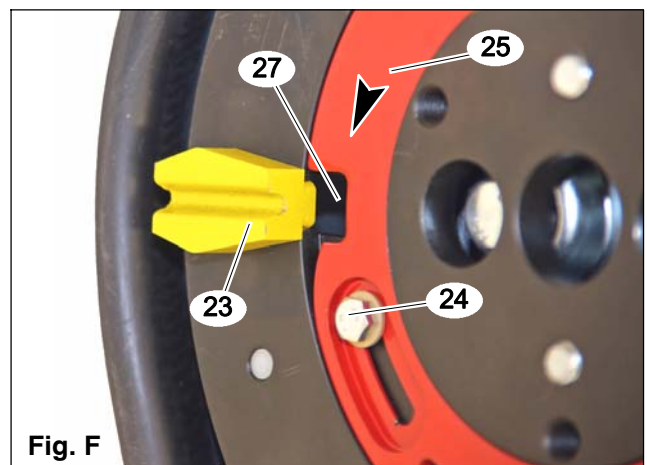
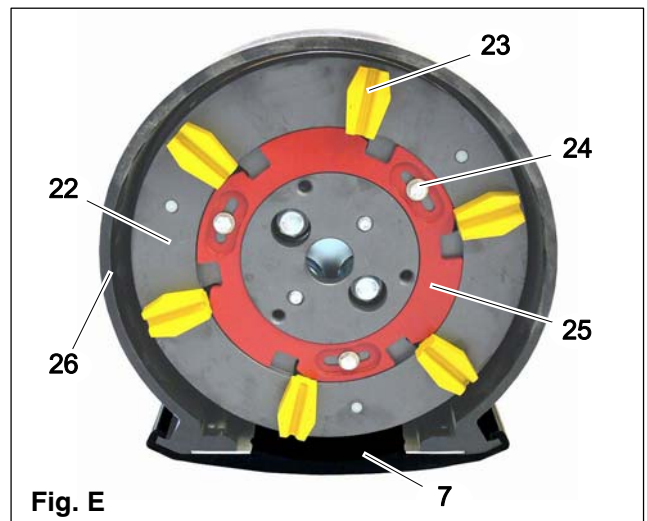
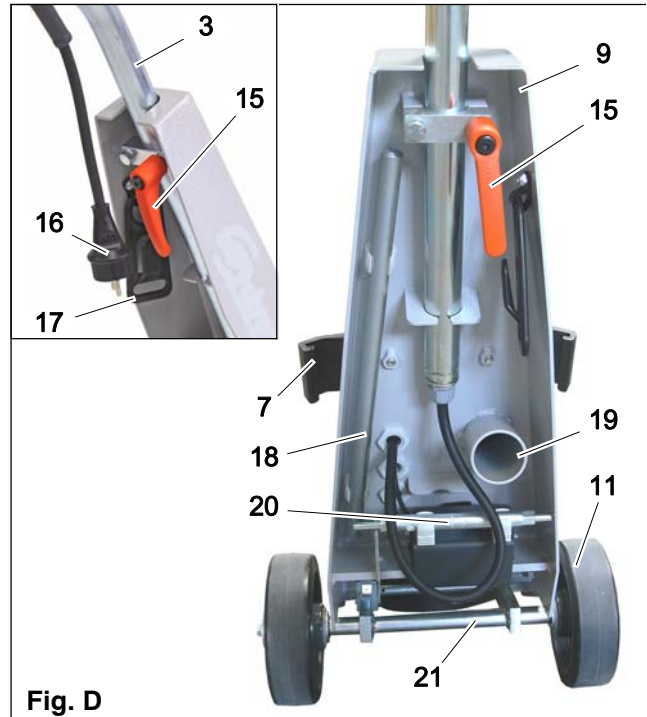
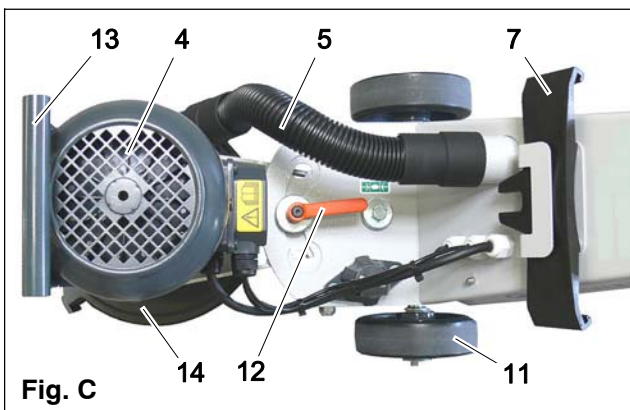
