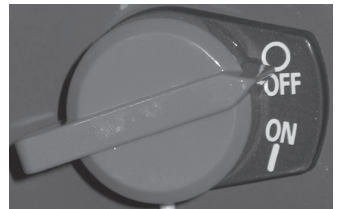
2)



3)



4)



## 6 Machine description and basic mode of operation

### 6.5 Description of function VA 25 S depth adjustment

- 1) **Fast adjustment** Tilt the knob on the hand lever (black) (release the locking device) and set the hand lever to position „N“. Then proceed as described for „Depth adjustment“. After setting to the required cutting depth (depth adjustment), move the machine up and down only by fast adjustment. Push the hand lever only forwards to stop position. (The photograph shows the depth adjuster in „0“ or „N“ position).
- 2) **Depth adjustment** Turn the handwheel (black) to the left (-) until the hand lever for fast adjustment almost contacts the stop pin and the lock engages. Then continue to turn until the cutters strike the floor. Then turn to the right (+) until the required cutting depth is reached. Now pull the fast adjustment hand lever fully to the rear.

1)



## 6 Machine description and basic mode of operation

### 6.6 Description of function VA 25 S emergency-stop

- **Immediate stopping of the machine:**

- Pressing the Emergency-Stop button disconnects the electrical power supply.

The Emergency-Stop button must be unlocked again in order to restart the machine.

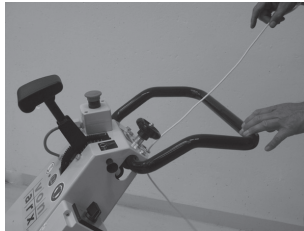
- Pulling the ripcord (Fig. 2) immediately switches the machine off and moves it up.

The height adjustment must first be set to 0 position (first fast adjustment (Fig. 3) and then depth adjustment/round handle) in order to switch the machine back on again. Now turn the unlocking plate (Fig. 4) to the rod and slide the locking ring onto the shaft groove.

1)



2)



3)

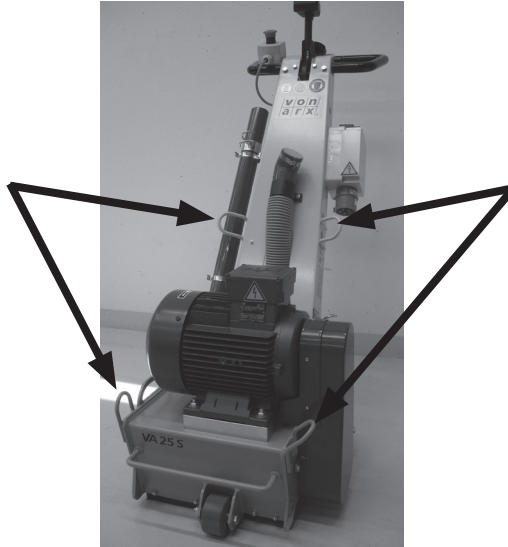


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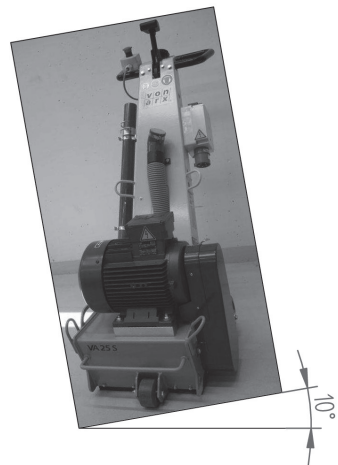
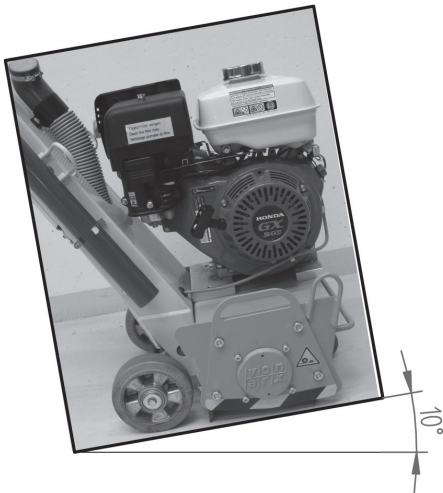


## 6 Machine description and basic mode of operation

### 6.7 Transport hooks



### 6.8 Maximum permitted working inclination



## 7 Operation

### 7.1 Commissioning

• **Machines with internal combustion engines**  
For reasons of transport safety, new machines are delivered without fuel and engine oil.

Before commissioning read the engine manufacturer's Operating Manual.

- ▶ Add engine oil
- ▶ Add fuel

#### Machines with electric motors

The CEE plug (16A) is also supplied for countries in which this plug system has not been introduced.

- ▶ An extension cable must be available for connection to the machine. Unroll the extension cable completely from the cable drum. Use only permitted extension cables (max. 30 m).
- ▶ Secure the suction pipe with cable holder to the extraction hose on the handlebar.
- ▶ Switch the machine on briefly and compare the direction of rotation of the motor with the arrow on the fan cover. If necessary, change the direction of rotation by phase reversal. (Changing the phase in the CEE plug).

### 7.2 Work preparation

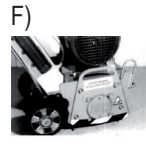
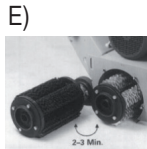
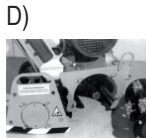
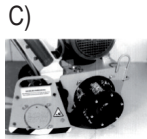
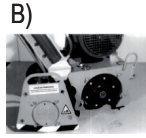
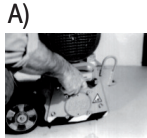
Check your machine for damage.

