



**ES 330 / ES 430E / ES 430 / EP 430 / EP 430 duo / ES 420 /
ES 420 duo / ES 420S / ES 420SH / ES 500 / STR 580 / STR 581**

DE	Bodenbearbeitungsmaschine Originalbetriebsanleitung	4
EN	Floor Treatment Machine Translation of the original operating manual	15
FR	Machine de traitement de sol Traduction du manuel d'utilisation original	26
IT	Macchina monodisco Traduzione del manuale d'istruzioni originale	37
ES	Máquina de tratamiento de suelos Traducción del manual original de instrucciones de uso	48

Fig. A

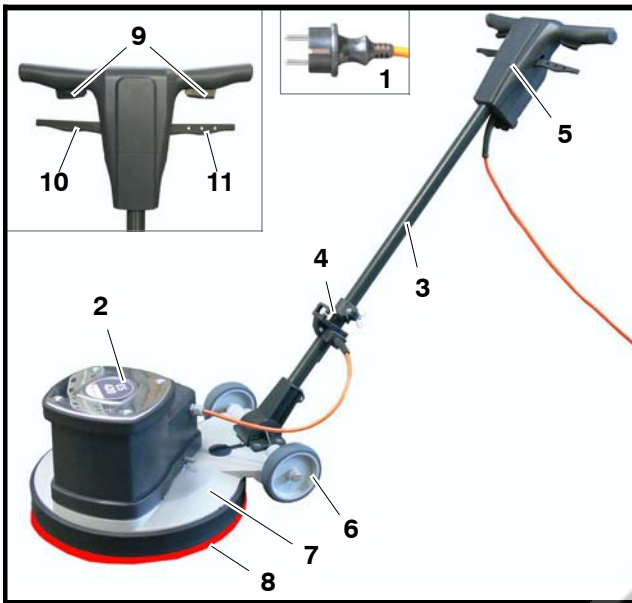


Fig. B

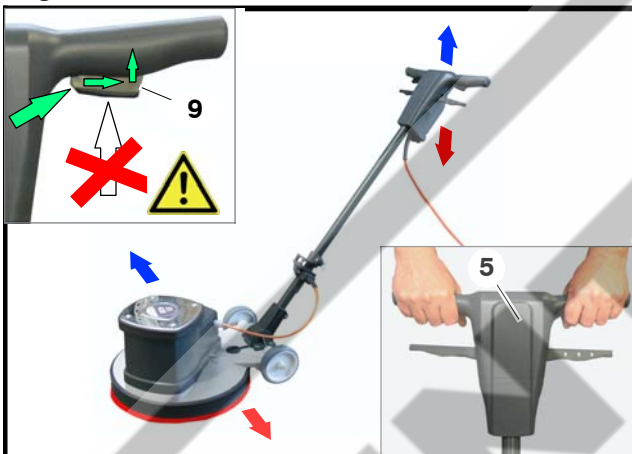


Fig. C STR 581



Fig. D EP 430 duo / EP 420 duo

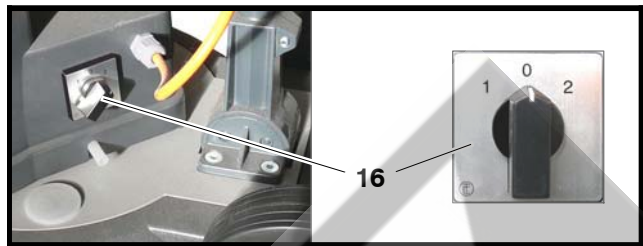


Fig. E

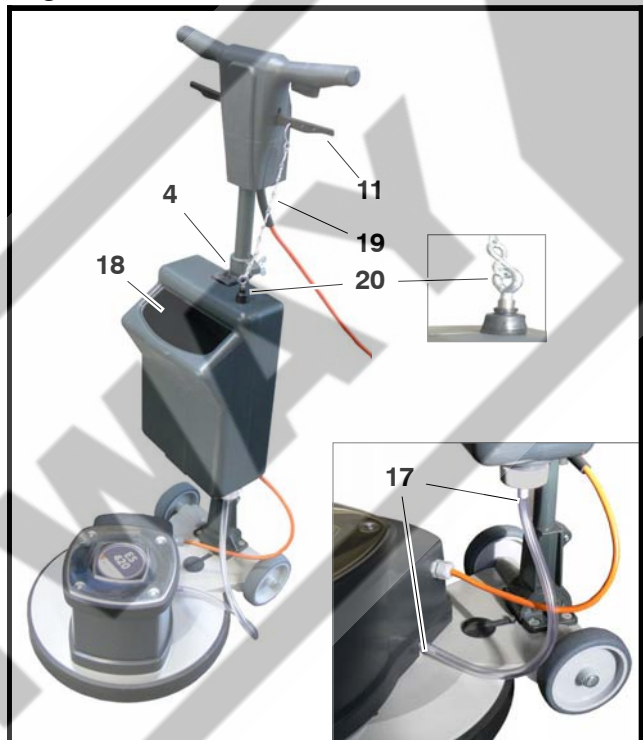


Fig. F

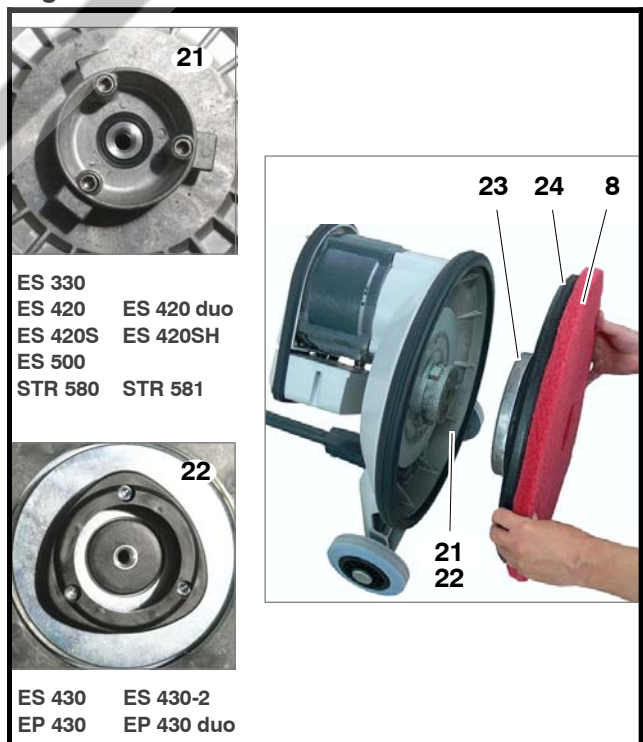


Fig. G

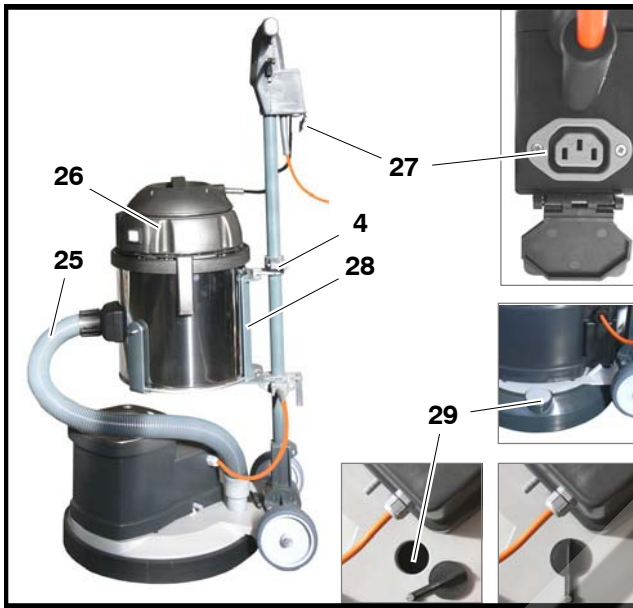
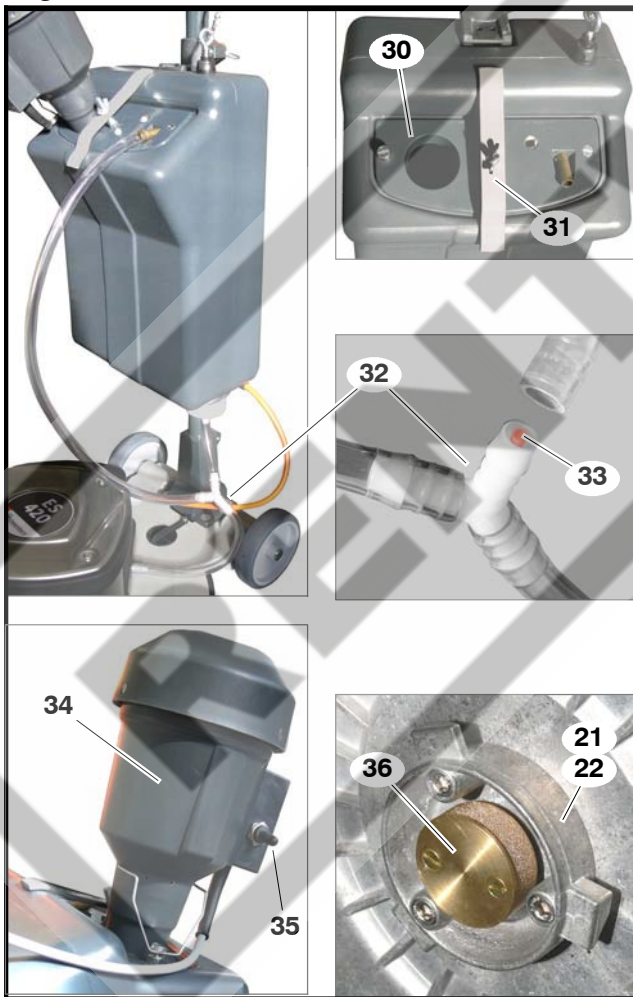