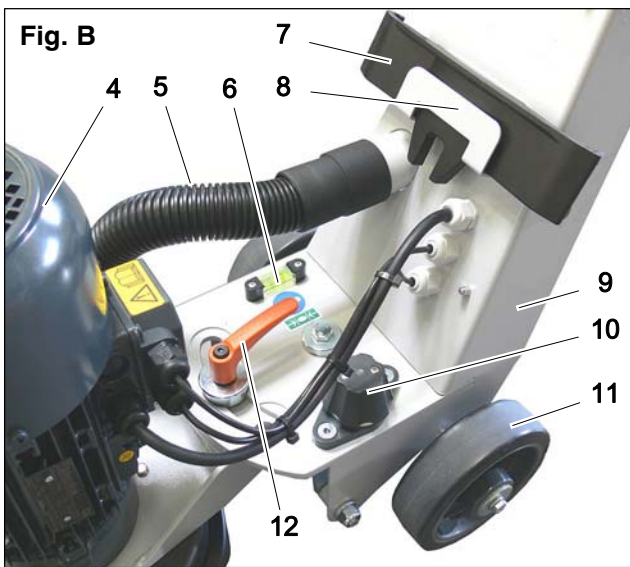
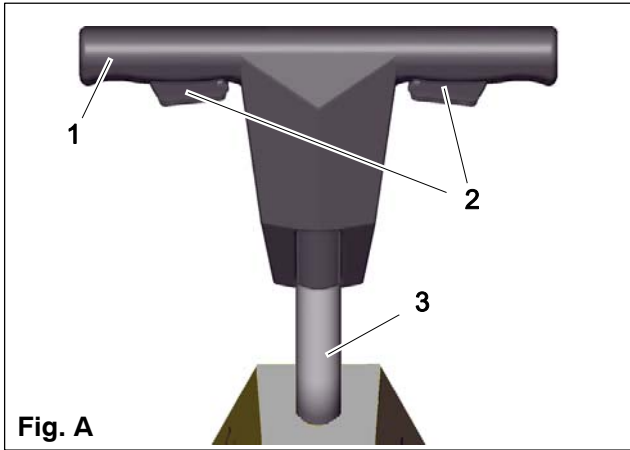
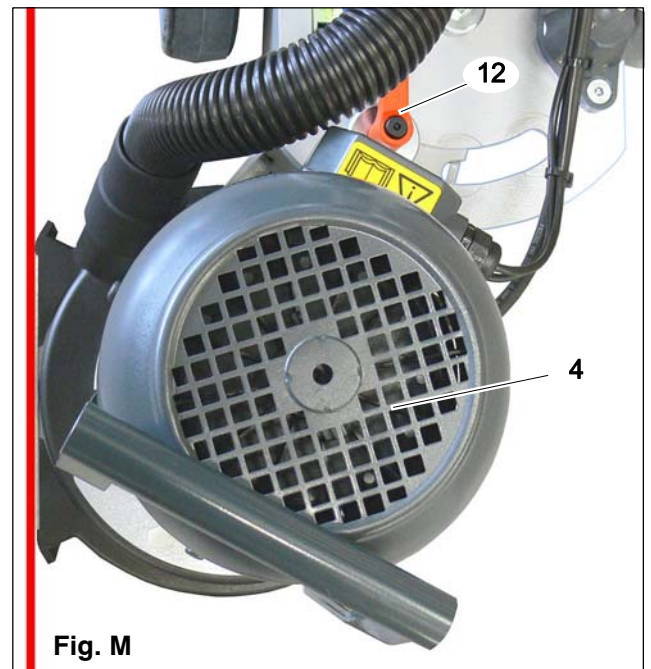
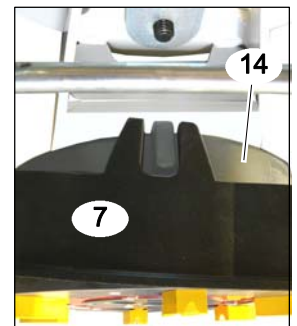
