

EN: Operating manual



SC 20

VON ARX FLOOR SCRAPER

EN

**von
arx**®
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NOTES FOR THE USER

Before using

It is extremely important that you:

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

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.

Copyright ©

The text and illustrations may not be copied or reproduced without the express permission of Von Arx EOOD.

Trade marks ®

The words “Von Arx” and the “Von Arx” logo are registered and internationally protected trade marks. Their use by third parties is prohibited!

Patents

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

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.

Translations

Solely the English version of this Operating Manual is legally binding. The English version of this manual is considered as the “Original instructions”.

Safekeeping

Please keep this Operating Manual in a safe place and available for the user.

Further information

Manufacturer:
Von Arx EOOD,
4000 Plovdiv
Telefon: +359 32 94 05 53
Country of origin: Bulgaria

MARKED PARTS AND LISTS IN THIS OPERATING MANUAL

Marked parts

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.



Marks any explanatory information or special instructions.

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.



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.



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.



Do not carry!

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

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

- Before leaving the machine, turn the motor off and remove the blade.
- Secure the machine by placing chocks under the wheels of the SC 20.
- 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 floor scraper machine must only be used on horizontal surfaces.
- Make sure that the back 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 manufacturer and the following regulations!**

- When not in use, make sure that the machine is disconnected from the power supply.
- 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.

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

**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 blade angle adjusting pedal, emergency stop) while the machine is in use.

NOTE: Hand-arm vibrations

Working with the SC-20 leads to vibration stressing. Please follow the legal provisions as regards the permitted operating time.

Safety stickers on the machine



Warning: sharp blade



Safety shoes must be worn



Warning: electric shock hazard



Study the Operating Manual



Ear protectors must be worn



Use protective goggles

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

Use for the intended purpose

The machines are designed exclusively to treat horizontal floor coverings. Any other use does not correspond to the intended purpose. The manufacturer declines all liability for damage caused thereby (see also “Field of application” on page 8).

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 floor covering removal, you must adjust the blade angle to a suitable position and check the sharpening.

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.

Further safety instructions

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

FIELD OF APPLICATION

A floor scraper machine is a hand guided motor driven power tool with an oscillating head which is designed to remove layers of flooring material. Its sharp blade is an effective tool for dislodging old flooring from the adhesive to leave a clean and smooth surface. The floor scraper with its different blades is designed for:

- Strip floor coverings
- Lift carpet tiles and foam backed carpets
- Remove felt, underlay
- Linoleum and vinyl flooring
- Cork tiles and matting

The machine works off screed, latex, concrete or wood surfaces and will lift floor coverings leaving a minimum of residue and backing. It can also be used to create a distressed effect on hardwood flooring. The machine works under its weight on the floor and it is to be led by an operator.



Not recommended to use with ceramics. The machine should not be used for any other purpose than that stated above.

TOOLS

The right tool for your particular application can be best determined by tests. The following description only gives guide values. Always use the proper tools provided by the manufacturer to achieve the desired results.

Blades

Basic (200×100×1.5 mm)

- Strip floor coverings
- Lift carpet tiles and foam backed carpets
- Cork tiles and matting

U-Blade (230×100×2 mm)

- Remove felt, underlay
- Linoleum and vinyl flooring
- Matting

Mounting the blades

The original package includes 1 pc of hex key 4 mm to be used for mounting the blades.

Adjusting the handle bar

The original package includes 1 pc of hex key 8 mm to be used for adjusting the handle bar.