Fig. H



**EN ES 330 / ES 430E / ES 430 / EP 430 / EP 430 duo / ES 420 /
ES 420 duo / ES 420S / ES 420SH / ES 500 / STR 580 / STR 581**

Translation of the original operating manual

Manufacturer: Schwamborn Gerätebau GmbH
Robert-Bosch-Straße 8
D-73117 Wangen / Göppingen

Telephone: +49 (0)7161 2005-0
Telefax: +49 (0)7161 2005-15
Email: info@schwamborn.com
URL: http://www.schwamborn.com

Document: ES 330 / ES 430E / ES 430 / EP 430
/ EP 430 duo / ES 420 / ES 420 duo / ES 420S /
ES 420SH / ES 500 / STR 580 / STR 581

Publishing date: 19.11.2021

Contents

1 Important notes	16
1.1 Customer service and spare parts	16
1.2 Liability and warranty	16
1.3 Symbols used	16
2 Safety	17
2.1 Accident prevention and safety	17
2.2 Safety instructions	17
3 Operation	18
3.1 Preparing for operation	18
3.1.1 Attaching the tank (optional)	19
3.1.2 Attaching the vacuum unit (optional)	19
3.1.3 Attaching the shampooing device (optional)	20
3.2 Operation	20
3.3 Work direction	20
3.3.1 Changing the lengthways movement	20
3.3.2 Changing the lateral movement	20
3.3.3 Movement sequence	20
3.4 Ending the operation	21
4 Maintenance	21
4.1 Tilting the machine	21
4.2 Mounting/Removing tools	21
4.2.1 Mounting tools	21
4.2.2 Removing tools	22
5 Acceptance and transportation	22
5.1 Machine acceptance	22
5.2 Transporting the machine	22
6 Declaration of Conformity	23
7 Troubleshooting	24
8 Technical data	25

Key to the illustrations

Pos.	Fig.	Designation
1	A	Power plug (16 A)
2	A	Drive motor
3	A	Guide bar
4	A/E/G	Device holder
5	A/B	Handle
6	A	Transport wheels
7	A	Housing
8	A/F	Tool
9	A	Safety switch
10	A	Release lever
11	A/E	Watering lever
12	C	Coiling bracket
13	C	Speed controller
14	C	Speed regulator
15	C	Unlocking key
16	D	Speed switch
17	E	Hose connection for tank
18	E	Tank
19	E	Valve chain
21	F	Metal coupling
22	F	Plastic coupling
23	F	Bayonet ring
24	F	Drive plate
25	G	Suction hose
26	G	Vacuum SDC 120
27	G	Power socket
28	G	Holding basket
29	G	Dust extraction ports
30	H	Shampooing device
31	H	Holder
32	H	Mixer
33	H	Venturi insert
34	H	Shampooing blower
35	H	Blower switch
36	H	Shampooing nozzle

1 Important notes

The machine may only be used with task-specific accessories supplied by the manufacturer for:

- Cleaning
- Shampooing
- Polishing
- Wet and dry grinding
- Crystallising
- Stripping
- Smoothing
- Gouging

of even, level floor surfaces.

Any other use of the machine can lead to dangerous situations and is prohibited!

To ensure correct use of the machine, follow the instructions in the operating manual, paying particular attention to any warnings and instructions relating to operation and maintenance!



Before using the machine, the operating personnel must carefully read and understand this operating manual!