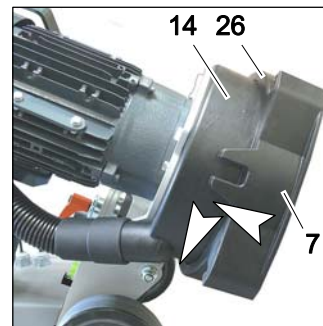
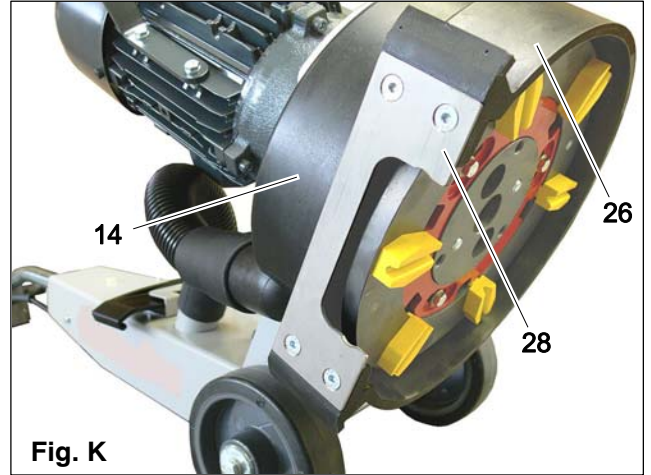
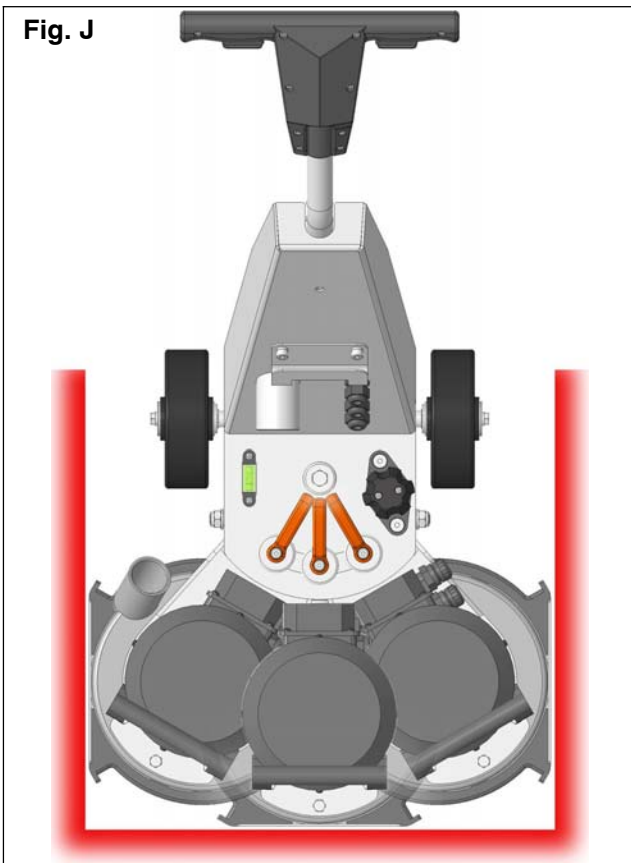
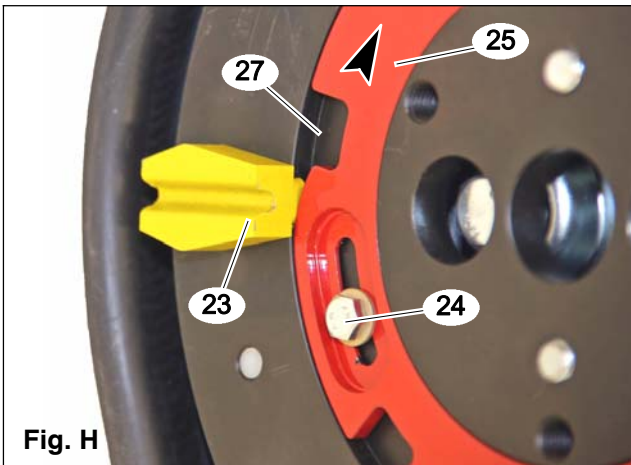