MACHINE DESCRIPTION AND BASIC MODE OF OPERATION

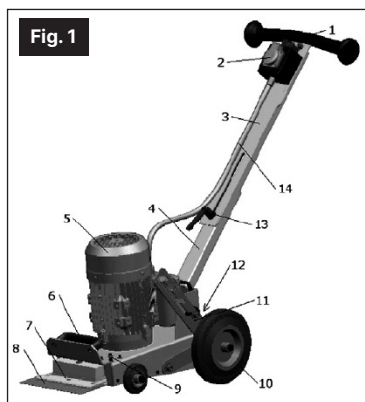
Construction of the machine

1. Handle grip - Retaining and guide handle for the machine
2. Electric switch with plug - Switch for the electric motor. 2 positions: ON (Green button), OFF (Red button).
3. Upper handle bar - Adjusting the height of the handle.
4. Lower handle bar
5. Electric motor - 3 drive types:
 - Single phase motor 115V 50Hz
 - Single phase motor 115V 60Hz
 - Single phase motor 230V 50Hz
6. Transport handle



Only used when the machine is turned off.

7. Blade holder - Used to hold firmly all types of blades for the machine.
8. Blade
9. Lubrication nipples - Used to lubricate the oscillating mechanism.
10. Wheels - 2 fixed rollers to guide the machine.
11. Blade angle adjustment mechanism - Used to adjust the blade into desired angle of operation.
12. Pedal set - Operating the blade adjustment mechanism.
13. Clamp - Fastening the upper and lower handle bars after the height adjustment of the handle.
14. Electric cable

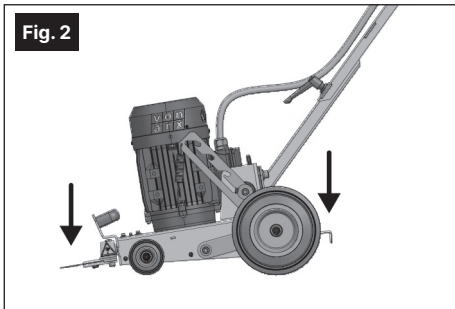


Function

The machine can be fitted with different types of blades used for different types of flooring material to be removed. The oscillating head of the scraper can be driven by a range of motors. When guiding the machine forward the blade scrapes off the flooring material.

Before starting

- Before starting the machine put on all necessary protective devices as recommended in "Safety instructions" on page 6.
- **Blade check (Fig. 2)** - check if the correct blade for your application is properly attached.
- **Position of the machine operator (Fig. 4)**
- **Angle adjustment (Fig. 2)** - Adjust the angle of the blade in order to ensure the best stripping performance of the unit.
- **Handle bar adjustment** - Set the handle to the desired height.
- **Starting (Fig. 3)** - Press the green button on the switch.
- **Feeding** - The machine operator must guide the machine at the handle and steers the machine in cutting direction over the floor surface to be worked on. The machine is pressed against the floor and the blade scrapes off the flooring material.
- **Switching off (Fig. 3)** - Press the red button on the switch. Set the angle adjustment to transport position and remove the blade from the machine.



Transport the machine

Grab the transport handle and the lower handle bar at the same time to lift and transport the machine (Fig. 5).



Never grab the blade!



The blade should be dismantled prior to transporting. There is a big danger for the operators leaving the blade on the machine during transportation.

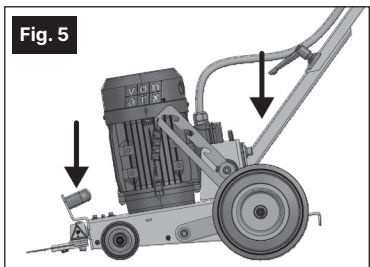
OPERATION

Commissioning

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).

Maximum permitted inclination

The maximum permitted work inclination for the machine is 10 degrees angle.



Work preparation

! The machine should be disconnected from the power source before performing any kind of work.

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.

! Ensure that the machine is completely turned off and at a complete stop prior to adjusting the unit. Disconnect the machine from the power source. Use work gloves for your own safety.

- Loose the clamp securing the handle.
- Set the proper length of the handle.
- Secure the clamp.

Fitting the blade

- Find the blade and the screws in the package (Fig. 6).
- Tip the machine and secure the tipped machine from tilting over.
- Place the blade into the blade holder and secure it with the screws by using the hex key provided.

Blade angle adjustment

Adjust the angle of the blade in order to ensure the best stripping performance of the unit.

! Ensure that the machine is completely turned off and at a complete stop prior to adjusting the unit. Disconnect the unit from the power source.