- ▶ Check whether moving parts are in working order.
- ▶ Damaged protection devices and parts must be expertly repaired or replaced by a customer service workshop.

### 7.3 Changing the tool drum

- ▶ Pull out the mains plug for machines with electric motors.
- ▶ Pull off the spark plug cap on machines with internal combustion engines.

- A) Remove the cover nuts / countersunk screws from the drum cover.
- B) Remove the drum cover from the machine
- C) Remove the tool drum from the drive shaft.
- D) Clean and grease the drive shaft lightly.
- E) Push the tool drum onto the drive shaft.
- F) Screw the drum cover back on with the cover nuts / countersunk screws.



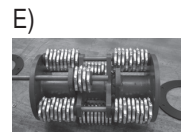
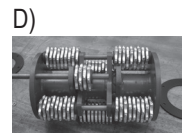
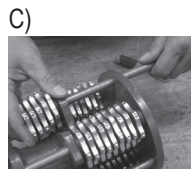
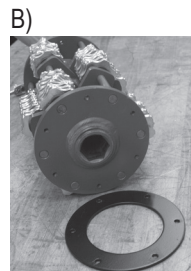
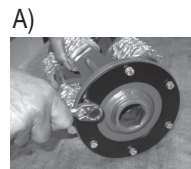
### 7.3 Fitting out the tool drum

- Removing the cutters
- ▶ A) Undo the hexagon bolts from the tool drum retaining ring.
- ▶ B) Remove the retaining ring from the tool drum.
- ▶ C) Pull the cutter shaft off the drum core.

- Choosing the type of cutter  
For examples, see Chapter 5 / 12
- Mount the same number of cutters and spacers on the flail shaft.
- An improperly proportioned configuration of cutters and disks results in an imbalance of the drum and premature wear.
- Use only cutters which are worn to the same extent.
- The cutter tools must not be mixed on a single tool drum.
- Milling cutters must not contact the drum flange and the drum segment bridges.
- When fitting milling cutters or clover leaf cutters, make sure that the cutter tools rotate in the correct direction.

• Fitting out the flail shafts

- D) Push the flail shaft in until it is immediately in front of the segment bridge on the drum flange.
- E) Fit the flail shaft with cutters and spacers.
- F) Fit the next flail shaft with cutters and spacers until the tool drum has been completely fitted out.
- G) Insert the retaining ring on the drum flange.
- H) Secure the retaining ring with hexagon bolts on the drum flange.



## 7 Operation


### 7.4 Connecting the dust extraction system

- VA 25 S
- ▶ Detach the dust cap from the extraction pipe on the machine handlebar.
- ▶ Release the clamping strap from the extraction pipe.
- ▶ Plug in the extraction pipe as far as it will go and turn it in the required direction.
- ▶ Firmly reattach the clamping strap to the extraction hose.
- ▶ Connect the extraction hose of the extraction system to the extraction pipe.

### 7.5 Preparing the working surface

- If a dust extraction system cannot be connected, the surface to be worked should be moistened with water to reduce dust generation.
- Clear major obstacles from the working surface (e.g. projecting reinforcing rods, nails etc.).

### 7.6 Checking the machine

 **Check your machine for damage. The power supply must be interrupted before performing any kind of work on the machine!**

- Remove the mains plug / spark plug!
- Allow the engine or motor to cool down fully!
- ▶ Check the fatigue protector:
  - Is the ripcord OK?
  - Does the motor or engine switch off when it is pulled?
- ▶ Check the belt guard:
  - Is the belt guard firmly attached?
- ▶ Check the EMERGENCY-STOP switch on machines with electrical drive:
  - Does the machine switch off when it is pressed?
- ▶ Check screwed connections:
  - Are all screwed connections tight?
- ▶ Check electrical connections on machines with electrical drive:
  - Does the electric motor turn in the correct direction?
  - Are the electrical connections damaged?
  - Is a permitted extension lead connected?
  - Is the cable fully unwound from the drum?
    - ▶ Check machines with internal-combustion engine:
      - Is the engine oil level in the permitted range?
      - Has the unit enough fuel?
  - Is the air filter clean?
    - ▶ Check the tool drum:
      - Has the drum the right cutters?
  - Is the drum with milling cutters fitted in the direction of rotation of the cutting edges?

### 7.7 Operation


#### Starting the machine



- 1) Machine inspection conducted.
- 2) Move the adjusting lever upwards (the tool drum lifts off of the floor).
- 3) Apply the parking brake.
- 4) If connected, switch on the dust extraction system.
- 5) Start the drive of the tool drum.
- 6) Attach the fatigue protector to your wrist!
- 7) Release the parking brake.




### Surface treatment

Make sure that surface to be treated is free from all obstacles.

- Hold the machine firmly with the steering rod.
- Lower the adjusting lever slowly.
- Move the machine forwards or backwards at a uniform speed.
- Increase or reduce the milling speed.

 **Do not cut too deeply! Cutting too deeply does not boost performance. The machine may not float on the rotating tool drum.**

-  • In the event of incorrect use, the milling capacity is reduced and the tool unnecessarily stressed and worn.
-  • The surface quality after machining depends essentially on the chosen tools and the fitment method.