Keep this operating manual close at hand for easy reference!

Read and observe documents and operating manuals provided by suppliers if available.

If the machine is on loan to other parties, the operating manual must be provided with the machine and its importance must be made clear!

- i** The illustrations show examples of floor treatment machines.
Deviations from the individual floor treatment machine types are noted in the text.

1.1 Customer service and spare parts

In case of customer service queries, accessories, replacement parts or repairs, please contact the manufacturer. To ensure your queries are dealt with as quickly as possible, always quote your machine data. These are located on the machine's nameplate.

1.2 Liability and warranty

© Schwamborn Gerätebau GmbH

All rights, including translations, are held by Schwamborn Gerätebau GmbH.

No part of this documentation may be reproduced, used or distributed in any form without the written permission of Schwamborn Gerätebau GmbH.

Liability or warranty is excluded if:

- The instructions in the operating manual have not been observed.
- The machine or its attachments were improperly operated.
- The maintenance was carried out inadequately or incorrectly.
- Specified spare parts were not used.
- The protective equipment was not used, has been altered or was removed.
- The specified power supply ratings and surrounding conditions have not been observed.

The manufacturer is not liable for any damage that may result if the user makes any changes to the machine without the manufacturer's permission. Any such actions will void the warranty.

1.3 Symbols used

The following symbols are used in this documentation:



Safety instructions

This symbol indicates warnings, prohibitions and instructions regarding potential hazards. These instructions must be obeyed and closely observed.

Some safety instructions are accompanied by corresponding symbols.



Warning



Prohibition



Direction



Additional information

This symbol indicates additional information.

- The single-disc floor treatment machine is referred to as **the machine** in this operating manual.

2 Safety

This chapter contains a summary of the most important information on safety when handling the machine.

2.1 Accident prevention and safety

The following instructions comply with legislation, directives and publications such as:

- EC Machinery Directive
- EC Product Liability Directive
- Law on technical materials
- Law on equipment safety
- Law on product liability

This operating manual is intended for operators and tool setters, as well as for the personnel that service, maintain and repair the machine. Together with all the technical documentation, it is intended to help

- avoid hazardous situations
- use the machine for its intended applications
- avoid downtime and repair costs
- maintain the function of the machine
- increase the service life of the machine

The manufacturer and owner of the machine must observe the contents and provisions of the EC directives. The effectiveness of any measure ultimately depends on how well all parties, i.e. the manufacturer, the owner and the machine operators, work together to uphold safety standards.

All laws and regulations (e.g. the valid regulations on waste disposal), accident prevention guidelines and generally recognised safety rules must be complied with when working on and with the machine.

2.2 Safety instructions

This machine incorporates state of the art technology and has been built in accordance with recognised safety regulations. This ensures that the highest possible standards of occupational safety are maintained. However, incorrect use of the machine could endanger the health and lives of the personnel or cause material damage.

-  **The machine may only be operated by persons who have been assigned to do so and who have the appropriate training and skills.**

-  **If any defects are found in the machine that could endanger persons or damage property, stop the machine immediately and ensure that it cannot be used again until all repairs are completed.**



-  **The operating and maintenance personnel responsible for the machine must ensure that no one can enter the machine's danger zone during operation or maintenance work.**

Persons with pacemakers are not permitted to work with the machine!



-  **Risk of injury if safety equipment has been removed or is not working!**
The safety equipment must be checked for completeness and function before starting up.
The safety equipment must be mounted during operation.
Safety equipment must not be prevented from functioning!

-  **The surfaces to be processed by the machine must be free of obstacles.**



-  **Risk of injury from rotating machine parts!**
Limbs and clothing can be drawn in.
Proceed with the greatest care and caution!



-  **High-voltage electrical current can be fatal!**
-  **Risk of injury and fire due to faulty electrical cables!**
-  **Only connect the machine to power supplies equipped with a ground fault circuit breaker (type B)!**

-  **Connections with mains cables must be protected from splash water!**
 Mains cables and power plugs must undergo a functional safety check prior to start-up!
 Only suitably knowledgeable, qualified professional electricians may perform work on any electrical parts of the system!
-  **When performing work on/with the machine, watches and jewellery (e.g. rings, earrings, chains) may not be worn!**
-  **When working on the machine (set-up, maintenance, service, repair, cleaning, etc.), the power supply of the machine has to be disconnected from the mains**
 (Pull the power plug out of the power socket)!