- Place your foot on the rear pedal on the main unit.
- Push the handle forward.
- Set the blade into the required angle.
- Remove your foot from the pedal and let the adjustment mechanism engage.

Handle adjustment

Adjust the length of the handle in order to provide the proper body position for the operator of the unit (Fig. 7).

Start up and use

- Before starting the machine put on all necessary protective devices as recommended in "Safety instructions" on page 6.
- Plug the machine into the proper power supply and press the green button on the upper handle bar. Be prepared that the blade will start moving immediately.

Fig. 6

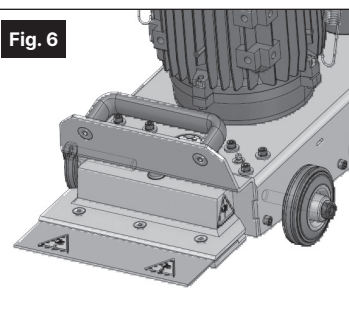


Fig. 7



- Steer the machine forward into the coverings. The oscillating blade should slice under the material and remove it from the floor.
- The machine must be pushed through the material to remove it effectively.



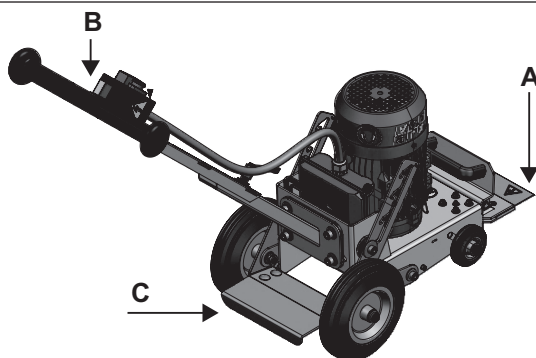
Placing your foot on the pedal will provide additional leverage but make sure never to force the machine!



Never let the rear wheels leave the floor because it is dangerous for the user and the machine may be damaged (Fig. 8)!

- If you are having difficulties removing the material, use the corner of the blade (A).
- Press the red button on the switch on upper handle to stop the machine (B).
- Return the angle adjuster to neutral position and remove the blade when finished your work (C).

Fig. 8



CARE AND MAINTENANCE

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!
- Allow the motor to cool down fully.

Daily or after every 10 hours of operation:

- Clean the outside of the machine.
- Check the condition of the blade.



Do not use solvents.

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.)

Lubrication

The machine has to be lubricated on a daily basis before starting the operation (Fig. 9). The lubricator nipples are located on the upper front part of the main body. Press maximum 3 to 4 times with the grease gun. Never press too much grease into the machine.

The washer on the blade angle adjustment mechanism to be kept lubricated throughout its lifetime (Fig. 11).

Blade replacement

Ensure that the floor scraper is completely turned off, cooled, and at a complete stop prior to maintaining the unit. Disconnect the unit from the power source. Use work gloves for your own safety.

- Tip the machine and secure the tipped machine from tilting over.
- Clean and loosen the screws securing the blade into the blade holder.
- Remove the used blade.
- Place the new blade into the blade holder and secure it with the screws.

Wear

All the blades are subject to wear and will be worn out after a given period of use. They must then be replaced.



Worn blades could brake and cause serious damage and/or injury!

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.

Changing parts subject to wear

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

REPAIRS

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



Alterations to the electrical wiring are prohibited!

Fig. 9

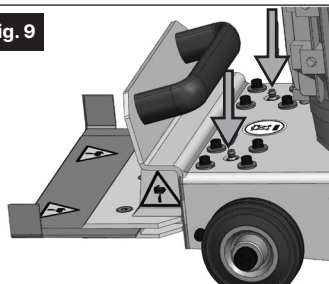


Fig. 10

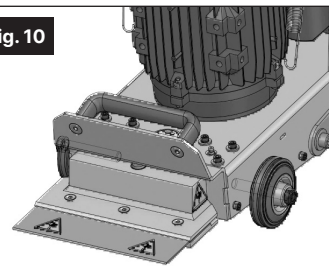
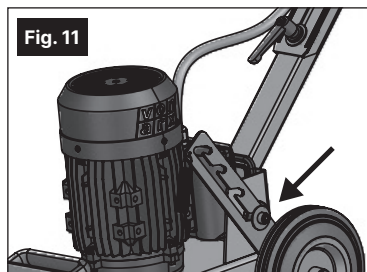