-  • To obtain straight grooves, traces etc. a cord may be laid out on the floor or beam may help.
-  • Levelling and coating removal work can also be performed with forward and backward movements of the machine.
-  • Before continuing to work surfaces that have already been treated, brush them down with a broom and clean with a powerful vacuum cleaner.

### 7.8 Final operations

#### Stopping the machine

- ▶ 1) Set the adjusting lever upwards.
- ▶ 2) Switch off the drive.
- ▶ 3) Ensure that the machine remains stationary:
  - Apply the parking brake.
- ▶ 4) Interrupting the energy supply:
  - Interrupt the energy supply (models with electric drive).
  - Close the fuel tap (gasoline version).

### 7.9 Switching off the dust extraction system

- ▶ 1) Switch the dust extraction system off.
- ▶ 2) Remove the suction tube from the machine.

### 7.9 Storing the machine

The machine should be cleaned immediately after each use!

- ▶ 1) Clean the machine.
  - ▶ 2) Pour the contents of the fuel tank into a suitable container.
  - ▶ 3) Store the machine in a dry place.
- Secure when transporting with straps or with cable hooks at the transport eyelets provided!

## 8 Care and maintenance

### 8.1 Maintenance plan

The machine has been specially designed to reduce the time needed for maintenance work to a minimum. However, some maintenance work is essential!

This will enable the machine to operate in a trouble-free manner and give you good service for many years.

#### Always interrupt the energy supply before performing maintenance work!

- Remove the mains plug / spark plug!
- Allow the engine or motor to cool down fully!

Daily or after every 10 hours of operation:

- Clean the outside of the machine. (do not use solvents)
- Check the condition of cutters, flail shafts and the spacers (remove the tool drum, replace worn parts)

- Air filter (Combustion engines) (remove, clean, replace if necessary)
- Oil level (Combustion engines) (Check, top up if necessary; comply with the engine manufacturer's Operating Manual)

Weekly or after every 50 hours of operation:

- Check the bearings (Arrange for after-sales service to change damaged bearings)
- Check screwed connections (Tighten any loose screwed connections, arrange for after-sales service to change any damaged assemblies)
- Check the dust aprons (Replace damaged or worn dust aprons)
- Clean the dust extraction connection (Refit the dust cap after cleaning)
- Lubricate the adjusting device (Check function after cleaning and lubricating)

### 8.2 Maintenance work

#### Always interrupt the energy supply before performing maintenance work!


- Remove the mains plug / spark plug!
- Allow the engine or motor to cool down fully!

#### • Wear


All tools and tool components such as brushes, cutters, flail shafts and drum cores are subject to wear and will be worn out after a given period of use. They must then be replaced. The service life of the individual components varies. Apart from wear caused by operating use, it also depends on the type and characteristics of the material of the surface to be treated and on the requisite power during use.

The service life of the drum core can be increased greatly by frequent changing of the flail shafts. The flail shafts must be replaced at the latest when the diameter of the grooves which form in the flail shafts has diminished by 1 mm in relation to the original shaft diameter. The flail shafts must be changed with each set of cutters.

The consequence of waiting too long before changing the flail shafts is the formation of „oval“ flail shaft holes in the drum core. Drum cores damaged in this way must also be replaced by new ones.

 Worn flail shafts may break in use and cause serious damage to the drum core and drive!

#### • Changing parts subject to wear

 Only use original Von Arx spare parts or the replacement parts indicated in the parts lists.

#### • Changing the dust apron

Check the dust aprons regularly and replace them in good time.

### Changing the drive belt

#### Always interrupt the energy supply before performing maintenance work!


- Remove the mains plug / spark plug!
- Allow the engine or motor to cool down fully!

#### • VA 25 S

- ▶ Undo the screws on the belt guard and detach them with spring washer.
- ▶ Detach the belt guard.
- ▶ Undo the tension screw so that the tension roller can be repositioned. The drive belt is now loose and can be detached.
- ▶ Fit a new drive belt.
- ▶ Slide the tension roller to the right so that the drive belt is pretensioned.
- ▶ Tighten the tension screw so that the tension roller is fixed in position.
- ▶ Adjust the tension of the tension roller with a plastic hammer.
- ▶ Check the belt tension with thumb pressure (should give slightly but no more than 10 mm).
- ▶ Tighten the clamping screw in its end position.
- ▶ Refit the belt guard.

## 9 Repairs

Only use original Von Arx EOOD spares or the replacement parts indicated in the parts lists.

 Alterations to the electrical wiring are prohibited!

## 10 Faults and troubleshooting

### 10.1 Dust extraction system does not function

- ▶ Is a dust apron missing or are the dust aprons worn?
- ▶ Is the dust bag full?
- ▶ Is the dust filter on the suction unit clogged?
- ▶ Is the extraction line clogged?

## 8 Care and maintenance

### Changing the drive belt



**Always interrupt the energy supply before performing maintenance work!**

- Remove the mains plug / spark plug!
- Allow the engine or motor to cool down fully!

#### • VA 25 S

- ▶ Undo the screws on the belt guard and detach them with spring washer.
- ▶ Detach the belt guard.
- ▶ Undo the tension screw so that the tension roller can be repositioned. The drive belt is now loose and can be detached.
- ▶ Fit a new drive belt.
- ▶ Slide the tension roller to the right so that the drive belt is pretensioned.
- ▶ Tighten the tension screw so that the tension roller is fixed in position.
- ▶ Adjust the tension of the tension roller with a plastic hammer.
- ▶ Check the belt tension with thumb pressure (should give slightly but no more than 10 mm).
- ▶ Tighten the clamping screw in its end position.
- ▶ Refit the belt guard.