-  **Risk of poisoning due to harmful substances at the workplace!**
 Eating, drinking and smoking at the workplace is not permitted. Always eat in break rooms or canteen areas!
-  **A general inspection of the machine must be conducted before starting up the machine.**
 Particular attention should be paid to damaged or loose components, and wear.
 The machine may only be put into operation in perfect technical condition.
 Adding to or modifying the machine in any way that could compromise operating safety is prohibited!
-  **After completing the work, thoroughly clean yourself!**
-  **Cleaning and maintenance may be done only by trained personnel according to the operating manual.**
 Do not use high pressure cleaners to clean the machine!
-  **Do not operate the machine in areas where there is risk of explosion or where flammable or hazardous materials are present!**

3 Operation



-  **Risk of injury from parts flung out!**
 Wear protective clothing and protective goggles.
 Wear safety shoes!
 Wear safety gloves!
 Proceed with the greatest care and caution!



-  **Risk of injury from dust formation during grinding work!**
 Connect an extractor unit to the machine or feed in water during the grinding process.
 Wear respiratory protection!



-  **Risk of injury from loud noise during grinding operation!**
 Always wear hearing protection during the grinding work!

3.1 Preparing for operation

-  **Observe the safety instructions in Chapter 2!**
 The initial start-up of the machine may be carried out only by qualified personnel.
 A visual inspection must be carried out before starting up the machine.
 Particular attention should be paid to damaged or loose components, worn parts, and filling levels!
- The surface to be treated and the tools must always be compatible with each other. If there are any questions concerning the appropriate tools and processes, please contact the manufacturer.



Some surfaces have to be treated when wet.

1. **Pull the power plug [1, Fig. A] from the socket.**
2. Check the surface to be grinded for obstructing objects and remove them if necessary.
3. Check tools for function and condition and replace if necessary
(→ Chapter 4.2, page 21).
4. **Either** (dry treatment):
 - Mount an SDC 120 vacuum to the machine
(→ Chapter 3.1.2, page 19).or otherwise:
 - Connect an external dust extractor to the suction hose [25, Fig. G] to the port for dust extraction [29, Fig. G].or (wet treatment):
 - a. Attaching the tank
(→ Chapter 3.1.1, page 19).
 - b. Check the water level in the tank and refill if necessary.or (shampooing):
 - a. Mount the shampooing device (→ Chapter 3.1.3, page 20).
 - b. Check the shampooing liquid level in the tank and refill if necessary.
5. Hold the guide bar [3, Fig. A].
6. Pull the release lever [10, Fig. A].
✓ The guide bar is unlocked.
7. Set the guide bar to the desired position.
-  **Operation** is done by the handle at hip height [Fig. B].
8. Release the release lever.
✓ The guide bar is locked.
9. Attach the tool (→ Chapter 4.2, page 21) and place it on the surface to be treated.
10. **Check the safety equipment for completeness and function before starting up!**
 **Risk of injury from inadvertent starting of the machine!**
Before plugging in the power plug, make sure the machine is switched off.
 **The power socket serving as the electric supply should be supported and installed according to local regulations.**
11. Plug the power plug [1, Fig. A] of the connecting cable (extension cable) in a proper power socket.
✓ The machine is ready for operation.

3.1.1 Attaching the tank (optional)

(→ Fig. E)

1. Swivel and lock the guide bar into vertical position (→ Chapter 3.1, page 18).
2. Loosen the upper device holder [4] and slide it up.
3. Insert the tank [18] into the lower device holder.
4. Slide the upper device holder down into the corresponding recess of the tank and clamp it tight.
5. Push the water hose (included) onto the hose connections [17].
6. Hook the ends of the valve chain [19] to the watering lever [11] and the eyelet screw [20].
7. Turn the eyelet screw [20] until water flows out of the tank when the watering lever [11] is actuated.

3.1.2 Attaching the vacuum unit (optional)

(→ Fig. G)

1. Swivel and lock the guide bar into vertical position
2. Loosen the upper device holder [4] and slide it up.
3. Insert the holding basket [28] into the lower device holder.
4. Slide the upper device holder down into the corresponding recess of the holding basket and clamp it tight.
5. Insert the SDC 120 vacuum [26] into the holding basket.
6. Connect the suction hose [25] to the port for dust extraction [29].
7. Plug the blower's power plug into the power socket [27].