Fig. 11



FAULTS AND TROUBLESHOOTING

Machine does not start up

- Check the power supply to be connected to the electric network.
- Check the main switch. Replace if needed.

Low stripping capacity

- Check the edge of the blade. Worn out blade significantly decreases the stripping capacity. Replace if needed.

Noises from the oscillating head

- Check the bearing. Defective bearing must be replaced before the next use.
- The machine/blade jumps from the floor when used. Check the blade angle. It may be too shallow. Using an angle that is too steep may cause damage to the floor. Set the blade angle carefully.

TECHNICAL SPECIFICATIONS

General	
Serial number	aaa.bb.cc.xyz aaa = Type, bb = Model year, cc = Month, xyz = consecutive
Weight	35.9 kg
Dimensions	372 × 1008 × 885 mm
Working width	200 - 230 mm
Distance to wall	88 mm (basic blade)
Electric motor drive	
Size	90 L
Power	1.5 kW
Speed	2800 RPM
Available as	115 V / 50 Hz, 115 V / 60 Hz, 230 V / 50 Hz
Design	B14
Protection type	IP 55
Motor protection switch	25 A / 115 V, 13.5 A / 230 V
Sound pressure level	90.5 db(A)
Acoustic power level	98 db(A)
Vibration level	9.76 m/s ²