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EN	Floor grinding machine FGE 250	
	Translation of the original operating instructions	4





EN Floor grinding machine FGE 250

Translation of the original operating instructions

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Key to the illustrations

Pos.	Fig.	Designation
1	A	Handle
2	A	Safety switch
3	A/D	Guide bar
4	B/C/M	Drive (swivelling)
5	B/C	Extraction hose
6	B	Water level
7	B/C/ E/L	Cover
8	B/C/D	Holder
9	B/D	Machine console
10	B/M	Carriage height adjustment
11	B/C/D	Transport wheel
12	B	Clamping screw for drive
13	C	Transport grip
14	C/K/L	Safety hood

Pos.	Fig.	Designation
15	D	Clamping screw for guide bar
16	D	Power plug
17	D	Balancer
18	D	Transport bar (optional)
19	D	Connection for dust extraction
20	D	Assembly tool
21	D	Wheel axle
22	E	Grinding plate
23	E/F/ G/H	ETX diamond tool
24	E/F/H	Clamping screw for retaining ring
25	E/F/H	Retaining ring
26	E/K/L	Suction ring
27	F/H	Recess for tool change
28	K	Slide plate

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1 Important notes

The machine may be used only with the accessories supplied by the manufacturer for stripping, wet and dry grinding of floor surfaces such as:

- cement
- screeds
- synthetic resin screeds / asphalt
- natural stone floors
- residual adhesive or filling compound
- floor remnants (e.g. foam backing)

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 instructions, 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 these operating instructions!

Keep these operating instructions close at hand for easy reference!

Read and observe documents and operating instructions provided by suppliers!

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

1.1 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.

1.2 Liability and warranty

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Liability or warranty is excluded if:

- The instructions in the operating instructions 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.

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:

- EU Machinery Directive
- EU Product Liability Directive
- Law governing technical materials
- Law governing equipment safety
- Law governing product liability

These operating instructions are 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
- extend the service life of the machine.

EN Floor grinding machine FGE 250

2 Safety





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 people 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 people or damage property, stop the machine immediately and ensure that it cannot be used again until all repairs have been 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!




 Risk of injury if safety equipment has been removed or is non-functional!
The safety equipment must be checked for completeness and function before start-up!
The safety equipment must be in place during operation!


 The surfaces to be ground 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!

 When working on the machine (setup, maintenance, service, repair, cleaning, etc.), the power supply of the machine has to be disconnected from the mains (pull plug).





 High-voltage electrical current can be fatal!
Only connect the machine to power supplies equipped with a ground fault circuit interrupter!

Connections with mains cables must be protected from splash water!

Only suitably knowledgeable, qualified professional electricians may perform work on any electrical parts of the system!



 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!
After completing the work, thoroughly clean yourself!

 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 if it is in perfect technical condition!

Adding to or modifying the machine in any way that could compromise operating safety is prohibited!

 Cleaning and maintenance may be done only by trained personnel!

Maintenance must be conducted as described in the operating instructions!

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 materials are present.

3 Operation



- !** Risk of injury from parts flung out during grinding!
 Wear protective clothing and protective goggles!
 Wear safety shoes!
 Wear protective gloves!

Proceed with the greatest care and caution!



- !** Danger of injury from loud noise during grinding operation of the machine! Emission value is greater than 85 dB (A).
 Always wear hearing protection when the machine is in operation!



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




- !** 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!


3.1 Starting up the machine

- !** 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 of the machine needs to be done before starting up the machine.
 Particular attention should be paid to damaged or loose components, wearing and filling levels.


Always use ETX diamond tools or abrasive bonding for the surface to be machined (e.g. some surfaces have to be ground wet).

1. Check the surface to be ground and remove any protruding objects.
 2. Loosen the clamping screw [15, Fig. D], adjust the guide bar [3, Fig. D] to the appropriate work position and retighten the clamping screw.
 3. Check ETX diamond tools for function and condition and replace if necessary.
 (→ Chapter 5.2 - page 9).
 4. Place the grinding plate [22, Fig. E] with the inserted ETX diamond tools [23, Fig. E] on the surface to be ground.
 5. Turn the carriage height adjustment [10, Fig. B] until the machine is aligned horizontally according to the built-in water level [6, Fig. B].
 6. **either:**
Prepare for standard floor grinding
 (→ Fig. K/L)
 - a. Push cover [7] onto the slide plate [28].
 - b. Turn suction ring [26] until the cover latches into the safety hood [14, Fig. L left].**or:**
Prepare for edge grinding
 (→ Fig. B/C/K/L/M)
 - a. Pull cover [7] from the slide plate [28] and insert into the holder [8].
 - b. Turn the suction ring [26] with the slide plate [28] to the corresponding edge side (right or left) (→ Fig. J).
 - c. Loosen the clamping screw [12] by hand.
 - d. Swivel the drive all the way to the appropriate side (right or left) (→ Fig. J/M).
 - e. Tighten clamping screw.
 - f. Align slide plate [28] to the wall (→ Fig. J/M help lines).
 7. Attach external dust extraction (customer side) at the connection to the dust extraction [19, Fig. D].
 8. Check the safety equipment for completeness and function before starting up!
- !** Risk of damage due to tensile strain exerted by the power line!
9. Connect the line for the power supply of the machine with the balancer [17, Fig. D].