## 9 Repairs

Only use original Von Arx EOOD spares or the replacement parts indicated in the parts lists.



**Alterations to the electrical wiring are prohibited!**

## 10 Faults and troubleshooting

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- ▶ Is the extraction line clogged?

## 10 Faults and troubleshooting 11 Technical specifications

### 10.2 VA 25 S

• Cutting drum no longer turns or is making a noise:

- ▶ The cutting drum bearing on the side cover side is blocked.
  - = Exchange the bearing.
- ▶ The cutting drum bearing on the drive shaft side is blocked.
  - = Exchange the bearing.
- ▶ The toothed belt is broken.
  - = Exchange the toothed belt.
- ▶ Inspect the tool drum
  - = Exchange the tool drum if necessary.

• Poor cutting performance:

- ▶ The toothed belt is broken.
  - = Exchange the toothed belt. Inspect the cutters
  - = If necessary, exchange the cutters or the entire drum.

• Overload protector:

- = Check the tool drum for free movement.
- = Inspect the drum shaft bearings.

▶ The electrical rotary switch is defective.

- = Have the damage repaired by an electrician.

#### • Electric motor does not start

- ▶ Are all connectors connected to the mains?
- ▶ Is the mains power available?

#### • Internal-combustion engine does not start

- ▶ Is fuel available?
- ▶ Is the fuel supply system OK?
- ▶ Is there engine oil?
- ▶ Is the air filter OK?
  
- ▶ EMERGENCY-STOP switch not engaged in upper end position? (check by turning the red knob slightly)
- ▶ Is the pawl of the fatigue protector correctly engaged and locked?

If the engine or motor still cannot be started, consult an authorized dealer for your engine or motor brand or refer to your nearest Von Arx Customer Service Agency.

### Type VA 25 S

#### Machine data, general

Serial numbers	aaa.bb.cc.xyz
	aaa = Type, bb = Model year, cc = Month, xyz = consecutive
Weight with drum	95 - 105 kg, 210 - 230 lbs
Dimensions	950 x 455 x 1165 mm, 37 x 18 x 46"
Working width	250 mm, 10"
Distance to wall	67 mm, 2.6"
Dust cleaner connection	Ø 50 mm, 2"

#### With electric motor drive

Size	112 M
Power	3x 230 V / 3x 400 V 4 kW
Speed	2870 rpm
Available as:	3x 230 V, 3x 400 V
Design	B3
Protection type	IP 55
Motor protection switch	10 - 16 A / 230 V
Motor protection switch	6.3 - 10 A / 400 V
Sound pressure level	≤ 79.3 db(A)
Acoustic power level	≤ 87.3 db(A)

#### With gasoline engine drive

Permitted power	5.3 kW
Speed	3405 rpm
Sound pressure level	≤ 90.8 db(A)
Acoustic power level	≤ 98.8 db(A)

• When changing the engine or motor, do not exceed the stated technical data for speed, power and weight!

• Change from one drive mode to the other (e.g. electric version to gasoline version) is prohibited!

• The engine or motor may only be changed by a specialist or by a Von Arx Sales and Service Center!

Enquire with Von Arx EOOD as regards the current vibration values.

**i** Noise emission values do not necessarily correspond to the various sound levels produced under operating conditions during use in practice.

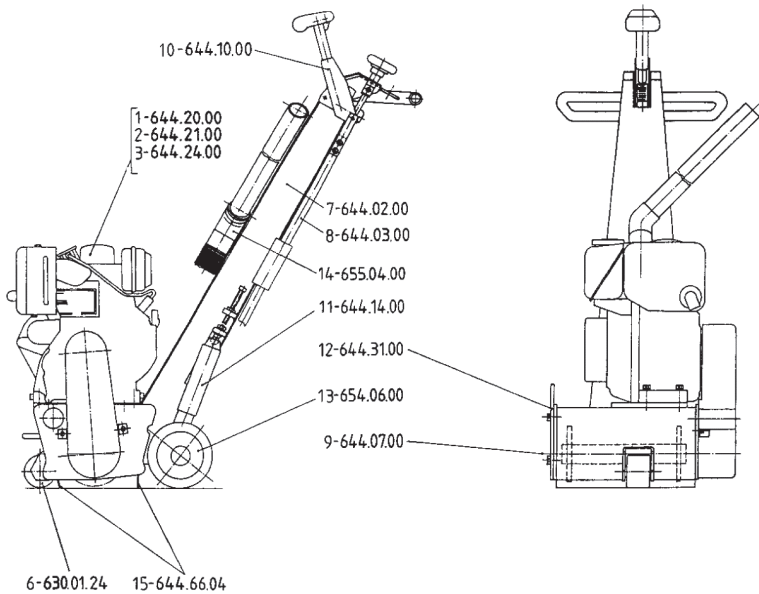
**i** The effect of hand-arm vibrations may decrease with increasing body weight of the machine operator.

## 12 List of spare parts

Only use original Von Arx EOOD spare parts or the replacement parts indicated in the parts list!