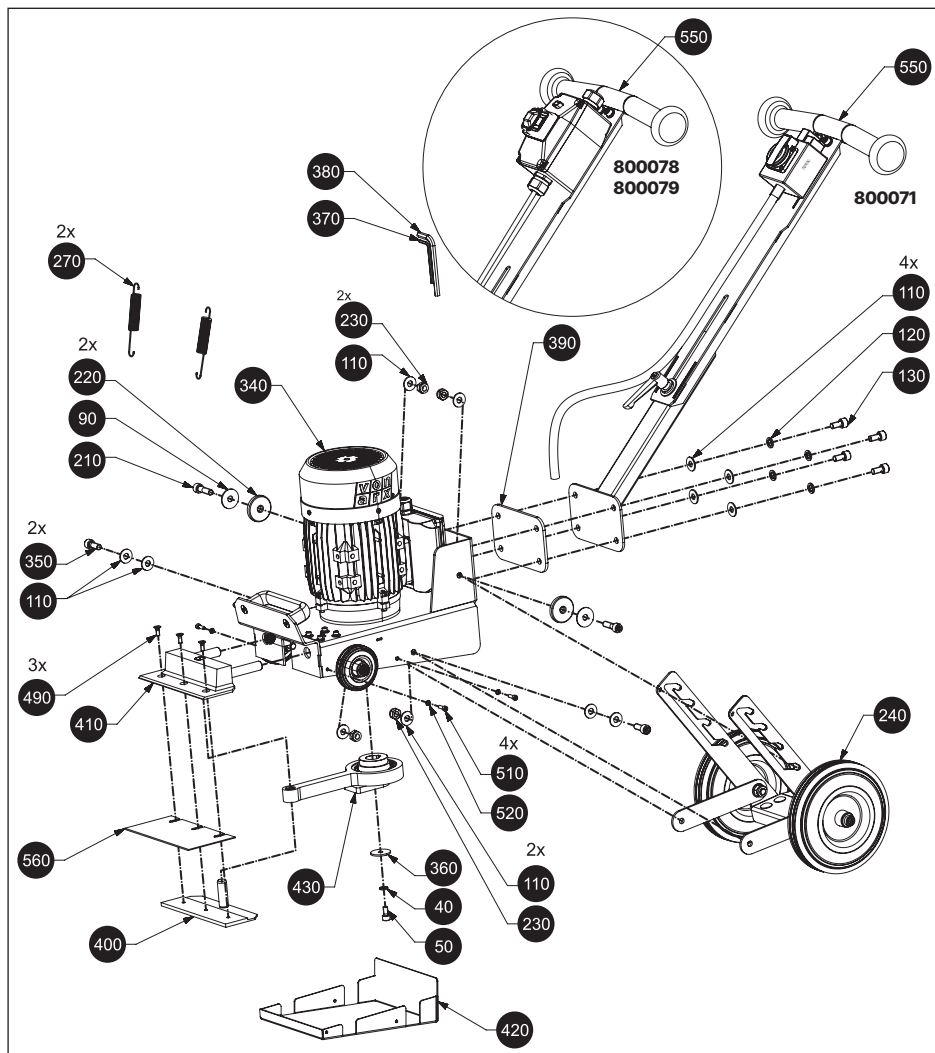
LIST OF SPARE PARTS



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

SC-20 floor scrapper

Article codes: **A) 800071** - 230 V / 50 Hz, **B) 800078** - 115 V / 50 Hz, **C) 800079** - 115 V / 60 Hz



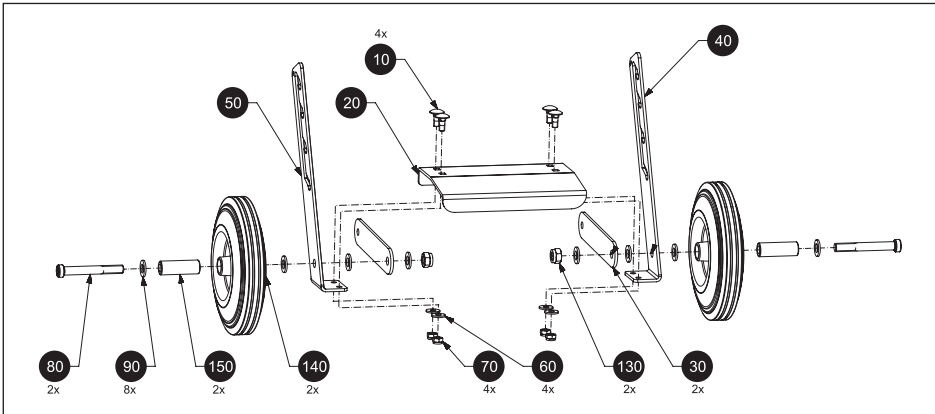
No	Article	Part Name	Type	Qty
40	100618	WASHER	A, B, C	1
50	300009	SCREW	A, B, C	1
90	108540	WASHER	A, B, C	2
110	300015	WASHER	A, B, C	12
120	104715	WASHER	A, B, C	4
130	102198	SCREW	A, B, C	4
210	300018	SCREW	A, B, C	2
220	400036	WASHER	A, B, C	2
230	100283	NUT	A, B, C	4
240	400037	PEDAL SET	A, B, C	1
270	400038	SPRING	A, B, C	2
340	400040	CHASSIS	A	1
340	400502	CHASSIS	B	1
340	400503	CHASSIS	C	1
350	300006	SCREW	A, B, C	2
360	108540	WASHER	A, B, C	1
370	300034	HEX KEY	A, B, C	1
380	300033	HEX KEY	A, B, C	1
390	400049	ADAPTER	A, B, C	1

Pedal set

Article code: 400037

No	Article	Part Name	Qty
10	300020	BOLT	4
20	400032	PEDAL	1
30	400035	SUPPORT HINGE	2
40	400033	SUPPORT	1
50	400034	SUPPORT	1
60	300010	WASHER	4