3.1.3 Attaching the shampooing device (optional)

(→ Fig. H)

1. Mount the tank (→ Chapter 3.1.1, page 19).
2. Insert the shampooing device [30] into the tank opening and secure with the holder [31].
3. Slide the hose combination onto the hose connections (→ Fig. H).
- ▶ **The mixer [32] has to be mounted so that the Venturi insert [33] is connected to the lower water connection of the tank.**
4. Screw the shampooing nozzle [36] into the middle of the coupling [21/22].
5. Fill cleaning fluid into the tank.
6. Insert the shampooing blower [34] into the shampooing device.
7. Plug the blower's power plug into the power socket [27, Fig. G].

3.2 Operation



Risk of damage and injury from uncontrolled movement of the machine!
Before pressing the safety switches, the machine has to be held firmly by the handle of the guide bar!



High-voltage electrical current can be fatal!
Do not allow the power line to be run over, crushed or pulled on!

Risk of damage due to tensile strain exerted by the power line!

- ✓ Operation was properly prepared (→ Chapter 3.1, page 18).
- 1. **Do not press the safety switch** [9, Fig. D]! Hold the machine at the guide bar [3, Fig. A].
- 2. **Only EP 430 duo / EP 420 duo:**
Use the speed switch [16, Fig. D] to adjust the speed to the work conditions:
1 = cleaning / shampooing (low speed)
2 = polishing (high speed)
- ✓ The floor can now be machined.

3. For working with dust extraction:
— Switch on the vacuum.
4. For working with the shampooing device:
— Switch on the shampooing blower with the switch [35, Fig. H].
- i** The machine cannot be switched on with the guide bar upright [3, Fig. A].
5. Press and hold [Fig. B] both safety switches [9, Fig. A].
- ⚠ The safety switches must not be prevented from functioning!** You must switch the machine off when releasing!
6. The drive is switched on.
7. **Only STR 581:**
Use the speed regulator [14, Fig. C] to adjust the speed to the work conditions.
8. For wet cleaning or wet grinding, press the watering lever [11, Fig. A] according to the required water quantity (based on experience).

3.3 Work direction

3.3.1 Changing the lengthways movement

The lengthways movement of the machine is achieved by pushing and pulling on the handle.

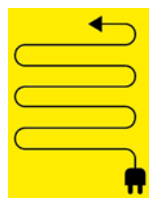
3.3.2 Changing the lateral movement

To move the machine to the side, the handle must be lifted and lowered (→ Fig. B)

3.3.3 Movement sequence



The power line and the suction hose must not get into the machine's working area!



Where possible, work should be performed with successive lateral movements, alternating from left to right, followed by one lengthways movement by at least one whole line width at the end of each lateral work path (approx. 1/3 overlap of the line widths).

3.4 Ending the operation



Observe the safety instructions in Chapter 2!



Risk of injury from tool still rotating after the machine is switched off!

Only switch off the machine with the tool resting on the floor!

The tool can otherwise still rotate idly (run-on) for several seconds after being switched off or the safety switch is released.

1. Release both safety switches [9, Fig. A].
✓ The drive is switched off
2. Place the guide bar [3, Fig. A] in an upright position (→ Chapter 3.1, as of pos. 5., page 19).
✓ The machine is switched off



Risk of injury from high voltage!

There is still residual voltage even after the machine has been switched off!

The power supply has to be disconnected to remove all voltage from the machine.

3. **Pull the power plug [1, Fig. A] from the socket.**



The power line can be coiled between the handle and the bracket [12, Fig. C].

4 Maintenance



Observe the safety instructions in Chapter 2!



Maintenance work may only be performed by trained specialists! They must be familiar with the dangers associated with such work, protect themselves and avoid danger!



When working on the machine (set-up, maintenance, service, repair, cleaning, etc.), the power supply of the machine has to be disconnected from the mains
(Pull the power plug from the socket)!

Perform cleaning and maintenance work in accordance with the operating manual and check the safety equipment for completeness and functionality!

4.1 Tilting the machine



The horizontal position is intended for **tool changes, maintenance** and **transport**.



Before tilting the machine, always make sure that it is on an even, level floor surface!

1. **Pull the power plug [1, Fig. A] from the socket.**
2. Swivel and lock the guide bar [3, Fig. A] into vertical position
(→ Chapter 3.1, page 18).
3. If necessary, press the watering lever [11, Fig. C] and empty the tank [18, Fig. E].
4. Tip the machine backwards and place it on the floor (→ Fig. F).

4.2 Mounting/Removing tools

There are many different tools and accessories available from the manufacturer that are tailored to the machine for cleaning, polishing, crystallising, stripping, shampooing, and wet and dry grinding.