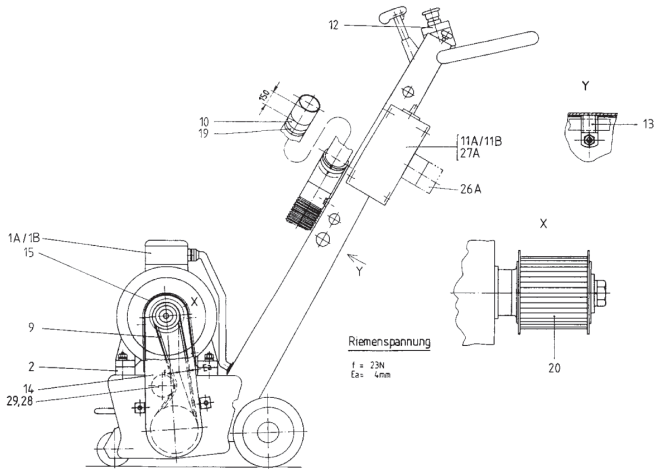
### VA 25 S Subassemblies

706116	Electric motor drive 3x 400 V	1
706118	Electric motor drive 3x 230 V	2
706124	Gasoline engine drive Honda	3
109377	Front wheel complete	6
707986	Handlebar	7
702366	Dead-man device	8
706130	Drive shaft	9
707987	Adjustment	10
707988	Spring assembly	11
706131	Housing cover	12
702521	Wheel balance	13
702671	Extraction device	14
706756	Dust apron set	15



## 12 List of spare parts

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or the replacement parts indicated in the  
parts list!



### 644.20.00 Parts list for electric motor

706116 Star-delta starting A

### 644.21.00 Parts list for electric motor

706118 Direct starting B

109446 Electric motor 3x 400 V / 4 kW 1A

110880 Electric motor 3x 230 V / 4 kW 1B

702533 Spacer bar (x2) 2

702559 Toothed belt 9

702748 Cable guide 10

702737 Switch 3x400V preass. with cable 11A

702525 Switch preassembled 3x230V 11B

706285 Emergency-Stop switch complete 12

702747 Pipe clamp with rubber guard 13

702377 Belt guard 14

706203 Additional belt guard 15

108444 Clamp 19

701535 Toothed pulley 20

113065 Plug for star-delta switch 26A

706113 Plate for motor protection switch 27A

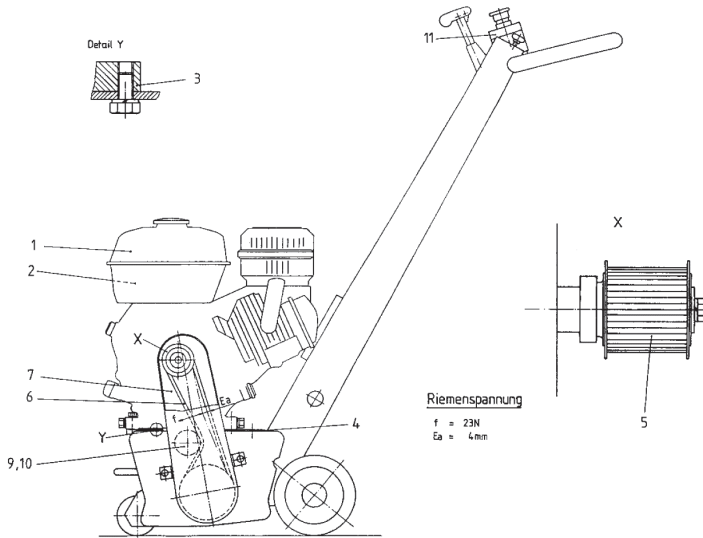
702473 Tensioning roller 28

702469 Fastening bracket 29

710536 Sticker set VA 25 S electric motors

## 12 List of spare parts

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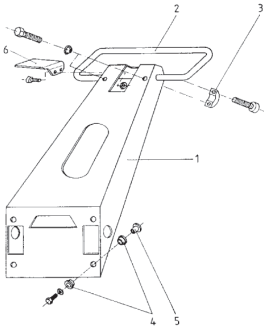
### 644.24.00 Parts list for gasoline engine

706124 Honda

702556	Gasoline engine 6 kW	1
701790	Deflector	2
702557	Engine mounting plate front	3
702558	Engine mounting plate rear	4
701533	Toothed pulley	5
109376	Toothed belt	6
702377	Belt guard	7
702473	Tensioning roller	8
702469	Fastening bracket	9
710537	Sticker set VA 25 S gasoline engine	

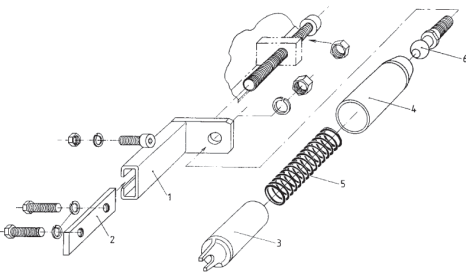
## 12 List of spare parts

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### 644.02.00 Parts list for for handlebar 707986

706106	Handlebar		1
703006	Clamp grip		2
702636	Clamping ring	(x2)	3
702624	Rubber mounting	(x8)	4
702625	Clamping sleeve	(x4)	5
707470	Emergency-Stop fastening bracket		6

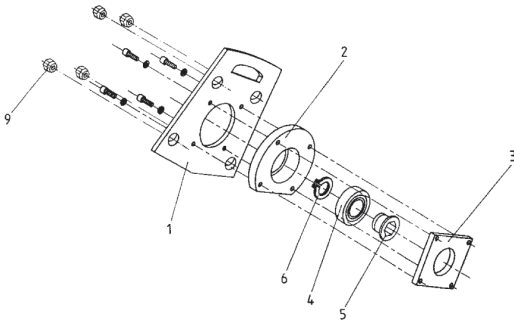


### 644.14.00 Parts list for spring assembly 707988

702364	Adjustment profile	(x2)	1
703025	Bracket	(x2)	2
702363	Lower spring guide	(x2)	3
702362	Upper spring guide	(x2)	4
706110	Compression spring	(x2)	5
110390	Ball pivot	(x2)	6