No	Article	Part Name	Type	Qty
400	400077	BLADE HOLDER	A, B, C	1
410	400102	BLADE HOLDER	A, B, C	1
420	400108	COVER	A, B, C	1
430	400109	CRANK SET	A, B, C	1
490	101646	SCREW	A, B, C	3
510	100595	SCREW	A, B, C	4
520	104727	WASHER	A, B, C	4
550	400126	HANDLE SET	A	1
550	400501	HANDLE SET	B, C	1
560	400110	BLADE	A, B, C	1
570	400221	STICKER	A, B, C	2
590	111182	STICKER	A, B, C	2
600	115647	STICKER	A, B, C	1
610	708794	STICKER	A, B, C	1
620	701669	STICKER	A, B, C	1
630	706129	STICKER	A, B, C	1
640	400237	STICKER	A, B, C	6
650	900311	STICKER	A, B, C	1



Crank set

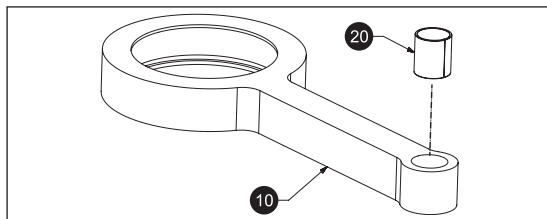
Article code: 400109

No	Article	Part Name	Qty
120	300049	BEARING	1
170	400114	AXLE	1
190	400115	CONSOLE	1
210	108723	RETAINING RING	1
220	108006	PARALLEL KEY	1
230	400119	CRANKARM	1
240	300013	SETSCREW	1
250	400055	SPACER	1

Crank arm

Article code: 400119

No	Article	Part Name	Qty
10	400105	CRANK ARM	1
20	300077	BUSHING	1



Handle set

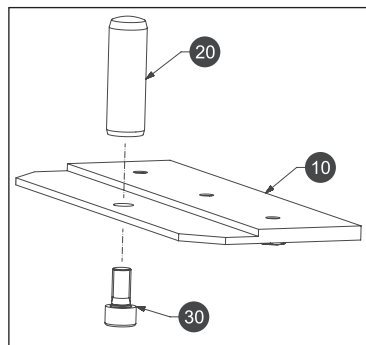
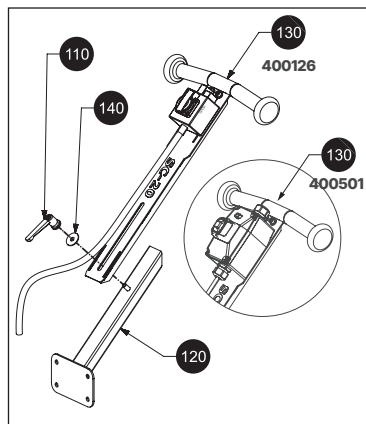
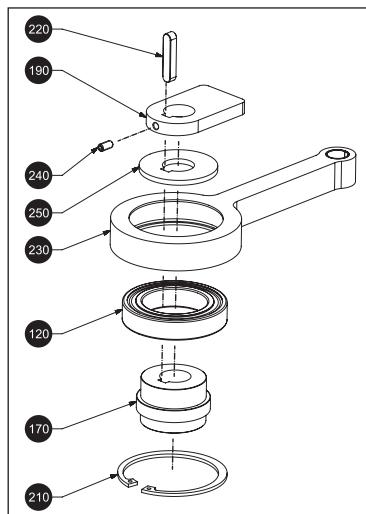
Article codes: A) 400126 - 230 V / 50 Hz, B) 400501 - 115 V / 50, 60 Hz

No	Article	Part Name	Type	Qty
110	300059	CLAMPING HANDLE	A, B	1
120	400127	HANDLE SET	A, B	1
130	400142	HANDLE SET A	A	1
130	400500	HANDLE SET B	B	1
140	108540	WASHER	A, B	1