The consistency of the surface to be treated determines the type or composition of the tools to be used.

4.2.1 Mounting tools

(→ Fig. F)

- The various machine types are equipped with different couplings [21/22]. The tool to be mounted (brush / drive plate) has to feature the corresponding bayonet ring.

Single-disc tools are mounted onto the coupling directly or by means of a drive plate.

1. Stop operation (→ Chapter 3.4, page 21).
2. Tilt the machine (→ Chapter 4.1, page 21).
3. Push the brush or the drive plate [24] with the bayonet ring [23] onto the coupling and lock it by turning it anti-clockwise (↺).
4. If necessary, attach the corresponding tool onto the drive plate.
5. Set the machine upright.

4.2.2 Removing tools

1. Tilt the machine (→ Chapter 4.1, page 21).
2. **Either:**
 - a. Stop operation
(→ Chapter 3.4, page 21).
 - b. Tilt the machine
(→ Chapter 4.1, page 21).
 - c. Unlock the brush or the drive plate [24, Fig. F] by turning it clockwise (/) and take it off the coupling [21/22, Fig. F].
- or (only STR 581):
 - a. Press the button [15, Fig. C] **briefly**.
 ✓ The carrier rotates briefly in the opposite direction.
 The tool is unlocked.
 - b. Stop operation
(→ Chapter 3.4, page 21).
 - c. Tilt the machine
(→ Chapter 4.1, page 21).
 - d. Take the brush or the drive plate off the coupling [21/22, Fig. F].
3. Otherwise mount a different tool
(→ Chapter 4.2, page 21).
4. Set the machine upright.

5 Acceptance and transportation



Observe the safety instructions in Chapter 2!

5.1 Machine acceptance

The machine is supplied in a complete and packaged condition from the manufacturer.

1. Unpack machine and check the enclosed delivery slip to make sure all parts are delivered.
2. In case of damage, contact the transport company promptly!
3. If necessary, report any problems to the manufacturer immediately!



Complaints at a later date cannot be acknowledged!

5.2 Transporting the machine



The machine may only be transported if it has been switched off and the tool is at a standstill!



Do not lift any additional loads together with the machine!



The release lever must not be actuated during transportation [10, Fig. A]!



Risk of injury from heavy loads!

During transport, the specified threshold values for lifting and carrying must be observed!

Use devices for lashing and transporting the unit that have been rated to handle its full weight and dimensions. Observe weight data on packaging or in the accompanying documentation!



The machine must not be lifted by the guide bar [3, Fig. A]!



Suspended loads can fall or tip over, causing serious injuries!



Raising and lowering the load must be performed by two persons!



**Wear safety shoes!
Wear safety gloves!**

Do not raise loads any higher than necessary!

**Do not stand under suspended loads!
Prevent the load from swinging back and forth!**

Keep sufficient safety distance.

Never walk or reach beneath the load while it is being lowered.

Proceed with the greatest care and caution!

The machine can be fastened to pallets for transport. Relocation over short distances is possible on the transport wheels. (→ Chapter 4.2, page 21).

1. Stop operation (→ Chapter 3.4, page 21).
2. Fasten all loose parts on the machine.
3. **Either** (over shorter distances):
 - Tip the machine (→ Chapter 3.1, as of pos. 5., page 19) and use the transport wheels [6, Fig. A] to transport to the desired location, where it can then be set down.

or (for longer transport):

The machine can be fastened to pallets for transportation.



Always secure the machine according to regulations during lifting or transport by a vehicle or suitable devices and strap down with tension belts.

- For longer transportation or longer storage, the machine must be covered to protect against soiling.

6 Declaration of Conformity

Schwamborn Gerätebau GmbH
Robert-Bosch-Straße 8
D-73117 Wangen
Germany

We hereby declare that the machine

ES 330 / ES 430E / ES 430 / EP 430 / EP 430 duo /
ES 420 / ES 420 duo / ES 420S / ES 420SH /
ES 500 / STR 580 / STR 581

complies with the provisions described in

- **Directive 2006/42/EC**
Machine
- **Directive 2004/108/EC**
Electromagnetic Compatibility
- **Directive 2006/95/EC**
Low Voltage

The following harmonised standards apply:

- **EN 292-1, EN 292-2, EN 13857**
Safety of Machinery
- **EN 60204-1**
Electrical Equipment of Machines
- **EN 50081-2/EN 50082-2/EN 61000-6-2**
Electromagnetic Compatibility

It is forbidden to begin operating a modified or retrofitted machine before it has been determined that the modified or retrofitted machine conforms to the directives and guidelines mentioned above.