## 12 List of spare parts

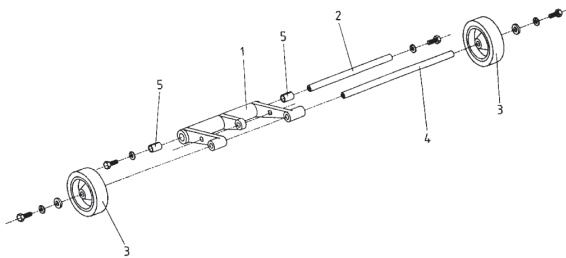
Only use original Von Arx EOOD spare parts  
or the replacement parts indicated in the  
parts list!



### 644.31.00 Parts list for housing cover

706131

706112	Housing cover	1
702454	Bearing cover	2
702453	Clamping washer	3
108268	Groove ball bearing	4
701569	Driving bush	5
108721	Lock ring	6
702466	Nut for housing cover (x4)	9



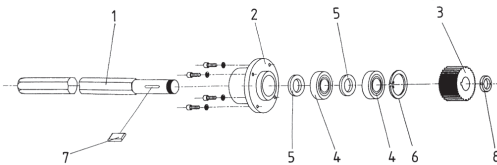
### 644.06.00 Parts list for wheel balance

702521

702457	Wheel balance	1
702458	Shaft for wheel balance	2
109452	Wheel (x2)	3
702459	Wheel shaft	4
108481	Glacier bearing (x2)	5

## 12 List of spare parts

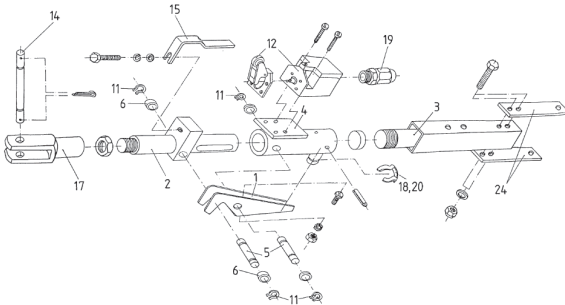
Only use original Von Arx EOOD spare parts  
or the replacement parts indicated in the  
parts list!



### 644.07.00 Parts list for drive shaft

#### 706130

702451	Drive shaft	1
701185	Bearing bush	2
702347	Toothed pulley	3
108264	Groove ball bearing (x2)	4
702456	Intermediate ring (x2)	5
108727	Locking ring for bore	6
107974	Spring key	7
108750	Shaft nut	8



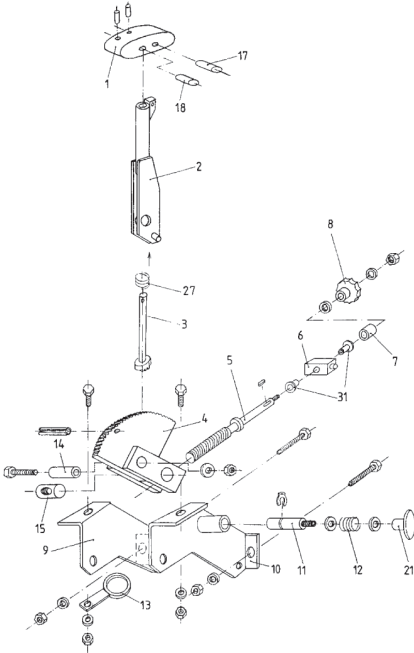
### 644.03.00 Parts list for dead-man device

#### 702366

703030	Pawl	1
702367	Lower adjustment rod	2
702368	Upper adjustment rod	3
703033	Connection tube	4
703034	Bolt	(x2) 5
703036	Spacer ring	(x2) 6
110426	Crescent-shaped ring for shafts (x4)	11
108922	Position switch	12
702365	Shaft	14
703037	Beveled profile for switch	15
108031	Clevis	17
110427	Bolt lock	18
109067	Screwed cable gland	19
701242	Polyester cord	20
702358	Bracket	24

## 12 List of spare parts

Only use original Von Arx EOOD spare parts  
or the replacement parts indicated in the  
parts list!

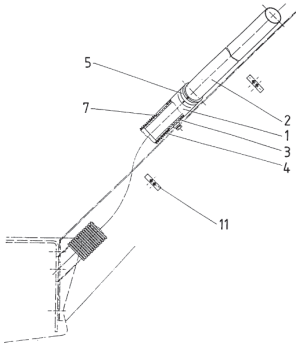


### 644.10.00 Parts list for adjustment 707987

706114	Handle	1
702360	Adjusting lever	2
703012	Retaining rod	3
702359	Toothed element	4
702361	Adjusting spindle	5
702355	Square part	6
703016	Sleeve	7
703017	Star handle	8
706109	Beveled profile right	9
706108	Beveled profile left	10
702357	Bolt	11
110451	Compression spring	12
703028	Cord guide	13
702354	Bush	14
702356	Driver	15
113543	Parallel pin	17
114626	Parallel pin	18
703056	Handle	21
701637	Compression spring	27
110386	Glacier bearing	31

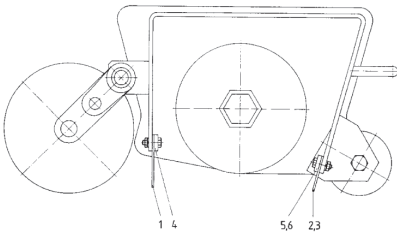
## 12 List of spare parts

Only use original Von Arx EOOD spare parts or the replacement parts indicated in the parts list!