 The power socket serving as the electric supply should be installed and provided with mains current according to local regulations!

 Risk of injury from inadvertent starting of the machine!
Before plugging in the power plug, make sure that the safety switch on the machine is switched off, i.e. not pressed in.

10. Plug power plug [16, Fig. D] into the socket (use extension cable if necessary).

 The machine is ready for operation.


3.2 Grinding


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

11. If necessary, feed in water onto surfaces that are to be ground wet.

12. Hold the machine by the handle [1, Fig. A] of the guide bar.


13. Press the safety switch [2, Fig. A] on one or both sides and hold tight.

 The surface to be ground can now be machined.

 Depending on the application, the machine needs to be retrofitted (→ Pos. 7).


3.3 Switching the machine off

 Observe the safety instructions in Chapter 2!

 Risk of injury from grinding plate still rotating after the machine is switched off!
Only switch off the machine with the ETX diamond tools resting on the floor.
The grinding plate can otherwise still rotate idly (run-on) for several seconds after being switched off or the safety switch is released.

— Release safety switch [2, Fig. A] on both sides.

 The machine is switched off.

 Risk of injury from high voltage!
When the safety switch is released, the machine still has voltage.
To de-energize the machine, pull the power plug from the line to the voltage supply.

4 Troubleshooting

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

Malfunction	Cause	Rectification
Machine will not start.	Connecting cable for the voltage supply is not properly connected with the power socket.	Plug power plug [16, Fig. D] into the socket.
	Connecting cable is defective.	Replace connecting cable.
	Safety switch is defective.	Replace safety switch.
Grinding pattern is uneven.	ETX diamond tools are loose.	Fasten ETX diamond tools.
	ETX diamond tools are damaged or worn.	Replace ETX diamond tools.

5 Maintenance

! Observe the safety instructions in Chapter 2!



! 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!

! 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 (disconnect power plug)!

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

5.1 Customer service and spare parts

In case of customer service queries, 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.

5.2 Mounting and dismantling ETX diamond tools

The consistency of the surface to be ground determines type or the composition of the ETX diamond tools to be used.

1. Pull the power plug [16, Fig. D] from the line to the voltage supply.
 2. Remove assembly tool [20, Fig. D] from the machine console [9].
 3. Place the machine with the handle [1, Fig. A] on the floor (→ Fig. K).
 4. With the machine tipped, the grinding plate [22, Fig. E] is accessible with the ETX diamond tools [23, Fig. E].
- i** The ETX diamond tools need to be checked for wear and damage by the user before each use and be replaced by new ones if necessary.
5. Use the assembly tool to loosen the three clamping screws [24, Fig. E] of the retaining ring.
 6. Turn retaining ring [25, Fig. F] counter-clockwise to full stop. (→ arrow)
- ✓ The three recesses [27, Fig. F] have to be positioned each at one ETX diamond tool.
7. Loosen the ETX diamond tool [23, Fig. G] from the grinding plate with a gentle strike of a lump hammer and remove it. (→ arrow)
 8. Remove all ETX diamond tools.
 9. Insert new ETX diamond tool [23, Fig. G] into the recess [27, Fig. F] of the grinding plate and press in firmly in the direction of the arrow (use lump hammer if necessary).
 10. Mount all ETX diamond tools.
 11. Turn retaining ring [25, Fig. H] clockwise to full stop. (→ arrow)

12. Firmly screw in the three clamping screws [24, Fig. H].
13. Set the machine upright.
14. Insert the assembly tool back into the machine console [9, Fig. D].


5.3 Cleaning the machine

 **Observe the safety instructions in Chapter 2!**

1. Pull the power plug [16, Fig. D] from the line to the voltage supply.
2. Place the machine with the handle [1, Fig. A] on the floor (→ Fig. K).
3. Clean and dry the bottom side of the machine and ETX diamond tools with a cloth or suitable agents.
4. Set the machine upright.
5. Clean the machine dry with a cloth or suitable agents.

5.4 Checking electrical components

 **Observe the safety instructions in Chapter 2!**

 **Only suitably knowledgeable, qualified professional electricians may perform work on any electrical parts of the machine!**

 **Risk of fire due to faulty electrical cables!**

— **Check the mains cable and power plug regularly for functional safety.**

5.5 Final tasks

- Restart the machine if necessary (→ Chapter 3.1 - page 7).