Blade holder bottom

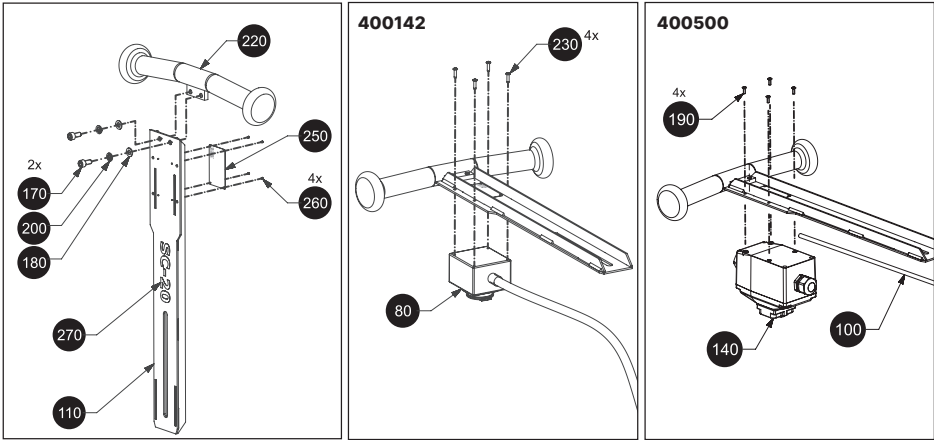
Article code: 400077

No	Article	Part Name	Qty
10	400117	BLADE HOLDER	1
20	300076	PIN	1
30	100286	SCREW	1



Handle set top

Article codes: **A) 400142** - 230 V / 50 Hz, **B) 400500** - 115 V / 50, 60 Hz

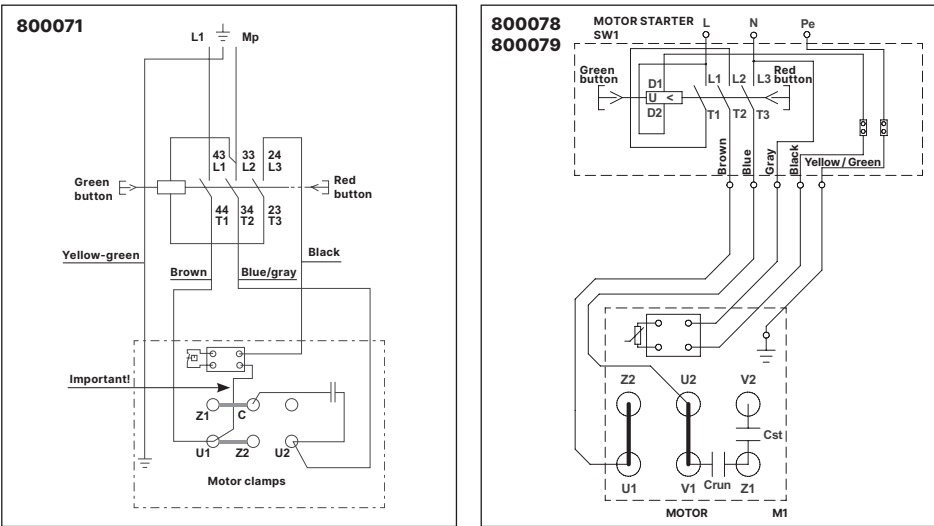


No	Article	Part Name	Type	Qty
80	109373	SWITCH BOX	A	1
100	900551	CABLE 5 X 1.5	B	0.8 m
110	400144	HANDLE SET	A, B	1
140	900282	SWITCH BOX	B	1
170	100286	SCREW	A, B	2
180	101670	WASHER	A, B	2
190	300084	SCREW	B	4

No	Article	Part Name	Type	Qty
200	100618	WASHER	A, B	2
220	400134	HANDLE BAR	A, B	1
230	300083	SCREW	A, B	4
250	400220	PLATE	A, B	1
260	108214	SCREW	A, B	4
270	400222	STICKER	A, B	1
280	115668	CABLE 3 X 1.5	B	1.0 m