### 655.04.00 Parts list for extraction device 702671

702672	Link joint	1
702673	Suction pipe	2
702674	Joint sleeve	3
702675	Suction hose	4
108445	Clamping ring	5
108614	Special stopper	6
108615	Seeger circlip ring	7
108458	Spring clamp (x2)	11



### 644.66.04 Parts list for dust apron set 706756

702348	Dust apron rear	1
702350	Dust apron front left	2
702349	Dust apron front right	3
702460	Clamping strip	4
702463	Clamping strip front left	5
702462	Clamping strip front right	6

## 12 List of spare parts

Only use original Von Arx EOOD spare parts or the replacement parts indicated in the parts list!

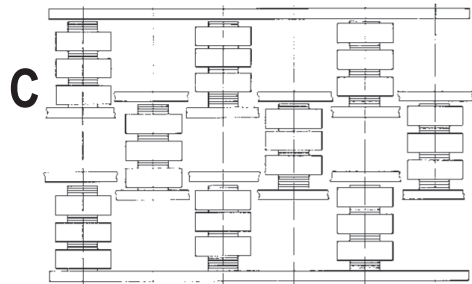
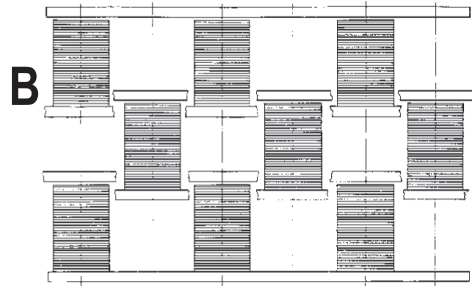
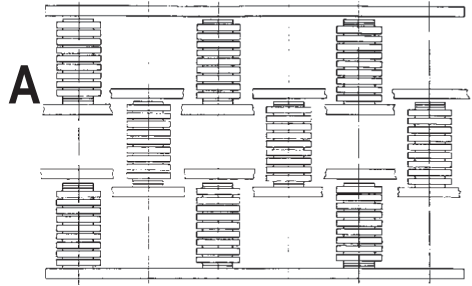
### VA 25 S - M



set 702385

**B**

drum 706948

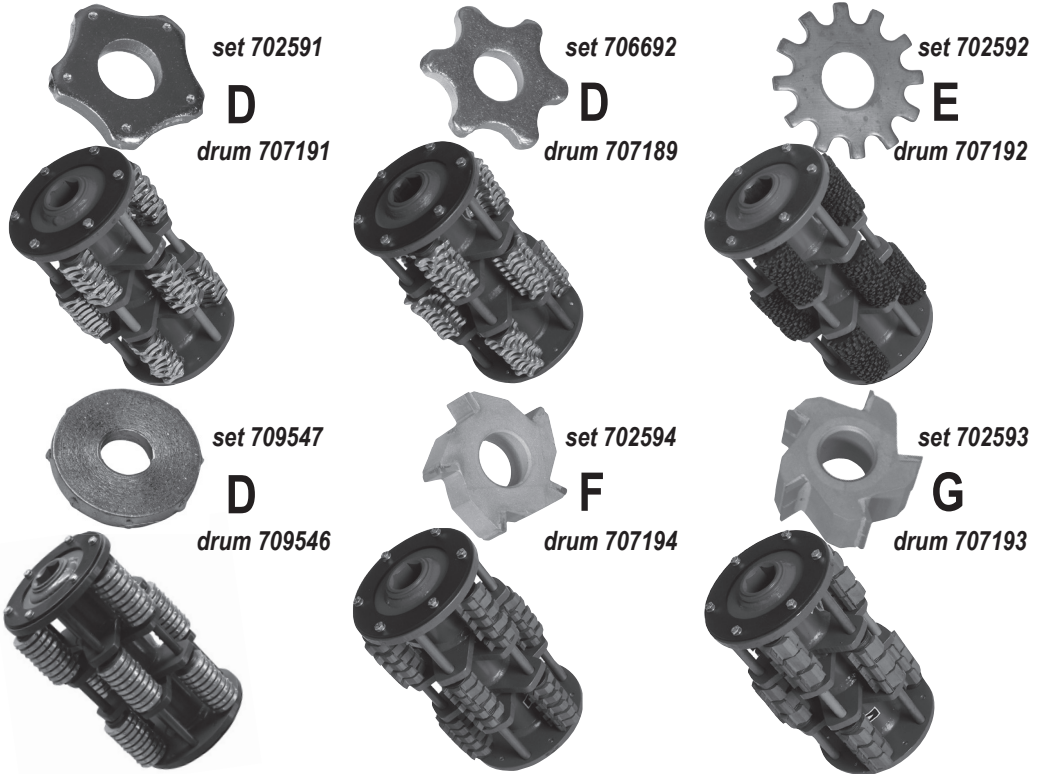


702200	Drum complete empty	
706584	Drum core	
702115	Flail shaft (12mm)	(x6)
706198	Retaining ring	(x2)
102332	Hexagon bolt	(x12)
100302	Locknut	(x12)
702116	Spacers	
706496	Hexagonal cutter	(x81)
706547	Beam cutter	(ca. 4.9kg)
706494	Milling cutter 19mm	(x27)