6 Acceptance and transport

6.1 Accepting the machine

 **Observe the safety instructions in Chapter 2!**


The machine is delivered 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. Check whether any items have been damaged in transit.
3. In case of damage, contact the transport company immediately!
4. Report any problems to the manufacturer immediately!

 **Complaints at a later date cannot be acknowledged!**

6.2 Transporting the machine



 **Risk of injury from heavy loads!**
Suspended loads can fall or tip over, causing serious injuries!

Do not stand under suspended loads!
Raising and lowering the load must be performed by two persons!
Do not raise loads any higher than necessary!
Prevent the load from swinging back and forth!
Keep sufficient safety distance!

Devices for transporting the unit have to be rated to handle its full weight and dimensions. Observe weight data on packaging or in the accompanying documentation!
Never walk or reach beneath the load while it is being lowered.
Wear safety shoes!
Wear protective gloves!

Proceed with the greatest care and caution!

For longer periods in transport or in storage, the machine needs to be covered to protect it against soiling.

EN Floor grinding machine FGE 250

7 Technical data



The machine can be fastened to pallets to protect it against damages. Relocation over short distances is possible on the transport wheels.

1. Pull the power plug [16, Fig. D] from the power outlet.
2. Fasten all loose parts to the machine.
3. **either:**
 - Move the machine to the respective location with the transport wheels [11, Fig. B/C/D] and deposit.**or:**
 - a. Grab the machine by the handle [1, Fig. A] and transport grip [13, Fig. C] and lift carefully.
 - b. Lift the machine onto a suitable transport device (e.g. a palette) and lower it.
 - c. Always secure the machine according to regulations during transport by a vehicle or suitable devices and strap down with tension belts.
 - d. Move the machine to the respective location and deposit.

7 Technical data

Designation	FGE 250
Rated voltage	230 V, 1~
Rated frequency	50 Hz
Rated current	13,2 A
Rated power	2,2 kW
Tool speed	1400 min ⁻¹
Protection rating	IP 23
Dimensions (L x B x H)	about 1000 x 400x 1000 mm
Working width (∅)	250 mm
Grinding pressure	34 kg
Weight	54 kg
Noise level	79 dB(A)
Vibration total value*)	≤ 2,5 m/s ²

*) Determined under standardised manufacturer operating conditions according to the HARM measuring method.

8 Declaration of conformity

TYROLIT Hydrostress AG
Witzbergstrasse 18
CH-8330 Pfäffikon ZH
Switzerland

We hereby declare that the machine

FGE 250

complies with the provisions described in

- Directive 2006/42/EG
Machine
- Directive 2014/30/EU
Electromagnetic Compatibility

The following harmonised standards apply:

- ISO 12100
Safety of Machinery
- EN 60204-1
Electrical Equipment of Machines
- EN 61000-6-2/EN 61000-6-4
Electromagnetic Compatibility

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

Pfäffikon, den 16.1.2018

Pascal Schmid
Entwicklungsleiter und Verantwortlicher für die
technischen Unterlagen



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- 1 Griff [1]
- 2 Sicherheitsschalter [2]
- 3 Führungsstange [3]
- 4 Antrieb [4] (rechts und links schwenkbar)
- 5 Schlauch [5]
- 6 Wasserwaage [6]
- 7 Abdeckung [7]
- 8 Halterung [8]
- 9 Maschinenkonsole [9]
- 10 Fahrwerk-Höhenverstellung [10]
- 11 Transportrad [11]
- 12 Klemmschraube für schwenkbaren Antrieb [12]
- 13 Transportgriff [13]
- 14 Saugglocke [14]
- 15 Klemmschraube [15] für Führungsstange
- 16 Netzstecker [16]
- 17 Zugentlastung [17]
- 18 Transportstange [18] (Option)
- 19 Rohrstützen [19]
- 20 Montagewerkzeug [20]
- 21 Radachse[21]
- 22 Werkzeugträger [22]
- 23 ETX-Diamantwerkzeuge [23]
- 24 Klemmschraube [24] für den Sicherungsring



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- 25 Sicherungsring [25]
- 26 Abstandshaube [26]
- 27 Aussparung [27] Aussparung zum Werkzeugwechsel
- 28 Abstandblech [28]

- A Fig. A
- B Fig. B
- C Fig. C
- D Fig. D
- E Fig. E
- F Fig. F
- G Fig. G
- H Fig. H
- I Fig. entfällt
- J Fig. J
- K Fig. K
- L Fig. L
- M Fig. M



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