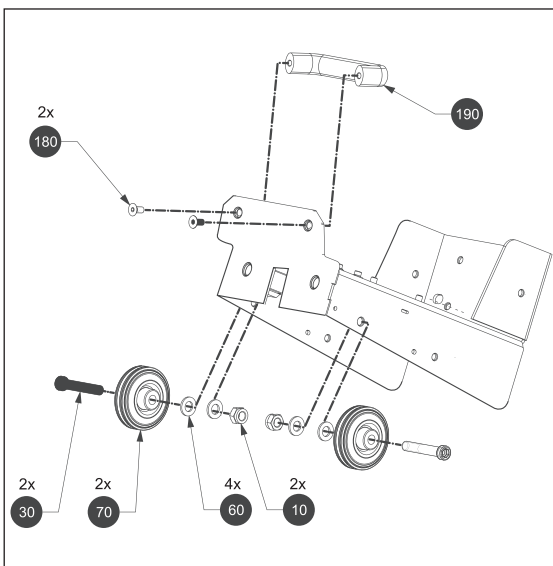
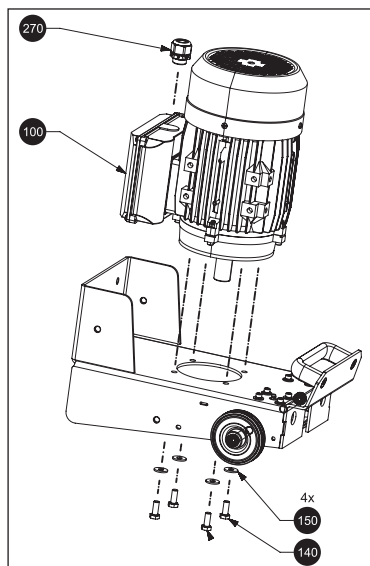
Wiring diagram

Article codes: **A) 800071** - 230 V / 50 Hz, **B) 800078** - 115 V / 50 Hz, **C) 800079** - 115 V / 60 Hz

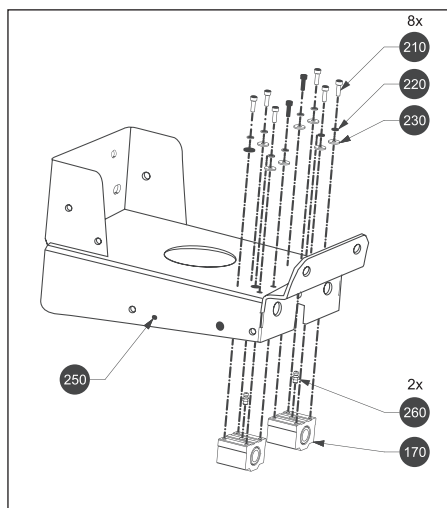


Chassis

Article codes: **A) 400040** - 230 V / 50 Hz, **B) 400502** - 115 V / 50 Hz, **C) 400503** - 115 V / 60 Hz



No	Article	Part Name	Type	Qty
10	108682	NUT		2
30	300026	SCREW		2
60	100129	WASHER		4
70	300031	WHEEL		2
100	900307	ELECTRIC MOTOR 230V / 50Hz	A	1
100	900435	ELECTRIC MOTOR 115V / 50Hz	B	1
100	900436	ELECTRIC MOTOR 115V / 60Hz	C	1
140	300016	SCREW		4
150	300010	WASHER		4
170	300073	LINEAR BEARING		2
180	101669	SCREW		2
190	300075	HANDLE		1
210	100595	SCREW		8
220	104727	WASHER		8
230	300080	WASHER		8
250	400116	CHASSIS		1
260	300046	OIL NIPPLE		2
270	114813	CABLE GLAND		1



WARRANTY

Von Arx EOOD guarantees perfect operation of the unit for a period of 24 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.

Blades 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.

EC DECLARATION OF CONFORMITY

in the sense of the EC machine directive 2006/42/CE

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.

Applied Standards:

EN ISO 12100:2011, EN 60204-1:2019

Designation of the unit:

Floor scraper machine

Type

SC 20 (230 V, 115 V)

Von Arx EOOD, 4000 Plovdiv / Bulgaria



Fredrik Åkermark

Owner

Plovdiv, 13 September 2021

Responsible for technical documentation:

eng. Maria Spasova

Manufacturer

Von Arx EOOD

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