## 12 List of spare parts

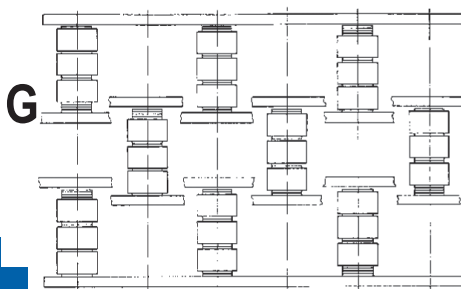
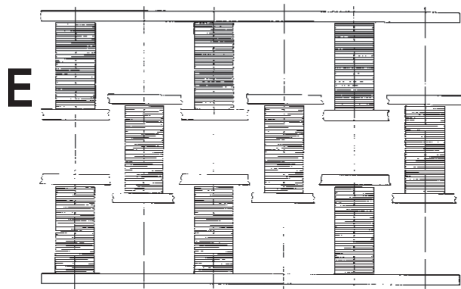
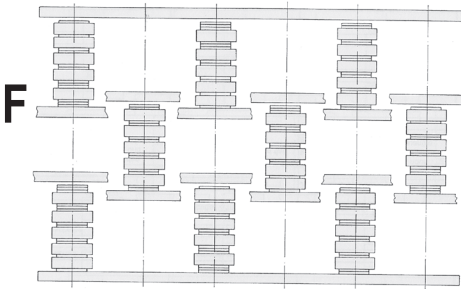
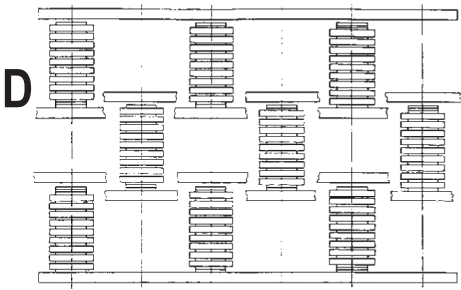
Only use original Von Arx EOOD spare parts or the replacement parts indicated in the parts list!

### VA 25 S - S



702200	Drum complete empty	
706584	Drum core	
702115	Flail shaft (12mm)	(x6)
706198	Retaining ring	(x2)
102332	Hexagon bolt	(x12)
100302	Locknut	(x12)
702116	Spacers	
700962	Pentagonal cutter	(x81)
706495	Hexagonal cutter	(x81)
700963	Beam cutter	(ca. 5.1kg)
707504	Round cutter	(x81)
700967	Milling cutter 11mm	(x45)
700965	Milling cutter 22mm	(x27)

**12 List of spare parts**



## 13 Warranty

Von Arx EOOD guarantees perfect operation of the unit for a period of 12 months from the date of purchase. If the product is used in shift operation this warranty period is halved.

Von Arx EOOD checks all units to ensure they are complete and operating correctly before they leave the works.

The customer must check the machine for any defects or damage in transit immediately on receipt and must inform the sales center and the forwarding agent of any damage or defect without delay.

Von Arx EOOD undertakes to correct all faults demonstrably due to defective materials or workmanship within the stated warranty period as quickly as possible or will arrange repair through an official Von Arx Service and sales center.

No liability whatsoever can be accepted for damage due to incorrect handling, disregarding this Operating Manual, overloading, unsuitable use, incorrect maintenance or natural wear and tear. Repairs or modifications made by the purchaser or third parties without our permission in writing are the responsibility of the customer and immediately void our warranty.

In addition, no claim can be considered under the warranty if any parts other than those manufactured or recommended by Von Arx EOOD are used.

Drums, cutters, flail shafts and spacers are parts subject to wear and, owing to this, are not covered by warranty.

Von Arx EOOD cannot be held liable for any damage or loss incurred by the purchaser directly or indirectly (consequential loss, loss of profit, extra costs, etc.).

Bought parts such as engines, motors, switches etc. are guaranteed within the warranty determination of the corresponding suppliers.

To prove qualification for a warranty you will need the warranty card and a corresponding commercial invoice of your sales center.

## 14 EC Declaration of Conformity

In accordance with the EC Machinery Directive 2006/42/EC:

We declare that the tool listed below conforms with the relevant, basic health and safety requirements of the EC Directive on the grounds of its design and construction and with the model put on the market by our company. Any modification of the tool without our consent causes this Declaration to be void.

The unit also complies with European Standard EN 13862:2001.  
(Operator-steered Floor Cutting Machine for grooving and milling of flooring.)

Applied Standards:  
EN ISO 12100:2011, EN ISO 13849-1:2015,  
EN 13862:2001+A1:2009, EN 60204-1:2019

**Designation of the unit**  
Surface preparation machine

**Type**  
VA 25 S (3x 230 V, 3x 400 V, gasoline)

Von Arx EOOD - 4000 Plovdiv/Bulgaria



Torbjörn Bengtsson  
MBD



Plovdiv, 15.11.19

Responsible for technical documentation:  
Maria Spasova

## Manufacturer

**Von Arx EOOD**  
Nedyalka Shileva 20  
4000 Plovdiv

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[www.vonarx.com](http://www.vonarx.com)

Tel: +359 32 94 05 53



**weltweit  
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 **Swiss design**

**Produced in EU**