This declaration is no longer valid if the machine is modified or retrofitted without our prior consent and approval.

Wangen, 25/11/2015



Eckart Schwamborn, Managing Director

7 Troubleshooting

i Only suitably knowledgeable, qualified professional technicians may perform repairs on the machine!

Malfunction	Cause	Rectification
The machine will not start.	The voltage supply has not been properly connected.	Connect the connecting cable (extension cable) with a proper power socket.
	The connecting cable is defective.	Replace the connecting cable.
	Faulty power supply.	Use a different power socket if necessary.
	A safety switch is defective.	Replace the safety switch.
The grinding pattern is uneven.	Tools are loose.	Fasten tools.
	Tools are damaged or worn.	Replace tools.
The machine shuts down automatically.	The machine is overloaded. The drive overload protection has triggered.	— Reset: a. Wait 2 ... 3 minutes. b. Restart the machine (→ Chapter 3.1). — If the drive overload protection trips repeatedly, the load on the machine needs to be reduced (mount other tools if necessary), otherwise motor damage could result!
	The connecting cable's cross section is too small.	Check the connecting cable or otherwise the extension cable and replace if necessary.

8 Technical data

	ES 330	ES 430E	ES 430	EP 430	EP 430 duo	ES 420
Item number	611500	614313	614308	614804	608351	614205
Rated voltage	230 V 1~	230 V 1~	230 V 1~	230 V 1~	230 V 1~	230 V 1~
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Rated power consumption	1000 W	1300 W	1300 W	1800 W	1200/1800 W	1300 W
Connecting cable	12 m	12 m	12 m	12 m	12 m	12 m
Protection rating	1	1	1	1	1	1
Protection level	IP 23	IP 23	IP 23	IP 23	IP 23	IP 23
Tool speed	165 rpm	165 rpm	165 rpm	400 rpm	165/330 rpm	170 rpm
Working width	330 mm	430 mm	430 mm	430 mm	430 mm	406/420 mm
Tool pressure	37 g/cm ²	32 g/cm ²	37 g/cm ²	40 g/cm ²	46 g/cm ²	50 g/cm ²
Dust extraction	Ø 38 mm	Ø 38 mm	Ø 38 mm	Ø 38 mm	Ø 38 mm	Ø 38 mm
Tank capacity (optional)	about 10 litres	about 10 litres	about 10 litres	about 10 litres	about 10 litres	about 10 litres
Weight ¹⁾	22 kg	29 kg	34 kg	37 kg	42 kg	40 kg
Noise level	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)
Vibration total value ²⁾	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²

¹⁾ Without accessories ²⁾ Determined under standardised manufacturer operating conditions as per the HARM measuring method.

	ES 420 duo	ES 420S	ES 420SH	ES 500	STR 580	STR 581
Item number	612400	614205	614611	614700	107551	795072
Rated voltage	230 V 1~	230 V 1~	230 V 1~	230 V 1~ / 110...120 V 1~	230 V 1~	230 V 1~
Rated frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50/60 Hz
Rated power consumption	1200/1800 W	1600 W	1600 W	1600 W	1000 W	1300 W
Connecting cable	12 m	12 m	12 m	12 m	12 m	12 m
Protection rating	1	1	1	1	1	1
Protection level	IP 23	IP 23	IP 23	IP 23	IP 23	IP 23
Tool speed	140/280 rpm	140 rpm	140 rpm	155 rpm	145 rpm	57... 148 rpm
Working width	406/420 mm	406/420 mm	406/420 mm	510 mm	420 mm	420 mm
Tool pressure	60 g/cm ²	54 g/cm ²	60 g/cm ²	40 g/cm ²	50 g/cm ²	50 g/cm ²
Dust extraction	Ø 38 mm	Ø 38 mm	Ø 38 mm	Ø 38 mm	Ø 38 mm	Ø 38 mm
Tank capacity (optional)	about 10 litres	about 10 litres	about 10 litres	about 10 litres	about 10 litres	about 10 litres
Weight ¹⁾	48 kg	43 kg	48 kg	46 kg	36 kg	42 kg
Noise level	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)	58 dB(A)
Vibration total value ²⁾	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²	≤ 2.5 m/s ²

¹⁾ Without accessories ²⁾ Determined under standardised manufacturer operating conditions as per the HARM measuring method.